Job Creation and Local Economic Development



OECD LEED BUILDING MORE & BETTER JOBS

Job Creation and Local Economic Development





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Preface

The OECD Local Economic and Employment Development (LEED) Programme's first biennial publication tackles a question that is at the top of government agendas: how to create more and better quality jobs. Addressing this question is a key aspect of the OECD's efforts not just to strengthen the recovery, but also to make our economies and societies more resilient.

The policy environment for job creation is becoming even more complex and interconnected. Taking a narrow perspective that only considers one level of governance or one area of policy brings significant risks, both for growth and resilience. LEED plays a critical role in helping the OECD avoid this trap. Its work focuses not just at the level of national policy design, but also on local-level policy implementation and governance. And, because of the cross-sector nature of LEED's Directing Committee, which includes representatives of both labour and economic ministries, it takes an integrated approach to its work.

LEED's unique perspective within the OECD is well reflected in this publication. The introduction outlines potential tensions between national and local policy objectives, and highlights the potential danger of prioritising efficiency in national policy delivery over more sophisticated cross-cutting implementation which will procure longer lasting and more holistic results. The thematic chapters set out how a variety of policy areas can contribute to local job creation, from skills to economic development, from entrepreneurship to the social economy. All of this is discussed not just with the lens of "what needs to be done", but also paying special attention to "how it can be done": what governance mechanisms are needed; how responses can be tailored to local conditions; and how the various stakeholders can be brought together.

Accordingly, insights are offered to policy makers at all levels. National policy makers can better understand how policy design decisions made centrally can facilitate, or inhibit, local growth and resiliency. At the same time, local policy makers can draw inspiration from the examples that the publication provides on innovative initiatives in communities across the OECD. The country profiles in the second part of the report provide a helpful snapshot of local conditions in each country, highlighting both areas "at risk" and areas of growth in terms of employment, skills and economic performance. National policy makers will better understand local variations in their countries, while local policy makers can see where their jurisdiction fits within the broader national and international context.

I hope policy makers at both levels as well as researchers, practitioners, and other stakeholders find the research and guidance presented in this publication both informative and actionable.



Angel Gurría

Secretary-General of the OECD

Foreword

It is with great pleasure that we are publishing the first edition of Job Creation and Local Economic Development, a landmark publication for the LEED Programme. For over 30 years, the OECD Programme on Local Economic and Employment Development has worked to fulfil its mission of contributing to the creation of more and better jobs through effective policy implementation, innovative practices, stronger capacities and integrated strategies at the local level. For the first time, this publication brings together the most recent findings from LEED across the areas of employment and skills, entrepreneurship, social inclusion and local development in one place.

It draws from a variety of LEED's latest projects and studies, including "Local job creation: how employment and training agencies can help" and "Skills for competitiveness", which provide critical insights in the area of employment and training policy. "Accelerating local growth" (generating guidance on ways to boost high-growth firms); "Skills for entrepreneurship"; "Inclusive entrepreneurship in Europe"; and "Job creation through the social economy and social entrepreneurship" examine ways to nurture entrepreneurship including among disadvantaged populations and areas. "New growth and investment strategies"; "New economic leadership"; "Local economic strategies for shrinking and ageing labour markets"; and "Skills for greener jobs in a local labour market context" help to guide the design of integrated strategies that foster growth and resiliency in the face of modern challenges.

This publication comes at a critical time, and it is no coincidence that LEED's findings are increasingly feeding into international fora, such as the G20 Labour Ministerial in 2014. We still need to better understand the factors that led to the economic crisis. However, we also need to look forward to ensure that we do not falter in the recovery. Current unemployment rates reflect this transitional position. Unemployment has decreased since its peak, but we still have not reached pre-crisis rates, and it remains persistently high in some European countries as well as for youth. The key issue is how to build on these modest gains while also ensuring that we focus not just on growth, but also on inclusiveness, sustainability and resiliency. The findings presented in this publication suggest the importance of comprehensive approaches that are tailored to the local context and involve partners across employment, skills and economic development.

The importance of local partnerships and collaboration is also reflected in our own work, which would not be possible without the willing and capable co-operation of a wide variety of partners. I would like to warmly thank all the policy makers, practitioners, and experts from both OECD and non-OECD countries whose contributions were critical to our studies and projects. I would also like to thank the national statistics offices who played a crucial role in helping us to collect data for the country profiles presented in this publication.



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Sylvain Giguère is the editor of this publication. Francesca Froy co-ordinated a team of authors composed of Jonathan Barr, Emma Clarence, David Halabisky, Marco Marchese, Debra Mountford, Antonella Noya, Jon Potter, Anna Rubin, who also provided editing assistance, and herself. Other colleagues provided substantive inputs. Michela Meghnagi and Nikolett Kis were in charge of statistics and indicators. François Iglesias and Malika Taberkane prepared graphics and other technical elements.

Janine Treves and her colleagues in the Public Affairs and Communication Directorate provided essential support in making this new publication a reality.

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Executive summary

Creating more and better quality jobs is key to boosting growth, reducing poverty and increasing social cohesion. At national level, job creation requires a stable macroeconomic framework coupled with structural policies that encourage innovation, skills and business development. But how can national and local policies be better aligned and tailored to specific local opportunities and challenges?

There are a number of barriers to getting the local conditions for job creation right. Policy makers often work in silos, due to institutional barriers and rigidities in performance management structures, and many policies are not flexible enough to be tailored to local conditions. Additionally, the search for efficiency in delivering national policies and programmes can sometimes lead to a lack of attention to the negative effects that a "one size fits all" approach can have in certain regions.

This report provides guidance on how policy makers can bolster local job creation and achieve sustainable inclusive growth, while meeting challenges such as youth unemployment, population ageing and climate change.

Key messages

Boost skills supply and demand to create quality local jobs

- **Co-ordinate employment, skills, and economic development policy.** As we move towards a knowledge-based economy, a skilled workforce is becoming increasingly important to firms' decisions to locate and/or expand in a local area. This makes it essential to align labour market, training and economic development policy. Injecting sufficient local-level flexibility into employment and training systems is essential to the success of this type of co-ordination.
- **Support the lifelong development of relevant skills.** Local areas need a skilled workforce, which is less expendable, more adaptable to change, and better able to transfer between economic sectors. This requires providing appropriate skills development opportunities for individuals as well as information on where new job opportunities will be in the future. Lifelong learning systems and the involvement of employers in designing and implementing training can boost skills development.
- **Help areas move out of the low skills trap**. OECD research shows considerable local variation in employer demand for skills. Some areas are stuck in a "low skills equilibrium", where local employers offer low-skilled jobs and operate in low-cost markets, so there are few high quality jobs available. In such regions, technical assistance, management training, and embedding skills policies in broader mechanisms for business support can encourage demand for higher levels of skills.

- **Tackle labour market exclusion.** Some disadvantaged groups, such as young people not in education, employment, or training (NEET), can face multifaceted barriers to employment, requiring targeted support to ensure that no individuals or communities are left behind. Using evidence-based approaches is critical to addressing both the immediate barriers to employment and the root causes of long-term labour market exclusion.

Support enterprise development and growth to create jobs

- **Create conditions conducive to high growth firms**. Net job creation is typically led by a small number of "high growth firms" which are strongly dependent on their local economic context. These firms tend to develop in localities with high population density and high levels of tertiary education. Policy makers can support such high growth by developing local entrepreneurial ecosystems and targeted support such as business accelerators.
- **Promote entrepreneurship skills.** While high growth firms represent only a small percentage of all firms, supporting entrepreneurship more generally can play an important role in achieving sustainable and inclusive growth. However, a lack of training, skills, and networks can act as barriers to starting a new business. Extending and improving entrepreneurship education and encouraging mentoring by experienced entrepreneurs can help to counter these factors.
- **Support social entrepreneurship as a source of job creation**. Social entrepreneurship makes key contributions to job creation, while often integrating disadvantaged people into the labour market. In some regions, percentage growth in employment in the social economy has outpaced that of the private sector in recent years. Policy makers at local level can complement national framework conditions for the social economy with supports such as social entrepreneurship hubs and social clauses in local public procurement processes.

Build adaptable local economic strategies and systems

- **Adopt new approaches to economic development.** Local areas are changing their growth and investment strategies, exploiting new markets and alternative sources of finance. Given that growth is increasingly driven by knowledge-based capital, a common focus is building partnerships between universities, local economic agencies and firms to promote knowledge-sharing. Local development systems should leverage all available resources, expertise and experience by including a variety of stakeholders (public and private sector organisations; citizens and businesses; knowledge-based institutions and development agencies and companies).
- **Respond to demographic changes**. Demographic change, including ageing populations and decline in population growth rates, will have far-reaching implications, with some local areas feeling the effects especially sharply. Such changes can be managed through seizing opportunities in the growing "silver" and "white" economies while also promoting age-friendly workplaces, for example through flexible working arrangements.
- **Smooth the transition to a green economy**. The move towards a greener economy will bring both challenges and opportunities, including the transition of workers from one sector to another and economic diversification into new forms of eco-innovation. Education and training systems should be flexible enough to adapt to changing local needs and to help workers in declining sectors transfer to emerging niches in the green economy.

Use local data to inform local policy

- **Use locally disaggregated data**. Policy makers need more local data when developing policies for job creation. Information on the supply of and demand for skills can provide critical insight into the development of quality jobs. Mapping such data at local level across the OECD shows that while some places have "high skills equilibrium" (where a highly skilled population is able to find high skilled jobs), there are many others that are experiencing skills gaps, skill surpluses or a situation of "low skills equilibrium". This information, combined with a broader set of local indicators, can provide a telling picture of the sustainability of local labour markets. In the future, it will be important to develop new sources of internationally comparable local data to support more evidence-based approaches to local job creation and growth.

Reader's guide

Job Creation and Local Economic Development 2014 is the first edition of the OECD Local Economic and Employment Development (LEED) Programme's biennial publication. This publication highlights new evidence on policies to support local job creation across LEED's areas of work, including labour market, entrepreneurship, and local economic development policy. It draws from LEED research to identify common issues that local areas face, general lessons and promising approaches, and examples of programmes and policies that are emblematic of strong local responses. As it cuts across the various output areas of the LEED Programme, it is intended to complement and add value to LEED's more specific and in-depth publications.

The publication consists of four main sections parts. Following the introduction are 10 thematic chapters (divided into three sections) that examine the contribution various policy areas can make to local job creation. The fourth and final section consists of 35 country profiles that present a variety of indicators relevant to job creation, including new data on skills supply and demand at the sub-regional level.

Introduction

The introduction provides an overview of and key principles for local job creation. Each edition of this publication will include a special focus on a particular policy area. For this edition, the focus is on youth, identifying promising local strategies for youth employment.

Part I to III: Thematic chapters

The thematic chapters are grouped into three parts, by broad policy area. Each of these parts is described in more detail below:

- Part I looks more closely at how labour market policies and training can contribute to local job creation. Each of the chapters in this section looks at one aspect of labour market policy and training, including alignment between local employment and economic development; skills development; stimulating productivity by building quality jobs; and fostering inclusive growth.
- Part II focuses on entrepreneurship and enterprise creation, identifying how to promote entrepreneurship skills, boost high growth firms and support the development of the social economy and social entrepreneurship.
- Part III examines local economic strategies and systems and includes a chapter each on post-crisis local economic development, demographic transition in local labour markets and seizing opportunities from green growth.

Part IV: Country profiles

The fourth and final section of this publication consists of 35 country profiles, one for each of the members of LEED's Directing Committee* and other OECD countries for which relevant data were available.

Table 1. **List of country profiles**

Australia	France	Lithuania*	Slovenia
Austria	Greece	Mexico	South Africa*
Belgium	Hungary	Netherlands	Spain
Canada	Ireland	New Zealand	Sweden
Chile	Israel	Norway	Switzerland
Czech Republic	Italy	Poland	Turkey
Denmark	Japan	Portugal	United Kingdom
Estonia	Korea	Romania*	United States
Finland	Latvia*	Slovak Republic	

* Some non-OECD countries are members of LEED's Directing Committee.

The country profiles provide a framework for monitoring labour market dynamics at the local level in OECD countries. A set of indicators was identified in order to provide strategic directions for the implementation of labour market policy, training and economic development policies at the local level in OECD countries. The aim is to help policy makers contribute to more resilient local economies able to generate quality jobs. Where data was not available at the local level, it is presented at the regional level.

The country profiles present data for a number of core indicators including trends in skills supply and demand, innovation, total and youth unemployment, and population change. Data analysis was conducted over time in order to compare evidence between the pre- and post- financial crisis period. Data on each country is accompanied by a page of introductory text.

More detailed information about the methodology behind the indicators is available in the "Methodology" section in the annex of Part 4.

Abbreviations and acronyms

ALMP	Active labour market policy
EU	European Union (EU25)
GDP	Gross domestic product
GVA	Gross Value Added
HGF	High-growth firms
LEED	Local Economic and Employment Development
NEET	Not in education, employment, or training
OECD	Organisation for Economic Development and Co-operation
PES	Public employment service
R&D	Research and development
SEO	Social economy organisations
SME	Small and medium-size enterprises
VET	Vocational education and training
WIB	Workforce Investment Board

* As of the end of 2013.

Chapter 1

Setting the framework for local job creation

In the recovery it will be important to build new jobs from the bottom up through putting in place the right local conditions for job creation and expansion. Getting the governance right at the local level is important, and this often means better reconciling local and national policy goals and objectives. This introductory chapter sets out a new integrated approach to building productive local economies which host skilled and entrepreneurial workers. Economic development policies, labour market policies, policies to support entrepreneurship and social entrepreneurship, and education and training policies all have a role to play. This chapter explores how these policy areas can be brought together most effectively to contribute to the common goals of job creation, social cohesion and resilience.

There is broad agreement amongst OECD governments that the creation of more and better quality jobs should be at the heart of government policies in the recovery, not only to create growth, but to reduce poverty and increase social cohesion. The global economy continues to recover at a moderate pace (OECD, 2013a), with growth prospects strongest in the emerging economies. However even in emerging economies, growth is weaker than past projections. Unemployment remains stubbornly high, particularly in Europe.

How can governments best stimulate job creation, particularly in the context of widespread austerity and public budget cuts? Job creation requires a stable macroeconomic framework, but also structural policies which encourage innovation, skills and business development. Attention is needed to the factors that can hamper or facilitate the exploitation of economic opportunities when and where they arise. In order for new jobs to be created, businesses need access to skilled people, to business networks, to finance and to space to start up and expand. In the context of the knowledge economy, a skilled and entrepreneurial workforce is becoming particularly important to local competitiveness and growth.

Central governments manage a range of policies whose impact can reinforce each other and contribute to fulfilling local potential in terms of job creation, business expansion and social cohesion. Economic development policies, labour market policies, policies to support entrepreneurship and social entrepreneurship, and education and training policies all have a role to play. Where national policies have sufficient local flexibility, integrated approaches can be built across these policy areas to help foster inclusive growth. Yet often this does not happen, with policies being delivered "in silos".

In some cases, this is because of institutional inertia, and the organisational challenges of working together. However there can also be trade-offs between meeting national policy objectives and fostering local growth and resiliency (see Box 1.1). The search for efficiency in the delivery of national policies and programmes can sometimes lead to a lack of attention to the negative effects that a "one size fits all" approach can have in certain regions. Policies are often delivered "top down" without considering how they might best be integrated with other policy areas on the ground. This can undermine productivity and slow down structural adjustment in the country as a whole.

This publication explores how national and local policies can be better aligned to support the creation of more and better jobs. The thematic chapters are structured into three main parts. Part 1 follows this introduction and focuses on employment and skills policies, exploring how these policies can help support inclusive job creation, through better alignment with local economic development priorities. Part 2 focuses on building jobs through entrepreneurship and enterprise creation, with particular attention to high growth firms, skills for entrepreneurship and social innovation and social enterprise. Part 3 centres on local economic strategies and systems, with a focus on strategies for growth and investment, and mechanisms for achieving resiliency in the face of climate change

and an increasingly ageing population. Each of the chapters features emerging guidance from LEED research, accompanied by concrete examples of local programmes and policies across OECD and non-OECD countries. While not all of these examples have been rigorously evaluated for their effectiveness, such "stories from the ground" can nonetheless be useful in inspiring new ways of doing things in other policy contexts and frameworks.

Box 1.1. **There are a number of trade-offs in the implementation of labour market policy**

Labour market policy is an example of a policy area where efforts to ensure national efficiency can have counterproductive effects on job creation locally:

Geographical mobility vs. economic resilience: Governments promote labour mobility as this is one of the best ways to reduce skills mismatches at the national level. On a macroeconomic level, this is also a way to contain inflationary pressures. At the same time, mobility entails costs. There is a risk that skills are lost if they are not fully utilised in the workplace at destination (Froy, Giguère and Meghnagi, 2012) and there are costs involved in integrating workers into their new local labour market (particularly in the case of international migration) (OECD, 2006). There is also an opportunity cost related to the alternative use that could have been made of these skills in the local economy left behind. This is particularly the case when such local economies are attempting to move towards higher skilled methods of production and services, through raising product market strategies and re-orientating investments towards new sources of growth.

Activation vs. dependence of employers: Effective active labour market policies and strong activation programmes for the unemployed are essential in making the labour market more efficient. However, they may create dependence among local employers on quick fixes from the Public Employment Service (PES). The PES sometimes responds quickly to employer needs even if the quality of the jobs on offer is not particularly high and high turnover (hence low productivity) ensues. When jobs are vacant for a long time, or are repeatedly vacant, this may suggest that working conditions are poor and work organisation is deficient. Governments may be unintentionally reducing the capacity of the economy to become more productive and to structurally adjust by continuously helping businesses to fill poor quality jobs.

Short term results vs. sustainable outcomes: Similarly, the PES is often under pressure to attain short-term objectives in terms of placement or training. While this may produce efficiency gains in the short term, in the longer term it may not be the best way of building a more adaptable and inclusive labour force, in terms of supporting job retention and career progression. Many of the most disadvantaged in the labour market require both intensive investment and sustained support in order to achieve good career outcomes. Longer-term investment may be needed now to create more sustainable outcomes in the future.

Partial answers in a silo approach vs. sustainable outcomes to multifaceted issues: A well-focused "vertical" approach to policy delivery is often the most efficient for delivering specific policy outcomes. However, it may not be the approach that yields the most effective outcomes in a broader whole-of-government or cost-benefit analysis perspective. Labour market policy alone cannot tackle issues such as youth unemployment, the exclusion of ethnic minorities or the informal economy. Issues of transportation, child care, health care, discrimination, housing, training of employers and lowering barriers to entrepreneurship also need to be considered. Education, labour market policy and economic development can sometimes produce conflicting results if they are not coordinated. While their separate management can be justified for efficiency reasons, it is becoming less and less appropriate, especially in the context of the knowledge-based economy, where people and skills are central to economic growth.

Skills policies should be flexible, and linked to local economic development policies

In the context of the knowledge economy, the availability of a skilled workforce is becoming increasingly important to firms' decisions to locate, remain, and/or expand in a locality or region. As skills become more important to innovation and growth, achieving alignment between employment, skills, and economic development policy becomes even more critical. Local areas are using a variety of approaches to forge these connections (see Chapter 2). In the United States, for example, local Workforce Investment Boards have played an important role in embedding employment and skills policies within broader economic development strategies since 1998. Each board is business-led, with representatives from the employment, economic development and training sectors. This enables employment and training policies to contribute to broader economic strategies, including the development and diversification of local industries.

Flexible training, education and employment services are required to proactively respond to skills gaps that may act as barriers and obstacles to business growth and expansion. Local level actions can spur employers to offer more in-work training, apprenticeships and internships, particularly in firms that traditionally offer low levels of training, such as small to medium enterprises (SMEs) (see Chapter 3 and OECD, 2013a). An example is the Skillnet scheme in Ireland, which has provided incentives for networks of firms to collaborate on the joint commissioning of training for their workers, while also offering training opportunities for local unemployed people. In some cases local actors are collaborating on longer-term skills strategies for growing industrial sectors, which can increase the relevance of the training offered. However, local areas need to be careful to avoid overspecialization and "lock in" to a limited range of sectors. To ensure that "life-long learning" becomes a concrete reality, local education and training systems also need to better adjust to the needs of workers, for example by offering flexible learning modules and after hours classes.

Investment in the supply of skills alone will not be sufficient to improve job quality and the resilience of all economies. The degree to which employers are demanding and using skills also has to be taken into account. OECD research has highlighted considerable variation in the supply and demand for skills at the local level (Froy, Giguère and Meghnagi, 2012), as illustrated in the country profiles of this publication. Some regions can fall into a vicious circle known as "low skill equilibrium". It does not pay for people to invest in skills when skills are not valued by employers. At the same time, those who do attain skills move away to better quality jobs elsewhere. In such regions, skills policies need to be embedded in a broader drive to support economic development. This can include helping existing firms to move towards more skills intensive, higher value product market strategies. Local vocational educational institutions in Canada, Italy, and the UK for example, are actively engaged in helping local SMEs to drive up their productivity through joint R&D and innovation projects (see Chapter 4).

Disadvantage can best be tackled through a joined-up approach

Policy makers also need to pay attention to localities and regions which are experiencing persistent problems of unemployment and labour market exclusion. OECD indicators show strong regional variation in unemployment rates in some OECD countries, particularly Belgium, Italy, Spain and Turkey (see the country profiles in Part 4 of this publication). Youth unemployment has been a particular problem following the downturn,

and in many countries, regional disparities in youth unemployment have grown wider. In Italy, Mexico and Spain notably, the youth unemployment rate now exceeds 40% in some regions. As this is both a priority issue, and a cross-cutting one, this introductory chapter concludes with a **focus on local strategies to support youth employment.**

While young people without skills and experience can find it hard to break into the labour market for the first time, other populations and communities can also experience important barriers to employment. Immediate barriers to work can include a lack of affordable childcare, poor transport links and complex welfare arrangements that make reconciling work and benefits difficult. In the longer term, living in areas which are isolated from the labour market, involvement in drugs and crime, and ill health can become more persistent barriers to employment. As the employment barriers experienced by individuals become more complex, a horizontal approach is often needed to tackling them, involving employment service providers, vocational education and training institutions, economic development agencies and social welfare organisations. While in some local areas such partnership working focuses on specific populations, in other areas a decision is taken to focus on particular places, for example local areas experiencing high relative deprivation. In many cases good local data can act as a catalyst for action, stimulating people to work across policy silos to build concrete engagement around critical issues (see Chapter 5).

Policy makers can do a great deal to support the development of entrepreneurial communities

Net job creation is typically led by a small number of young firms. While much industry now operates globally, new firms are strongly dependent on the local economic contexts in which they emerge, with most high growth firms developing in localities with high population density and high levels of tertiary education (see Chapter 7). In spite of their positive contribution to the local economy, high-growth firms are faced with barriers to development, including lack of access to investment (particularly if they are innovative and therefore perceived as "higher risk"). Additionally, even seasoned entrepreneurs can find it hard to cope with the disruptive changes associated with rapid growth. Governments can help by putting in place strategies to build local entrepreneurial ecosystems, where new firms can learn through knowledge sharing networks, and through inputs from more experienced managers. In some countries, business accelerators have been developed to provide a variety of different types of support – one example is the Vigo accelerators in Finland, which are managed by experienced entrepreneurs who also take equity stakes in firms.

To increase their chances of success, entrepreneurs need to use a range of skills, including job-specific and other workplace skills (such as communication, team-work, planning and organising skills), and the more specific skills associated with setting up and operating a business (such as business planning and budgeting). While it may not be necessary to have all of these skills to be successful, possessing them is likely to increase the quality of an entrepreneur's business and the chances that it will be sustainable and grow. It is therefore important to identify the skills used by entrepreneurs and consider how they may be strengthened by policy. Common approaches are to embed entrepreneurship training into the curriculum in schools, vocational training and university level courses and to develop stand-alone training for entrepreneurs and "would be" entrepreneurs. The "Work for Yourself" scheme in Amsterdam, for example, provides entrepreneurship training for unemployed people over 45 years old, with intensive support both before and after

business start-up (see Chapter 6). Other approaches are to support coaching and mentoring relationships and to develop peer learning programmes. The most effective approaches are often interactive and hands-on, for example through using business simulations and role playing.

Jobs are not just created in the private sector. The social economy and social entrepreneurship can also play an important role in generating employment. In some regions, percentage growth in employment in the social economy has actually outpaced that of the private sector in recent years. The social economy also brings the added benefit of being embedded in local communities, and in offering jobs to the most excluded in the labour market. More than three-quarters of the social economy organisations examined in a recent OECD study were involved in employment integration for vulnerable groups, either by providing training and work experience opportunities or by offering direct employment (see Chapter 8). For example, *Groupe VITAMINE T* (Vitamin T Group) is a group of 13 social enterprises working together in France that employed 2 717 people in 2012 in a variety of sectors, including recycling white goods and vehicles, and food processing. The group receives public investment to support its work to reintegrate the unemployed. However, for each euro invested by the public sector, the state receives back EUR 2.45 in the form of taxes on revenue and other business taxes.

Investment in local economies needs to be targeted towards new sources of growth while also building resilience

As the recovery progresses, the public sector can support the development of more jobs at the local level through promoting effective investment. OECD reviews on local growth and investment strategies have revealed that local leaders can have a significant role in steering this process (see Chapter 9), with many local leaders adjusting their approach following the economic downturn, to exploit new international markets and new sources of finance and investment. For example, the city of Manchester in the United Kingdom has taken advantage of a national programme of "City Deals" to set up an investment framework which rigorously assesses the GVA impact and "jobs per pound" of public funding, while also significantly increasing apprenticeship opportunities in local SMEs. They, like many other cities, are moving towards a more long-term, evidence-based approach to growth. A common focus of new local growth and investment strategies is building partnerships between universities and other institutions to promote knowledge sharing, given that growth is increasingly driven by intangible assets or knowledge-based capital. Amsterdam, for example, has set out to create a *Humuslaag* (Humus Layer) or "breeding ground" for future innovation through a dense and active network of researchers, students, entrepreneurs, research institutes and companies to devise new ideas and successful initiatives. The middleweight local economies surveyed in these reviews have been focusing on a number of employment-generating sectors including financial and professional services, life sciences, creative industries and media, software, and leisure and business tourism.

For communities that are experiencing rapid ageing, strategies to produce resilience are also becoming increasingly relevant (see Martinez-Fernandez et al, 2012). Demographic change is hitting some local areas particularly hard, as population aging can be exacerbated by internal migration of younger people. These changes will have significant impacts on local labour markets, including potentially a shrinking workforce and emerging skills deficits. However, they also bring opportunities as well as challenges. Many regions are

experiencing increased demand for care services and so called "white jobs", with some developing initiatives to improve the quality of jobs in these sectors – one example is the Jobs to Careers scheme which has developed a career ladder approach for frontline care workers in 17 sites across the United States (see Chapter 10).

Green growth also has a strong local dimension, with both carbon-intensive and eco-innovative industries tending to be concentrated in certain regions. This means that flexibility is required from local vocational training systems to ensure that people have the right skills to facilitate the transition. Some regions, such as Mulhouse in France, are helping workers to transition out of declining carbon-intensive industries into other sectors, through identifying transferable skills. While R&D related to eco-innovation tends to be concentrated in a very few regions, many regions are adapting new environmentally protective technologies and applying them to their own industries, often developing new types of jobs out of old (see Chapter 11). One particular innovative development is the growth of circular economies where industrial waste products and energy flows are used as inputs and materials for other local industries.

All of these approaches should be informed by local data on jobs, businesses and skills

Across these approaches, policy development for local job creation needs to be better informed by local data. Information on the supply and demand for skills can provide critical insight into the development of quality jobs. The country profiles in the last part of this publication map such data at the local and regional level across the OECD. They show that while some places are in a situation of "high skills equilibrium" (where a highly skilled population is matched by high skilled jobs); there are many others that are experiencing skills gaps, skill surpluses or a situation of "low skills equilibrium". This data is accompanied by a broader set of local indicators on unemployment, knowledge intensive services and high tech manufacturing as a proportion of total employment, and long-term demographic change. Together, these data provide a telling picture of the sustainability of local labour markets and their prospects for resilience and growth. While the country profiles represent a strong first step, in the future, it will be important to develop new sources of internationally comparable local data to support more evidence-based approaches to job creation and growth.

Conclusion

Job creation concerns all levels of government, but the local level is where the factors that can foster or inhibit growth most directly intersect. National policy makers set the framework for local job creation: in addition to shaping the broader fiscal and structural policy environment, they largely determine the boundaries for implementation and the resources that local policy makers have at their disposal. Within this framework, local policy makers may then capitalise on local resources, capacities and networks to best foster local growth and resiliency.

A better understanding of the trade-offs between different policy objectives, and the likely impact of national policies on different types of labour markets, can help policy makers work towards policies that create positive outcomes at all governance levels. The approaches presented in this publication highlight the distinctive but complementarity roles that local and national policy makers can play in reaching such positive outcomes.

National policy makers can give local areas flexibility in the implementation of policy, but this flexibility is only useful to the degree that local areas use it to tailor programmes to local conditions and to develop joined-up approaches with other local stakeholders. Consequently, capacities need to be boosted at all levels of government to ensure that new jobs are created, and local communities in OECD countries become more resilient and more adaptable to future economic change.

Special focus: Local strategies for youth employment

Young people embody a community's future. Communities have a responsibility to ensure that all young people can envision a life for themselves that includes finding high quality and fulfilling employment. For some young people, this means being employed in a traditional trade such as carpentry. Others will start their own business, while still others may work in an emerging sector such as green technology. To make this a reality, young people need guidance to understand the options available to them and how to access the pathways to get them there. They also need the opportunity to develop the skills required to progress along on these pathways. And finally, all of this must be done within the context of a labour market that provides high quality jobs and opportunities for progression.

Unfortunately, a number of obstacles can serve as roadblocks on these pathways. When young people see little connection between their studies and future employment, it becomes easier for them to disengage or drop out. For young people struggling to find a job, planning for the future seems remote compared to taking care of their more pressing, immediate needs. Even those who are employed may find themselves in jobs where their skills are not fully valued, and may see a fulfilling career as a pipe dream. The global economic crisis has intensified these obstacles, with increasing rates of youth unemployment (from an OECD average of 12.0% in 2007 to one of 16.3% in 2012) and decreasing youth employment-to-population ratios (from 43.1% in 2007 to 39.7% in 2012) (OECD, 2014a). This means that governments are seeking new ways of supporting youth, for example through youth guarantees in Europe (see Box 1.2).

Box 1.2. **Youth guarantees in Europe**

In April 2013, EU Member States committed to ensuring that all young people aged under 25 receive a good-quality offer of employment, continued education, apprenticeship or traineeship within four months of becoming unemployed or leaving formal education. Countries can use European Social Funds to help implement such youth guarantees, and regions with youth unemployment rates above 25% are eligible for additional funding through the EU's Youth Employment Initiative.

OECD LEED research on the local implementation of similar "youth guarantee schemes" highlights the importance of local areas having flexibility in policy design and delivery, developing broad and deep local partnerships, having sufficient financial and human resources for intensive supports, and implementing early intervention and rapid activation of the scheme.

Source: OECD (2014b), "Local Implementation of Youth Guarantees: Emerging Lessons from European Experiences", *www.oecd.org/cfe/leed/Local-Implementation-Youth-Gurantees-draft.pdf*.

NEET youth need extra support

While the economic crisis has touched all young people, some groups face particular challenges. Youth not in employment, education or training (i.e. NEETs) face the greatest barriers in entering the labour market. This group, which represents approximately 12.6% of the total youth population (OECD, 2013b), requires the most immediate attention from policy makers, for they are at risk of withdrawing from the labour market and never returning. And, even before the economic crisis, ethnic minority and immigrant youth faced particular barriers. They are more likely to be unemployed than native youth in almost all OECD countries and are more likely to fall into the NEET category (Froy and Pyne, 2011).

The needs of other young people may not be as pressing as those of NEETs, but they still cannot be ignored. Many young people with diplomas are forced to combine periods of employment in temporary jobs with inactivity and find it difficult to find steady employment with progression opportunities. Even those young people who typically would have been regarded as "good performers" in times of prosperity can find it difficult to obtain stable employment that corresponds to their qualifications (OECD, 2013c).

A guide for local level, comprehensive action

An approach that views youth as "problems to be solved" by a single public agency is unlikely to be effective. Rather, public employment services, schools, training institutions, etc. need to come together to create the community conditions in which children and youth are more likely to succeed. This is best achieved through programmes that are grounded in the local context and have a commitment from partners to align resources, co-ordinate programmes and policies, and engage in a high level of communication and data sharing. OECD research has identified a number of strategies that have worked well in local communities. While by no means comprehensive, the remainder of this section summarises some of these emerging findings and outlines examples of promising programmes and policies.

Investment needs to start early

Investment in children and youth has the highest rate of return when focused at the earliest levels of education. Longitudinal studies show that the personal and societal benefits associated with early intervention clearly outweigh the costs (Karoly et al., 2005 in Doyle et al. 2009). The early years of a child's life play a fundamental role in creating a foundation for future learning and general employability. Early learning can lead to internal motivation to learn more and mastery of a range of early cognitive, social and emotional competencies. This makes learning at later ages easier and thus more likely to continue (Heckman, 2006). A growing evidence base also connects quality early childhood services with longer term benefits particularly for children from low-income and migrant groups, those most likely to be later classified as the NEET group (OECD, 2013c). In Harlem in New York, a "children's zone " has been set up to support early investment in children, while ensuring follow up through later interventions (see Box 1.3).

Box 1.3. **Harlem Children's Zone**

Harlem Children's Zone (HCZ) is a set of interventions that began in the late 1990s with the goal of improving outcomes for children in New York City's Harlem neighbourhood. HCZ seeks to break the cycle of intergenerational poverty for children and families in Central Harlem through a continuum of interventions that spans a child's life. The pipeline of support begins with The Baby College, a series of workshops for parents of children ages zero to three. The Baby College GRADS, a newer home visitation initiative encourages involvement in the broader programme by offering enticements such as free childcare, a weekly raffle and free diapers or nappies. It continues with high-quality preschool programmes charter academies that serve the students across primary and secondary education population, after-school programming, social services, and health and community-building programmes.

Source: OECD (forthcoming-a), Growing in Place: An analysis of cradle-to-career educational initiatives, including the Harlem Children's Zone, Promise Neighborhoods, and Strive.

Dropout prevention is more effective than remediation

As of 2011, 19% of 25-34 year olds across the OECD have not completed upper secondary education (OECD, 2013b). While these numbers are decreasing (down from 24% in 2000), these less educated workers are finding it harder and harder to secure employment, as they are increasingly competing with higher skilled workers for the lower quality and/or temporary jobs they once filled (OECD, 2013c).

Box 1.4. **Glasgow Youth Employment Partnership**

The Glasgow Youth Employment Partnership was able to draw upon the piloting of the Scottish Activity Agreements programme to meet the support needs of young people identified as at-risk in their penultimate year of compulsory education. The programme provides coaches who work with youth on a one to one basis. In many cases – particularly at the start – it requires a proactive approach where the coach will go to the client's home. This provides an opportunity to gauge the home setting, but it also recognises that the client's low self-esteem may make them reluctant to attend a formal appointment. Coaches use the initial meeting to establish the relationship and follow up quickly with a second meeting which is used to set out and agree a negotiated Activity Agreement. The young person will set goals and establish a programme of participation to move them towards a positive destination. Initially, this might involve small steps, but the aim is to move them into education, employment or training over a 24-week period. The young person receives an allowance of GBP 30 per week for participation and completion of the agreed steps. The feedback and results of this initiative in Glasgow have been encouraging. The national evaluation of the pilots shows that the city has undertaken more agreements than any other area and with a higher rate of success – 48% of the city's 601 participants have achieved positive outcomes as a result.

Source: OECD (2013c), *Local Strategies for Youth Employment, http://www.oecd.org/employment/leed/local-strategies-youth-employment.htm.*

Programmes to reengage young people who have dropped out of school are critical to reach those who have already "fallen through the cracks", but, in the long-run, preventing school dropout *before* it occurs may be a better policy approach. Research on preventing school dropout suggests that successful measures involve multifaceted interventions within school, outside school, as well as at the systemic level (Lyche, 2010). In addition to early identification of at-risk students, measures such as academic and social

support; smoothing transitions between educational levels; development of stronger ties between the student, family, school, and community; development of enticing vocational programmes; etc., are promising approaches. As described in Box 1.4, the Glasgow Youth Employment Partnership exemplifies many of these approaches.

Expanding young people's support networks and horizons can have a positive impact

Young people's aspirations, self-esteem, and motivation are influenced by their environment and relationships – the chances they see for themselves in terms of jobs, the role models they have in their lives and the opportunities they have access to. Low self-esteem, lack of motivation and low aspirations can hinder success in the labour market. Programmes designed to raise young people's aspirations and connect them with role models and positive social networks can serve as critical counterweights. For example, mentoring programmes can play an important role in motivating young people, helping them recognise their personal and professional strengths, supporting them in breaking out of old patterns of thinking, and opening up opportunities that they may not have had access to on their own. Australia's Apprenticeship Mentoring Programme is one such example. See the description of Pathways to Education in Chapter 5 for another.

Box 1.5. **Australian Apprentice Mentoring Programme**

The Australian Apprentice Mentoring Programme provides grants to participating organisations to provide targeted mentoring that helps young people successfully progress through their apprenticeships. Mentoring may also involve support to their employers or supervisors to encourage a positive employment relationship. Projects funded under the mentoring programme take a risk-based approach to identifying apprentices who are most likely to benefit from additional support. The organisations that provide these services can target their support to industries or occupations with current or emerging skills need, to firms that deliver fewer apprenticeships such as small to medium enterprises, and/or apprentices who may face particular barriers to participation. Providers are given flexibility in programme design, but it is expected that service delivery will include the following aspects: frequent, one-on-one contact between mentors and mentees; use of an explicit strategy for the recruitment and training of skilled mentors, and for the identification, selection, and matching of apprentices; and the provision of adequate and ongoing support for mentors.

Source: OECD (forthcoming-b), Local Youth Employment Strategies: Australia.

School to work transitions are critical times

The transition between school and work can be challenging for young people, especially if they do not have a clear sense of labour market opportunities, the connection between their studies and future employment, or strong job search skills. Smoothing this transition requires better alignment and connections between education, training and employment as well as the provision of improved career guidance and job search assistance support (see the example of the Career Centre for University Graduates in Denmark below).

These issues are best addressed at the local level through a place-specific, cross-sector response involving education and training institutions, industry groups, colleges, and employment agencies. This type of collaboration can help strengthen the linkages between stages through sign-posting and referrals, and ensuring progressive skills development.

Employers also have an important role to play. By working with public agencies, they can help to ensure a match between skills developed in education and training and skills needed in the local labour market. They are also critical in creating opportunities for combining work and study, such as apprenticeships.

Box 1.6. **Helping graduates into work in Denmark**

In Denmark, the unemployment rate for university graduates can be up to 60% the first year after completing their education. University graduates often lack information on labour market demand for workers and skills, particularly in the case of small to medium enterprises, which constitute the bulk of Danish firms. There is also documented evidence that employment of university graduates in SMEs increases the growth potential of these companies. The Career Centre for University Graduates in Copenhagen is designed to take advantage of this situation, by creating stronger linkages between university graduates and small and medium sized companies. The Career Centre has a dual focus: it works with university graduates to position them to find employment through counselling, guidance, and activation measures such as encouraging geographic mobility. In parallel, it works with small and medium sized businesses to identify their hiring needs and find appropriate candidates.

Source: OECD (2014c), "Proceedings from the 10th Annual Meeting of OECD LEED Forum on Partnerships and Local Development", *www.oecd.org/cfe/leed/10th-fplg-meeting.htm*.

For the most at-risk, sustaining employment requires follow-up support

Securing employment is a critical first step to successful labour market integration, but efforts to support young people cannot stop there. For young people with multiple barriers to employment, ongoing, personal support may be required to ensure sustained success, an issue addressed by the BladeRunners Programme described below. And for all young people, whether low- or high-skilled, career development is important to address. This entails both working to help them understand career pathways and working with employers to help develop career ladders and progression opportunities.

Box 1.7. **BladeRunners**

BladeRunners is an employment programme that helps youth (ages 15-30) with multiple barriers to employment build careers in construction and other industries throughout the province of British Columbia (BC), Canada. The Ministry of Jobs, Tourism and Innovation is the lead sponsor of the programme, which is now run in 32 locations across the province by 19 different local service delivery organisations. The BladeRunners program provides participating youth with a three-week training course, including instruction in both soft and hard skills, and then facilitates direct job placement for programme graduates. The programme also provides extensive support services for participants and graduates 24 hours a day, seven days a week for an undetermined period of time after placement. The ultimate goal of the programme is to develop skills and work experience that foster long-term attachment to the labour force and to support the social and community integration of young people. BladeRunners is widely regarded as a highly effective employment training model for young people with multiple barriers to employment. It advertises an overall 77% post-training job placement rate, has won several awards and recognitions for its achievements, and is funded by a diverse group of public and private supporters.

Source: OECD (2013c), *Local Strategies for Youth Employment*, OECD, Paris, *www.oecd.org/employment/leed/local-strategies-youth-employment.htm*.

Exposing youth to entrepreneurship

When asked, 45% of youth indicate that they would prefer to be self-employed as opposed to working as an employee (European Commission, 2012). However, less than 3% of youth go on to become new business owners (OECD/European Commission, 2013), and businesses run by young entrepreneurs have lower survival rates than those of older entrepreneurs (van Praag, 2003). This suggests that there are a number of barriers that prevent young people from starting and operating sustainable businesses, including lack of skills, inadequate entrepreneurship education, lack of work experience, under capitalisation, lack of networks and market barriers.

OECD governments have a substantial number of programmes in place to help youth start businesses, including entrepreneurship education and training; information, advice, coaching and mentoring; financial support; and infrastructure including incubators and youth business networks. An example of an incubator for youth is ".garage Hamburg" (see box below) which helped 91% of its participants into self-employment or paid employment. Additionally, there have also been some recent efforts to promote the social economy and social entrepreneurship to young people, such as the Jeun'ESS initiative in France (see Chapter 8 for more information).

While youth entrepreneurship is unlikely to be a panacea for solving the youth unemployment problem, it can be part of the response. To maximise effectiveness and efficiency, policy should target resources on young people with the best chance of success, provide sufficient support to allow them to start businesses outside of "low entry barrier but high competition" sectors, and provide integrated packages of complementary support rather than one-shot instruments.

Box 1.8. **".garage Hamburg"**

".garage Hamburg" provides work space for up to 45 young entrepreneurs at a time. To be eligible, applicants must be less than 35 and unemployed. Applicants first visit a start-up assessment centre where they discuss their business plan. Start-up capital of EUR 500–3 000 is available at a low interest rate and loans are awarded based on the business plan and the individual's dependability and potential. Projects are supported in creative and professional programmes such as music, literature, art, film, design, broadcasting company/television, architecture, press, advertisement and software/games. A network of professionals are available to provide advice, deliver weekly seminars on finance, distribution and time management; deliver training sessions on special topics; and help build networks. A coaching service is also available at a cost of EUR 10/hour for up to 12 weeks of on-the-job coaching in areas such as advertisement and distribution, growth financing, accounting, and organisation and time management. Between January 2000 and March 2002, 625 out of 2 393 applicants were provided a full assessment. Of these, 378 were accepted and provided the opportunity to implement their business idea in the incubator. Nearly 90% of participants completed their projects and 83% of these continued in self-employment. Of the remaining participants, 8% were in employment, 2% were in apprenticeships and only 7% were unemployed.

Source: European Commission/OECD (2012), "Policy Brief on Youth Entrepreneurship", *www.oecd.org/employment/leed/Youth%20entrepreneurship%20policy%20brief%20EN_FINAL.pdf*.

References

Doyle, O. et al. (2009), "Investing in early human development: Timing and economic efficiency", Economics and Human Biology 7 1-6, *mfi.uchicago.edu/humcap/wp/papers/Published_article.pdf*.

European Commission (2012), "Entrepreneurship in the EU and beyond", Flash Eurobarometer 354, *http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf*.

European Commission/OECD (2012), "Policy Brief on Youth Entrepreneurship", Publications Office of the European Union, Luxembourg, *www.oecd.org/employment/leed/Youth%20entrepreneurship%20policy%20brief%20EN_FINAL.pdf*.

Froy, F., S. Giguère and M. Meghnagi (2012), "Skills for Competitiveness: A Synthesis Report", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2012/09, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k98xwskmvr6-en*.

Froy, F. and L. Pyne (2011), "Ensuring Labour Market Success for Ethnic Minority and Immigrant Youth", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2011/09, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5kg8g2l0547b-en*.

Heckman, J. et al. (2006), "Skills Formation and the Economics of Investing in Disadvantaged Children", Science 312, 1900 (2006), *www.sciencemag.org*.

Karoly, L.A., Kilburn M.R., J.S. Cannon (2005), *Early Childhood Interventions: Proven Results, Future Promise,* RAND Corporation, Santa Monica, *www.rand.org/content/dam/rand/pubs/monographs/2005/RAND_MG341.pdf*.

Lyche, C. (2010), "Taking on the Completion Challenge: A Literature Review on Policies to Prevent Dropout and Early School Leaving", *OECD Education Working Papers*, No. 53, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5km4m2t59cmr-en*.

Martinez-Fernandez, C., et al. (2012), *Demographic Change and Local Development: Shrinkage, Regeneration and Social Dynamics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264180468-en*.

OECD (forthcoming a), "Growing in Place: An analysis of cradle-to-career educational initiatives, including the Harlem Children's Zone, Promise Neighborhoods, and Strive", *OECD Local Economic and Employment Development (LEED) Policy Paper*, OECD Publishing, Paris.

OECD (forthcoming b), "Local Youth Employment Strategies: Australia", *OECD Local Economic and Employment Development (LEED) Policy Paper*, OECD Publishing, Paris.

OECD (2014a), "Labour Market Statistics: Labour force statistics by sex and age: indicators", *OECD Employment and Labour Market Statistics* (database), *http://dx.doi.org/10.1787/data-00310-en* (accessed on 21 July 2014).

OECD (2014b), "Local Implementation of Youth Guarantees: Emerging Lessons from European Experiences" (Draft), OECD, Paris, *www.oecd.org/cfe/leed/Local-Implementation-Youth-Gurantees-draft.pdf*.

OECD (2014c), "Networking Session: Local Initiatives for Jobs, Inclusion, and Business Development", proceedings from the 10th Annual Meeting of OECD LEED Forum on Partnerships and Local Development, Stockholm, 23-25 April 2014, *www.oecd.org/cfe/leed/10th_FPLD_Meeting_NETWORKING_SESSION.pdf*.

OECD (2013a), *Skills Development and Training in SMEs*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264169425-en*.

OECD (2013b), *Education at a Glance 2013: OECD Indicators*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eag-2013-en*.

OECD (2013c), "Local Strategies for Youth Employment", OECD, Paris, *www.oecd.org/employment/leed/local-strategies-youth-employment.htm*.

OECD (2006), *From Immigration to Integration: Local Solutions to a Global Challenge*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264028968-en*.

OECD/The European Commission (2013), *The Missing Entrepreneurs: Policies for Inclusive Entrepreneurship in Europe*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264188167-en*.

Van Praag, C.M. (2003). Business survival and success of young small business owners. *Small Business Economics*, *21*(1), 1-17.

PART I

How labour market policies and training can help

Chapter 2

Aligning local employment, skills and economic development policies

At the local level, there are a diverse range of actors working in the fields of employment, skills and economic development. Regional variations in the supply and demand of skills mean that local level actors need to be equipped with the right tools and resources to develop innovative job creation strategies tailored to local conditions. Successful strategies to build better quality jobs require integrated actions across a number of portfolios. Partnerships are being used across the OECD to better connect local level leaders, who can leverage their resources, expertise, and knowledge to develop place-based responses to structural adjustment and local economic development. Such partnership approaches require a degree of local flexibility in the implementation of national policies to be successful. This chapter explores what governance tools are being used to support joined up policy delivery, and how these efforts are contributing to more inclusive growth.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

The benefits of better aligning employment, skills and economic development policies are increasingly apparent in the context of the knowledge economy. One of the key advantages that a locality or region can offer a business is the quality of its human capital. In recognition of this, local economic development officials can benefit significantly from working with employment offices and using workforce development as an instrument to attract new firms and stimulate local economic development.

Ensuring that employment and training policies link to local economic development is challenging, however, when there are a plethora of local actors working on different strategies and in different partnerships at the local level. Policy silos remain an important issue in many OECD countries. Employment offices, economic development agencies and local training institutions work separately from each other, following different policy objectives and working to different time scales.

In the face of uncertain global economic conditions and persistently high unemployment levels, the local level is a critical focal point for job creation activities. Regional variations in the supply and demand of skills mean that the local level needs to be equipped with the right tools and resources to develop innovative job creation strategies. It is critical to establish a local lens when developing policies and programmes for employment, training, and economic development.

Flexible policies can boost local job creation efforts

National governments are increasingly recognising the importance of providing sufficient flexibility for local employment and training agencies to take a lead role in designing and delivering employment and skills policies. Flexibility at the local level can also help to stimulate stronger partnerships and joined up actions, where stakeholders make programme and policy decisions based on shared objectives and activities.

The OECD defines flexibility as "the possibility to adjust policy at its various design, implementation and delivery stages to make it better adapted to local contexts, actions carried out by other organisations, strategies being pursued, and challenges and opportunities faced" (Giguère and Froy, 2009). Flexibility here refers to the latitude that exists in the management of the employment and training system, rather than the flexibility in the labour market itself.

It is important to differentiate between operational and strategic flexibility. Operational flexibility applies to the delivery of programmes, and refers to the leeway given to individual case officers to decide on the type of policy intervention that should be used to serve an unemployed client. In an operationally flexible system, service providers would, for example, be able to determine what available services should be provided to a particular client ranging from facilitated self-services, to different types of training and/or intensive counselling.

Strategic flexibility applies when the local employment service takes a leadership role in adjusting programmes and policies to their local labour market. The achievement of strategic flexibility requires that national governments provide sufficient latitude when allocating responsibilities in designing policies and programmes; managing budgets; setting performance targets, deciding on eligibility, and outsourcing services. Previous OECD research has highlighted that the process of injecting flexibility should go beyond the political issue of the distribution of powers between the central and regional governments, as a devolved political context is not necessarily conducive to greater flexibility at the local level (Giguère, 2009). What is important is that central and regional governments are able to pass on, or share flexibility with local or sub-regional areas.

Box 2.1. **What do we mean by flexibility?**

Programme design: Do sub-regional offices have any input into the design of policies and programmes? Are they consulted? Can they influence the programme mix and adapt design features of programmes, including target groups, or are these largely centrally determined? May local Public Employment Service (PES) offices implement programmes outside the standard programme portfolio? Do they design local employment strategies?

Financing: Do sub-regional actors have flexible global budgets or line item budgets for active measures? To what extent can they allocate resources flexibly between budget items for active measures?

Target groups: Can local offices decide on the target groups for their assistance locally or do programmes already specify particular target groups?

Goals and performance management: To what extent are organisational goals and targets centrally determined? Do they allow room for sub-regional goals and hence flexibility in adapting goals to local circumstances? Are targets and indicators hierarchically imposed or negotiated with regional and local actors and harmonised with broader local economic strategies? Is performance assessment based solely on quantitative criteria?

Collaboration: Are local offices free to participate in partnerships, and do they collaborate with other actors? Can local offices decide who they collaborate with locally?

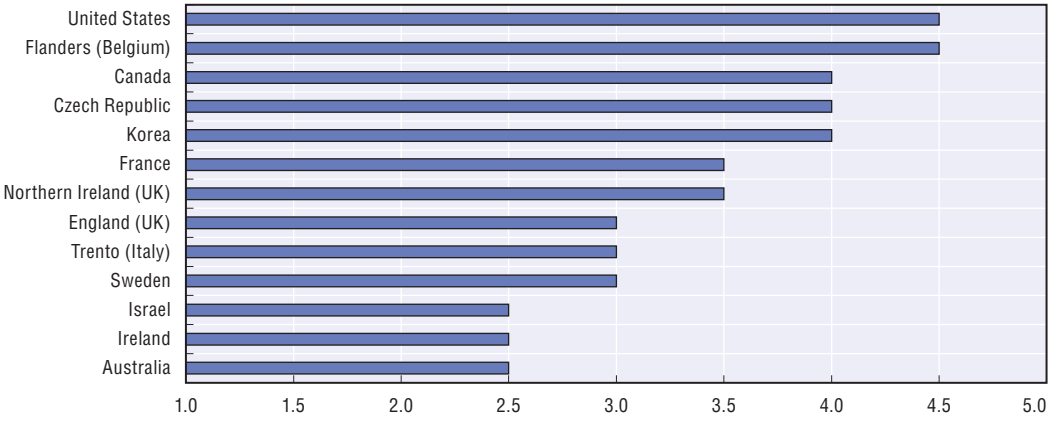
Outsourcing: Are local offices responsible for outsourcing services to external providers? Can they influence the terms of reference of contracts with service providers?

Source: Giguère, S. and F. Froy (eds.) (2009), *Flexible Policy for More and Better Jobs*, *http://dx.doi.org/10.1787/9789264059528-en*.

Of course, national policy goals matter. Labour market policy is an important instrument in the macroeconomic policy toolkit. It contributes not only to raising employability but also to other important policy goals such as macroeconomic stability. Flexibility should not come at the expense of a reduction in overall labour market policy effectiveness. Therefore the difficulty of injecting flexibility is to do so in a way that continues to meet national policy goals, ensures efficiency in service delivery and maintains full accountability. LEED research has identified a number of different policy mechanisms that can allow for greater differentiation in the utilisation of programmes and services locally, while continuing to meet national policy goals. Management by objectives systems can be used to achieve this, notably, by allowing for targets to be negotiated between the central and the local level, with the national level verifying that the sum of all local targets meets national policy goals.

The *OECD Reviews on Local Job Creation* have estimated the degree of flexibility in each participating country in the various aspects of managing labour market policies and programmes. For the countries covered, this updates a previous indicator of flexibility in the management of labour market policy produced through a survey with national ministries of labour (Giguère and Froy, 2009). Figure 2.1 shows the results across 13 OECD jurisdictions and demonstrates that injecting flexibility appears to be an equally realistic option in most political and institutional contexts. Flexibility in managing and adjusting labour market policy at the local level was found to be greatest in the United States and Flanders, Belgium. Flexibility was found to be lowest in Australia, Ireland and Israel.

Figure 2.1. **Flexibility in the management of employment policies and programmes, 2013-2014**



Note: This indicator is a composite index developed by the OECD based on a qualitative assessment of the extent to which employment policies and programmes are adjustable at the local level. It is based on the degree to which local employment offices have influence over their strategic orientation, programme design, performance and budget management, as well as outsourcing services, where 1 corresponds to sub-optimal actions and 5 to a comprehensive set of policies and practices. The same methodology has been applied to all countries represented in the chart above. For Canada, the indicator is based on an analysis of policies in the provinces of Ontario and Quebec.

Source: Adapted from the *OECD Reviews on Local Job Creation*, *www.oecd-ilibrary.org/employment/oecd-reviews-on-local-job-creation_23112336*.

StatLink http://dx.doi.org/10.1787/888933136212

How are countries injecting greater flexibility into the management of labour market policies?

In Quebec, Canada, local employment centres are provided with considerable autonomy from the provincial level in determining how to target employment and training programmes to local client groups within a flexible funding pool allocated from the regional employment office (OECD, 2014a). In the Czech Republic, regional offices can move over 15% of their budget line with prior approval from the Directorate General of the Labour Office (OECD, 2014b).

Over the last five years, the VDAB (the public employment services agency) in Flanders, Belgium has also moved towards a more flexible employment services model. A board of provincial directors takes decisions autonomously, developing provincial business plans within the framework of the plan for the whole Flanders region. With regard to budget management, local employment offices have the ability to devote about 20% of their budget envelope to locally-designed strategies. This means that local VDAB representatives are able to take a stronger leadership role locally, with the local representative in the city of

Antwerp galvanising actors to work together to tackle employment issues in particular local sectors (OECD, 2014c).

Since 2008, several national government departments in Korea, including the Ministry of Employment and Labour have sought to award greater flexibility locally in order to induce the participation of labour and business leaders in strategies to tackle urgent local issues, such as local job creation and human resource development. In the United States, state governments can seek special authorisation from the Employment and Training Administration of the Department of Labor to waive certain rules in pursuit of innovative practices and more effective responses to the needs of individuals and employers (see Box 2.2).

Box 2.2. **Injecting flexibility into the employment and training system – approaches in Korea and the United States**

Local Job Creation programmes in Korea

The local-based job creation support programme was created to help local non-governmental organisations (NGOs), academic institutions, workers' and employers' organisations, and local governments conduct research on their local labour markets and develop creative job creation projects. In 2012, under the local-based job creation support programme, the government selected 276 local projects through an open bidding process and provided them with funding of KRW 30.9 billion. Specialised projects accounted for the biggest proportion of those selected (241), followed by 12 "packaged projects", 8 research projects and 15 forum projects. Furthermore, the government began in 2012 to provide financial supports to local governments with good records to finance their local-based job creation projects. An additional KRW 3.2 billion was granted to 36 local governments.

Waivers in the United States

The US Department of Labor (USDOL) allows waivers on certain federal regulations in the administration of the Workforce Investment Act (WIA), to allow states to overcome rigidities that prevent them from responding in effective and innovative ways to the needs of job seekers and employers. Once USDOL grants waivers to the state, local areas are implicitly granted these waivers as well. For example, California had at least eight waivers in effect in 2012. These included, among others, allowing more flexibility in determining an employer's contribution for WIA incumbent (i.e. employed) training, permitting local areas to use a portion of WIA Adult and Dislocated Worker local funds for incumbent worker training, and increasing the allowable transfer amount between WIA Adult and WIA Dislocated Worker funding streams to a local area.

Source: OECD (2014d, forthcoming), *Employment and Skills Strategies in Korea*; OECD (2014e forthcoming), *Employment and Skills Strategies in the United States*.

When considering whether to award greater flexibility, policy makers should ensure that the level of governance is right. It is important that local employment agencies are working at the level of homogenous travel to work areas or local labour markets. Larger cities, for example, often have the skills and capacities to effectively implement labour market policies and strategies, but this is not recognised within "one size fits all" management strategies taken forward by national governments. In some countries it may therefore make sense to establish particular flexibility in the management of labour market policies for cities.

For example, in the Netherlands, it was decided to allocate greater strategic and operational responsibilities for tackling youth problems at the level of the 30 largest municipalities (OECD, 2013). Similarly, in the United Kingdom, greater discretion and management flexibility in the implementation of employment and economic development policies was awarded to larger towns and cities through City Deals. Under these deals, cities negotiate new powers with the central government in exchange for greater responsibility to stimulate and support economic growth in their area (OECD, 2014f).

Flexibility is best exercised when there is strong local leadership and capacity

Local capacities need also to be considered when granting additional flexibility to local employment and training agencies. A "chicken and egg" situation often appears to exist in relation to capacities at the local level. National governments fear that local capacities are low and are reluctant to offer new responsibility and hence new resources. Flexibility, especially it if takes the form of devolution, may translate into inequitable service provision, duplication, and inadequate performance. Therefore, national actors must take into consideration the capacity that exists at the local level.

Previous OECD research has identified a number of key areas where communities need to further build their capacities (Froy and Giguère, 2010). These include creativity and problem solving (for tackling the wide variety of unique issues that arise at the local level); analytical skills (for understanding local economic and social data); strategic skills (for establishing key priorities and concrete means of action); leaderships skills (for bringing together a wide variety of partners); and partnerships skills (for understanding and reconciling competing objectives). Across the OECD, it is clear that employment and training organisation are under increasing pressure to do more with less. Budgetary pressures have put strains on local actors to think "outside the box" and find new innovative ways of implementing programmes.

In Ireland, Dublin City Council plays a prominent role in the Creative Dublin Alliance, a network for the Dublin region bringing leaders in local government, business, education, and creative sectors together. It was created in 2009 arising from the need to create strong leadership as a priority. Its purpose is to help identify, discuss, recommend, and distribute solutions in response to the challenges that Dublin faces as an internationally competitive city region, including innovation, entrepreneurship, attracting and retaining talent, and city-region marketing. It is chaired by the Dublin City Council City Manager and includes representatives from other local authorities, IDA Ireland, University College Dublin, Dublin Institute of Technology, Dublin Chamber of Commerce, and Enterprise Ireland.

In Northern Ireland, the Department for Employment and Learning has introduced a recent initiative to build capacity and leadership at the local level within the employment service. In order to further encourage local flexibility, the Department is introducing a leadership programme for managers that will challenge them to consider other ways of managing programmes and services. This is not easy to do as it requires staff to take risks, which can be difficult in a bureaucratic environment. While there are civil service bonus systems in place, they are not flexible enough to reward the type of behaviour that is desired. Officials in the department identified that they will be implementing this initiative over the next 3-5 years.

Strategic local partnerships can join up skills efforts

There is little that employment and training agencies can do alone in tackling both the recent economic downturn and the longer term challenges facing the global economy. At the local level, there is the potential for vertical rigidities to negatively impact the ability of stakeholders to develop horizontal initiatives, which can better link skills supply to demand. Policy and programmes are still developed largely within a single ministry perspective and administered within a vertical system of accountability. Local agencies need to capitalise on the flexibility available to them in order to establish meaningful collaborative relationships between employment services, training institutions, economic development organisations, local authorities, employer organisations, trade unions and

Box 2.3. **How to build successful partnerships?**

A locally-based partnership is usually designed to bring together all relevant actors within a region to address a specific issue within a community and/or improve its overall economic well-being. However, bringing together all relevant actors is not an easy task as this implies having around one table not only different government institutions (usually of different levels), but also social partners, employers, NGOs, training institutions, and representatives of civil society. Whatever the reason to set up a partnership, there are certain factors to bear in mind:

- ***Organisational structure:*** To be efficient, a partnership should have recognisable and autonomous structure to help establish its identity. The structure should have stability and permanence as well as flexibility, and it is helpful if there is a certain independence from political influence. It is also important to review lines of communication to ensure that all partners are kept informed and involved. Equity should be a guiding principle in building a partnership, as should (for many partnerships) a "bottom-up" structure. Sufficient human and financial resources are also needed.
- ***Preparation:*** Preparatory work is crucial for developing a steady and effective partnership. Careful research into the context in which the partnership will be operating must be part of this phase. The strengths and weaknesses of the area should be assessed and effective measures designed. One of the most important aspects of this phase is to identify the right partners and establish clear roles for each.
- ***Work plan:*** Partnerships need to develop a long-term strategy if they are to work effectively and have a lasting effect. For area based partnerships, this strategy should include a vision for the region, focusing on the outcome to be achieved, an action plan identifying shorter-term priorities, and a co-ordinated working programme including activities and measures that will contribute to the achievement of long-term outcomes. The work programme should indicate the interests and targets of all partners and include activities and measures that will contribute to the improvement of the territory.
- ***Implementation:*** In this phase partners are in regular contact to co-ordinate implementation, to extend and supplement the working programme with new measures, and in some cases to test new approaches. Public relations activities should inform the wider public of the targets, activities and measures of the partnership.
- ***Monitoring:*** To assess a partnership's achievements, determine improvements to be made and adapt further planning, a comprehensive monitoring system should be used. A partnership should be evaluated periodically and should publish reports to demonstrate the added value of its work.

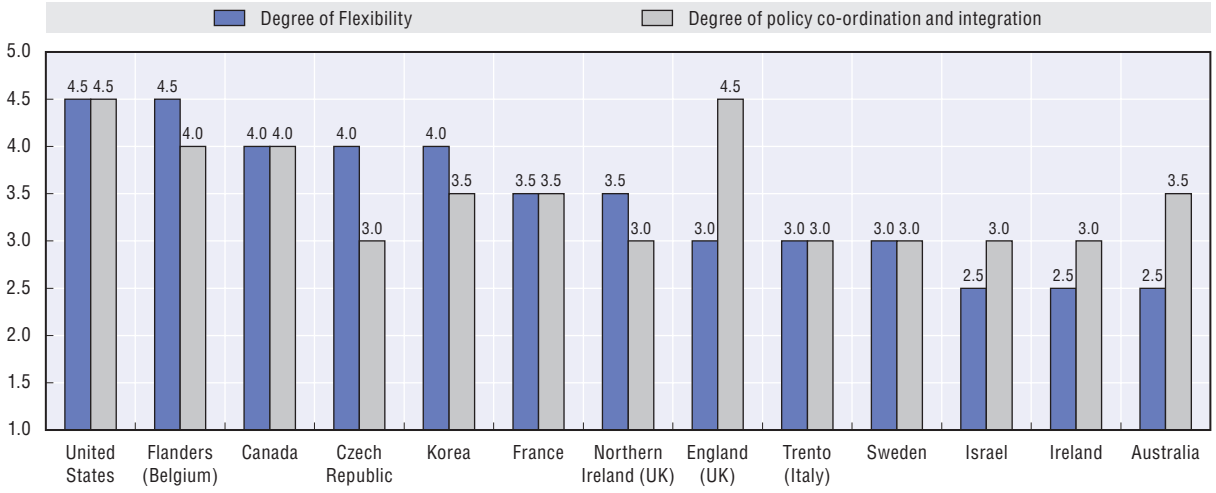
Source: Adapted from OECD (2006), "Successful Partnerships: A guide", *www.oecd.org/cfe/leed/36279186.pdf*.

community-based organisations. In particular strong integration between employment services, economic development agencies and training institutions is necessary to ensure appropriate synergies and trade-offs between different strategic objectives related to employment and skills.

Partnerships and networks are a critical governance tool at the local level to join up skills efforts, minimise policy and programme duplication, and develop strategic objectives. In many cases, knowing the right person can help ensure that issues are resolved in a timely manner, overcoming the administrative and bureaucratic obstacles which can negatively impact service and programme delivery for individuals and employers.

Figure 2.2 shows the relationship between the amount of flexibility (outlined in Figure 2.1) and the degree of local policy coordination and integration across 13 OECD jurisdictions. These results show that the degree of policy integration is higher in countries with a greater amount of flexibility in the management of labour market policy. This would suggest that injecting greater flexibility for the local level to adjust labour market programmes and policies can lead to reduced silos locally. In Particular, the United States; Flanders, Belgium; and Canada demonstrate high degrees of flexibility and policy integration.

Figure 2.2. **Comparing flexibility and local policy coordination/integration, 2013-2014**



Note: These indicators are composite indices developed by the OECD based on the degree of flexibility within the management of the employment policies and programmes (see Figure 2.1) and the extent to which local employment, training and economic development stakeholders develop joint programmes and initiatives, communicate across policy portfolios, and integrate programmes and services, where 1 corresponds to sub-optimal actions and 5 to a comprehensive set of policies and practices. The same methodology has been applied to all countries represented in the chart above.
For Canada, the indicator is based on an analysis of policies in the provinces of Ontario and Quebec.

Source: Adapted from the *OECD Reviews on Local Job Creation, www.oecd-ilibrary.org/employment/oecd-reviews-on-local-job-creation_23112336.*

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Local and regional contexts are the settings where "coalitions of purpose" can be effectively built across the public, private and not-for-profit sectors, with local actors often building long-term relationships with each other based on proximity and exchange. Across the OECD, there are a range of governance tools that are being used to integrate local level actors toward common objectives for growth.

A number of governance structures and bodies, such boards, committees and associations are being used in other OECD countries, to join up efforts (see Box 2.4).

Box 2.4. **Integrating employment, skills and economic development at the local level**

Workforce investment boards in the United States: In the United States, the local workforce investment boards (WIBs) have played a strong role in creating more integrated strategies to address employment and skills within broader economic development strategies locally since 1998. There are over 600 WIBs across the United States, at the state and local level, and they are strongly business-led, being both chaired by business and having a majority of business members. Each local workforce investment area is governed by such a board, which is responsible for providing employment and training services within a specific geographic area. The WIBs administer Workforce Investment Act services as designated by the governor and within the regulations of the federal statute and US Department of Labor guidelines. There are also designated seats for representatives from labour unions and local educational institutions, with economic development officials sitting on the boards in many states. While performance of the boards varies, in some areas they have developed strong integrated strategies which bridge across employment, skills and economic development. The local WIBs are typically an extension of a local government unit, which in most cases is the county government and can include more than one government entity. They are not agencies of the federal or state governments, and the staff are not comprised of federal or state employees.

Four-Party Association, Korea: Since 2008, several national government bodies, including the MOEL, have sought to induce the participation of labour and business leaders in tackling urgent local issues, such as local job creation and human resource development. In addition, an effort was made to not only include representatives of the labour force, management and the government, but also representatives of the community. This association shares the common goal of promoting joint local initiatives between employers and unions in order to stimulate skills development and employment. As a result of this new initiative, by 2010, a Local Association of the Representatives of Labour, Management, Government and Community had been established in 16 metropolitan cities and in 82 lower levels of local government.

Workforce Planning Boards, Canada: In Ontario, Canada there are 25 Workforce Planning Boards who conduct localised research and actively engage organisations and community partners in local labour market projects. Every local workforce planning board publishes detailed reports about its labour market projects, activities and partnerships. Local workforce planning boards champion local workforce development solutions for their communities and help to strategically align the actions of all local stakeholders in the community.

Source: OECD (2014e forthcoming), *Employment and Skills Strategies in the United States*; OECD (2014d forthcoming), *Employment and Skills Strategies in Korea*; OECD (2014a), *Employment and Skills Strategies in Canada*, *http://dx.doi.org/10.1787/9789264209374-en*.

Actions to improve partnerships, such as the establishment of collective goals across local stakeholders, can be effective in bringing employers and jobs into a locality (Froy et al., 2011). Regional and local actors can play a critical role in articulating a vision of the future for the local economy and what measures are necessary to drive economic growth in an inclusive and sustainable manner. Partnerships can also play a critical role in responding to large-scale downsizing and help communities facing structural adjustment re-focus their skills and economic development activities. For example, in 2013, a Strategic Action Plan was developed in the Limburg region of Flanders, Belgium in response to the impending closure of Ford Genk (announced in 2012 and to be executed by the end of 2014) (OECD, 2014c). 6 000 jobs will be lost directly through the plant closure and an additional 4 000 jobs will be indirectly lost. In response, the Flemish government immediately decided

to establish a Task Force to prepare the reconversion of the region. A group of experts mapped the consequences of the closure and presented measures that could be taken to develop new activities in the region and to create the preconditions for the recovery. The Task Force developed an Action Plan, which consists of activities that contribute to local job creation and innovative, sustainable and international entrepreneurship.

Several projects are being established to assist workers at risk of losing their job to develop their skills by linking them to local training, apprenticeship and adult education institutions, as well as VDAB (the public employment service). Other measures include the reconversion of the Ford site, the acceleration of private and public infrastructure initiatives (e.g. bridges, railways and tram lines, touristic sites, business parks, renovation of social housing projects), the attraction of new economic activities, and further development of the social economy.

When considering which incentives can be used to bring local actors together, it is important to think about formal versus informal networks. A corporatist approach (e.g. introducing local committees and governance structures through legislation or regulation) can be important in ensuring that all local stakeholders are involved in policy design and decision making at the local level. However in many cases informal networks, which use existing resources and programme envelopes, can also develop transformative initiatives to drive forward local employment and economic development. For example, in Shawinigan, Quebec, Canada, strong informal networks were a critical factor in the establishment of an entrepreneurship centre to drive new growth for the region. Local actors were able to overcome policy and programme barriers to introduce the centre, which supports and incubates small and medium sized business development and job creation in the community (see Box 2.5).

Employment and training services can be better connected to strategic sectors/clusters to stimulate local economic development and growth

Partnerships and governance networks can also be used to develop strategic local sectors, which have a strong potential for economic growth. In the aftermath of the global financial crisis, local areas may benefit from place-based initiatives to promote sectors where they have comparative advantage, while continuing to promote broader economic diversity. Local policy makers often seek to promote "flexible specialisation" – concentrating on certain sectors, but evolving these in response to local and global change. Focusing on local sectors of importance can galvanise public action as well as public-private partnerships around a common interest.

Figure 2.3 provides results on the extent to which OECD countries are aligning their employment and training programmes toward specific sectors and global areas of growth (e.g. green and health care). Employment and training programmes are generally geared towards a broad range of employment sectors, and some countries are focusing more on specific sector-based approaches.

In the United States, local and regional government agencies have increasingly adopted sectoral strategy approaches to economic development and a similar approach is surfacing in the workforce-development field (OECD 2014e). Ireland has recently launched a national programme for long-term jobseekers to assist them in gaining in-demand skills and to access work in growth sectors, including ICT, digital media, healthcare and social services, and the green economy (see Box 2.6).

Box 2.5. **Shawinigan, *Centre d'entrepreneuriat* (entrepreneurship centre)**

Entrepreneurial activity is seen as one of the keys to diversifying the local economy of Shawinigan. For many years, Shawinigan was an industrial town built around its large electric power facility. Industrialisation brought steady well-paying work in forestry, aluminium production and textiles. The city became a victim of structural changes in the global economy with many employers relocating their operations. With the impending closure of another enterprise in 2009, prominent people in the community were brought together to look at the future of the city considering its strengths and weaknesses. Based on this collaboration, the city is pursuing an approach that looks to develop a community of entrepreneurs and small business operations as a sustainable economic base.

What is of particular interest about this approach is the partnership of a number of different actors each guided by a different policy focus (e.g. economic development, education or employment) to implement a local horizontal approach. The mechanism for this integration was a small amount of funding directed to the municipality by a departing employer.

A Diversification Committee was established composed of key funding and government agencies. The committee realised that in order to be effective, they would have to create a common local plan that would inform their vertical accountabilities. Specific areas of collaboration have been the strategic use of non-governmental and governmental funding to maximise total grants. An entrepreneurial forum was created to promote entrepreneurialism as a career; increase the percentage of individuals choosing an entrepreneurial path; develop entrepreneurial attributes among the youth; grow synergies among organisations that develop the economy and community; and recognise and emphasise initiative, creativity, solidarity and communal engagement.

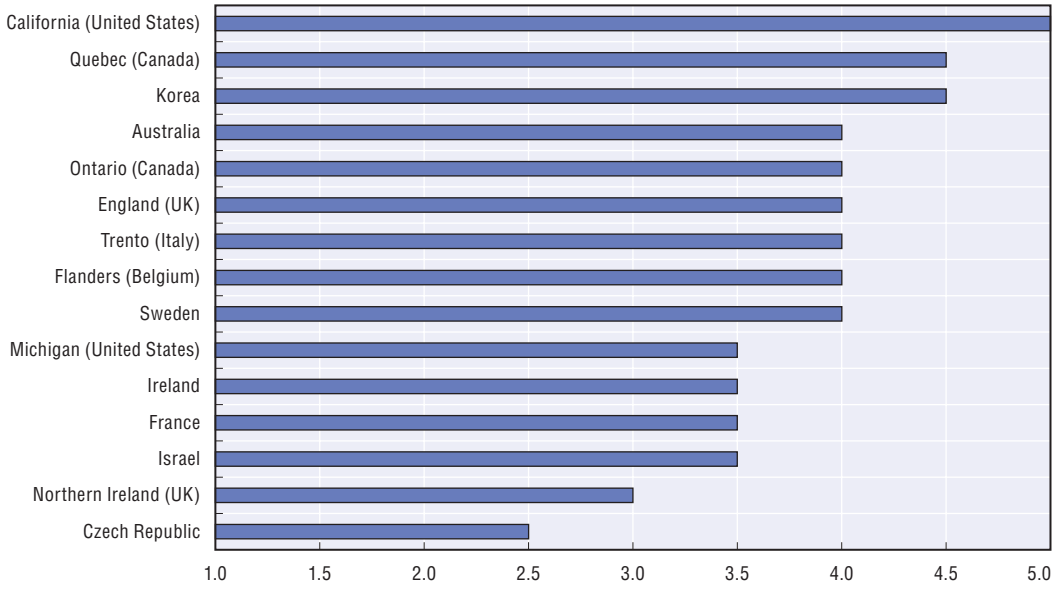
In collaboration with the school commission, Shawinigan opened an entrepreneurship centre in 2013. It represents a unique project in the province of Québec positioned as a tangible action brought about by the entrepreneurial forum with the collaboration of the Diversification Committee. The entrepreneurship centre is located in an old textile factory which has been completely renovated. The city of Shawinigan advanced $3 million for the project with approximately $2 million coming from other sources. The entrepreneurship centre offers skills development programmes along with other supports that will allow the growth of a critical mass of entrepreneurs.

Source: OECD (2014a), *Employment and Skills Strategies in Canada*, *http://dx.doi.org/10.1787/9789264209374-en*.

Each region in Quebec, Canada has identified niche sectors which provide a focus for economic development activities. The niche sectors (*créneaux d'excellence*) consist of a cluster of employers operating in the region who co-operate and compete with each other. The firms are linked with universities, technology centres and training institutions as well as information networks and business support. The actors are grouped in a defined territory where there are researchers, high-level workers, a skilled workforce and a community familiar with the industry.

Hamilton in Ontario has also taken a cluster-based approach, focusing on specific industries and sectors that can help to diversify its local economy. The economic development office of the city has identified six key clusters for business development, which include advanced manufacturing, agribusiness and food processing, life sciences, goods movement, creative industries and clean technology. The city sees benefits from clustering including a local specialisation in labour skills, higher density of supplier networks, and knowledge spill overs from across firms working in the same industry.

Figure 2.3. **Gearing employment and training programmes to local sectors and global areas of growth, 2013-2014**



Note: This indicator is a composite index developed by the OECD based on the degree to which local employment and re-skilling programmes are geared to important local sectors and whether adult education programmes are geared to new types of employment associated with global trends (e.g. care and green sectors) where 1 corresponds to sub-optimal actions and 5 to a comprehensive set of policies and practices. The same methodology has been applied to all countries represented in the chart above.

Source: Adapted from the *OECD Reviews on Local Job Creation*, *www.oecd-ilibrary.org/employment/oecd-reviews-on-local-job-creation_23112336*.

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Box 2.6. **MOMENTUM programmes – more innovative, rapid responses to employers' training needs**

A recent Irish government initiative has been launched which will provide free education and training projects for up to 6 500 long-term jobseekers to assist them in gaining in-demand skills and to access work in sectors of the economy where there are job opportunities. The programmes include on-the-job training in the form of work experience modules as well as the development of the workplace skills required to obtain and retain employment. A total of 36 education and training providers from both the private and public sectors will offer 62 individual MOMENTUM programmes in 87 locations across the country. These projects will be in the expanding employment areas of ICT, digital media, healthcare and social services, the green economy, food processing, and sales and marketing. Programmes are based on clusters of occupations in sectors associated with good national employment prospects. Specific projects will also be available for those under 25 to assist them to enter or return to employment, including "Train To Work Opportunities", "Green Pathways", and the Graduate Activation Programme.

The payment system to providers is outcomes-based with part payment reserved for key stages of the programme, including challenging certification, progression and employment outcomes at the end of the programme. The courses are tailored to the needs of the long-term job-seeker, but also employers who are experiencing skills shortages. MOMENTUM is administered by FÁS and funded by the Department of Education and Skills through the ESF supported Labour Market Education and Training Fund.

Source: OECD (2014h), *Employment and Skills Strategies in Ireland*, *http://dx.doi.org/10.1787/9789264207912-en*.

One of the City's earliest investments in innovation and technology was the Hamilton Incubator of Technology (HIT). In 1993, a $4 million municipal investment launched the opening of a modern 40 000 square foot building. Over the past 16 years, the Hamilton incubator has been home to dozens of early stage technology-based businesses including: advanced manufacturing and materials, biotech, environmental, information and communication and health care or medical devices. These early stage companies employ a high percentage of technicians, engineers or scientists who engage in extensive R&D to produce new products and services and support Hamilton's broader economic development objectives. In 2009, the City of Hamilton changed the name of the incubator from HIT, to the Hamilton Technology Centre (HTC) assigning programming responsibilities to the Hamilton Small Business Enterprise Centre.

In Korea, comprehensive sector strategies exist that seek to foster growth in local industries. The city of Bucheon is known for its "network model" of employment and skills formation policies, with diverse voluntary networks existing between its relatively small-sized and homogeneous firms, which enables collaboration on skills development and training programmes. Bucheon has identified moulding, packaging, lighting, robotics, and animation as five strategic growth sectors. These industries were chosen based upon industrial distribution, competitiveness, and future growth in order to transform the existing industrial structure and move to high value added industries that will lead growth into the future. The city's growth strategy has also identified the importance of attracting firms through industrial clusters that exists in the region. For example, in the lighting sector, companies such as Samsung and LG, are located in the city along with other SMEs, which are important for attracting foreign investment and building new growth. The city has emphasised the importance of intensifying R&D around these clusters through strengthening linkages between industry and education institutions.

Bucheon was also selected by the Ministry of Culture, Sports, and Tourism as a culture industry cluster. The comic and animation industries are being supported as a "forward base of Korean animation". At the same time, Bucheon established the Korea Manhwa Content Agency in the Bucheon Movie Cultural Complex and provided a full-package of support from the production of drafts to business services such as planning, production, and sales. This area is being actively developed as the best animation and visual industry base in Asia. In the area of robotics, there is a large cluster of firms operating in the area, making the area a hub for this type of activity (see Box 2.7).

Box 2.7. **Strategic sectors/clusters in Bucheon, Korea**

Robotics: Bucheon has a component industry cluster that serves as a solid foundation for the robot industry including precision electronics, and electric and machinery parts. 19 firms among 100 domestic robot manufacturers have moved in, thereby securing its status as the centre for robot commercialisation in Korea. In order to enter the global robot market, it seeks to become a foothold for robot production and technology development by attempting to cluster robot-related R&D institutes and specialised robot producers. Bucheon will also promote the industrialisation of service robots through the fusion of robot-related advanced component and the cultural content industries.

Box 2.7. **Strategic sectors/clusters in Bucheon, Korea** *(cont.)*

Lighting: Bucheon has established a systematic support system to support the advanced lighting industry with the development of cutting-edge technologies, standardisation of technologies, and human capital development by inviting the Korea Institute of Lighting and Technology to provide assistance. Based on the existing lighting industry environment, the city will build a lighting manufacturer cluster and continue to develop advanced light source technology such as highly-efficient LED to advance the lighting industry and realise high value-added growth within the sector. Bucheon has 8% of lighting manufacturers within Korea – which it aims to increase to about 17%.

Source: OECD (2014d forthcoming), *Employment and Skills Strategies in Korea*.

Conclusion and issues for consideration

There is the potential for significant synergies to be developed between employment, skills, and economic development policies. The analysis presented in this chapter points to a number of ways to ensure that governance mechanisms enable this potential. Flexibility enables local actors to adjust policies and programmes to local labour market considerations, which can help reduce skills imbalances while also contributing to better employment outcomes at the community level. While there is clear value in joining up policies through locally-based partnerships, the national level should not be too prescriptive about the formation of such partnerships. Informal relationships can be just as powerful as formal governance structures. Local partnerships and networks also play a strong role in guiding the employment and skills system towards sectors which build on local competitive advantage.

Key recommendations for better aligning local employment, skills and economic development efforts

Engage the local level early and often in the policy development process

- Encourage early stage horizontal work on policy design and implementation. In particular, it is important to engage local organisations early in the policy development cycle to explore how to increase the effectiveness of implementation at the local level.
- Set policy goals within an accountability framework which allows for variation in approach at the local level, while retaining consistency on policy intent and outcomes.

Inject flexibility in the employment and skills system

- Where capacities are strong, policy makers should seek to inject greater flexibility in the management of policies and programmes at the local level to enable local actors to take a leadership role in developing strategies for job creation. This can be done incrementally – rewarding those local areas that have performed well with increased strategic and operational flexibility in the future.

Encourage partnerships

- Policy actors from across the employment, skills and economic development portfolios should seek to develop synergies and opportunities from joining up their efforts locally.

- At the national level, it is important to not be too prescriptive in the formation of partnerships (i.e. taking a corporatist approach) as informal relationships can be just as powerful as formal governance structures.

Ensure employment and training efforts are linked to local comparative advantage

- Focus local employment and skills efforts on identified clusters in order to catalyse effective partnerships and prioritise resources. However such approaches need to be balanced against a broader promotion of economic diversity to ensure that the local economy can take advantage of other future areas of growth.

References

Froy, F. and S. Giguère (2010), *Breaking Out of Policy Silos: Doing More with Less*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264094987-en*.

Froy, F., S. Giguère, L. Pyne and D. Wood (2011), "Building Flexibility and Accountability Into Local Employment Services: Synthesis of OECD Studies in Belgium, Canada, Denmark and the Netherlands", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2011/10, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5kg3mkv3tr21-en*.

Giguère, S. (ed.) (2008), *More Than Just Jobs: Workforce Development in a Skills-Based Economy*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264043282-en*.

Giguère, S. and F. Froy (eds.) (2009), *Flexible Policy for More and Better Jobs*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264059528-en*.

OECD (2014a), *Employment and Skills Strategies in Canada, OECD Reviews on Local Job Creation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264209374-en*.

OECD (2014b), *Employment and Skills Strategies in the Czech Republic, OECD Reviews on Local Job Creation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264208957-en*.

OECD (2014c forthcoming), *Employment and Skills Strategies in Flanders, Belgium, OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2014d forthcoming), *Employment and Skills Strategies in Korea*, *OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2014e forthcoming), *Employment and Skills Strategies in the United States, OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2014f forthcoming), *Employment and Skills Strategies in England, OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2014g), *Employment and Skills Strategies in Australia, OECD Reviews on Local Job Creation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264207899-en*.

OECD (2014h), *Employment and Skills Strategies in Ireland, OECD Reviews on Local Job Creation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264207912-en*.

OECD (2014i), *Employment and Skills Strategies in Northern Ireland, United Kingdom, OECD Reviews on Local Job Creation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264208872-en*.

OECD (2014j forthcoming), *Employment and Skills Strategies in Sweden, OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2013), *Local Strategies for Youth Employment*, OECD Publishing, Paris, *www.oecd.org/employment/leed/local-strategies-youth-employment.htm*.

OECD (2006), "Successful Partnerships: A guide", *OECD Local Economic and Employment Development (LEED) Working Papers*, Paris, *www.oecd.org/cfe/leed/36279186.pdf*.

Chapter 3

Building a flexible and responsive skills system

Across the OECD, policy makers are seeking new ways of creating quality jobs. The nature of jobs is changing and this means that individuals must play increasing attention to their level of skills to ensure they remain resilient to long-term changes in the labour market. Employment and training agencies play a critical role in equipping individuals with the appropriate skills for the labour markets of today and in the future. Supporting job creation requires efforts to ensure that the skills being produced align with demand. This chapter explores new policy responses to better connect the employment and training system to individual and employer demands.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

In the face of on-going external pressures from the global economy, local areas need to build resiliency through the development of a skilled workforce, which is less expendable, more adaptable to change, and better able to transfer between economic sectors. This requires appropriate skills development opportunities for individuals as well as robust information on where new job opportunities will be in the future.

The OECD Skills Strategy and OECD Survey of Adult Skills highlight changes in the demand for skills and the need for government policies to encourage and enable people to learn throughout their life (OECD, 2012; OECD, 2013a). Over the past 50 years, the demand for skills has changed as service-based occupations employ a larger number of individuals. The evolution of technology has also changed how individuals work and the associated skills needed to perform their job successfully.

Skills are a key route out of poverty and play a critical role in equipping individuals for long-term success. The challenge facing many individuals is developing a balance of good generic skills, which are increasingly important in today's knowledge based economy versus more specific occupational skills, which enable specialisation within certain sectors. Good generic skills come from a strong school education, while employment and training organisations build more specialised skills and respond to changing skills demands through systems of "life-long learning" (see, for example, Froy and Giguère, 2010).

The way skills are acquired and used beyond initial education plays an important role in the likelihood that an adult will participate in the labour force. At the local level, strategic initiatives to build resiliency, achieve high employment and high productivity can build on concrete engagement with employers and effectively involve policy makers from a breath of different sectors, while also being responsive to local labour market conditions.

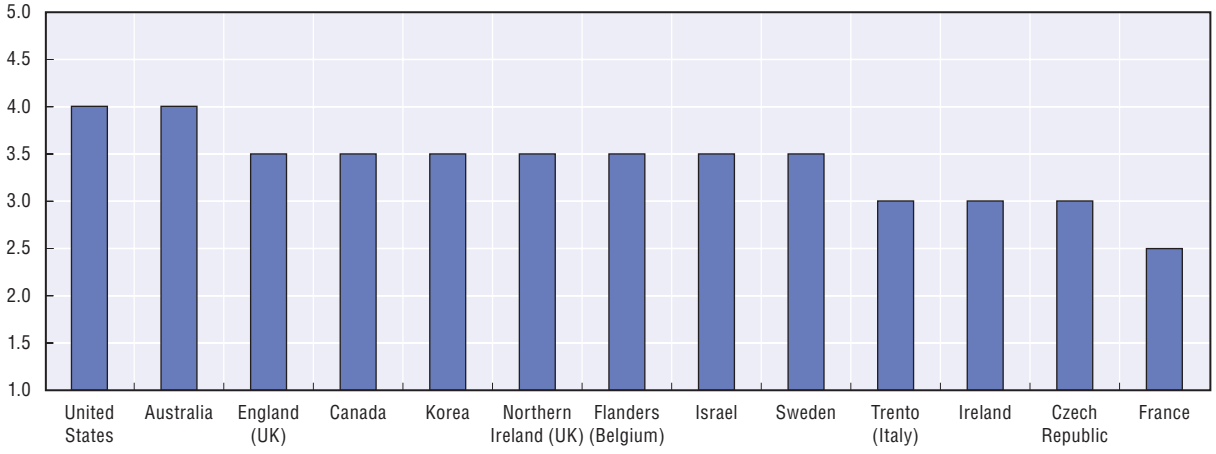
Developing skills which are responsive to employer demand

Empowering businesses to grow and to hire workers is at the heart of the philosophy underpinning job creation. Ensuring firms can access the skilled workforce and the financing they need is critically important, and there is scope to better incorporate the local and regional dimension into these efforts. An advantage of a bottom-up approach is that institutions can adapt both the mix of provision and curricula to local needs, including local employer demands (Kuczera, 2013). Furthermore, training institutions benefit from networking with economic developers and local businesses to ensure that courses reflect rapidly evolving demands for skills and prepare for forthcoming local investments. Partnerships with employers have a wide range of spinoff benefits, including the development of applied research, as well as enhancing the quality of teaching by ensuring trainers have the experience and knowledge required for modern industry.

Figure 3.1 shows the results of the degree to which the employment and training system is orientated to employer demand across 13 OECD jurisdictions. In many countries,

the training system is slow to adapt to changing business needs, and trainers often do not have up-to-date skills themselves. However, many OECD countries are taking action to better connect the employment and skills system with employers.

Figure 3.1. **Employer engagement in the orientation of employment services and training programmes, 2013-2014**



Note: This indicator is a composite index developed by the OECD based on a qualitative assessment of the extent to which the employment and training system is oriented to employer demand. It is based on the degree of vocational education and training (VET) customisation, whether particular support is provided to SMEs, and the accessibility of workplace training, where 1 corresponds to sub-optimal actions and 5 to a comprehensive set of policies and practices. The same methodology has been applied to all countries represented in the chart above.

For Canada, the indicator is based on an analysis of policies in the provinces of Ontario and Quebec.

Source: Adapted from the *OECD Reviews on Local Job Creation, www.oecd-ilibrary.org/employment/oecd-reviews-on-local-job-creation_23112336.*

StatLink http://dx.doi.org/10.1787/888933136269

In the United States, community colleges can rapidly develop courses, because they use industry representatives as trainers. Because these trainers are from industry, it also helps to ensure a good relationship with employers. In some cases, community colleges have created a separate branch of their institution from the part of the college which offers more traditional academic courses, in order to more quickly respond to local needs (OECD, 2014a). Community colleges are also represented on the Workforce Investment Boards (WIBs) in the United States, ensuring that they have strong connections with employment services, economic development agencies, as well as local employers, who make up the majority of membership. WIBs provide funding for targeted training programmes set up in partnership with the community colleges in response to strategic workforce development decisions that are taken by the local WIB.

In Sweden, every higher vocational education and training (VET) programme under the recently developed *Yrkeshogskola* scheme has a steering group involving employers that advise on provision and ensure programmes and qualifications are in line with the needs of the local labour market (OECD, 2014b). Similarly, in Ontario, Canada, community colleges have Programme Advisory Committees (PAC) composed of employers to assist in keeping the programme offerings relevant and to alert training organisations to curriculum gaps. In Quebec, there is a Labour Market Partners Commission *(Commission des partenaires du marché du travail*), which has a number of levers it can use to influence training including

administering the Act to Promote Workforce Skills Development and Recognition – a 1% training levy for firms that requires them to invest in workplace training. The Commission manages relations with some 30 sector workforce committees that promote greater alignment between supply and demand.

Box 3.1. **Examples of Further Education Colleges working with employers on training in England**

Central College Nottingham working with Kia Motors UK: Central College Nottingham has worked in partnership with Kia Motors UK Ltd for over 4 years. The relationship started out with Kia renting space at the College's Automotive facility to deliver "technical training" to their Dealer Network. Since 2009 the relationship between the College and Kia Motors has developed and culminated in both parties agreeing to a long-term partnership to further the interests of both organisations. The commercial training facility saw the College and Kia Motors jointly invest GBP 250 000 to create a 17 500 square foot Kia Motors UK dedicated training centre which includes both technical and non-technical training facilities as well as a replica Kia showroom to cater training needs to the growing Kia Dealer network across the UK. The national apprenticeship programme is designed to service the needs of the UK Kia dealer network with the ambition to have at least one apprentice in each Kia Dealership by 2015. Over the duration of the partnership more than 700 apprentices will be trained, which is estimated to be worth over GBP 10 million to the local economy.

West Nottinghamshire College working with employers and sectors on development of Apprenticeship Frameworks: West Nottinghamshire College has worked with employers in the corrugated paper industry (who are facing the challenge of an ageing workforce) to develop a flexible training programme incorporating the companies' in-house training programmes to improve business performance and engage new employees. With the help of the Proskills Sector Skills Council employers in the fibreboard and wood sectors were engaged. Work was undertaken with these employers to identify the key areas for performance improvements and raise their awareness of their skills gaps. A new Apprenticeship framework was designed for the sector, incorporating the in-house training programmes into a Technical Certificate which has been submitted for approval to the relevant awarding body. The employers who participated in the pilot were used as champions to promote the programme through their networks and the Sector Skills Council raised the profile of a new apprenticeship programme. Agreement was reached on tools to be used to measure business performance improvements within the companies and distance travelled. The pilot apprenticeship programme has resulted in one local company, DS Smith, committing to this apprenticeship framework as part of their workforce development strategy plan until 2015 with an intake of between 10-15 new apprenticeships per year.

Source: OECD (2014c forthcoming), *Employment and Skills Strategies in England*.

In Northern Ireland, the government has recently launched a plan to better co-ordinate engagement with employers (see Box 3.2). The need for the plan arose from the complexity of the previous arrangements which engaged employers in a number of different ways, including a local Workforce Development Forum in each major employment district across Northern Ireland. Initially, these fora, which brought together the employment and training system with employers and other local stakeholders, worked well but over time their role became confused as government engaged with employers on a number of different fronts.

Box 3.2. **Northern Ireland Employer Engagement Plan**

Northern Ireland has recently introduced an Employer Engagement Plan which seeks to simplify its demand side advisory structure. This entails ensuring that employers are able to articulate their skill needs to education and training providers, to input into curriculum development, standards and qualifications and to provide feedback on improvements to the delivery system. They will also advise on government spending and policy in relation to longer term skill needs.

The Plan, which was driven by the Minister for Employment & Learning (DEL) supported by the Northern Ireland Adviser on Employment & Skills, is firmly embedded in the Northern Ireland Skills Strategy, with its targets of raising the level of skills and qualifications in the Northern Ireland Workforce. Some of the key features of the plan are as follows:

- Skills Solution Service – this consists of a small team of trained "skills advisers" who work with SMEs to provide them with advice on existing skills provision and assist in designing and brokering customised solutions for skills problems faced by employers.
- Assured Skills – this is a joint initiative between DEL and Invest Northern Ireland that works with new or existing inward investment companies to ensure that their future skills and training needs are being met.

Source: OECD (2014d), *Employment and Skills Strategies in Northern Ireland, United Kingdom*, *http://dx.doi.org/10.1787/9789264208872-en*.

Employers are asking for a more active role in designing and delivering training programmes to ensure that programmes provide the skills they need in their workforce, and this applies to SMEs in particular. In some parts of the OECD, governments are investing in improved networking between firms in the same and different sectors, to share knowledge and innovation and help build dense social capital networks. Some interesting initiatives have been introduced in this area:

- In the Czech Republic, The Get Trained for Growth! programme supports employers who have overcome the economic recession and are operating in growth sectors that represent a significant share of Gross Domestic Product (GDP). The project is intended for all types of businesses (small, medium and large) in engineering; construction; retail (only SMEs), social services and waste management. Employers operating in these sectors may apply for a training subsidy if they recruit new staff and want them to be properly trained/retrained or need to increase the professional knowledge and skills of existing employees (OECD, 2014e).
- In Korea, there are active networks of SMEs that form sectoral associations. These sectoral associations are connected to local training institutions and arrange training for individuals. However, similar to other OECD countries, the challenge with skills training in SMEs is that employers are reluctant to provide training to their employees because of potential worker turnover. To offset such concerns among SMEs, the Ministry of Employment and Labour supports SMEs with training subsidies. For example, SMEs can be reimbursed 100% of the expenses whereas for large firms the upper limit is 80%. Workers at SMEs also receive preferential treatment in their training leave subsidies and in acquiring Individual Training Accounts.
- In Ireland, Skillnets (see Box 3.3) relies on strong local networks of small and medium sized employers to identify and deliver training to unemployed and employed individuals.

Box 3.3. **Promoting and facilitating workplace training – Skillnets**

Skillnets was established in 1999 to promote and facilitate workplace training and up-skilling by SMEs. It is the largest organisation supporting workplace training in Ireland. In 2011, it had 70 operational networks through which it trained over 40 000 people for a total expenditure of EUR 25 million. It is a state-funded, enterprise-led body that co-invests with enterprises, particularly SMEs, when they co-operate in networks to identify and deliver training suited to their workforces. A network of SMEs, which are mostly sectoral or regional, is guided by a steering group of the local enterprise representatives. The steering group gives strategic direction and guidance to a network manager who co-ordinates all operational activity leading to the delivery of an agreed training plan with learning interventions suited for the member company workforces. The national programme is co-ordinated by Skillnets Ltd, who contract with all networks and provide programme support and monitoring to ensure the delivery of agreed quantitative and qualitative target outputs.

In 2011, these networks were predominantly sectoral, with a national remit and company membership. However 30 of the networks were located in Dublin. In addition, 25% of all Skillnets member companies and 33% of trainees were Dublin-based. While Skillnets has a national impact, its influence is largely confined to SMEs which account for 94% of its 10 000 member companies. Although it was originally set up to cater exclusively for the employed, since 2010 Skillnets has had a mandate to include the provision of training for jobseekers. This happens both in an integrated manner (with jobseekers attending programmes with employees), and also through the provision of dedicated longer-term programmes exclusively for the unemployed (e.g. the Jobseeker Support Programme) which includes work placement. Skillnets has also launched a pilot training initiative, ManagementWorks, providing management training to the SME community with a key focus on owner-managers.

Source: OECD (2014f), *Employment and Skills Strategies in Ireland*, *http://dx.doi.org/10.1787/9789264207912-en*.

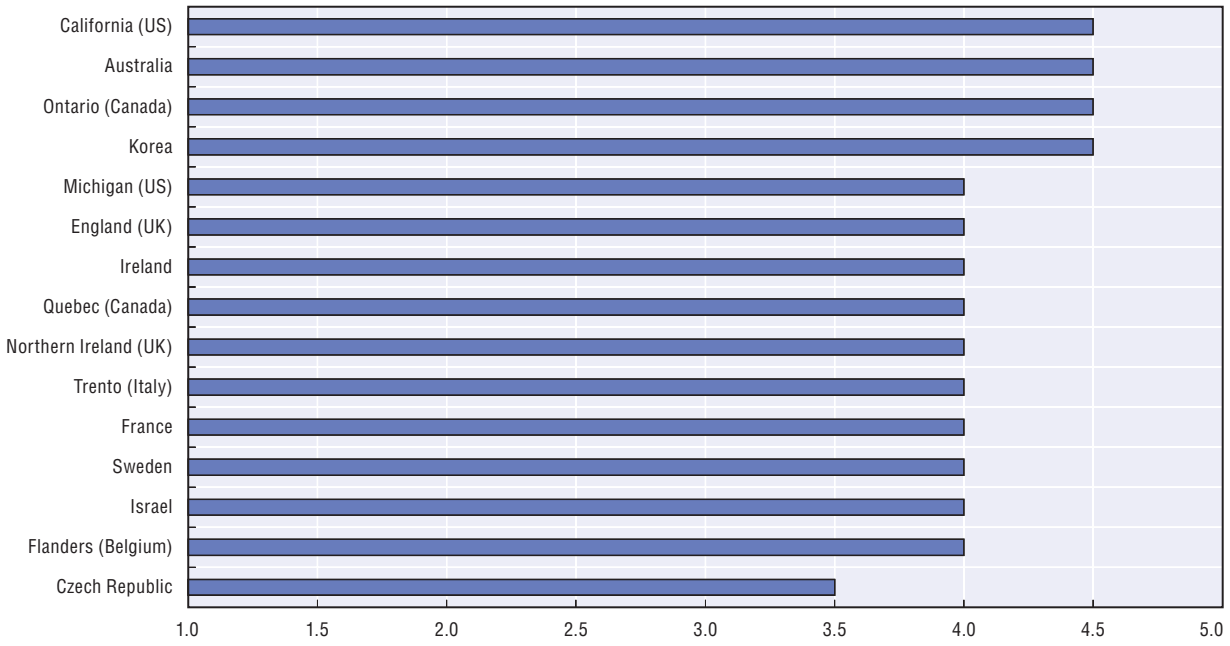
Employment and skills systems should provide flexible lifelong learning opportunities for individuals

While employer needs are critical, it is important to balance this policy consideration with the needs of individuals. Countries are focusing on flexibility within the training system for individuals to undertake after-hours and part-time courses, so that workers can update and upgrade their knowledge and skills. The employment and training system plays an important role in up-skilling individuals to make them more resilient to changes in the labour market over the long-term.

Figure 3.2 shows the results across participating countries reviewed under the *OECD Reviews on Local Job Creation* in terms of the flexibility of the vocational education and training system. On the measure, some sub-regions are disaggregated (e.g. California and Michigan in the United States, as well as Ontario and Quebec in Canada) because differences were found in the degree of flexibility at the sub-national level within these countries.

Flexible training systems can build the skills necessary to activate and connect unemployed individuals to the labour market. For already employed individuals, the opportunities to further develop skills is an important condition in preventing unemployment and building career progression and advancement opportunities, leading to higher salaries and a better quality of life. Many OECD countries are facing demographic transitions, with an ageing population, declining labour force growth, and fewer youth entering the labour market (see Chapter 10 for more information). This means that growth

Figure 3.2. **Flexibility within the vocational education and training system, 2013**



Note: This indicator is a composite index developed by the OECD based on a qualitative assessment of the extent to which the vocational education and training system is flexible and accommodates the needs of workers. It is based on the range of training courses available at the local level, whether flexible short-term modular training and after-hours training is available, as well as the degree to which courses meet local demand, where 1 corresponds to sub-optimal actions and 5 to a comprehensive set of policies and practices. The same methodology has been applied to all countries represented in the chart above.

Source: Adapted from the *OECD Reviews on Local Job Creation, www.oecd-ilibrary.org/employment/oecd-reviews-on-local-job-creation_23112336.*

StatLink *http://dx.doi.org/10.1787/888933136288*

will be increasingly dependent on high productivity and making better use of the skills of the current working age population.

OECD research has shown that low-skilled adults are generally less likely to access training (see e.g. OECD, 2013b) and this situation is often exacerbated for individuals who lack contact with local labour markets through long-term and sometimes multigenerational unemployment. Many local communities are faced with the need to respond to a "stagnation of participation" in education and training amongst the lower skilled who are increasingly employed on a temporary basis. Employment and skills systems can provide both youth and adults with access to flexible training opportunities throughout their lives to ensure they can build their skills for the needs of the labour market, while balancing other demands, such as work and family responsibilities. In many OECD countries, the VET system provides flexible and part-time provision, which facilitates the participation in education and training of working adults allowing them to combine both work and studies (Kuczera, 2013). In Ireland, courses are provided online to unemployed individuals, allowing them to build their skills in a flexible manner (see Box 3.4).

Many OECD countries are focused on activating the unemployed through short-term training opportunities. This "work-first" approach (e.g. focusing on the shortest route to employment) is important, however one challenge faced by unemployed individuals is the lack of longer term training opportunities available, which could better improve their employment outcomes. For unemployed adults or those at-risk of a lay-off, employment

Box 3.4. **E-learning in Ireland**

Online courses in the E-College, set up by FÁS, are designed to be a flexible response to the specific skill needs of job ready individuals who require training with certification to assist them to re-enter the labour market. Online courses are available free of charge to unemployed clients. Courses are also available, for a fee, to employed persons who wish to update their skills. These courses are delivered completely online and technical support is also provided. All FÁS online courses last for 14 weeks, but learners continue to have access to the course and materials for a further ten weeks (i.e. 24 weeks in total). Over 30 courses are available and course categories include Operating Systems, Networking and Technical Support, Software Development/Programming, Office Applications, Web Design/Multimedia, and Soft Skills.

Unemployed clients will be able to participate in blended learning courses in selected areas in the near future, which provide additional online tutor support and a range of online training with enhanced learner supports including telephone, email, E-tutor and instructor led workshops. Some courses may also include one to one, group mentoring, assignments or project work. Fee paying clients can register and pay online while unemployed clients can register in their local FÁS Employment Services Office.

Source: OECD (2014f), *Employment and Skills Strategies in Ireland*, *http://dx/doi.org/10.1787/-en.*

and training systems can create a "second chance" by providing longer-term skills development opportunities within new or growing sectors of the economy. As an example, the manufacturing sector has been particularly hard hit across many OECD countries as a result of changes from the global economy. Many individuals working within this sector have spent several years with the same employer and require a longer-term investment to update and develop their skills for the new economy. While this can represent significant costs for both the government and the individual, it also presents new opportunities to transition people into new areas of growth and ensure they are resilient and adaptable to future economic shocks.

In Korea, unemployed individuals have access to individual training accounts. Participants are required to pay 20-45% of the total training costs, which provides an incentive for meaningful participation and encourages programme choices which may be better aligned to labour market opportunities. To ensure that training is responsive to changing demands in the labour market, ceilings are imposed on the number of training places available in certain occupations and sectors. Training expenses covered by the Government are reimbursed when certification is received.

In Sweden, individuals have access to higher vocational education programmes (*Yrkeshogskola*) allowing young adults to return to training programmes closely connected to the labour market. These programmes are delivered by private institutions, as well as local and regional authorities. Similarly in Flanders, Belgium, unemployed individuals can receive a subsidy to return to various training programmes through authorised VET institutions and organisations. While there are other examples within Europe, it is less common in other OECD countries, such as the United Kingdom, Australia, Canada, and the United States. However, a recent initiative in Ontario, Canada, the 'second career' programme (see Box 3.5) was launched to focus on long-term training connected to emerging job opportunities.

Box 3.5. **The Second Career Programme – Ontario, Canada**

The objective of the Second Career Programme is to provide laid-off workers and unemployed individuals with long-term skills training to help them find employment in occupations with demonstrable labour market prospects in Ontario. Eligibility is for individuals who have been laid off since January 1, 2005, are unemployed or working in an interim job, and are choosing to retrain for a career that is in demand. Individuals are not required to be eligible for Employment Insurance.

The programme provides financial support for tuition, books, travel and other expenses to help eligible workers participate in training programmes. Individuals are eligible to take college training programmes in a range of occupations ranging from plumbers and electricians to community and social service workers, and early childhood educators. Individuals may qualify for financial support of up to CAD 28 000.

Source: OECD (2014g), *Employment and Skills Strategies in Canada*, *http://dx.doi.org/10.1787/9789264209374-en*.

Transparent educational pathways and skills recognition frameworks can reduce mismatches and better link supply to demand

Transparent education pathways can play a vital role in better connecting the education and training system with the labour market. Good quality information can assist young people and adults in making informed choices about training programmes. This includes career guidance within high schools and occupational information about future job openings, their educational requirements, and earnings prospects. As highlighted in the focus on youth in the introduction to this publication, these types of supports can help young people overcome some of the challenges in transitioning from the world of school to the world of work.

Generally, career guidance does not have a regional and local labour market emphasis and there is limited direct contact between schools and the world of work. Career guidance is chiefly given to students near the end of their school years, and young people do not always receive the most accurate or well informed jobs information. Schools need to work more closely with the public employment service and vocational education system to create clearer, simpler and more recognised pathways into vocational education and training.

In many OECD countries, there has been increasing interest in apprenticeships both as a route into employment and also in raising the skill levels of the workforce. Apprenticeship systems provide a number of career pathways for youth to develop skills and attachment to the labour market. However, many young people still view apprenticeship opportunities as unattractive despite the availability of a high number of well-paying jobs in associated sectors. Furthermore, many countries offer a limited number of apprenticeships within traditional sectors. To seize the potential benefits of a dual education system, new apprenticeship programmes are being piloted in the United States (see Box 3.6). Evans and Bosch (2012) provide another example from London.

Beyond the apprenticeship system, there is scope in many OECD countries to better trace career pathways into employment-intensive domestic sectors that have high-growth potential (see Hamilton, 2012, for example). Career cluster and pathway approaches can be used to link individuals (particularly youth) to jobs in the local labour market. One of the key issues in developing career cluster models is the tension between trying to respond to the needs of individual employers who might be the key to a region on the one hand, and

Box 3.6. **Apprenticeship 2000 Programme, the United States**

The goal of the Apprenticeship 2000 programme is to offer high school students opportunities in technical career fields and employment after graduation. The programme, in return, offers sponsor employers a trained workforce. The employer contributes to a significant portion of the student's training. Recognising the need for trained craftsmen, Blum Inc., along with Daetwyler Corporation in 1995, established the Apprenticeship 2000 programme in an effort to train their own workforce. After graduation from the programme, students can earn upwards of USD 34 000 per year in their selected career fields.

The Apprenticeship 2000 programme is an 8 000 hour programme that spans four years of training. Upon graduation, students earn a degree in Manufacturing Technology, and a Journeymans Certificate awarded by the state of North Carolina. At graduation, each apprentice will have invested approximately 6 400 hours inside one of the six sponsorship companies. The supplemental company instruction reinforces the student's classroom training by taking the classroom examples into real life situations. At Blum, company training is broken into three distinctive categories, each with their own sub categories. The three main categories are: Section One – Basic metal working/ bench work, Section Two – Machining (mill, lathe, CNC) and Section Three – Specialization.

By training young people in basic machining, applications of engineering, and maintenance, Blum technicians become highly skilled to meet the needs of industry. Graduates of these technical career fields have the ability to design, machine, document and assemble changes virtually on demand. This makes each person and the company much more flexible to changes in trends, market conditions, and machine performance.

Source: Apprenticeship 2000, available at *http://apprenticeship2000.com/*.

Box 3.7. ***Sectorale netwerken* and *Talentenhuizen* (Sectoral Networks and Talent Houses)**

In Antwerp, several sectoral networks bring together educational providers and labour market actors, promoting smooth transitions from education to work. These sectoral networks are governed by the City of Antwerp (Department of Economy) and VDAB, who have signed a collaboration agreement. These agreements not only assign responsibility and divide tasks among the partners, but also include goals and targets to be reached.

A project manager is assigned to each sectoral network and experts are engaged. The financial means are provided by the City and by VDAB, and additional means are acquired through the European Social Fund. The networks are supported by sectoral organisations, sectoral training funds, social partners, educational providers, and regional technological centres. Each network establishes collaboration between stakeholders through a sectoral commission, a core group and thematic working groups. The aim is to develop action plans (for the short and the long term), starting from a thorough analysis of the local educational system and the labour market.

A sectoral network can be converted to a Talent House when a sector is willing to invest in a partnership which requires a strong sectoral organisation, when the development of competences can be an answer to recruitment problems (e.g. a Talent House is not the right answer when recruitment problems are to be attributed to the (lack of) job quality), and when the sector is of economic importance to the region. Four sectoral networks have been converted to a "Talent House": 1) Construction; 2) Industry; 3) Harbour – Logistics; and 4) Education

Source: OECD (2014h, forthcoming), *Employment and Skills Strategies in Flanders, Belgium.*

on the other, understanding the broader labour market and the foundational skills that are needed across occupations and industries.

The promotion of mobility can also play a role in bridging the gaps between supply and demand and reducing regional tensions, where some local areas experience chronically high unemployment rates while others cannot find good qualified candidates. Instead of moving and attracting companies to regions with high supply, individuals can be actively encouraged to move where the jobs are available. An important component of worker mobility is ensuring that competencies and qualifications are recognised across regions.

To ensure that new training builds on existing skills, it is important to recognise skills by assessing competencies rather than qualifications. While qualifications send important signals to employers about an individual's skills, competencies are a combination of skills and knowledge, which increase the likelihood that an individual will perform a job well. Many OECD countries are introducing outcome-based standards, which are expected to simplify and update qualifications relevant to labour market needs. For example, in Australia, training packages are developed in consultation with industry through national industry Advisory Boards to meet the training needs of specific sectors. All training must conform to the Australian Qualifications Framework, which includes an integrated set of competency standards into a single comprehensive national qualifications framework. Korea is experimenting with competency-based hiring models, which assist companies in recruiting quality employees based on their competencies (see Box 3.8).

Box 3.8. **Competency-based hiring in Korea**

The Ministry of Employment and Labour in Korea (MOEL) has started disseminating core competency assessment models to 30 companies on a trial basis. Core competency assessment models enable companies to select workers on the basis of competencies instead of qualifications that not are relevant and/or necessary for the jobs to be performed. Under this pilot project, the assessment model is for three job groups – production management, business support and teller services in financial and insurance businesses.

Participants include 10 large companies: Lotte, Hyundai Mobis, Daewoo Engineering & Construction, Woori Bank, CJ Foodville, SeAh Steel, Hanwha S&C, LS Networks, KT Skylife and SKC Solmics. NHN (Naver), Orion and Korea Cadastral Survey Corp. (a public company) will also join the project.

Each of the selected firms is being offered consulting services and interviewer training tailored to its circumstances. They are also assisted in applying assessment models to their recruitment processes. The scheme is being expanded to include another three job groups – marketing, application software and architecture engineering technology – while the number of participating companies is expected to increase to 200.

Source: OECD (2014i, forthcoming), *Employment and Skills Strategies in Korea*.

Reducing potential shortages through a stronger activation system which works with employers

A strong activation system requires local employment and training agencies to work closely with employers to achieve good outcomes. The public employment service can play an active role in ending an individual's unemployment spell by effectively linking them to a job. This can involve passive support by providing individuals with access to job search tools (such as an employment database via the Internet) or it can involve more

intensive one to one support. Previous OECD research has highlighted the important role that is played by employment counsellors in offering advice and support to unemployed individuals (OECD, 2013a). In many cases, these counsellors play a critical role in working with the unemployed to raise awareness of job-search techniques, assist in job matching to available vacancies, and improve the overall motivation and confidence of the individual.

At the local level, successful activation strategies depend on the relationship of the local employment service with employers. Successful job matching requires consistent and strong outreach efforts to employers by the public employment service, which can be difficult as there is sometimes a perception that the public employment service only deals with "harder to place" individuals. The *OECD Reviews on Local Job Creation* show that efforts are being made to adopt a stronger activation approach within the public employment service, including greater outreach and support to employers.

In Hamilton, Canada, McMaster University organises "employment crawls" of local companies. "Crawls" are organised by sectors and each crawl involves visiting five enterprises to hear directly from management and staff what is happening in their field as well as upcoming job opportunities. The tours are followed by a networking opportunity with employer participants at a reception hosted by the university. Recently, four crawls were offered focusing on areas identified by economic development as targeted growth areas for the city. The four fields were: manufacturing/clean air and technology; creative industries and communications; food processing/goods movement and transportation; and life science and health care.

In Australia, Jobs and Skills Expo are organised, which serve as a "one-stop jobs and skills marketplace", bringing employers, employment service providers, labour and recruitment agencies, and registered training providers all under one roof on one day. In the United States, Michigan launched the Workforce Intelligence Network, which brings together a number of local organisations under one information system designed to reduce skills gaps and better connect job seekers and employers (see Box 3.9).

Box 3.9. **The Workforce Intelligence Network, Michigan, United States**

The Workforce Intelligence Network (WIN) provides opportunities for co-ordination and innovation across partners by delivering actionable marketplace intelligence to support more efficient solutions for employers. This information helps consortium members, particularly community colleges, make better "real time" decisions regarding skill gaps. One of the tools used by WIN is a methodology to search the Internet for job openings and resumés. This information, combined with data from the state's labour market information and special surveys, is incorporated in strategic plans and operational decisions.

For example, SEMCA (the local Workforce Investment Board that manages employment services) has been able to act upon this information and is currently working to create a talent pool for "computerised numerical control and welding". SEMCA also relies on WIN for detailed analysis of specific industries and occupations. Each year it completes a "Region Top Jobs" report, which includes the availability of current and projected opportunities by occupation, with the number of openings, and the rates of pay.

Source: OECD (2014a, forthcoming), *Employment and Skills Strategies in the United States*.

In Northern Ireland, an Employer Engagement Unit has been established within the PES to work with employers at the strategic level and ensure that PES staff better meet the needs of employers and those seeking work. In Ireland, Intreo is introducing a new Employer Engagement Strategy that, along with its growing participation in local job

fairs, will be a critical element of the new employment services' approach. A person will be appointed in each local office whose principal role will be to develop a databank of local employers and actively "market" local jobseekers to them. In Australia, employment service providers have designated "reverse marketers", which complement the work of the employment counsellor by building effective relationships with local employers and marketing job seekers to them (see Box 3.10).

Box 3.10. **Reverse marketers in Australia**

The term reverse marketing has been in use for some time to describe a marketer who helps consumers to achieve their goals without trying to sell them anything. It works by making the consumer come to you, not you to them. The term, reverse marketing, is now commonly used in the Australian employment services industry. It refers to the practice of providers actively marketing job seekers to potential employers where vacancies have not been advertised, and referring and placing job seekers into those jobs. Reverse marketing provides a mechanism to stimulate demand for labour by pre-empting employers' labour needs before they create a vacancy. Effective reverse marketing can play an important role in the wider employment services framework by providing job-ready job seekers with access to vacancies that may not otherwise exist.

In Australia, reverse marketers target specific employers with whom the job seeker is likely to be able to find sustainable employment. This means understanding the skills, attributes and desire of the job seeker to work in a specific industry and matching these to local employers who are most likely to need additional labour, and having a strategy to 'sell' the job seeker to these employers. It is in the best interests of both providers and job seekers that providers target their reverse marketing activities according to the needs of their local labour market.

Source: OECD (2014j), *Employment and Skills Strategies in Australia*, *http://dx.doi.org/10.1787/9789264207899-en*.

Conclusion and issues for consideration

Quality job creation can be best supported by ensuring that the skills being produced align with demands. The changing nature of jobs means that individuals and communities must pay increasing attention to skill levels and to the adaptability of their workforce. This chapter points to a number of ways to enhance skills development, predominantly by better connecting the employment and training system to individual and employer needs.

Key recommendations for building a flexible and responsive skills system

Promote flexible lifelong learning systems

- Develop flexible local training systems that allow people to undertake training throughout their lives, and continuously update their skills. This may mean providing modular and after hours courses that are accessible to working people.

Fully involve employers in employment and skills delivery

- Fully involve employers in designing and delivering training, to increase relevance to local labour market needs.
- Foster networks between SMEs to support shared investment in skills development.
- Ensure that public employment services have adequate staffing and resources to regularly reach out to local employers.

Using information strategically at the local level can play an important role in reducing shortages

- Develop local information systems that enable training and education institutions to better understand local labour market needs, and that help local people to identify appropriate training and jobs. This can include careers advice targeted at both young people and older adults.

References

Evans, S. and G. Bosch (2012), "Apprenticeships in London: Boosting Skills in a City Economy – With Comment on Lessons from Germany", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2012/08, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k9b9mjcxp35-en*.

Froy, F. and S. Giguère (2010), "Putting in Place Jobs that Last: A Guide to Rebuilding Quality Employment at Local Level", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2010/13, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5km7jf7qtk9p-en*.

Hamilton, V. (2012), "Career Pathway and Cluster Skill Development: Promising Models from the United States", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2012/14, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k94g1s6f7td-en*.

Kuczera, M. (2013), "A Skills Beyond School Commentary on Sweden", *OECD Reviews of Vocational Education and Training,* OECD, Paris, *www.oecd.org/edu/skills-beyond-school/ASkillsBeyondSchoolCommentaryOnSweden.pdf*.

OECD (2014a, forthcoming), *Employment and Skills Strategies in the United States*, *OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2014b, forthcoming), *Employment and Skills Strategies in Sweden*, *OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2014c, forthcoming), *Employment and Skills Strategies in England*, *OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2014d), *Employment and Skills Strategies in Northern Ireland, United Kingdom*, *OECD Reviews on Local Job Creation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264208872-en*.

OECD (2014e), *Employment and Skills Strategies in the Czech Republic*, *OECD Reviews on Local Job Creation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264208957-en*.

OECD (2014f), *Employment and Skills Strategies in Ireland*, *OECD Reviews on Local Job Creation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264207912-en*.

OECD (2014g), *Employment and Skills Strategies in Canada*, *OECD Reviews on Local Job Creation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264209374-en*.

OECD (2014h, forthcoming), *Employment and Skills Strategies in Flanders, Belgium*, *OECD Reviews on Local Job Creation,* OECD Publishing, Paris.

OECD (2014i, forthcoming), *Employment and Skills Strategies in Korea*, *OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2014j), *Employment and Skills Strategies in Australia, OECD Reviews on Local Job Creation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264207899-en*.

OECD (2013a), *OECD Employment Outlook 2013*, OECD Publishing, Paris. *http://dx.doi.org/10.1787/empl_outlook-2013-en*.

OECD (2013b), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264204256-en*.

OECD (2012), *Better Skills, Better Jobs, Better Lives: A Strategic Approach to Skills Policies*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264177338-en*.

Chapter 4

Escaping the low skills equilibrium trap

To support job creation and increase productivity, employment and skills agencies need to focus not only on the acquisition of skills, but also the better utilisation of skills in the workplace. There is considerable variation in the supply and demand for skills at the local level. Some regions experience a situation known as "low skills equilibrium" where low levels of skills in the population are met by a low level of demand for skills from employers. Policy makers can help to drive up skills demand and utilisation in such regions through providing technical assistance and management training, and through embedding skills policies in broader mechanisms for business support and strategic development. A wide number of local stakeholders can be involved, including employer associations, universities, vocational training institutions and unions.

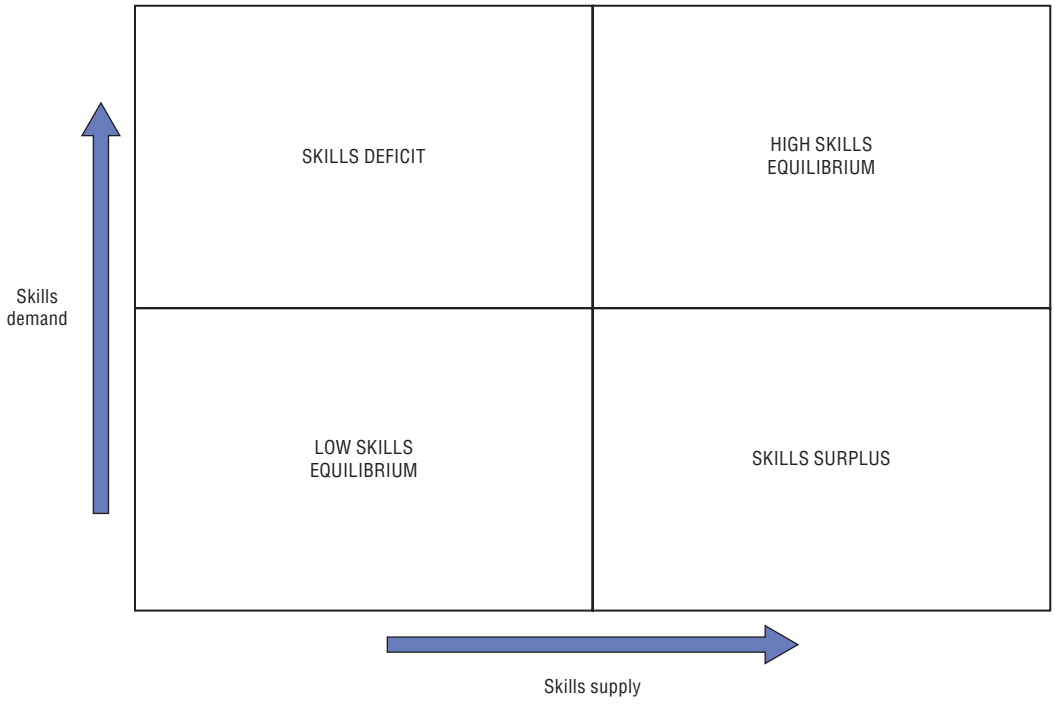
The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Investing in skills does not always translate into improved productivity – if employers do not use them effectively

Investment in the supply of skills alone will not be sufficient to secure job creation and productivity in all local economies. The degree to which local employers are demanding and using skills also has to be taken into account. Where the demand for skills amongst employers is low, and people's skills are not fully utilised, this can undermine productivity. It can also reduce the quality of local jobs in terms of salaries, job security and the possibility for career progression.

Local economies in OECD countries show considerable variation in terms of both the supply of skills (the number of people with skills and qualifications), and the demand for skills (the degree to which skills are sought and used by employers). Looking at both of these sides in tandem can help local areas gain a deeper understanding of prospects for quality job creation (see Figure 4.1 and Box 4.1). In regions where demand is high and supply low, the local economy will overall report a skills "deficit". Businesses may not be able to find the skills that they need, at the level that they need. However, equally worrying, are regions in which skills demand and skills supply are both low. This situation is known as the "low skills equilibrium".

Figure 4.1. **Skills diagnostic tool**

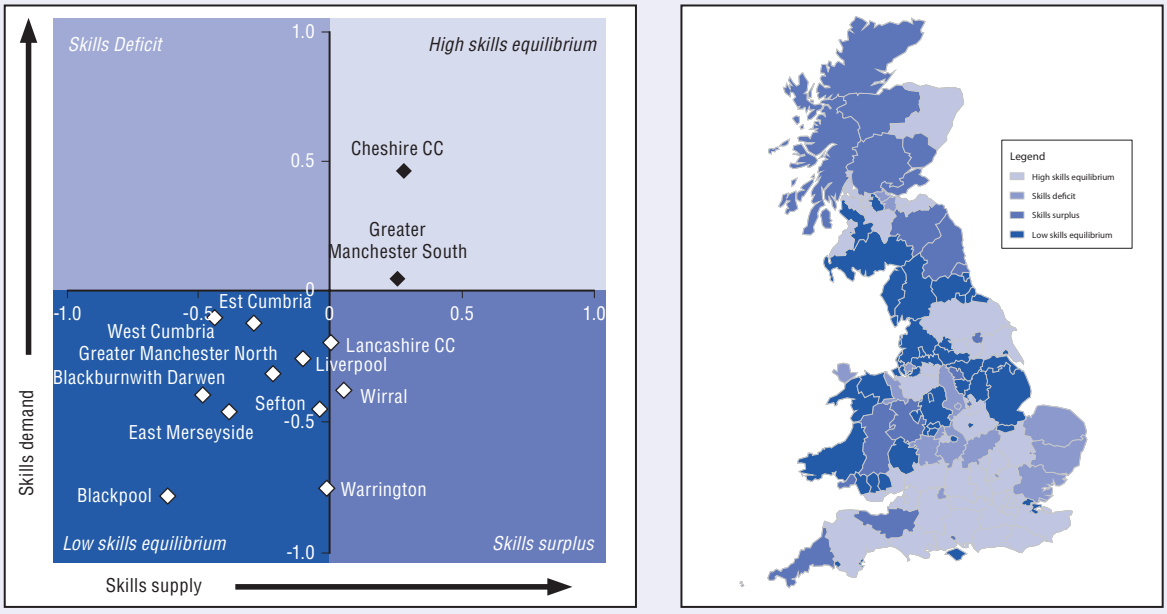


Source: Froy, F., S. Giguère and A. Hofer (eds.) (2009), *Designing Local Skills Strategies*, *http://dx.doi.org/10.1787/9789264066649-en* adapted from Green (2003).

Box 4.1. **Country profiles: Putting the skills diagnostic tool into action**

As part of the country profiles in this publication, the OECD has mapped skills supply and demand at the sub-regional level[1] in OECD countries to identify where they fall within the typology in Figure 4.1 above. The indicator used to measure the supply of skills in each region is the percentage of people with post-secondary education. To approximate skills demand a composite indicator has been used – the percentage of medium and high skilled occupation, combined with labour productivity (Gross Value Added, GVA) per worker.[2] For each country, these indicators are calculated in relation to the national averages. Each of the country profiles includes a map which shows where regions fall within the typology for the country as a whole. Figure 4.2 shows the example of Northwest England.

Figure 4.2. **Skills classifications of sub-regions in Northwest England in 2011**



The country profiles also highlighted trend data to identify "places to watch". These places were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period. It is important to recognise that some areas of "high skills equilibrium" are not necessarily in "labour market equilibrium" more broadly – they may still have problems of high unemployment. To help provide a more comprehensive picture, a map of unemployment rates is also included in the country profiles.

1. OECD Territorial Level 3. Where Territorial Level 3 data was not available, Territorial Level 2 was used.
2. Where GVA per worker was not available income was substituted.

A "low skills equilibrium" can develop in some regions

A situation of low skills equilibrium can develop where there is a concentration of employers in a region that are pursuing price-based competition strategies, and that rely on low-skilled and standardised production. This is often a problem experienced by more peripheral rural regions. Such regions can fall into a vicious circle as it does not pay for people to invest in skills when skills are not valued by employers. At the same time, those who do attain skills may move away to seek more appropriate jobs elsewhere. In "skills surplus" regions, this mismatch between skills supply and demand is not limited to select individuals,

but rather to the workforce more broadly. Skilled people who remain in such regions may either be doing work for which they are overqualified, or they may be in unemployment. Most regional economies would aim to be in the top right hand corner of Figure 4.1, that of a "high skills equilibrium", but it is not always easy to get there. A combination of different investments is required to improve both skills supply and skills demand.

Traditional employment and skills responses are inadequate in such regions – and may represent a poor use of public funds

Understanding the balance of the supply and demand for skills in particular regions can help in the design of more effective skills strategies. A "one size fits all" approach to skills policy at the national level will not necessarily help all regions. Indeed, in responding to problems of skills mismatch, governments often promote geographical mobility, which may exacerbate the problems that low skills equilibrium regions face. Further investing in skills supply may help to transform local employment in such regions over the long term, as employers can more easily recruit skilled workers and these workers improve the quality of the work that they do. However, this can be a slow process, and some management practices discourage this kind of transformation, particularly where employees on the shop floor or in front line services work to a "blue-print" devised by higher management that they have little ability to influence or evolve (see Sennett, 2009).

While governments in some OECD countries have been keen to promote "employer-led" approaches to skills development as a way of improving relevance to labour market needs, such strategies may also fail in low skills equilibrium regions, as skills policies will benefit little from being steered by employers that are characterised by low levels of ambition (Froy, 2013). Public employment service programmes will also fail to effect change if they simply match local people to any available local job. Where the overall quality of employment in a region is poor, local public employment service offices often become diverted towards "fire-fighting" to fill labour shortages (which occur when vacancies remain unfilled or are repeatedly advertised either due to a sheer lack of local people to fill them, or because people are not attracted by the pay or working conditions). Helping employers to fill such vacancies is a poor use of public resources, as it subsidises weakly productive business activity and slows down structural adjustment. At the same time this type of job placement often leads to poor job retention and labour market "churning" as people move from one poor quality job to the next (Froy and Giguère, 2010).

Skills demand and utilisation is closely linked to firm product market strategies

In order to better support growth and quality job creation in low skills equilibrium and skills surplus regions, it is important to embed skills policy within a broader economic development framework. This framework may include traditional economic development approaches such as encouraging inward investment by more knowledge-intensive firms. However skills demand and utilisation will also increase if existing firms are able to diversify, upgrade their product market strategies, and move towards more knowledge-intensive production processes. As companies move into higher value added product and service markets, the levels of skills that they require, and the extent to which they utilise skills, tends to increase. Analysing data from the National Employers Skills Surveys in England, for example, Mason (2011) showed that firms varied greatly in the extent to which they were seeking to engage in "high-end" or high value added production, and that product market strategies and the level of workforce skill in an establishment were strongly positively correlated.

In helping firms to develop new product market strategies, it will also be important to encourage innovation and investment in new technologies. The importance of technology transfer in stimulating innovation and growth has long been recognised. Coyle (2001) argued that it can take up to 50 years for new technologies to be fully absorbed into the economy, and investment in technology transfer can help to speed this process up. Non-technological innovation can also be an important source of productivity growth amongst firms, particularly for SMEs (see OECD, 2013). This can include changes to the organisation of production, and to marketing strategies. Knowledge-sharing networks can play an important role in promoting such non-technological innovation, both within sectors and across sectors (ibid). While some knowledge sharing networks may be purely private sector, universities and vocational training schools can also help inject new ideas and new technologies into such networks, particularly when they carry out relevant applied research (see Froy et al 2012).

Non-technological innovation can also emerge from within firms, particularly when the skills of their workers are well-utilised (see Box 4.2 below). Innovative new ideas often come from problem-solving on the "shop floor" or in front line services, and the importance of incremental innovation has been underlined in the OECD's Innovation Strategy (OECD, 2010). In fact Toner (2011) has identified that most of the new innovation that has taken place in recent years in OECD countries has been arrived at incrementally within the workplace, as opposed to being developed within high level R&D. Local stakeholders in Niagara, Canada, similarly emphasise that in many of the industries important to their local region (tourism, hospitality, food processing, farming, and light manufacturing)

Box 4.2. **What practices promote more effective skills utilisation?**

The Australian Workforce and Productivity Agency (now mainstreamed within the Department of Industry) has outlined the following types of initiatives designed to make the use of skills more effective:

- **Job redesign:** involves changing the role or description of a job so that the skills of the employee are put to better use. This can include teamwork and flexibility in job descriptions and work arrangements with colleagues.
- **Employee participation:** includes involving employees in discussion on business strategy, to more effectively use employees' knowledge and experience.
- **Autonomy:** includes giving employees more freedom and autonomy to make decisions in how they perform their job.
- **Job rotation:** involves facilitating the learning of new skills by shifting employees into different jobs and positions within the company.
- **Skills audit** (training needs assessment): aims to identify the skills that employees currently have and to identify which skills are most needed.
- **Multi-skilling:** is related to job rotation and involves training employees in multiple skill sets, which enables them to perform other tasks, which are not included in their job description.
- **Knowledge transfer:** these types of initiatives can include developing new skills and training that is related to work or working with experienced workers to develop mentorships opportunities for younger staff.

Source: Skills Australia (2012), *Better Use of Skills, Better Outcomes: A Research Report on Skills Utilisation in Australia, www.awpa.gov.au/publications/documents/Skills-utilisation-research-report-15-May-2012.pdf.*

adding more value to products involved incremental innovation in processes as opposed to giant leaps driven by high technology (Verma, 2012).

Management practices are important here, as new ideas are more likely to emerge when workers have the ability to use their discretion and "learn by doing". This applies both to workers involved in production, and workers directly dealing with and responding to customer needs (Froy and Giguère, 2010). Equally important is the ability of the company or organisation to recognise and mainstream such new ideas and approaches across the workforce as a whole (Toner, 2011).

Of course, the ability of firms to move towards higher-value added product market sectors will depend on access to appropriate markets. Strategies to upgrade product market strategies need to be accompanied by strategies to build local markets and better access regional, national and international markets. One of the reasons that SMEs in Niagara have been able to develop higher quality food and drink products is that they have had access to niche markets in the neighbouring city of Toronto, in addition to relatively wealthy tourists en route for Niagara Falls.

In the Rivera del Brenta industrial district in Northern Italy, a local employers association has helped to raise productivity and skills utilisation in local footwear firms, through tapping into international markets for high-quality, high-fashion, shoes. Through the association (ACRIB), firms have collaborated on a common marketing strategy, while also pooling investment in training provision and helping firms to collectively upgrading their product market strategies. The region traditionally hosted cottage-based shoe making industries which mainly employed low-skilled blue collar workers. However the area has now become a global centre for the production of shoes for brands such as Giorgio Armani, Louis Vuitton, Chanel, Prada and Christian Dior, and now significant numbers of local people are employed in design and commercial development (50% in design, 10% in commercial development and 40% in frontline production).

The privately-run local polytechnic, *Politecnico Calzaturiero,* has played an important role, employing firm managers to train local workers and job seekers after hours, while also offering management training, and investing in research, innovation and technology transfer. The polytechnic therefore invests in skills supply whilst also optimising skills utilisation through new product development and improved human resource management. The fact that firms are members of ACRIB means that they are less worried about pooling training, technology and new innovations. Investment in local human capital will not only improve prospects for individual firms but also for the global brand as a whole (Destefanis, 2012). ACRIB has also worked in partnership with local unions to ensure that during this time, improved productivity resulted in higher wages and better health and safety for the workers.

Policy makers can use a variety of tools to help "shape" skills demand and utilisation

In the Riviera del Brenta, European Social Funds have been important in supporting the research and innovation carried out by the polytechnic, and their collaborative work with local employers. But outside of providing seed-funding, how can policy makers help support such transformational processes in local economies? OECD LEED research has identified a number of different actions that policy makers can carry out in this field (Froy, 2013; Froy and Giguère, 2010).

For one, guidance, facilitation and training can be important tools for enhancing the demand for and utilisation of skills. Policy makers can incentivise collaboration and networking across firms to help them share knowledge, new technologies and innovation; pool investment for training; and develop shared regional brands. Incentivising and funding universities and colleges to carry out applied research of relevance to local industrial sectors can also contribute to these processes. Specific technical assistance and training for managers can help firms to improve work organisation to ensure skills are more effectively harnessed and technology fully utilised.

Policy makers can also take advantage of the public sector's role as an employer and purchaser. The public sector can serve as a role model to private enterprises by ensuring that public sector jobs make best use of people's skills; allow for flexibility and discretion in carrying out work tasks; and provide opportunities for progression. Additionally, public sector procurement can be used to develop a quality-driven supply chain. For example, awarding "patient capital" and providing longer-term contracting periods can encourage contractors to invest in staff and production processes. Social enterprises can also play a unique role in fulfilling public contracts. Given that they can avoid some of the short-term pressures associated with satisfying private shareholders, they can in some cases take a longer-term perspective to developing and training their staff.

A broad set of local institutions have a role to play

To carry out this work, engagement in meaningful and strategic partnerships will be key. Local collaboration is needed between policy makers in the spheres of economic development, education and employment, in order to ensure that skills policies are understood in the context of broader economic development. Such collaboration can be both formal and informal, strategic and operational. Working with brokers and intermediary bodies can be particularly useful when working with employers on productivity issues, as this is not a traditional domain for public policy. OECD LEED research has identified that a number of different local stakeholders can bring particular expertise and resources to this issue.

Economic development agencies clearly have a key role to play in improving local productivity and competitiveness. However it is not always clear that they fully take into account the importance of human resources and skills to that growth in the context of the knowledge economy. While economic development agencies are often encouraged to think in terms of "job outcomes", they do not always consider the degree to which productivity improvements bring real impacts in terms of salaries and quality of life. At the same time, economic development strategies often focus on "winning sectors" which may bring high added value and highly skilled employment, but often constitute only a small percentage of local employment. Work to help employers to improve productivity and job quality in lower skilled sectors is also important.

Universities and colleges can be instrumental in helping local industries to better access and better utilise skills when they are fully embedded in local economies. In areas of traditional low-skills, low-wage employment, the role played by vocational training colleges in stimulating innovation in the local economy would seem to be particularly important (as can be seen in the Riveria del Brenta example above). However in order for them to be involved, it is important that funding streams and performance management targets reward and encourage this type of "locally embedded" activity.

Unions have shown themselves to be valuable partners in working alongside firms in tripartite agreements to raise labour productivity and skills utilisation while also improving wage levels and working conditions. Their involvement is crucial to ensuring that any productivity gains from increased employee discretion and problem-solving are passed back to workers in terms of raised salaries and improved working conditions. An example is the "Better not cheaper" campaign in the metalworking industry in North-Rhine Westphalia in Germany. Here unions promoted new forms of production that more actively used the skills of the workers and which produced new and innovative products with high standards of quality (Haipeter 2011).

Employers and trade associations can also play a key role in helping employers, and particularly SMEs, to "raise their game", through developing trust-based relationships between firms that stimulate knowledge sharing and collaborative investment.

Local authorities often have an overview role which makes them natural brokers and catalysts for bring together those involved in both skills supply and skills demand in a local economy. In addition to galvanising a local community approach, it is also important that they make use of their capacity to better train and utilise skills within their own workforce, while influencing change as a local purchaser of services.

Finally, **employment services** (public, not-for-profit and private) can also play a role in ensuring that they prioritise matching people to jobs that are commensurate with their skills and that provide opportunities for career progression. The province of New Brunswick in Canada, for example, has developed a definition of "underemployment", enabling them to provide guidance for those workers in poor quality employment on how they might find better skilled work locally, through participating in training courses (Wood, 2010). Such actions can reduce labour market churn and also discourage employers from relying on the public sector to fill poor quality vacancies.

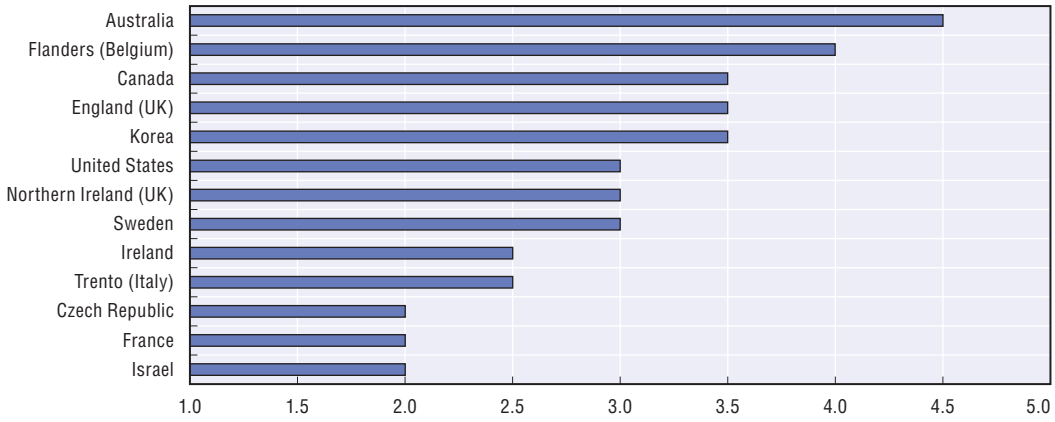
Policies to tackle low skills demand and utilisation remain underdeveloped at the local level

However, despite longstanding academic research on this issue, and some strong attempts to boost such actions at the national level,[1] it is clear that this is an area where local policy makers are only starting to act. The *OECD Reviews on Local Job Creation* found that actions in this area were largely piecemeal, and that there was generally much greater policy attention given to addressing skills deficits, as opposed to tackling the more entrenched issues faced by low skills equilibrium and skills surplus regions.

Figure 4.3 shows the results of qualitative assessment of the extent to which (1) the public sector works with employers to improve skills utilisation and work organisation; (2) sector/industry bodies are involved in such activities; and (3) universities and training institutions undertake applied research of relevance to the local economy. Of the above three areas, it was most common for universities and training institutions to be undertaking applied research of relevance to the local economy.

Despite an overall lack of local strategies to tackle this issue, inspiration can be drawn from the work being done in Australia; Flanders, Belgium; Canada; and Korea to boost skills utilisation. In the State of Queensland in Australia, Manufacturing Skills Queensland (MSQ) acts as a workforce development network with industry representatives from respective

Figure 4.3. **Working with employers on assuring quality jobs and skills utilisation, 2013-2014**



Note: This indicator is a composite index developed by the OECD based on a qualitative assessment of the extent to which the public sector works with employers to improve skills utilisation and work organisation. The involvement of sector/industry bodies in developing these strategies as well as the degree to which universities and training institutions undertake applied research of relevance to the local economy is also taken into consideration. The same methodology has been applied to all countries represented in the chart above.

Source: Adapted from the *OECD Reviews on Local Job Creation, www.oecd-ilibrary.org/employment/oecd-reviews-on-local-job-creation_23112336.*

StatLink http://dx.doi.org/10.1787/888933136307

industry sub-sectors working together to inform state government planning. The network encourages firms to develop career development pathways, and assists businesses with organisational change programmes with a focus on people management, employee development and work organisation (OECD, 2014a). This initiative builds on a strong history of experimentation in the state – in 2002 skills formation strategies were introduced in 60 different industry sectors in Queensland to address persistent skills shortages (Eddington and Toner, 2012). These strategies required employers to take a step beyond advising government on training requirements. Skills formation strategies were based on the assumption that successful skill formation within a firm needed to be integrated with a business strategy, product market definition, technology, business systems and processes, and good workforce management practices.

In Flanders, Belgium, collaborations have been built between the unions, academics and government representatives to help managers to promote better skills utilisation in a number of different sectors. Such collaboration is particularly evident in the province of Limburg. The fragility of the local economy, which has traditionally been based on low-skilled work and a few major employers, was recently demonstrated by the movement of a major employer, Ford, out of the region. Local policy makers are now faced with the problem of finding new employment for low skilled ex-factory workers whose transferable skills are limited. At the same time, there is a desire to move the region towards more productive higher skilled employment. The local ACV union has responded by setting up practice labs for innovative work organisation, in cooperation with a coalition between academics, unions, enterprises and consultants (Flanders Synergy), subsidised by the Flemish government[2] (see Box 4.3).

Box 4.3. **Practice labs for innovative work organisation, Flanders, Belgium**

In Limburg in Flanders, practice labs for innovative work organisation have been set up to work with businesses on work organisation issues. The ACV union has played a key role in establishing and implementing the initiative.

The practice labs have been set up in the construction, logistics, healthcare, social economy, social service/care sector and agricultural sectors. Separate labs were established for each sector but in fact, labs can work with mixed groups, and can support both large and small firms. Eight workshops have taken place in 2013/14, each involving 6-8 companies. A consultant was hired to work on the workshops. They function as a learning network where companies share experience. Managers are encouraged to consider where they can effect change to make sure that workers have more involvement in the way that the firm operates.

Each lab covers seven themes, each of which is a different area where the manager can have an influence. This includes exploring new ways that firms can expand their market base to improve the quality of their organisation (in terms of efficiency, flexibility, quality, innovation, sustainability) while also improving job quality. Supervisors play the role of coach and act as a sounding board for participants who have questions, both within and outside of the lab sessions. Participants receive assignments to translate theory into practice when they return to the workplace. Unions report that the workshops have improved their relationships with local employers.

Source: OECD (2014b, forthcoming), *Employment and Skills Strategies in Flanders, Belgium*.

The practice labs have been set up in the construction, logistics, healthcare, social economy, social service/care sector and agricultural sectors, with each functioning as a learning network where companies share experience. Each lab covers seven themes, each of which is a different area where the manager can have an influence. One theme has been exploring new ways that firms can expand their market base while also improving job quality; another has been exploring ways of involving workers more in decision making. The workshops have proved so useful that one sector, construction, is now running its own labs, independent of public funding. The Foundation for Innovation in Work (*Stichting Innovatie en Arbeid)* in Flanders collects examples of initiatives that combine skills utilisation and work organisation, making these tools publicly available through a website (OECD, 2014b).

The health and social care sectors in Flanders have also been the focus of restructuring to produce better quality jobs in a number of regions, spurred on by local labour and skills shortages. In Limburg, the Provincial Development Agency (POM Limburg) set up a platform to address work organisation issues within the care sector in 2010 called *Platform Zorglandschap Limburg* (Platform Care Limburg), with support from the provincial government. This scheme has focused on improving work organisation within local hospitals and nursing homes to create more flexible work organisation and increase labour productivity. One workstream has focused on combining part-time jobs across organisations to create full-time jobs (OECD, 2014b). This shows the potential for the public sector to improve skills utilisation and job quality in its own workforce, which can be particularly important in rural areas where the public sector is a significant local employer.

In Ontario, Canada, local community colleges and universities appear to be particularly useful partners in helping to raise product market strategies locally (OECD, 2014c). Niagara College, for example, has not only geared their curricula towards meeting local industrial demands in horticulture and wine making (an example being the Winery and Viticulture Technician programme), but has also set up an applied research unit which helps local firms to upgrade their products and business strategies. It collaborates with firms in areas such as product and process applied research, engineering design, technology development, product testing, proof of concept, piloting and problem solving. In 2011, there were 64 applied research projects in progress with more than 50 industry partners (Verma, 2012). The local Brock University has also developed Cairns Family Health and Bioscience Research Centre which includes, alongside scientific and technical research, a business incubator to encourage spin-offs and ensure that products can be taken to market. Elsewhere in Ontario, the SMART manufacturing programme (developed in collaboration with the Canadian Manufacturers and Exporters association) has helped to both transfer technology to SMEs and fund training of workers to support absorption. SMEs seeking funding through the scheme work with a qualified expert to develop a vision and strategy for increasing their competitiveness in global markets.

In Bucheon, in Korea, several so-called "Techno Parks" provide services to enhance the business administration capabilities of SMEs; for example, exploring overseas markets, operating show rooms, hosting design contests, and arranging international certification supports. The Techno Parks run classes for firm managers to enhance their skills for business administration and decision-making.

In some countries, the public sector also subsidises broader management training in a bid to improve work organisation and skills utilisation (OECD, 2014d). Northern Ireland has a significant percentage of people employed in low skilled work, and the importance of better utilising skills is articulated in Northern Ireland's Skills Strategy. The Department for Employment and Learning provides a suite of programmes focused on management and leadership development, all delivered under a "Made not born" banner. They are delivered by accredited training providers (OECD, 2014e).

Conclusion and issues for consideration

In conclusion, to boost productivity and local job creation, policy makers need to consider not just how skills are produced locally, but also how they are harnessed by local employers. This requires thinking more broadly about skills policy and its contribution to local productivity and local economic development. It also requires better understanding the overall balance between skills supply and demand in any given labour market. New OECD data on the supply and demand for skills at the local level presented in the country profiles of this publication can help local policy makers to better diagnose their situation and start thinking about broader skills strategies, particularly when the findings are supplemented by broader local and national data.

Escaping the low skills equilibrium trap may require harnessing the energies of a wide range of partners, from local colleges and universities to economic development agencies, to help local employers to upgrade their management practices and exploit new product market strategies. Incremental innovations put in place by frontline and medium-skilled workers to better respond to customer needs, or spin off new products, may be as important as the latest high-level research and innovation or science and technology.

In order to encourage such activities, it will be important to ensure that performance management frameworks are set up appropriately. Eddington and Toner point out, for example, that it is difficult for training institutions to help companies to resolve skills shortages through better work organisation when their main funding is based on "training places delivered" (2012). The public sector also has a responsibility to ensure that as an employer they utilise and reward people's skills as fully as possible – not only can this increase the quality of local jobs but also reduce the risk of labour market churn and labour shortages. Key recommendations for policy makers are summarised in the section below.

Key recommendations to help regions to escape the low skills equilibrium trap

Ensure that employment and skills policies are adapted to regions where employer skills demands are low

- Focus on addressing *skills shortages* (where an employer cannot recruit due to a lack of skilled people) as opposed to labour shortages (where jobs cannot be filled due to a lack of people willing to take work for a given set of conditions in terms of salary, workload and opportunities for progression). Consider helping firms to tackle their skills shortages through work re-organisation as opposed to new training courses.
- Ensure that people are matched to jobs that are commensurate with their skills and qualifications and avoid "work first" approaches where jobs are of low quality and "labour market churn" is high.

Provide guidance, facilitation and training to enhance skills demand and utilisation

- Incentivise collaboration and networking across firms to help them share knowledge, new technologies and innovation; pool investment for training; and develop shared regional brands. Encourage universities and colleges to carry out applied research of relevance to local industrial sectors.
- Provide technical assistance and training to improve work organisation so that worker skills are more effectively harnessed and technology fully utilised. Ensure performance management frameworks encourage this type of activity.

Leverage the public sector's role as an employer and purchaser

- Serve as a role model – the public sector should itself operate good human resource management practices, including making the best use of people's skills; allowing for flexibility and discretion in carrying out work tasks; and providing opportunities for progression.
- Consider how public procurement practices can support the development of a quality driven supply chain, for example through providing "patient capital" and longer term contracts, and supporting social enterprises in obtaining public contracts.

Notes

1. See for example, the work of the Centre for Skills, Knowledge and Organisational Performance (SKOPE) in the United Kingdom (*http://www.skope.ox.ac.uk/*) and the emphasis given to building employer ambition and improving work organisation by the United Kingdom Commission for Employment and Skills (UKCES).
2. *www.flanderssynergy.be/*.

References

Ashton, D. and J. Sung (2011), "Skills in Focus – Product Market Strategies and Skills Utilisation", The Scottish Funding Council and Skills Development Scotland.

Buchanan, J. et al. (2010), "Skills demand and utilisation, An International Review of Approaches to Measurement and Policy Development", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2010/4, OECD Publishing, Paris, *http://doi.dx.org/10.1787/5km8zddfr2jk-en*.

Coyle, D. (2001), *Paradoxes of Prosperity: Why the New Capitalism Benefits All*. New York, Texere.

Destefanis, S. (2012), "Skills for competitiveness: Country Report for Italy", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2012/4, OECD Publishing, Paris, *http://doi.dx.org/10.1787/5k9bb1vhzmr2-en*.

Eddington, N. and P. Toner (2012), "Skills Formation Strategies in Queensland: A Skills Shortage?", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2012/07, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k9b9mjdj4xr-en*.

Froy, F. (2013), "Global policy developments towards industrial policy and skills: skills for competitiveness and growth", *Oxford Review of Economic Policy*, 29(2), 344-360.

Froy, F., S. Giguère and A. Hofer (eds.) (2009), *Designing Local Skills Strategies*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264066649-en*.

Froy, F. and S. Giguère (2010), "Putting in Place Jobs that Last: A Guide to Rebuilding Quality Employment at Local Level", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2010/13, OECD Publishing, *http://dx.doi.org/10.1787/5km7jf7qtk9p-en*.

Froy, F., S. Giguère and M. Meghnagi (2012), "Skills for Competitiveness: A Synthesis Report", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2012/9, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k98xwskmvr6-en*.

Green, A.E., C. Hasluck, T. Hogarth and C. Reynolds (2003), "East Midlands FRESA Targets Project – Final Report", report for East Midlands Development Agency, Institute for Employment Research, University of Warwick, and Pera.

Haipeter, T. (2011), "Better not cheaper – a German trade union campaign and the problems of union revitalisation", Working paper presented at the 32nd Annual Conference of the International Working Party on Labour Market Segmentation (IWPLMS),"Education and Training, Skills and the Labour Market", Bamberg University (Germany) on 11-13 July 2011.

Jacobs, J. (1969), *The Economy of Cities*, New York, Vintage Books, Random House.

Mason, G. (2011) "Product strategies, skills strategies and skills updating needs in England: New Evidence from the National Employer Skills Survey", 2009, Evidence Report 30, UK Commission for Employment and Skills, Wath-upon-Dearne and London.

OECD (2014a), *Employment and Skills Strategies in Australia, OECD Reviews on Local Job Creation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264207899-en*.

OECD (2014b forthcoming), *Employment and Skills Strategies in Flanders, Belgium OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2014c), *Employment and Skills Strategies in Canada*, OECD Reviews on Local Job Creation, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264209374-en*.

OECD (2014d forthcoming), "Employment and Skills Strategies in Korea", *OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2014e), "Employment and Skills Strategies in Northern Ireland, United Kingdom", *OECD Reviews on Local Job Creation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264208872-en*.

OECD (2013), "Knowledge networks for innovative entrepreneurship and SME innovation", Report to the 63rd Session of the LEED Directing Committee, OECD, Paris.

OECD (2010), *The OECD Innovation Strategy: Getting a Head Start on Tomorrow,* OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264083479-en*.

Sennett, R. (2009), *The Crafstman*, United States, Yale University Press.

Skills Australia (2012), *Better Use of Skills, Better Outcomes: A Research Report on Skills Utilisation in Australia*, Commonwealth of Australia, Canberra, *www.awpa.gov.au/publications/documents/Skills-utilisation-research-report-15-May-2012.pdf*.

Toner, P. (2011), "Workforce Skills and Innovation: An Overview of Major Themes in the Literature", *OECD Science, Technology and Industry Working Papers*, Paris, No. 2011/01, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5kgkdgdkc8tl-en*.

Verma, A. (2012), "Skills for Competitiveness: Country Report for Canada", *OECD Local Economic and Employment Development (LEED) Working Papers*, 2012/03, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k9bb1vz5jhb-en*.

Wood, D.E. (2010), "Building Flexibility and Accountability into Local Employment Services: Country Report for Canada", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2010/17, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k9fmrlbh942-en*.

Chapter 5

Overcoming barriers to employment

In order for all to benefit from new jobs growth, interventions are required to overcome the multi-faceted barriers that some people confront to accessing employment. These barriers can be immediate (such as lack of childcare) and more entrenched (such as drugs and health problems). This chapter highlights cross-sector initiatives that have been put in place to tackle more entrenched issues, focusing on particular populations (such as recent immigrants) and particular places (such as areas of deprivation in cities). Employers are important partners, to make workplaces better adapted to people with particular needs, and to reduce discrimination. At a time of widespread government austerity, new sources of finance and new methods of service delivery may be needed to ensure that resource intensive and long-term support is still available to those that need it.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

In the context of the economic recovery, the need for actions to foster inclusive economic growth is particularly pressing. The economic crisis not only created a new group of long-term unemployed people, it also pushed vulnerable individuals further away from the labour market, generating greater levels of social exclusion. In the recovery, it should not be assumed that improvements in the economic environment will automatically lead to improvements in the labour market outcomes of vulnerable groups. Barriers to labour market integration will remain, and it will continue to be necessary to look at the wider barriers that hinder people in their engagement with the labour market. Given the complexity of these barriers, they are best addressed in a policy environment in which local needs can be identified and addressed in an integrated fashion, with joint working across a number of different policy areas.

Tackling labour market exclusion now will help to secure future economic prosperity and jobs growth

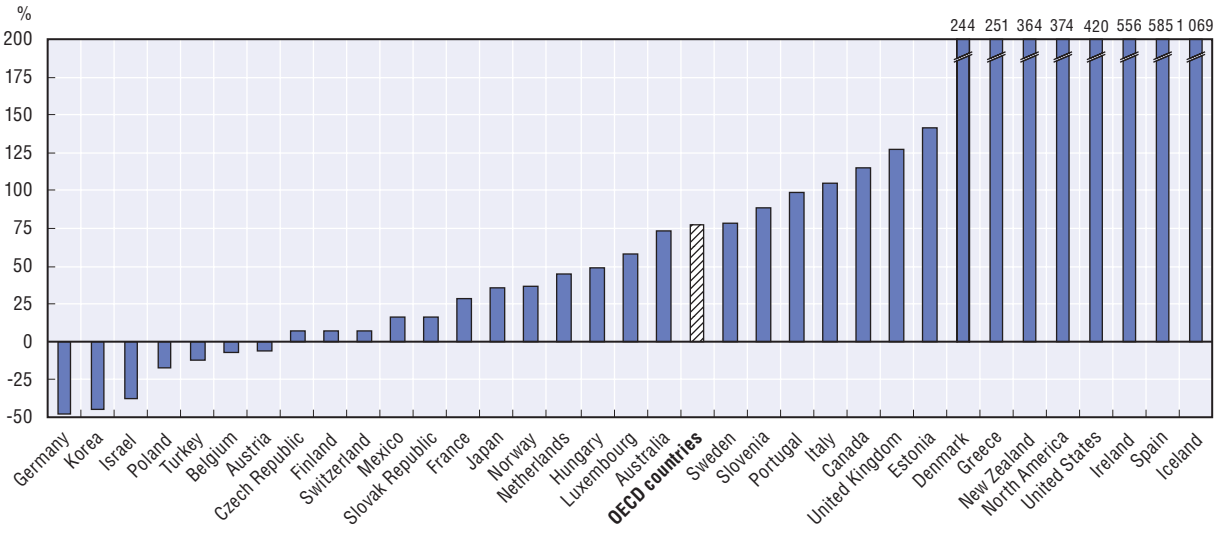
The economic and social costs of long-term exclusion from the labour market cannot be overstated. In 2012 the ILO, OECD, IMF and World Bank published a joint report highlighting the "substantial social costs related to long-term unemployment, as it is associated with a heightened risk of poverty, health problems and school failure for children of the affected individuals" (ILO et al., 2012). Alongside these must be considered the economic costs that prolonged periods of unemployment carry both for individuals and for communities. The underutilisation of a significant part of the labour force can hinder economic growth, particularly where it means that talented people are not able to contribute their ideas and skills to the economy. Research indicates that inequality of opportunity (including access to education and access to jobs) can result in significantly lower growth (OECD, 2014a).

Although a few OECD member countries have actually seen long-term unemployment reduce since the start of the economic crisis, this is not the case for the overwhelming majority of countries (see Figure 5.1). Indeed, in many countries the social and economic consequences of long-term unemployment will be present for many years. Even in those countries where there has been evidence of economic recovery, the labour market has been slow to recover and there have not been significant reductions in long-term unemployment.

Not all parts of society are equally at risk of long-term unemployment. For some groups, such as young people and the low-skilled, the impact of the crisis has been severe, while for other groups, such as women and older workers, low participation rates have been identified as an on-going concern rather than a phenomenon of the crisis (ILO et al., 2012; OECD, 2006).

Indeed, as Figure 5.2 demonstrates, long-term unemployment is an issue that pre-dates the crisis, and remained important during times of economic prosperity. In the years preceding the crisis, inequality was increasing in many OECD labour markets, with a rising gap between the low-paid and high-paid, generating considerable in-work poverty.

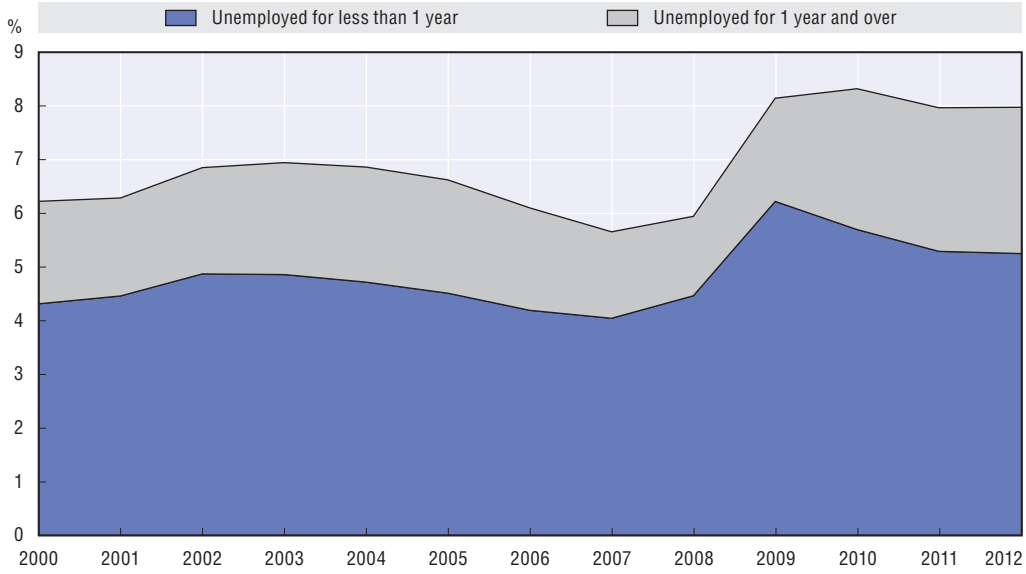
Figure 5.1. **Percentage change in long-term unemployment 2007 to 2012, OECD countries**



Source: OECD (2013a), "Labour Market Statistics: Unemployment by duration ", *OECD Employment and Labour Market Statistics* (database), *http://dx.doi.org/10.1787/data-00 320-en*.

StatLink *http://dx.doi.org/10.1787/888933136326*

Figure 5.2. **Long-term unemployment trends between 2000 and 2012, OECD**



Source: OECD (2013b), "Labour Market Statistics: Unemployment by duration: incidence", *OECD Employment and Labour Market Statistics* (database), *http://dx.doi.org/10.1787/data-00 322-en*.

StatLink *http://dx.doi.org/10.1787/888933136345*

Having a job no longer equates to having economic security in many countries, as contracts become increasingly precarious and opportunities for career progression become more limited for those in low-skilled, low-income work. For example, real disposable incomes of the poorest ten per cent in the United States were lower in 2010 than they were in 1985, and have been falling especially since 2000. Equally worrying is evidence that high levels of income inequality are associated with lower social mobility (OECD, 2014a).

Investing in skills is part of the story

A key barrier to labour market integration for some is a lack of appropriate skills. The OECD Survey of Adult Skills found that those with low literacy skills are twice as likely to be unemployed (OECD, 2013c), while also being more likely to report poor health, poor participation in political activities and low levels of trust of other people. In some countries, such as England/Northern Ireland, Germany, Italy, Poland and the United States, social background has a particular impact on literacy rates – the children of parents with low levels of education have significant lower proficiency than those whose parents have higher levels of education, even after taking other factors into account. Further, the survey found that higher levels of inequality in literacy and numeracy skills are associated with greater inequality in the distribution of income in participating OECD countries.

In countries where educational disadvantage appears to pass from generation to generation, early years education can be an important tool for helping children break out of the cycle of low level of investment in skills – carrying out preventative action at this stage in the lifecycle can be more cost-effective than attempting to effect a "cure" later on, when young people are already disengaged from the educational system (see the focus on youth in the introduction, and the Harlem Children's Zone case). Local outreach can be an important way of ensuring that the most disadvantaged communities benefit from this type of investment.

Low skilled adults are generally less likely to access training later in life compared with those with higher skills, including training provided by employers (OECD 2013c). Local outreach services to help people to access education and training programmes can again be important. Actions to raise people's skills while they are already in employment can also help low skilled workers to break out of "labour market churn", and increase their attachment to the labour market. An initiative from the United Kingdom (called Union Learn) has delivered training in a number of settings, building and enhancing skills for those who are both in, and out of, employment (see Box 5.1 below).

Box 5.1. **Union Learn, UK**

Union Learn is the learning and skills organisation of the Trades Union Congress (TUC) in the United Kingdom, working to help unions deliver learning opportunities for their members. In the city of Wolverhampton, the Communication Workers Union (CWU), which represents, amongst others, postal and mail workers, has established a range of adult learning provision to workers and to the broader community. A learning centre at the local mail depot has provided over 700 courses to staff, supported with funding from the Union Learn Fund, in cooperation with Wolverhampton College. CWU has worked for more than three years with the local Guru Nanak Sikh temple, offering courses at the temple in English, mathematics, IT, health and safety, cookery, and food hygiene.

Source: Dean, A. (2013), "Tackling Long-Term Unemployment Amongst Vulnerable Groups", *http://dx.doi.org/10.1787/5k43jct8n2nv-en*.

On-line courses may be an increasingly useful source of learning for workers, particularly where access is free or subsidised – in Canada the "Advanced Learning Interactive System Online" (ALISON) provides online learning opportunities to anyone seeking to acquire workplace skills. ALISON is able to offer learners free training by offering publishers advertising space on its website. Revenues are also generated by charging nominal fees to trainers and humans resources managers who wish to track the progress

of students. In order to access such courses, however, workers may need public access to computers and to the Internet locally.

But other barriers to the labour market also need to be addressed

However while skills are important, other barriers to the labour market also need to be addressed. Examples of the immediate and long-term barriers that can prevent people from accessing employment are identified below in Table 5.1. While many public employment service offices focus on addressing immediate barriers to work, longer-term "root causes" of exclusion often persist across generations. Immediate barriers can include a lack of affordable childcare, poor transport links and complex welfare arrangements that make reconciling work and benefits difficult. In the longer term, living in areas which are isolated from the labour market, involvement in drugs and crime, and ill health can become more persistent barriers to employment. Whilst some long-term barriers, such as demotivation and low aspirations, are intangible, they are nevertheless critical in perpetuating exclusion. For an individual who may have confronted discrimination, or is living in an area where there is an absence of positive social networks, simply providing training opportunities may not be enough. Indeed, discouragement from participation in the labour market is a significant risk for those who confront long-term unemployment (OECD, 2012).

Table 5.1. **Examples of immediate and long-term barriers to work**

Immediate barriers	Long-term barriers
Low skills/skills not in demand	Low aspirations
Lack of (recent) work experience	Weak financial resources (and its consequences)
Low motivation	Absence of positive social networks
Lack of availability e.g. due to caring responsibilities	Isolation and pockets of deprivation
Lack of employer understanding and/or discrimination	Poor access to services
Lack of access to transport	Health issues
	Involvement in drugs and crime

Source: Adapted from Dean, A. (2013), "Tackling Long-Term Unemployment Amongst Vulnerable Groups", *http://dx.doi.org/10.1787/5k43jct8n2nv-en*.

Some barriers to work can be dealt with on a person to person basis, for example by providing training and mentoring support. For those that have been long-term unemployed, and have accumulated problems over a long period, such person-to-person support will need to be resource intensive. Indeed, a common finding across evaluations of policies to tackle labour market exclusion is that interventions benefit from being small scale and targeted (Martin and Grubb, 2001), with support workers needing to have low caseloads. For those that are furthest from the labour market, it may be necessary to first work indirectly on more intangible barriers, through for example providing psychological support and boosting health – Box 5.2 below highlights two initiatives in Australia and Sweden which have focused on this type of support.

A lack of networks is a particularly common problem affecting those outside the labour market – new jobs often come through knowing the right people or hearing about opportunities through random contacts. Both short- and long-term unemployed people can therefore benefit significantly from intensive job search support (OECD, 2005, 2013d). At the same time, other barriers (such as isolation from job opportunities, support with caring responsibilities and high levels of school dropout) may be best addressed at the level of communities, and local labour markets as a whole. In order to deliver both person-person and community level strategies, local agencies require flexibility to work together and build

coalitions of action. Often, this means developing strategies for the long term, with an appropriately long-term view in terms of performance outcomes and returns to investment.

Box 5.2. **A focus on health in Sweden and Australia**

Addressing mental health amongst young people in Skellefteå, Sweden: In Sweden 24% of young people dropped out from high school or leave without completing graduation requirements in 2010. The municipality of Skellefteå has been tackling the problem through focusing on the issue of mental health, with support of the national scheme Plug In (organised by SALAR – the Swedish Association of Local Authorities). The budget for 2012-2014 was EUR 140 300 thousand from the European Social Fund (ESF) and EUR 168 000 thousand public financing. Psychological guidance is provided on an individual basis, and as part of group exercises. In the past two years, 45 pupils have been taken through the scheme, with 42 resuming their studies. Partners in the activity include the Leisure Office in Skellefteå and an NGO called Urkraft.

Local health assessments and health related programmes in Australia: In Australia, an employment programme provider called CVGT Australia partners with local health services to provide a voluntary comprehensive health assessment for all those considered furthest from the labour market. Participants in the pilot are also given the opportunity to attend two programmes: the Bounce programme, which works on improving motivation and self-development, and the Community Kitchen, which provides participants with nutritional advice, practical advice on budgeting for food and group meal preparation.

Source: OECD (2014b), *Employment and Skills Strategies in Australia, http://dx.doi.org/10.1787/9 789 264 207 899-en*; and OECD (2014d, forthcoming), "Tackling disadvantage at a time of limited resources".

Targeting particular groups – and places – is important

Evaluation evidence has shown that it is important to target more intensive and long-term interventions selectively, as such interventions can come with the risk of 'lock in', actually reducing the likelihood of someone getting a job in the short term (Martin and Grubb, 2001). However deciding how to select particular groups for such services can be problematic. While targeting can be effective in deploying resources where they are needed most, there are also potential downsides. In particular, such approaches can reinforce negative attitudes towards certain groups (See Table 5.2 below).

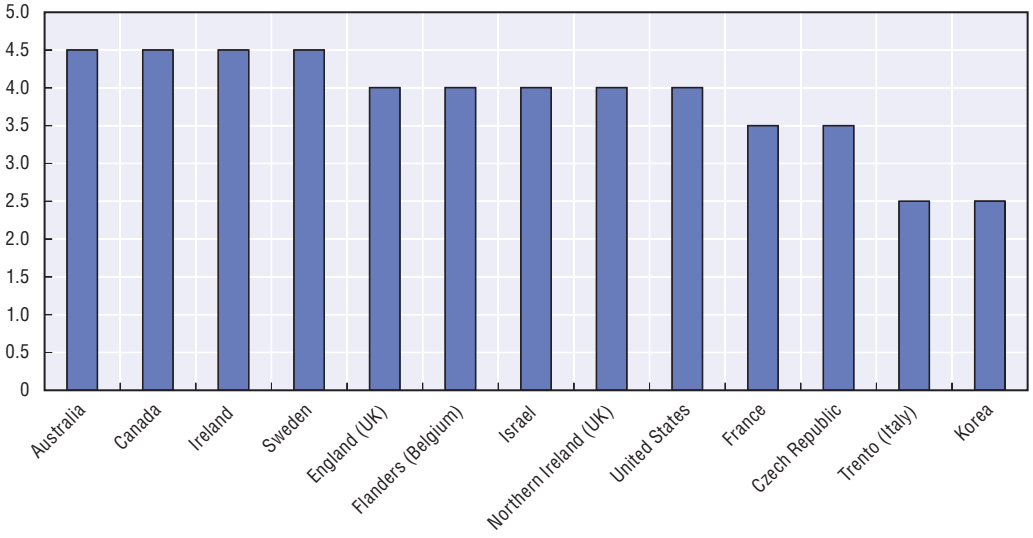
Table 5.2. **Targeting particular groups: Pros and cons**

To target	Not to target
Targeting focuses in on the specific characteristics and needs of a certain group within the wider population, ensuring a finer grained, more individualised, culturally -sensitive approach.	Targeting can result in the association of a problem that is widespread (such as poverty, poor living conditions, lack of work opportunities) with a particular group, thereby stigmatising that group.
Targeting can make up for concurrent discrimination taking place elsewhere in society or for past discrimination.	Targeting runs the rise of inefficiently screening in those who are not in need of additional support, while screening out non-targeted people that might need help.
Targeted programmes can reach those most in need and not on the radar of mainstream organisations. Existing services offered by mainstream employment services are underutilised by certain groups – targeted programmes may encourage greater uptake and improved outcomes.	Targeting one group can lead to competition between communities and potentially aggravate unrest if minority groups are perceived by the wider community to be treated preferentially. Those recruited through the process can be resented by others, particularly in the workplace. It can undermine the idea that people are recruited on their own merit.

Source: Froy, F. and L. Pyne (2011), "Ensuring Labour Market Success for Ethnic Minority and Immigrant Youth", *http://dx.doi.org/10.1787/5kg8g2l0547b-en*.

Within the jurisdictions participating in the 13 *OECD Reviews on Local Job Creation*, those that were most likely to deliver targeted interventions within education and employment policies were Australia, Canada, Ireland and Sweden (see Figure 5.3). Australia, for example, has developed a detailed classification system for job seekers, which helps to identify how far people are away from the labour market, in order to better prioritise investment (see Box 5.3).

Figure 5.3. **The degree to which employment and training programmes are targeted to "at-risk groups", 2013-2014**



Note: This indicator is a composite index developed by the OECD based on a qualitative assessment of the extent to which employment policies and programmes are targeted to at-risk groups; the degree to which outcomes for these groups are evaluated; and whether VET/adult training institutions participate in out-reach activities, where 1 corresponds to sub-optimal actions and 5 to a comprehensive set of policies and practices. The same methodology has been applied to all countries represented in the chart above.

Source: Adapted from the *OECD Reviews on Local Job Creation*, *www.oecd-ilibrary.org/employment/oecd-reviews-on-local-job-creation_23112336*.

StatLink http://dx.doi.org/10.1787/888933136364

Box 5.3. **Targeting different levels of disadvantage within an outsourced system**

In Australia, the Job Services Australia (JSA) model was introduced in 2009 to shift the focus of providers' efforts to the most disadvantaged groups. Most JSA services are tailored to the individual needs of the jobseeker. Unemployed people contact Centrelink (before they go to an employment service provider), which formerly had agency status but is now part of the Department of Human Services. The Department of Human Services assesses a jobseeker's eligibility for payment, administers the Job Seeker Classification Instrument (JSCI) to determine a jobseekers relative level of disadvantage (and "stream" of support) and if necessary, refers jobseekers to an Employment Services Assessment (ESA). Jobseekers are offered a choice of JSA provider and are booked into an initial interview. The provider then delivers individualised assistance to jobseekers according to their assessed stream. More resources are allocated to the higher streams with the most disadvantaged jobseekers, particularly those with more serious and complex barriers to employment.

Table 5.3. **Classification of jobseekers by degree of disadvantage (stream)**

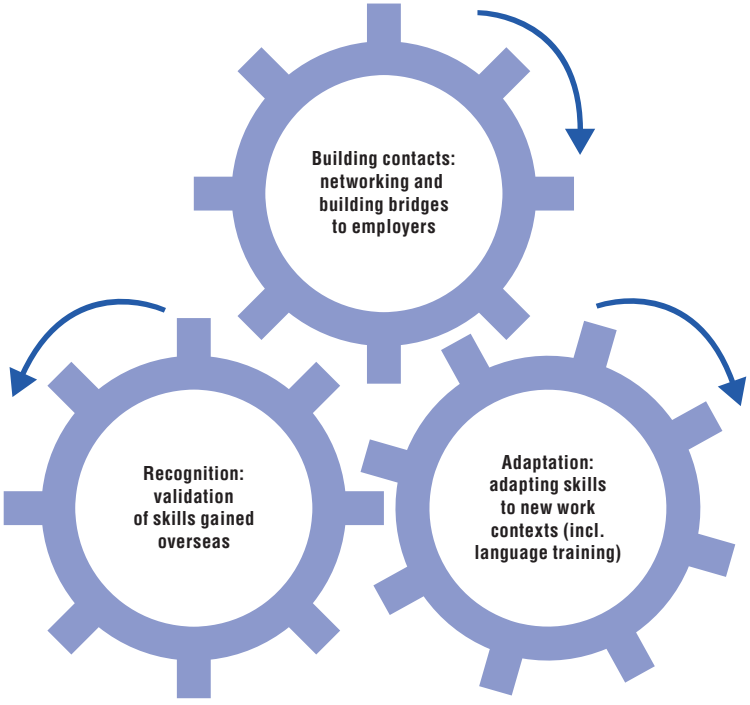
Stream 1 (limited)	Stream 1	Stream 2	Stream 3	Stream 4
Limited eligibility (not on activity tested income support)	Job ready	Moderate barriers to employment	Significant barriers to employment	Complex and severe barriers to employment

Box 5.3. **Targeting different levels of disadvantage within an outsourced system** *(cont.)*

The form that the assistance takes is negotiated between the jobseeker and provider and formalised in an Employment Pathway Plan (EPP), which sets out the activities the jobseeker will undertake to find or make progress towards finding employment. This plan could include training, work experience, job interviews and other forms of vocational and non-vocational assistance. The EPP is supported by the Employment Pathway Fund, a flexible pool of funds that JSA providers can draw on to purchase services and goods such as travel assistance, work clothing and safety equipment, wage subsidies, work tools, tickets and licenses, interpreters, and training to help jobseekers find employment. While they remain unemployed, jobseekers continue to meet with their providers to review their progress in finding employment.

Source: OECD (2014b), *Employment and Skills Strategies in Australia*, *http://dx.doi.org/10.1787/9 789 264 207 899-en*.

Figure 5.4. **Three stages of support for local labour market integration of recent immigrants**



Source: Adapted from Froy, F (2010), Forward in "Managing diversity, integration and inclusion in OPENcities".

One group that can benefit from targeted approaches is new immigrants to the labour market. In some OECD member countries, immigrants have experienced falls in employment as a result of the economic crisis. The employment rate of migrants between 2008 and 2012 decreased significantly more than that of non-immigrants, with the biggest drop in migrant employment found, unsurprisingly, in some of the countries most severely affected overall. In Greece, migrants experienced a 25% decrease in their employment rate between 2008 and 2012, compared to 15% for non-migrants. In Spain the decrease was 24% compared to 13% and in Ireland, 19% compared to 13% (OECD, 2013e).

The more immediate barriers which immigrants experience to employment can include a lack of language skills and difficulty in having their skills recognised and adapted. Local actions to tackle such problems often focus on one of three main types of activity – the recognition of skills, supporting adaptation and encouraging networking (see Figure 5.4).

Immigrants often require services to validate the qualifications that they have gained overseas, and to identify more informal skills relevant to the local labour market. It is also important that flexible local education systems allow newcomers to quickly build on and adapt their skills without going back into college for long periods. As an example, Mohawk College in Ontario, Canada, provides a prior learning assessment service and support with accessing local professional accreditation, whilst also providing occupationally specific language courses (see Box 5.4 below). In order to fully bridge the gap between employers and immigrants and increase trust, establishing networking, mentoring and work experience placements can be invaluable. The TRIEC Partnership in Toronto has been running a successful mentoring and work experience schemes since 2004.

Box 5.4. **Integration of immigrants into the labour market in Ontario, Canada**

In Hamilton, Ontario, immigration contributes an increasingly important component of the labour force. The city has established the Hamilton Immigration Partnership Council (HIPC), which brings together leaders from many sectors of the Hamilton community, including immigrant service providers, businesses, unions, community-based organisations, health, local government, media, and educational institutions. The strategy focuses on improving settlement services such as housing, language training, education and employment support. It also takes steps to eliminate exclusionary practices in organisational policies and programmes. Workforce Planning Hamilton produced a guide entitled "Your new life in Hamilton: building a successful working life" that speaks about future jobs in Hamilton; about where to get foreign credentials evaluated; and gives tips and advice from local employment counsellors.

Mohawk College in Hamilton has a prior learning assessment and recognition programme, which recognises other experience in addition to the credential recognition process. In addition it offers English as a Second Language programmes, enhanced workplace language and workplace communications programmes for internationally trained professionals. Courses cover language of work, culture and modes of communication as well as specialised vocabulary.

Elsewhere in Ontario, following a city summit in Toronto in 2003, the Toronto Regional Immigrant Employment Council was set up to bring NGOs, employers, unions and policy makers around the same table to better harness the skills brought by international migrants to the city. Employers in Toronto have been major players in TRIEC, with the chair being the President of Royal Bank of Canada. TRIEC also receives public sector funding and support from a private foundation, the Maytree Foundation. The partnership has established large scale mentoring and internship programmes, with 7 000 mentoring matches being made between recent immigrants and local employers since 2004.

Source: OECD (2014a forthcoming), *All on Board: Making Inclusive Growth Happen*; and OECD (2014c), *Employment and Skills Strategies in Canada*, *http://dx.doi.org/10.1787/9 789 264 209 374-en*.

Despite these examples of good practice, however, across the 13 *OECD Reviews on Local Job Creation*, only 50% of local areas offered specific courses to help immigrants convert their skills to the labour market. In many cases, smaller local areas have a harder time introducing these types of services because of limited local demand – immigrants are typically attracted to larger metropolitan cities. However as international mobility continues to increase, many local areas will need to become better at receiving and integrating newcomers.

Actions to improve employment outcomes for more established ethnic minorities – and for aboriginal communities – may need to focus on broader problems of deprivation and low aspirations, particularly where such minorities have been forced into housing

Box 5.5. **Pathways to Education – a project in the Regent Park community in Ontario, Canada**

The community-based Pathways to Education programme in Ontario, Canada, emerged as a result of a lengthy strategic community planning process conducted in the neighbourhood of Regents Park in the late 1990s. This community was facing complicated challenges, including low graduation and post-secondary participation rates of the community's youth, violence, drug problems, high teenage pregnancy rates, and high rates of unemployment.

The decision was taken to focus on improving participation rates in education in order to help provide a route out of poverty, with the aim to increase the proportion of students graduating from high school and to increase the proportion of students applying to, accepted by, and enrolling in post-secondary institutions. Pathways actively recruits all eligible students from within a defined geographical catchment area and devotes a great deal of time and energy to communicating with prospective students and their parents, often in their mother tongue language. The programme consists of the following support:

Tutoring in core subjects (English, math, science, history, geography and French) is provided four nights a week in a safe, social learning environment, by volunteers who are supervised by Pathways staff. The volunteers come from a range of professional, educational and ethno-cultural backgrounds and many are university students. Attendance at tutoring is obligatory twice a week if a student's fall behind in their marks. In general, there is one tutor to five students, but one-on-one tutoring is also provided as needed.

Social Supports: Group mentoring is provided for Grade 9 and 10 students (14-15 year olds) while specialist and career mentoring is provided for Grade 11 and 12 students (16-17 year olds). A mentoring coordinator recruits and trains a group of volunteer mentors, who are typically university students, professionals or community residents. Structured group mentoring meetings are held every two weeks and students can choose from a variety of creative or sporting activities, depending on their interests. Older students can explore academic, social and career opportunities through extra-curricular activities.

Advocacy: Each student is assigned a Student-Parent Support Worker (SPSW), who monitors school attendance, academic progress and programme participation while helping the student build stable relationships with parents, teachers and other students.

Financial Support: Depending upon student need, different financial supports are provided to help ease the burden of attending secondary school, including bus tickets, school lunch vouchers, and/or school uniform subsidies. If students fail to attend classes, they lose their eligibility for bus tickets and lunch vouchers. A bursary of CAD 1 000 for each year of Pathways participation to a maximum of CAD 4 000 is held in trust until secondary school graduation. The bursary is paid directly to the accredited public post-secondary programme upon confirmation of the student's enrolment status.

Results: Pathways has expanded from the Regents Park site to eight other sites over the last four years, and now serves 3 522 students in Ontario alone (as of October 312 011). As part of its funding strategy, Pathways aims to raise one private dollar for every two dollars it secured from the public purse (1:2, private to public). More than 1 000 students (or 67%) have graduated from the Ontario sites, 73% of whom have gone on to post-secondary education. Pathways has reduced the number of Grade 9 students deemed "at risk" by almost 47%. At Regent Park itself, Pathways has reduced the dropout rate to less than 11% for all cohorts from the original community rate of 56%.

Source: Young (2014, forthcoming), "Pathways to Education Canada: A community-based approach to improving education, employment outcomes & community resilience".

that is isolated from labour market opportunities (see Froy and Pyne, 2011). Indeed, in general, while delivering support at the level of individuals can be beneficial, actions at the neighbourhood level can also be important, particularly when they help people to build networks outside of their immediate community. People who are living in problematic areas can experience territorial stigmatisation, poor physical accessibility, limited access to credit, ineffective public services and environmental degradation. As a consequence, residents of these areas can have fewer opportunities for higher education, better jobs or upward social mobility. Place-based approaches can focus on the physical fabric (for example by increasing accessibility to jobs and services) or by focusing on local services and soft factors such as education. The Pathways to Education project in Regent Park, Ontario is one example of the latter approach. The "universal" approach covering all residents of the neighbourhood ensures that the participants are not stigmatised or singled out.

Employers are important partners in building more inclusive growth

Actions to tackle disadvantage cannot only focus on the supply side – employers also need to be engaged in making the labour market itself more adaptive to the needs of all potential employees. Actions are needed to ensure that employers are not discriminating against certain groups in the labour market, and that they receive adequate support when taking on people who may take longer to settle into their job role. For example, in Flanders, Belgium, all employers are invited to draw up diversity plans to ensure that they are employing a wide range of people from local communities, while financial support is made available in order to upgrade human resource management practices and provide in-work training to those that need it.

Box 5.6. **Flemish diversity plans**

The Flemish Government and its social partners have established the instrument of diversity plans to make the bridge between diversity management in companies and the societal goal of proportional participation in the labour market. A total of 43 consultants (the "diversity managers") are regionally embedded to support companies, not-for-profit organisations and local authorities to help establish the plans. Since 2008, the Flemish Government annually provides a budget of about EUR 3 million for a total of some 750 new diversity plans. There are four different types of diversity plan so organisations can pick the most appropriate type that suits their needs. So-called "cluster plans" for instance make it possible for several small companies to participate in a common plan. Through a "step-up plan" an organisation becomes acquainted with diversity management, and via a "growth plan" it can take all the necessary actions to mainstream lessons learnt into regular HR-management. Depending on the type, an organisation can receive a subsidy to cover up to 2/3 of the actual cost of the plan, in the case of a "classical" diversity plan up to a maximum of EUR 10 000 (EUR 3 000 for a company participating in a "cluster plan", EUR 2 500 for a "step-up" or "growth" plan). This is in addition to support and counselling by the consultants.

Every plan is tailor made, can run from 6 to 24 months depending on the type, and can comprise a broad range of actions including:

- adapted training programmes for members of the target groups (and linked to personal development plans),
- language courses on the shop floor;
- mentoring for new staff;
- broadening recruitment channels to better reach the unemployed from the target groups;

Box 5.6. **Flemish diversity plans** *(cont.)*

- screening selection procedures for "colour-blindness"'; and
- training sessions on intercultural communication and intercultural competences.

The organisations receiving funding must formulate self-defined objectives (in absolute numbers) for hiring, training, internal mobility or retention of members of at least one of the three target groups (immigrants, workers of 50 and above, and people with disabilities). In organisations with 50 employees or more, a "diversity working group" has to be set up, composed of representatives from all layers of the organisation's employees, to strengthen the involvement of all of the personnel and of the trade unions.

Thus far, the self-imposed objectives are almost always met, and in a majority of cases the results are even better than the projected objectives. The great majority of the results concern second generation children of immigrants and "newcomers". Although the crisis had a significant impact in 2009, 53% (more than 1 500 persons) of the (self-defined) objectives for hiring in the diversity plans related to the immigrant target group; 29% related to workers of 50 and above and 18% related to people with disabilities.

Source: Froy, F. and L. Pyne (2011), "Ensuring Labour Market Success for Ethnic Minority and Immigrant Youth", *http://dx.doi.org/10.1787/5kg8g2l0547b-en*. For more information, see *www.werk.be*.

Working with employers is often a central plank of schemes to help ex-offenders, and those that have served a prison sentence back into work. The *Krami* project in Sweden (see Box 5.7 below) involves strong collaboration with local employers, to ensure that skills learnt in prison meet labour market needs, to help provide work experience, to sensitise employers to the possibilities and risks associated with taking on ex-prisoners and to provide continued support for both employers and employees after hiring.

Box 5.7. **Projects to support ex-prisoners: The case of *Krami*, Stockholm**

Krami involves a partnership between the Swedish Prison and Probation Service, municipalities and the Public Employment Service. It began in 1980 in Malmö, a municipality in the southern part of Sweden. It was found that there was a need for more strategic measures for working with unemployed young ex-offenders, as existing measures were ineffective and costly. Today there are *Krami* in 24 different localities. The PES, the Prison and Probation authority and the social services in the local municipality all contribute at least one staff member to each *Krami* centre. There is a national agreement between the PES and the Swedish Prison and Probation Service concerning the structure and the content of the work.

The purpose of *Krami* is to facilitate entry into the labour market by unemployed people who have had contact with the Prison and Probation Authority. The participants are 18 - 40 in age. The *Krami* provide counselling and guidance in different areas during the first two to four weeks of participation. This is followed by a period of job experience at an external work place accompanied by social activities. The goal is for participants to find employment after two to five months of job experience. After employment begins, the support continues to the participant and the employer in order to maintain employment. Approximately 50% of participants get jobs or start training after completing the programme. Those who drop out often fall back into drugs or criminality, but many of them actually come back to *Krami* and achieve their goal on the second, third or fourth attempt. Two evaluations have been completed (2002 and 2013), both of which show similar results. The 2013 evaluation shows a 43% increase in the probability of receiving an ordinary salary for those taking part in *Krami* activities. The probability of relapsing into crime is 32% less.

Source: OECD (2014d, forthcoming), "Tackling disadvantage at a time of limited resources".

Innovation is needed in financing resource-intensive activities, in performance management and in new methods of service delivery

In working with people who are at a great distance from the labour market, it can be difficult to measure impacts in the short term. In Sweden, the idea of "social economic reporting" has been trialled in some municipalities (such as Sodertalje) to invest now in order to make savings later (Ramsden, 2013). Local authorities are in a particularly good position to see the broader longer term benefits of resource-intensive investments as they oversee a large number of different policy areas – helping a young person back into education now may lead to clear savings in the welfare budget in the future, for example. Where the costs and benefits of different interventions are split between a number of different government agencies and actors, such financial and reporting strategies can be more difficult to achieve.

In times of austerity, governments are also looking for other mechanisms to maximise the resources available for tackling disadvantage, including using vehicles such as social impact bonds (see Box 5.8 below). Employment and Social Development Canada (ESDC), for example, recently commissioned research on whether social finance (i.e. attempts to mobilise private capital in order to achieve social goals) could help to improve the outcomes of employment and training programmes (see SRDC, 2013). They broadly found that while social finance approaches may open up new opportunities they should not be seen as a substitute for government funding but rather as a complement.

Box 5.8. **Innovative forms of financing to tackle disadvantage: Social impact bonds**

The social impact bond uses a "payment by results" model to reward private bondholders who invest in the best solutions in order to obtain the maximum return. They create a virtuous financial circuit in which rewards are directly linked to performance. An example of where they have been used effectively is in reducing reoffending rates in the UK. In the United Kingdom, over 60% of short-term prisoners serving sentences of less than 12 months reoffend within a year of being released. The Peterborough Social Impact Bond attempts to change the funding logic by rewarding investors in solutions through a private sector bond issue. The bond holders will lose their investment if the rate of reoffending (the recidivism rate) does not decrease by more than 7.5%. If it does decrease by more than this base figure they get an increased return for every percent of improvement up to a maximum financial return of 13%. Using this model, the St. Giles Trust, the Ormiston Children and Families Trust, SOVA and YMCA provide intensive support to 3 000 short-term prisoners over the 6-year period of the bond. The key to their support is that they provide a through the door service both inside prison and after release, to help prisoners and ex-prisoners resettle into the community. Social impact bonds bring private sector capital into the funding circuit at the start of the process. Public money is only committed when the bond is redeemed and if the methodology has been successful. Public services can be delivered now and paid for later. However bond issues are complex to set up, have high start-up costs and will probably only work in situations where very clear and robust metrics can be established.

Source: Ramsden, P. (2013), *Innovative Financing and Delivery Mechanisms for Getting the Unemployed into Work, www.oecd.org/cfe/leed/New%20financial%20approaches%20FINAL.pdf.*

The social economy (also called the third sector or not-for-profit sector and including foundations, associations, mutuals and social enterprises) can make an important contribution towards tackling social exclusion and supporting people into employment

(see Chapter 8). Many social economy organisations provide outreach, support, training and work integration activities to individuals who may have become disconnected from mainstream actors. A social enterprise called VZW IN-Z from Belgium, for example has created work integration activities in the care sector, ensuring job security for workers at the same time as significant flexibility in terms of hours worked.

Box 5.9. **VZW IN-Z: A work integration social enterprise, Belgium**

VZW IN-Z has helped over 1 200 employees into permanent jobs whilst addressing the well-being at home of elderly and other people, by seeking to flexibly meet their individual needs. Target groups include women, low-skilled people, long-term jobseekers, over-fifties, people with disabilities, immigrants with poor language skills, people from disadvantaged neighbourhoods or living in poverty, and single parents with children. Extensive guidance, support and coaching are provided on a daily basis to the helpers by a set of co-ordinators, each of whom has 15 to 30 helpers to take care of.

Every helper has their own time planning and the hours are flexible, with people working between 33-100% of the week. The flexibility incorporated in the time management system ensures that contracts can be permanent. For many, this is the first time they have had an open-ended contract. Through a collective labour agreement at company level, all working hours are contained in a system of 'annualisation' of working hours – averaging weekly working time on an annual basis. The organisation has to be an agile administrator when faced with such flexible working requests.

Source: Dean, A. (2013), "Tackling Long-Term Unemployment Amongst Vulnerable Groups", *http://dx.doi.org/10.1787/5k43jct8n2nv-en*.

Of course, the public sector is itself often an important local employer that can make a difference by offering good quality and secure jobs to people that have barriers to the labour market. It can also promote the inclusion of disadvantaged groups as part of public procurement policies – for example the city of Nantes in north-west France has used social clauses in a wide range of public works contracts over the last 20 years to create a whole ecosystem of social insertion provision for the long-term unemployed (see Ramsden, 2013).

Interventions need to be built on a better understanding of "what works"

The ability for local actors and partnerships to identify and respond to the barriers that some people face to getting into employment is shaped by the availability of adequate, timely local level data. Local data can also stimulate effective local partnerships, acting as a catalyst to action (Froy and Giguère, 2010).

However, the *OECD Reviews on Local Job Creation* have highlighted many countries are relatively weak in evaluation and monitoring. Too often monitoring and evaluation appears to be overlooked and underfunded, partly due to the difficulties of conducting robust evaluations at the local level, and establishing realistic control groups and counterfactuals. National governments can help here by conducting their own evaluations at a larger scale, piloting projects in some areas and then helping to disseminate what works. Denmark, Sweden, the United States and the United Kingdom have all established national "knowledge centres" in recent years for this purpose (see Box 5.10 for an example in the United Kingdom).

Box 5.10. **The What Works Centre evaluation of employment and training: Main findings**

A "What Works Centre" has been established by the government of the United Kingdom to promote evidence-based policy making and evaluation at the local level. Upon its inception in 2013, it has conducted a review of over 1 000 policy evaluations, evidence reviews and meta-analyses from the UK and other OECD countries. This exercise has produced the following findings:

- Many evaluations are not sufficiently robust – only 71 of the above evaluations met the required standards.
- Training has a positive impact on participant's employment and earnings in more than half of the evaluations reviewed.
- In-firm/on-the-job training programmes outperform classroom based training programmes. Employer co-design and activities that closely mirror actual jobs appear to be key design elements.
- The state of the economy is not a major factor in the performance of training programmes. Programme design features appear to be more important in influencing the success of the programmes examined than macroeconomic factors.

Source: What Works Centre for Local Economic Growth (2014), "Evidence Review: Employment Training", *www.whatworksgrowth.org*.

Conclusion and issues for consideration

In conclusion, in order to build inclusive growth, policy makers need to focus on tackling both immediate and more long-term barriers to the labour market. Helping people into work may not be enough, as people go in and out of poor quality temporary contracts and unemployment. Longer-term support for those re-entering the labour market and help for low-qualified workers to progress in employment may be necessary. In order to help people into more sustainable employment both person-person and community level strategies are important. However in both cases, local agencies require flexibility to work together and build coalitions of action as the barriers that people experience to employment can be complex and multifaceted. Recognising and acknowledging that local actors may have a more nuanced understanding of local needs, and the tools needed to address them, is an important step towards granting the required levels of flexibility. To tackle exclusion which has built up over a number of years, resource intensive interventions are needed, with some localities experimenting with new ways of funding such interventions in times of austerity. Quick fixes are rare, and it is important to develop strategies for the long term, with an corresponding long-term view in terms of performance outcomes and returns to investment.

Key Recommendations for overcoming barriers to employment

Interventions need to be built on a better understanding of "what works"

- Prioritise investment in early year's education and family support, as this has been shown to produce better educational outcomes later in the lifecycle and prevent problems of social exclusion later in life.

- Carry out more rigorous monitoring and evaluating of active labour market policies to help the most disadvantaged, and disseminate evaluation findings more effectively to local agencies.
- Ensure intensive, longer-term and targeted support is available to the most disadvantaged, including a focus on more indirect barriers to employment such as ill-health and a lack of social networks.

Address complex barriers to the labour market through a joined-up approach

- Award local agencies sufficient flexibility to work together and build coalitions of action to tackle complex barriers to the labour market, while ensuring that the benefits to other policy areas from positive outcomes are factored in to cost-benefit analysis for interventions.
- Invest in place-based approaches which build bridges and help support accessibility to local jobs and economic opportunities
- Work with employers to ensure that the labour market itself more adaptive to the needs of certain employees.

Innovate in terms of financing and service delivery

- Explore new mechanisms for service delivery and financing, such as supporting social enterprises in public procurement and experimenting with social finance tools such as social impact bonds.

References

Dean, A. (2013), "Tackling Long-Term Unemployment Amongst Vulnerable Groups", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2013/11, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k43jct8n2nv-en*.

Froy, F (2010), Forward in "Managing diversity, integration and inclusion in OPENcities", British Council, Madrid.

Froy, F. and L. Pyne (2011), "Ensuring Labour Market Success for Ethnic Minority and Immigrant Youth", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2011/09, OECD Publishing, *http://dx.doi.org/10.1787/5kg8g2l0547b-en*.

Froy, F. and S. Giguère (2010), *Breaking Out of Policy Silos*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx.doi.org/10.1787/9 789 264 094 987-en*.

ILO et al. (2012), *Boosting Jobs and Living Standards in G20 Countries*, OECD Economics Department, ILO (Geneva), OECD (Paris), IMF (Washington, DC), the World Bank (Washington, DC).

Martin, John P. & Grubb, David (2001), "What works and for whom: A review of OECD countries' experiences with active labour market policies", *Swedish Economic Policy Review*, Vol. 8.20 012, p. 9-60, Stockholm.

OECD (2014a, forthcoming), *All on Board: Making Inclusive Growth Happen*, OECD Publishing, Paris.

OECD (2014b), *Employment and Skills Strategies in Australia*, OECD Reviews on Local Job Creation, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9 789 264 207 899-en*.

OECD (2014c), *Employment and Skills Strategies in Canada*, OECD Reviews on Local Job Creation, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9 789 264 209 374-en*.

OECD (2014d, forthcoming), "Tackling disadvantage at a time of limited resources", OECD Local Economic and Employment Development (LEED) Policy Paper, OECD Publishing, Paris.

OECD (2013a), "Labour Market Statistics: Unemployment by duration", *OECD Employment and Labour Market Statistics* (database), *http://dx.doi.org/10.1787/data-00 320-en*.

OECD (2013b), "Labour Market Statistics: Unemployment by duration: Incidence", *OECD Employment and Labour Market Statistics* (database), *http://dx.doi.org/10.1787/data-00 322-en*.

OECD (2013c), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, *http://dx.doi.org/10.1787/9 789 264 204 256-en*.

OECD (2013d), "Activating job seekers: lessons from seven OECD countries", *OECD Employment Outlook 2013*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/empl_outlook-2013-en*.

OECD (2013e) *International Migration Outlook 2013,* OECD Publishing, Paris, *10.1787/migr_outlook-2013-en*.

OECD (2012). *OECD Employment Outlook 2012*, OECD Publishing, Paris, *10.1787/empl_outlook-2012-en*.

OECD (2006), *OECD Employment Outlook 2006: Boosting Jobs and Incomes*, OECD Publishing, Paris, *10.1787/empl_outlook-2006-en*.

OECD (2005), *OECD Employment Outlook 2005*, OECD Publishing, Paris, *10.1787/empl_outlook-2005-en*.

OECD LEED Forum on Partnerships and Local Governance (2013), *Innovative Financing and Delivery Mechanisms for Getting the Unemployed into Work,* Handbook 0.7, *www.oecd.org/cfe/leed/New%20 financial%20approaches%20FINAL.pdf*.

Ramsden, P. (2013), *Innovative Financing and Delivery Mechanisms for Getting the Unemployed into Work,* OECD LEED Forum on Partnerships and Local Governance Handbook 0.7, *www.oecd.org/cfe/leed/ New%20financial%20approaches%20FINAL.pdf*.

SRDC (2013), "Can social finance improve the outcomes of employment and training programs?", prepared by Karen Myers and Natalie Conte, Social Research and Demonstration Corporation, *www.srdc.org/media/ 199 684/social-finance-paper.pdf*.

What Works Centre for Local Economic Growth (2014). "Evidence Review: Employment Training", London School of Economics, London, *www.whatworksgrowth.org*.

Young (2014, forthcoming), "Pathways to Education Canada: A community-based approach to improving education, employment outcomes & community resilience", OECD Local Economic and Employment Development (LEED) Policy Paper, OECD Publishing, Paris.

PART II

Building jobs through entrepreneurship and enterprise creation

Chapter 6

Building entrepreneurship skills

This chapter presents the importance of entrepreneurship skills in increasing the quality of business start-ups, which improves their chances of success and likelihood of contributing to job creation and economic growth. In particular, it focuses on the role that public policy can play in facilitating the acquisition of these skills through formal education and active labour market policies. It also highlights areas where local governments can contribute to this agenda through local entrepreneurship training programmes, coaching and mentoring programmes and business development support services. The chapter stresses the importance of delivering support through partnerships, especially when the target clients are groups that are under-represented or disadvantaged in entrepreneurship, such as women, youth, seniors, ethnic minority and migrant groups, people with disabilities and the unemployed.

Entrepreneurship skills can contribute to economic growth and lead to job creation

Entrepreneurship has a crucial role to play in modern societies due to its contribution to the generation of new ideas, innovation, job creation and economic growth. The recent economic crisis and slow recovery have presented new challenges for policy makers across OECD countries as traditional fiscal and monetary policy levers have been less effective than they have in the past. Entrepreneurship can play an important role in achieving sustainable and inclusive growth for economies as the current complex and uncertain economic environment calls for creative individuals capable of solving new problems through independent action (Volkmann et al., 2009). It has potential for creating jobs and reducing unemployment, not just in the population in general, but also among people who are vulnerable to social exclusion.

To successfully start up and operate a business, entrepreneurs need to use a wide range of skills. This skill-set includes skills that are required from employees in any workplace, but also those skills needed to respond to the additional demands of running a business. While some of these skills may not be absolutely necessary for successfully operating a business, possessing them is likely to increase the quality of an entrepreneur's business and the chances that it will be sustainable and grow. It is therefore important to identify the skills needed by entrepreneurs and consider how they may be acquired and strengthened, and how this can be supported by public policy.

A good starting point is the workplace skills that are generally required of any worker. Workplace skills combine generic skills and job-specific skills. Generic workplace skills are those skills used in the work environment that are transferable to different jobs and industries, as well as to other aspects of life. These skills include, for example, communication, team-work, planning and organising skills. Generic workplace skills are becoming increasingly important in the workplace as employment shifts away from jobs that require routine and manual tasks towards jobs that require deeper thinking (i.e. problem solving) and complex communication (i.e. interacting with others to acquire or explain information, or persuade others of its implications for action) (OECD, 2012; Statistics Canada-OECD, 2005). In particular, technological change, including the increasing presence of information and communication technologies, and the shift of economic activities towards knowledge-based activities, have led to a growing demand for higher-level cognitive skills involving the understanding, interpretation, analysis and communication of complex information.

In addition to generic skills, entrepreneurs require certain job-specific skills related to the development, production and delivery of the specific products or services that their business offers. Job-specific skills are often used to distinguish one industry or workplace from another. For example, an entrepreneur that operates a printing business will need specific skills related to printing and binding equipment, as well as knowledge related to paper and inks.

Furthermore, operating as entrepreneurs rather than employees puts a premium on a number of business management and personal entrepreneurial skills, such as business planning, self-motivation, assessing and managing risk, strategic thinking, exploiting personal networks, and motivating others (OECD, 2010). While there is no singular definition of entrepreneurship skills, it is widely accepted that this set of skills includes those listed in Table 6.1.

Table 6.1. **Types of skills required by entrepreneurs**

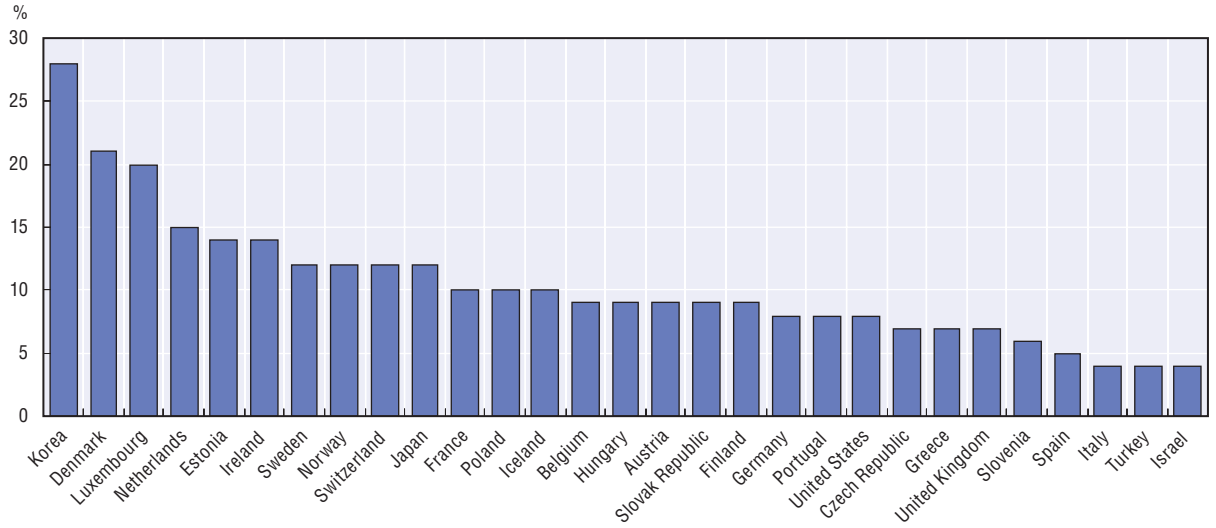
Technical skills	Business management skills	Personal entrepreneurial skills
Written and oral communication	Planning and goal setting	Self-control/discipline
Environment monitoring	Decision making	Risk management
Problem solving	Human resource management	Innovation
Technology implementation/use	Marketing	Persistence
Interpersonal	Finance	Leadership
Ability to organise	Accounting	Change management
	Customer relations	Network building
	Quality control	Strategic thinking
	Negotiation	
	Business launch	
	Growth management	
	Compliance with regulations	

Source: Hisrich, R. and M. Peters (1992), "Entrepreneurship: Starting, Developing, and Managing a New Enterprise"; OECD (2010), SMEs, Entrepreneurship and Innovation, *http://dx.doi.org/10.1787/9789264080355-en*; OECD (2013a), Skills Development and Training in SMEs, *http://dx.doi.org/10.1787/9789264169425-en*; OECD/The European Commission (2013), The Missing Entrepreneurs: Policies for Inclusive Entrepreneurship in Europe, *http://dx.doi.org/10.1787/9789264188167-en*.

A lack of entrepreneurship skills is often cited as one of the most significant barriers to business creation and self-employment, and frequently contributes to difficulties in accessing financing. Figure 6.1 presents the proportion of the adult population (those aged

Figure 6.1. **Entrepreneurship skills as a barrier to self-employment, 2012**

Proportion of adults (aged 15 to 64) who indicate that self-employment is not feasible due to a lack of entrepreneurship skills



Note: Data are not available for the following OECD countries: Australia, Canada, Chile, Mexico and New Zealand.

Source: European Commission (2013), "Entrepreneurship in the EU and beyond", Flash Eurobarometer 354.

StatLink *http://dx.doi.org/10.1787/888933136383*

15 to 64) who indicate that self-employment is not feasible within the next 5 years due to a lack of entrepreneurship skills (regardless of whether self-employment is desired). In 2012, more than 10% of adults in 10 OECD countries indicated that a lack of entrepreneurship skills was a barrier to self-employment.

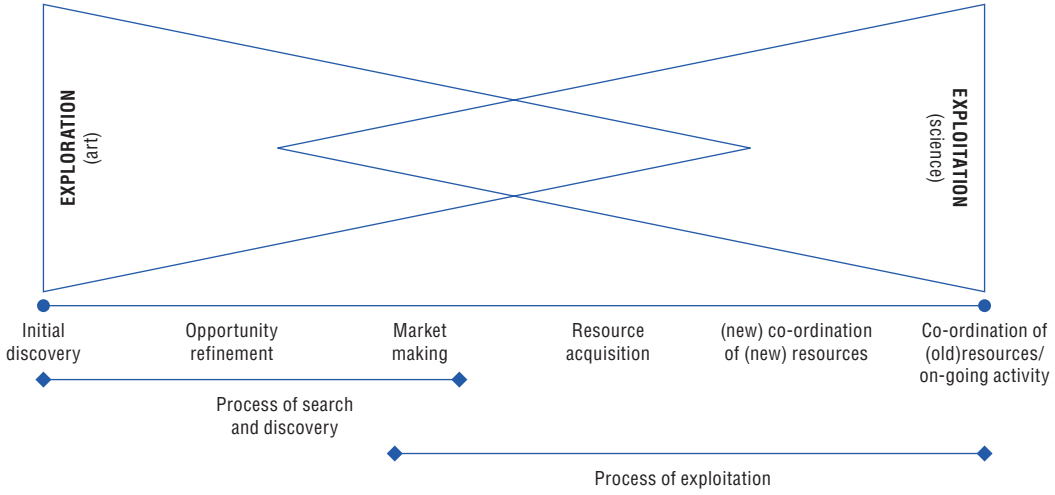
Entrepreneurship skills can be learned

Entrepreneurial capabilities and competences can be supported and nurtured through education and training. The content of entrepreneurship education and training programmes should mirror the learning objectives, which typically include at least one of the following (Hytti and O'Gorman, 2004; Henry et al., 2005):

- Learn to understand entrepreneurship: education "about" enterprise deals mostly with awareness creation and increasing theoretical understanding about entrepreneurship.
- Learn to become entrepreneurial: education "in" enterprises deals mainly with management training for established entrepreneurs and employees.
- Learn to become an entrepreneur: education "for" enterprise deals more with encouraging people to set-up and run their own business.

An entrepreneur needs knowledge to exploit business opportunities and new ways of thinking, as well as new modes of behaviour to create and discover new opportunities to be effectively exploited. Accordingly, teaching entrepreneurship involves both "art" (e.g. creative and innovative thinking) and "science" (e.g. business, management or technical competences) (Rae, 2004). The "science" of entrepreneurship is considered to be teachable, even via conventional methods, whereas the "art" of entrepreneurship is typically learned through practice (Figure 6.2). Therefore, many current pedagogies focus on providing experiences for students so that they learn behaviours and ways of thinking through actions. The special challenge in teaching entrepreneurship is to reach both the "art" and "science" facets of entrepreneurship by developing entrepreneurial mind-sets and providing the skills needed to run a business.

Figure 6.2. **Art and science of entrepreneurship**



Source: Elaborated from Davidsson (2001) in OECD (2014), "Supporting Graduate Entrepreneurship in Wielkopolska and Kujawsko-Pomorskie, Poland", *http://www.oecd.org/cfe/leed/graduate-entrepreneurship-Poland.pdf*.

In addition to balancing the exploration and exploitation facets of entrepreneurship, entrepreneurship education balances individual and business development. Entrepreneurship education and training programmes often focus on business planning and functional knowledge supporting venture creation. However, in general, there is a gap between what is taught in entrepreneurship and what entrepreneurs actually do (Fayolle, 2013). Professional (e.g. technical, R&D) and business competences (e.g. accounting, marketing, management) are crucial in running companies, but personal transversal skills (e.g. communication and negotiation skills) are an equally important element of entrepreneurship training and can be beneficial for individuals regardless of whether they start a business or pursue a career as an employee.

Entrepreneurship skills programmes are often placed within the education system, with their objectives varying according to the age and level of the students. In primary education, the goal is typically about increasing awareness of entrepreneurship as a career option and developing a set of knowledge, skills, and attitudes that are conducive to entrepreneurial behaviour. Often, this is done by inviting local entrepreneurs to visit the classroom to speak to students about running a business but other programmes take students to local businesses to spend the day watching and learning about the day-to-day operation of a small business.

In secondary school, entrepreneurship education often places more focus on the delivery of specific technical skills using mini-companies and activities entailing active learning and real-life situations (European Commission – OECD, 2012). For example, students learn about business planning and accessing start-up financing through the setting up of simulation or real business enterprises. This applies even more at university level where it is important for students to gain the basic skills for starting and operating a business, as well as learning about the value of networks. Traditional teaching approaches at this level have been to create entrepreneurship schools at universities or to integrate entrepreneurship within traditional subject teaching. However, there is a growing trend to adopt multidisciplinary approaches such as the University of Sheffield's Making Ideas Happen programme (Box 6.1). This is a multidisciplinary module that teaches about enterprise, entrepreneurship and innovation through online classes, networking events and group-run start-up enterprises (European Commission – OECD, 2012).

It is also important that policy makers re-examine the role of entrepreneurship training within vocational training, including examining the way that vocational schools interact with industry. Current entrepreneurship education in vocational training emphasises formal business plans and while this is important, the focus should be on the "how to" element. For example, this would include how to find customers, identifying customer needs and how to learn from customers (Gibb, 2009).

Entrepreneurship skills can also be developed outside of the education system. The advantages of entrepreneurship training outside of formal education are that it can be targeted at business owners and potential business owners, and reach people who are not in formal education. It can also focus more on practical entrepreneurship skills than formal education courses, which are as much about generating entrepreneurial mind sets as they are about imparting entrepreneurship skills to people with start-up intentions or existing businesses. It is also relatively easy to design and/or deliver entrepreneurship training courses to particular communities of disadvantaged or under-represented people in entrepreneurship.

Box 6.1. **Making Ideas Happen at the University of Sheffield, United Kingdom**

Making Ideas Happen is an interdisciplinary university module that provides an introduction to enterprise, entrepreneurship and innovation at both the undergraduate and master's levels. It covers topics such as social enterprise and corporate enterprise, idea generation, financial management and team creation. It aims to equip students with the skills to generate, and evaluate, financially sustainable, socially-driven business solutions and projects.

The module uses a blended mode of delivery, including online learning which is supplemented with face-to-face interaction with entrepreneurs, external organisations and academic staff. This approach offers great flexibility to students grappling with busy schedules. Students work in interdisciplinary and multi-level teams to solve business problems of a social nature, in partnership with local communities and external enterprises. This provides students with transferrable skills, increasing their entrepreneurial and employability potential. Students are assessed on their group business plan and pitch, as well as assignments, which includes blogging, reflection and skills audits.

For more information, please see: *http://enterprise.shef.ac.uk/opportunities/improve-your-skills/making-ideas-happen*.

Source: University of Sheffield Enterprise, "Get 29 credits for studying enterprise", *http://enterprise.shef.ac.uk/opportunities/improve-your-skills/making-ideas-happen*; European Commission-OECD (2012), "Policy Brief on Youth Entrepreneurship", *www.oecd.org/cfe/leed/Youth%20entrepreneurship%20policy%20brief%20EN_FINAL.pdf*.

The most common forms of entrepreneurship training outside of formal education include online classes, thematic workshops and structured courses taught in person. They can teach various business management skills such as accounting and finance, law and legal issues, and also support personal development. A significant amount of delivery of this type of training is through online courses, which requires the development of web-based platforms and course materials. Online learning has the advantages of allowing business owners and potential business owners to develop their skills flexibly and having a low marginal cost of delivery once fixed costs have been met.

Further, a wide range of business development services (i.e. coaching and mentoring, business consultancy and advisory services) aim to encourage entrepreneurial tendencies, strengthen individual entrepreneurial skills and competences, increase the likelihood of venture creation and improve the sustainability of new business start-ups (OECD/The European Commission, 2014).

Coaching is typically a short-term collaborative relationship aimed at developing specific skills of an entrepreneur. Each participant has defined roles: a coach provides advice, guidance and feedback towards the accomplishment of specific goals, while a coachee (i.e. the recipient of the coaching) is responsible for working towards the defined goal and reporting progress to their coach. Similarly, mentoring is a professional relationship in which an experienced entrepreneur (the mentor) assists another, often with less experience (the mentee), in developing skills and knowledge that will enhance the mentee's professional and personal growth. These relationships are often long-term and function in an informal manner, focusing on psychological support (i.e. to help entrepreneurs identify their strengths and weaknesses, to provide support during difficult periods and to provide encouragement and motivation), career support (i.e. to help strengthen an entrepreneurs

networks, to provide knowledge and information, to act as a sounding board for new ideas and to help mentees solve problems) and the provision of role models (i.e. mentors who share their own experience to illustrate how to persevere and overcome challenges) (St-Jean, 2010).

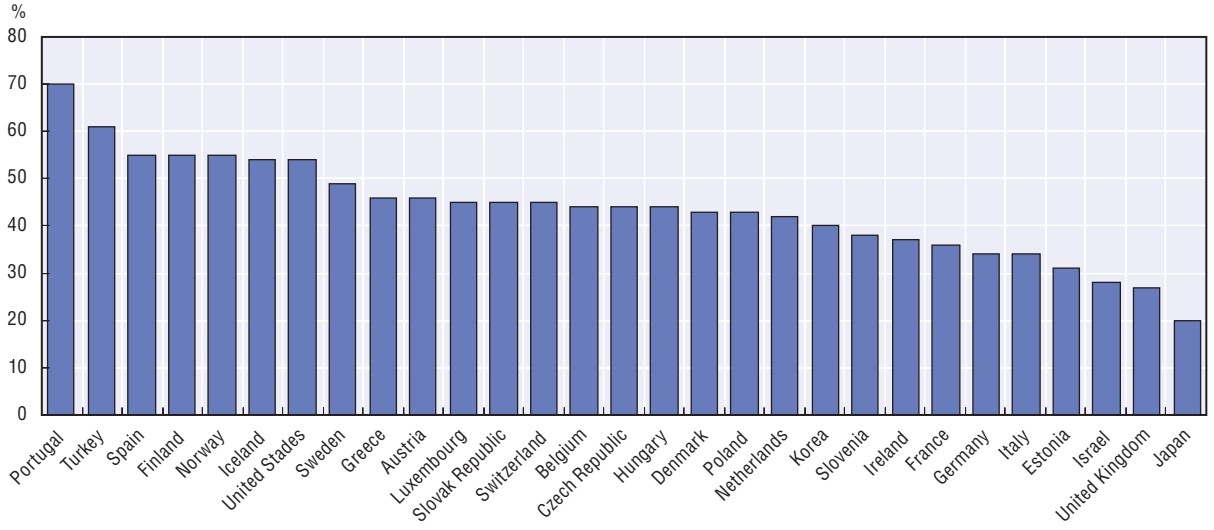
Business consultancy services are another type of business development support service that focus on the transfer of expert knowledge from a consultant to the entrepreneur according to the entrepreneur's needs. This is typically strategic or transformational support delivered in a one-on-one fashion. It is often delivered using a mix of formal techniques (e.g. business excellence models and assessment tools) with informal tacit knowledge gained through prior experience (e.g. prior entrepreneurial experience). The aim of business consultancy services is to strengthen the human and social capital of the individual entrepreneurs so that they can overcome the identified challenge(s).

But not everybody has the same access to these opportunities to acquire entrepreneurship skills, either inside or outside of formal education. Some groups such as women face barriers in obtaining relevant management experience, and older people may have spent their lives working as employees and not be aware of their entrepreneurship potential. Youth also face obstacles to entrepreneurship because they often do not have entrepreneurship (or work) experience and early school leavers are even more challenged because they have lower human capital levels.

Moreover, many schools, VET institutions and higher education institutions are yet to offer the opportunity to learn about entrepreneurship or gain experience through project work. Figure 6.3 shows that in the vast majority of OECD countries, less than half of adults report that their school education provided them with the skills and know-how that would enable them to run a business.

Figure 6.3. **Impact of entrepreneurship education, 2012**

Proportion of adults aged 15 to 64 who agree that their school education provided the skills and know-how to run a business



Note: Data are not available for the following OECD countries: Australia, Canada, Chile, Mexico and New Zealand.

Source: European Commission (2013), "Entrepreneurship in the EU and beyond", Flash Eurobarometer 354.

StatLink *http://dx.doi.org/10.1787/888933136402*

Supporting the development of entrepreneurship skills can be done by central government

Policy makers can have a substantial role in supporting the development of entrepreneurship skills. Central governments have a critical role because they typically have responsibility for developing qualification frameworks and school curricula. Therefore, they can drive the development of entrepreneurship skills for students by including entrepreneurship skills as part of the required learning outcomes, for example. Beyond defining the objectives, central governments need to design and implement supports for all levels of education to achieve these objectives. This includes providing resources to hire and train entrepreneurship teachers. It also includes the development of learning materials for students and support manuals for teachers.

In addition, central governments can have a role in supporting entrepreneurship training outside of the education system. Most often, this support is embedded within active labour market policies. Although central governments are not always involved in project implementation, it is important that they recognise and support entrepreneurship skills as skills that increase an individuals' employability, regardless of whether they go on to start a business.

But local policy actions can sometimes have a greater impact

Local policy actions can support the development of entrepreneurship skills by better tailoring policy to the needs of the local economy. One broad approach is to develop a local entrepreneurship strategy, which supports the development of entrepreneurial mind-sets and skills for business start-up, as well as skills in SMEs. This process can be led by the local authority with the involvement of other central stakeholders, such as higher education institutes, VET centres and schools. Entrepreneurship education should be a core component of a local strategy and the strategy should clearly indicate the stakeholders' roles. An example is the Seven Year Strategy for Academic Entrepreneurship in Bydgoszcz, Poland, which explicitly supports entrepreneurship education and training. The strategy was developed with a broad spectrum of stakeholders and it takes into account the relevant national, regional and local economic strategies. The result is a list of approximately 150 actions to be taken by the city to become a centre for entrepreneurial behaviour. The strategy covers all levels of education and takes a broad view of entrepreneurship, recognising that students should be equipped to cope with any problems in life and that entrepreneurship education supports this philosophical goal.

Local governments can also support the development of entrepreneurship training programmes by engaging and co-ordinating local stakeholders such as chambers of commerce, the business sector and the non-profit sector. Training can be designed to meet the needs of specific disadvantaged groups. An example of a multi-level government effort is the Youth Entrepreneurship Development Programme (ENTRUM) in Estonia, in which the national, regional and local governments partnered with the business sector to design and deliver entrepreneurship training modules for students (OECD/The European Commission, 2013). This project is implemented in collaboration with the Estonian Chamber of Commerce and Industry, and the Ministry of Economics and Communications and relies on more than 500 partners, including local governments, private sector businesses, business incubators, regional development centres, universities, youth organisations and non-profit organisations. The project provides three modules of entrepreneurship training for students aged 14 to 19 year over a 7-month period, as well as access to a professional

network that includes business professionals and successful entrepreneurs. In the two last academic years (2010-2012), 1 119 students participated in ENTRUM, of which 60% were female. The participants started 59 businesses and the most successful start-up has more than 60 employees. The project has recently received a number of awards, including a Swedish Business Award in 2011.

One of the advantages of designing and delivering entrepreneurship training at the local level is that local governments and their partners are more aware of the needs. Thus, training can be targeted at specific populations. For example, the "Work for Yourself" scheme in Amsterdam provides entrepreneurship training for unemployed people. The aim of this initiative is to provide support and guidance on self-employment for unemployed people over 45 years old in and around Amsterdam. It offers a short introductory programme (the orientation phase) lasting six weeks, focusing on basic business management skills such as planning and budgeting while working towards the development of a business plan. During this phase there are two sessions a week and participants are expected to complete homework assignments. The orientation phase finishes with interviews where participants present their business plans. The second stage of support (the continuation phase) emphasises self-development and consists of intensive coaching and workshops to support the entrepreneurs after business start-up. In total, the scheme provides up to six months of support. During the first 18 months of this scheme, 390 candidates participated, and 130 successfully started their own businesses or found a job.*

A second example of a targeted entrepreneurship training scheme at the local level is "Equality Creates Enterprise" in Valnalón, Spain. This scheme provides training for women interested in business creation and self-employment through an entrepreneurship school for women. More details on this scheme can be found in Box 6.2.

Box 6.2. **Equality Creates Enterprise, Spain**

As part of an EU Equality initiative funded project called Equality Creates Enterprise, the Women Entrepreneurs School was set up with support from the city of Valnalón (in Asturias), Regional Women's Institute, Women's World Bank, and several trade unions and employers federations. Launched in 2011, the school aims to encourage entrepreneurship among women by increasing awareness and motivation, as well as fostering a positive attitude towards women entrepreneurs in society. It also provides entrepreneurship training that covers all phases of enterprise development. A broad approach is taken to training that aims to develop attitudes and broad competences (e.g. risk management), as well as technical skills (e.g. bookkeeping). In addition to the school, the Equality Creates Enterprise project included a study on discrimination against women in the local job market and an e-commerce platform to help women promote and sell their products.

For more information, please see: *www.emprendeastur.es*.

Source: OECD/The European Commission (2013), *The Missing Entrepreneurs: Policies for Inclusive Entrepreneurship in Europe, http://dx.doi.org/10.1787/9789264188167-en*.

In addition to entrepreneurship training, local governments can have a role in supporting the development of entrepreneurship skills through business start-up support initiatives that deliver counselling, coaching and mentoring, which aim to improve business survival and growth prospects for existing entrepreneurs. Counselling, coaching

* For more information on this scheme, please refer to: *www.projecteigenwerk.nl*.

and mentoring provide one-to-one support from an advisor across a range of areas like marketing, financing and planning where entrepreneurs are facing specific problems in starting and running a business that they may or may not already have recognised. The advice is adapted to the particular needs of each individual based on an initial diagnosis made by an advisor. It is typical for the support to be delivered face-to-face, but it can also effectively be delivered entirely or in part via the Internet, for example through social networks, which offers great potential to extend the scope of the population covered given the high costs of face-to-face contact. A good example of a locally delivered coaching scheme is Ethnic Coach for Ethnic Minority Entrepreneurs, which started in Vejle, Denmark but now operates in many municipalities across the country (Box 6.3). This scheme provides individual business coaching for ethnic minority entrepreneurs using coaches from the same ethnic community.

Box 6.3. **Ethnic Coach for Ethnic Minority Entrepreneurs, Denmark**

The Ethnic Coach for Ethnic Minority Entrepreneurs project started in the Municipality of Vejle and has expanded across Denmark. The goal of the scheme is to shift the business advisory role from family and friends to professional coaches and counsellors, increasing the quality of advice.

The unique element of this project is that the coach is from the same ethnic group as the participant, which aims to overcome a lack of trust with public supports. The role of the coach is to provide professional advice to help the entrepreneur adjust to the new regulatory and social norms of the new country and to build and strengthen ethnic minority social and entrepreneurial networks. These individual relationships are informal and flexible arrangements that initially aim to clarify and strengthen business plans and needs. Following this process, coaches refer the entrepreneur to training and other advisory services in the local area. Once the business is launched, coaches continue to support the entrepreneurs as they develop and grow their business.

Since 2005, more than 250 ethnic minority entrepreneurs have been assisted. In 2006, the scheme won the European Trailblazer Award and was selected as a European best practice in the Interreg IVC project, Enspire EU (Entrepreneurial inspiration for the European Union) in 2011.

The critical success factor for this project is the identification of passionate coaches from different ethnic minority groups who are respected in their communities and have the necessary knowledge and experience to be coaches. In addition to being central to the delivery of support, they are important in outreach to potential clients.

Source: OECD/The European Commission (2013), *The Missing Entrepreneurs: Policies for Inclusive Entrepreneurship in Europe*, *http://dx.doi.org/10.1787/9789264188167-en*.

Entrepreneurship training programmes are generally offered in integrated support packages for enterprise development, including mentoring and finance. It is important to provide integrated packages of support rather than relying on single, narrowly defined support instruments. For example, entrepreneurship teaching supports the development of more entrepreneurial intentions and competences, but may need to be followed up with business creation support to turn these intentions and competences into business ventures. Moreover, the effectiveness of supplying finance will be enhanced when it is complemented by advice, coaching and networking. Box 6.4 provides an example of such an integrated programme, "enterprise" in Germany, which is aimed at young adults.

Box 6.4. **"enterprise", Germany**

"enterprise" is an integrated start-up support scheme that aims to help young adults (under the age of 27) in the Federal States of Brandenburg and Saxony-Anhalt. It provides four phases of training, followed by micro-finance to support the launch of a business:

1. **Orientation and profiling**: This informs potential entrepreneurs about the risks and opportunities of business creation, where to go for support, and the skills needed to be a successful entrepreneur. The aim of this phase of training is to motivate young people to view entrepreneurship as a long-term career option. Approximately half of the potential entrepreneurs complete this initial phase of training.

2. **Planning and training**: The phase assists entrepreneurs in developing their business concept with support from professional consultants and business coaches. Optional seminars and workshops are also available. Only half of the potential entrepreneurs that enter this phase develop a commercially viable concept that can be used to launch a business.

3. **Business launch**: The phase provides individual support during the start-up process to increase the participants' chances of success. This includes support from professional consultants and coaches.

4. **Growth and consolidation**: Following the launch of the business, the project maintains contact with the participants and monitors their activities. Specialised seminars and networking events are also provided.

Following these four phases of training, the project offers micro-finance (EUR 5 000 to EUR 15 000) to help participants launch their business. An important feature of the micro-finance offer is that the assessment is undertaken by an independent loan officer to ensure that the financial assessment is impartial.

To date, the following results have been achieved:

- More than 10 000 young adults have participated in "enterprise" and more than 1 500 have launched a business.
- More than 70% of businesses launched continue to operate after three years; the majority of those that are no longer operating have been abandoned in favour of paid employment.
- Half of the businesses launched have created at least one additional new job.
- The cost of operating "enterprise" is approximately EUR 5 000 per business start-up (including the training costs of those who did not create a business).

For more information on "enterprise", please see: *http://iq-consult.com*.

Source: OECD/The European Commission (2013), *The Missing Entrepreneurs: Policies for Inclusive Entrepreneurship in Europe*, *http://dx.doi.org/10.1787/9789264188167-en*.

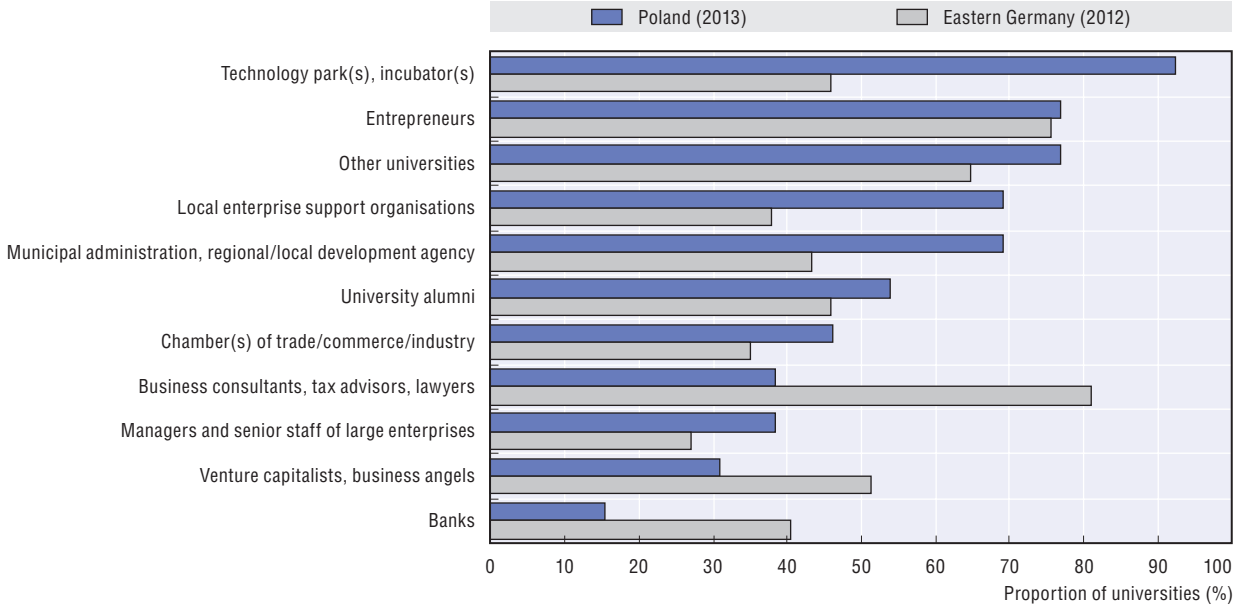
Local partnerships are an effective approach to develop an entrepreneurial culture

Stimulating interest in entrepreneurship and inspiring entrepreneurial behaviour can make a local economy more dynamic. Local governments can raise the profile of entrepreneurship through participation in well-known international entrepreneurship events such as Global Entrepreneurship Week or Startup Weekend. These events have an important role in increasing awareness about entrepreneurship and bringing all of the relevant stakeholders together at one time. Such events are also important because they typically provide basic training for potential entrepreneurs through seminars and workshops, as well as networking opportunities.

In addition, local government can work with local institutions such as chambers of commerce and universities to foster the development of an entrepreneurial culture by building an entrepreneurship ecosystem. Both chambers of commerce and universities are ideal partners for local governments because both institutions have wide-ranging linkages across the public and private sectors. Universities, in particular, need to have a central role in the development of local entrepreneurship ecosystems due to their mission of generating and applying new knowledge, which requires bridging between the research and business communities. Evidence from Poland and Eastern Germany indicates that 90% and 76% of universities have strategic objectives related to building co-operation with local businesses (OECD, 2014; OECD, 2013b).

Universities also play an important function in bringing stakeholders together through the delivery of entrepreneurship education. Universities work with a wide variety of partners in the local area for the delivery entrepreneurship education, notably local governments and development agencies, as well as entrepreneurs and business support providers (Figure 6.4). This provides students with an opportunity to learn about entrepreneurship in blended way that combines theory with "hands-on" experience.

Figure 6.4. **Partnerships in delivering entrepreneurship education in universities, Poland and Eastern Germany, 2012 and 2013**



n = 13 (Poland) and 37 (Eastern Germany).

Source: OECD LEED HEI Leaders' Surveys in Poland (2013) and East Germany (2012). See OECD (2014), "Supporting Graduate Entrepreneurship in Wielkopolska and Kujawsko-Pomorskie, Poland", *www.efs.gov.pl/analizyraportypodsumowania/documents/graduate_entrepreneurship_in_poland.pdf* and OECD (2013b), "Stimulating entrepreneurial mind sets and behaviours in east German higher education: State of play and inspiring practices", *www.oecd.org/site/cfecpr/OECD_Booklet_EN-Web.pdf*.

StatLink http://dx.doi.org/10.1787/888933136421

A community-based approach is particularly important where support and advice is delivered through community networks, or when the target clients do not typically use mainstream support offerings. A key strength of this approach is that the needs of the community are likely better identified when relevant stakeholders are involved. A "joined-up" community-based approach that emphasises engagement is also important because it provides a basis for building trust, which is essential for gaining acceptance in the

community and is a necessary first step to attract individual business people. See Box 6.5 for an example from the United Kingdom of how local partnerships were effectively used to reach ethnic minority groups.

Box 6.5. **Supporting Inclusion in Enterprise Development (SIED), United Kingdom**

Supporting Inclusion in Enterprise Development (SIED) is a partnership set up by the local government authority in Islington, London. The partnership includes a wide range of community organisations involved in providing local support to entrepreneurship and self-employment by disadvantaged and underrepresented groups in the deprived London boroughs Islington, Camden and Lewisham. Partners include the local government, the Association of Community Based Business Advisers, the Institute of Business Consulting, Kingston University, the Islington Training Network and a number of other community organisations. The partnership aims to support asylum seekers, unemployed people and representatives of a variety of newly-arrived migrant groups (but not the longer established ethnic minority population).

Through SIED, community organisations that deliver services to groups experiencing labour market exclusion have the opportunity to extend their existing welfare and social support services by offering business advice and development support. This is delivered through the funding of accredited business advisers who are recruited from the target community and employed within the organisation. The programme identifies individuals from within the target communities who have the knowledge and interest in being a business adviser and provides training that leads to a nationally-recognised accreditation. Advisors mainly provide information, consultancy and advice to clients, but also help them access finance.

SIED is an example of a bottom-up, community-embedded approach which can act as a vehicle for economic engagement with disadvantaged and under-represented groups. It relies on trust-based relationships and engagement with mainstream business support providers. Over the lifetime of the project, more than 1 000 ethnic minority business owners were assisted by this community-based vehicle of enterprise support.

Source: OECD/The European Commission (2013), *The Missing Entrepreneurs: Policies for Inclusive Entrepreneurship in Europe, http://dx.doi.org/10.1787/9789264188167-en.*

Conclusion and issues for consideration

Entrepreneurship skills are an important determinant of people's ability to successfully start and run businesses, and encompass technical, personal and business management skills. Increased entrepreneurship skills can be expected not just to boost the volume of business start-ups by increasing individuals' perceptions of the feasibility of entrepreneurship, but also to improve the quality of start-ups, by encouraging and supporting people to make decisions that will increase the growth and survival prospects of their businesses.

Public policy actions are needed at national, regional and local levels to support the development of entrepreneurship skills to stimulate entrepreneurial activity and to improve its quality. The policy effort should combine expanded and enhanced entrepreneurship courses within formal education, stand-alone entrepreneurship training for entrepreneurs and potential entrepreneurs, and counselling, coaching and mentoring for entrepreneurs through business development services. The policy examples provided

in this chapter highlight some successful approaches. Among the effective approaches are interactive and hands-on entrepreneurship education such as business simulations and role playing, online stand-alone training programmes, and peer-to-peer learning using other entrepreneurs as advisors and coaches. Where programmes are costly, such as face-to-face coaching, the application of strong selection criteria for participants can be used to secure results that are in line with the costs. Local governments have a role to play in supporting the development of entrepreneurship skills as they are often best-placed to identify the specific needs of potential entrepreneurs. This can especially be so when they bring all relevant actors together to ensure that support is co-ordinated and cohesive.

Key recommendations for building entrepreneurship skills

Support the development of entrepreneurship skills in formal education

- Offer comprehensive and integrated entrepreneurship education at all levels of the formal education system.
- Use interactive, hands-on, and experiential methods such as role playing, simulations, games, and short-term business start-ups in teaching entrepreneurship. These entrepreneurship experiences should be increasingly complex and realistic at higher levels of the education system.
- Ensure that there are linkages to training programmes and business development support services in the community so that students can access specialised supports if desired.

Provide entrepreneurship training and business development services at the local level

- Tailor programmes to meet the needs of the clients and the local area.
- Make use of opportunities to deliver tailored training online through web-based platforms.
- Offer counselling, coaching and mentoring to entrepreneurs and potential entrepreneurs as part of integrated business development support packages.
- Ensure that support is available at pre-start-up, start-up and post-start-up phases.
- Use community-based partnerships in designing and delivering business development support services to ensure that needs are properly identified and to leverage existing delivery and outreach mechanisms.

References

Davidsson, P. (2001), "Towards paradigm for entrepreneurship research", Conference Proceedings of the 15th Workshop of Research in Entrepreneurship and Small Business (RENT XV) held in Turku, Finland November the 22nd-23rd by Turku School of Economics and Business Administration, The Small Business Institute, Vol. 1, pp. 57-69.

European Commission (2013), "Entrepreneurship in the EU and beyond", Flash Eurobarometer 354.

European Commission – OECD (2012), "Policy Brief on Youth Entrepreneurship", Publications Office of the European Union, Luxembourg, *www.oecd.org/cfe/leed/Youth%20entrepreneurship%20policy%20brief%20EN_FINAL.pdf*.

Fayolle, A. (2013), "Personal views on the future of entrepreneurship education", *Entrepreneurship & Regional Development*, Vol. 25(7-8), pp. 692-701.

Gibb, A. (2009), "The small business and entrepreneurship challenge to vocational education: Revolution or evolution?".

Henry, C., Hill, F. and D. Leitch (2005), "Entrepreneurship education and training: Can entrepreneurship be taught? Part II", *Education + Training*, Vol. 47(3), pp. 158-169.

Hisrich, R. and M. Peters (1992), "Entrepreneurship: Starting, Developing, and Managing a New Enterprise", Irwin, Boston, MA.

Hytti, U. and C. O'Gorman (2004), "What is 'enterprise education'? An analysis of the objectives and methods of enterprise education programmes in four European countries", *Education + Training*, Vol. 46(1), pp. 11-23.

OECD (2014), "Supporting Graduate Entrepreneurship in Wielkopolska and Kujawsko-Pomorskie, Poland", OECD, Paris, *http://www.oecd.org/cfe/leed/graduate-entrepreneurship-Poland.pdf*.

OECD (2013a), *Skills Development and Training in SMEs*, Local Economic and Employment Development (LEED), OECD Publishing, *http://dx.doi.org/10.1787/9789264169425-en*.

OECD (2013b), "Stimulating entrepreneurial mind sets and behaviours in east German higher education: State of play and inspiring practices", *www.oecd.org/site/cfecpr/OECD_Booklet_EN-Web.pdf*.

OECD (2012), *Literacy, Numeracy and Problem Solving in Technology-Rich Environments: Framework for the OECD Survey of Adult Skills*, OECD Publishing, *http://dx.doi.org/10.1787/9789264128859-en*.

OECD (2010), *SMEs, Entrepreneurship and Innovation*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264080355-en*.

OECD/The European Commission (2014 forthcoming), *The Missing Entrepreneurs 2014*, OECD Publishing, Paris.

OECD/The European Commission (2013), *The Missing Entrepreneurs: Policies for Inclusive Entrepreneurship in Europe*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264188167-en*.

Rae, D. (2004), Entrepreneurial learning: A narrative-based conceptual model, Paper presented in Institute for Small Business Affairs 27th National Conference, Newcastle Gateshead, United Kingdom, 2-4 November 2004.

St-Jean, E. (2010), "Les fonctions du mentor de l'entrepreneur novice", *Revue de l'Entrepreneuriat*, Vol. 9, No. 2, pp. 34-55.

Statistics Canada/OECD (2005), *Learning a Living: First Results of the Adult Literacy and Life Skills Survey*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264010390-en*.

Volkmann, C., Wilson, K.E., Mariotti, S., Rabuzzi, D., Vyakarnam, S. and A. Sepuldeva (2009), "Educating the next wave of entrepreneurs: unlocking entrepreneurial capabilities to meet the global challenges of the 21st century", Geneva: World Economic Forum.

Chapter 7

Stimulating high-growth firms and local entrepreneurial ecosystems

This chapter introduces the role of high-growth firms – firms which grow quickly over a short period of time – in local job creation. In particular, it presents information on the local distribution of high-growth firms in four OECD countries and on the dynamics by which local entrepreneurial ecosystems influence the presence of high-growth firms at the local level. The chapter points to three significant areas for policy intervention: i) framework conditions such as product market regulation, taxation and employment protection legislation which affect business growth in general; ii) policies supporting the local entrepreneurial ecosystem through close dialogue between public and private sector institutions in areas such as financing and education; iii) schemes specifically targeted to high-growth firms like business accelerators that develop management skills through advice, mentoring and peer learning.

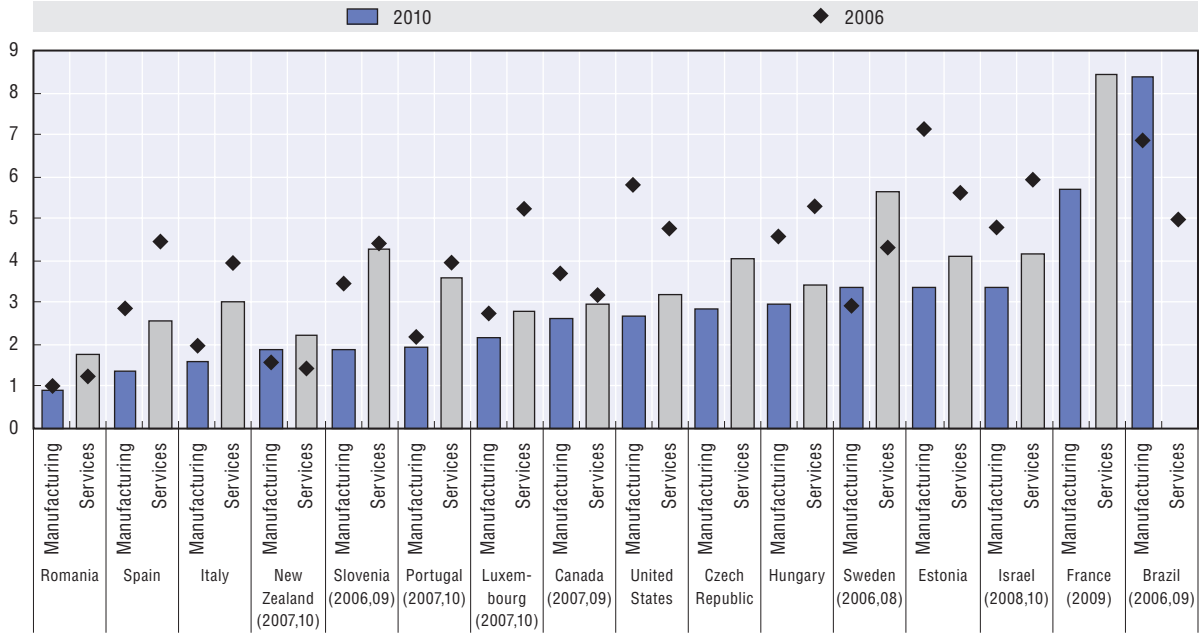
The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

High-growth firms are a main source of job creation

High-growth firms (HGFs) are firms that grow rapidly over a short period of time. In doing so, they contribute disproportionally to employment creation and productivity growth. Empirical evidence has shown that job creation is concentrated in a few exceptionally performing firms, while the largest majority of firms keep employment stable or shed jobs. An academic survey of the evidence on the subject concluded that a "few rapidly growing firms generate a disproportionately large share of all net new jobs compared with non-high-growth firms . . . and that this is particularly pronounced in recessions when gazelles (i.e. high-growth firms) continue to grow" (Henerekson and Johansson, 2010).

The OECD defines high-growth firms as "enterprises with an average annualised growth greater than 20% a year, over a 3-year period, and with 10 or more employees at the beginning of the observation period". Growth is measured by turnover or employment, with the turnover definition giving higher numbers than the employment definition. However, in this chapter we are interested in those high-growth firms whose sales growth also leads to the creation of new jobs. The following graph provides an overview of the proportions of high-growth firms, measured by employment, across a selection of OECD and non-OECD countries. The rate of high-growth firms is typically higher in the services sector.

Figure 7.1. **High-growth enterprises rate, 2010 or latest available year, measured by employment growth**



Source: OECD, 2013a, *Entrepreneurship at a Glance*, *http://dx.doi.org/10.1787/entrepreneur_aag-2013-en*.

StatLink http://dx.doi.org/10.1787/888933136440

In addition to direct job creation, high-growth firms generate other benefits. They spark new demand for advanced products and services, which will benefit the local economy as whole; they produce knowledge spillovers which other nascent or existing enterprises can harness; and they strengthen the local entrepreneurial culture by acting as role models for future and nascent entrepreneurs.

In spite of their positive contribution to the local economy, high-growth firms are faced with barriers to development. They are very often innovative enterprises, whereas innovation implies uncertainty and thereby can attract less than optimal levels of private investment. They may require external finance for investment and business expansion, yet banks are often reluctant to lend to fast-growing firms, whom they may perceive as risky clients (OECD, 2012), and equity finance is hard to come by in most localities. Finally, they go through a process that often requires changes in the organisational dynamics and management practices of the business; mentoring and advice can help even seasoned entrepreneurs to cope with this disruptive moment in the lifecycle of their business.

The positive spillovers generated by high-growth firms in the local economy, together with the barriers that hamper their development, provide the main rationale for policy intervention at the local level.

High-growth firms are generally of young age and small size, but are not necessarily high-tech

Understanding the profile of high-growth firms (e.g. firm size, firm age, sector, ownership structure, etc.) can help us to identify what drives their emergence at the local level and to craft appropriate policy responses.

There is a well-established field of economic research on the determinants of business growth. It began with scholars testing the assumption of the so-called Gibrat's Law that contended that business growth is normally distributed across firm size bands and firm age and that, as a result, there is no firm-specific element that can predict the growth performance of an enterprise. While earlier research on small business samples corroborated the validity of Gibrat's Law, evidence started to change when more business size bands were included in the analysis. Since then, there has been a growing consensus that growth rates tend to be higher for smaller and younger enterprises, and that this is especially true in knowledge-intensive sectors where the growth rates of young and small firms are particularly high (Sutton, 1997; Audretsch, 2013).

In this respect, high-growth firms can be regarded as the top tier group in the distribution of growth rates across the business population. Firm-specific determinants of HGFs should, therefore, in principle be similar to those of business growth in general. In their review of empirical research on HGFs, Henrekson and Johansson (2010) find that high-growth firms are unambiguously of young age and overrepresented in small size bands, although they can indeed be of all sizes and large HGF are important job contributors in absolute terms. In other words, firm age is a stronger determinant than firm size of being an HGF. Despite the importance of the knowledge economy, and the speed of global technological change, the authors find no evidence that HGFs are overrepresented in technology-intensive industries.

These findings are largely confirmed by recent OECD work that show how young firms aged five years or less are responsible for nearly half net job creation (OECD, 2013b) as well as by country and regional case studies reviewed by the LEED Programme. For example, Levratto et al. (2013) finds that HGFs in France tend to be of young age and small size.[1] A study by Scottish Enterprise – the Regional Development Agency of Scotland – confirms

that HGFs are innovative but not necessarily technology-based. In Scotland, they are found across all sectors, although their incidence is stronger in services, especially in business-to-business services. Interestingly, Scottish HGFs are older and larger than expected. Finally, another study from Sweden's southern region of Scania finds that local HGFs are primarily small but also relatively old, the mean being 20 years old, although "sustainable high-growth firms" – i.e. the very small share of HGFs that experience multiple instances of rapid growth – tend to be younger than HGFs which only go through one single moment of expansion. Scania's HGFs are also primarily found in services and are not especially overrepresented in technology-intensive sectors (Gabrielsson et al., 2012).

Leadership and management skills are key to firm high-growth

Another strand of research has looked into the characteristics of the entrepreneur and their top management team to understand the contribution that they make to high-growth firms.[2] The main conclusions from this stream of work are that leadership and entrepreneurial skills are key to achieving rapid growth especially in young and small firms, while management competences and an appropriate distribution of responsibilities become more important in older and larger HGFs. Past business management experience and same-industry experience are crucial, which suggests that serial entrepreneurs and corporate spinoffs (where employees quit their company to start a new business) may be more likely than others to grow rapidly. By contrast, evidence is ambiguous as to whether fast-growing firms are more likely to have formal management structures or adopt flexible management practices to adapt more easily to rapid growth.

The ability to promptly recruit skilled labour has also been emphasised as an important driver. This may be a factor in influencing the location of many HGFs in large urban areas that host high-quality education institutions. This has also prompted some authors to make a case for flexible labour legislation and low labour taxation in order to increase the supply of labour and hence the numbers of HGFs at national level.

Finally, it is interesting to note that personal characteristics associated with fast-growing firms are not the same as those that push individuals into self-employment. A heterogeneous educational and occupational background, and relatives and friends who are themselves self-employed have been associated with the choice of individuals to become entrepreneurs (see, for example Lazear, 2005). Thus, while an entrepreneurship-friendly social milieu and a generalist skills profile prompt individuals to choose a self-employment career, professional networks, specialist industry-based skills, entrepreneurial experience, and leadership and management skills are key for entrepreneurs then to achieve rapid growth.

Services-based high-growth firms are more likely to be located in large urban areas, although manufacturing firms show more variation

An OECD LEED study of the geographical and sectoral distribution, technology-intensity and ownership of high-growth firms at the local level in four OECD countries (Belgium, Denmark, Germany, and the United Kingdom) has produced useful evidence as to the relationship between high-growth firms and local/regional characteristics (Hart and Temouri, 2013). The analysis used the OECD employment definition of high-growth firms and looked at NUTS-2 level regions in the selected countries.[3]

The analysis draws on the commercial firm-level database ORBIS, which collects information on company location, sector, ownership structure and financial accounts, based on national statistical sources including business registries.[4]

Table 7.1. **Incidence of high-growth firms by sector and ownership in selected OECD countries**

Percentage values

	Belgium	Denmark	Germany	United Kingdom
All sectors	4	4.6	4.4	6.1
Manufacturing	2.5	2.9	2.5	2.9
Services	2.3	5.1	5.5	7.1
High-tech manufacturing	7	4.1	3.2	3.1
High-tech services	4.6	16.5	9.6	11.6
Foreign-owned firms	9.7	6.6	6.6	7.1
Domestic-owned firms	4.4	4.3	4.1	5.7

Note: High-technology manufacturing includes the following NACE sectors: aircraft and spacecraft; pharmaceuticals; office machinery and computers; radio, television and communication equipment; and medical, precision, and optical instruments. High-technology services sectors encompass: post and telecommunications; computer and related activities; research and development.

Source: OECD based on Hart, M. and Y. Temouri (2013), "High-Growth Firm Localities and Determinants: Evidence from OECD Countries".

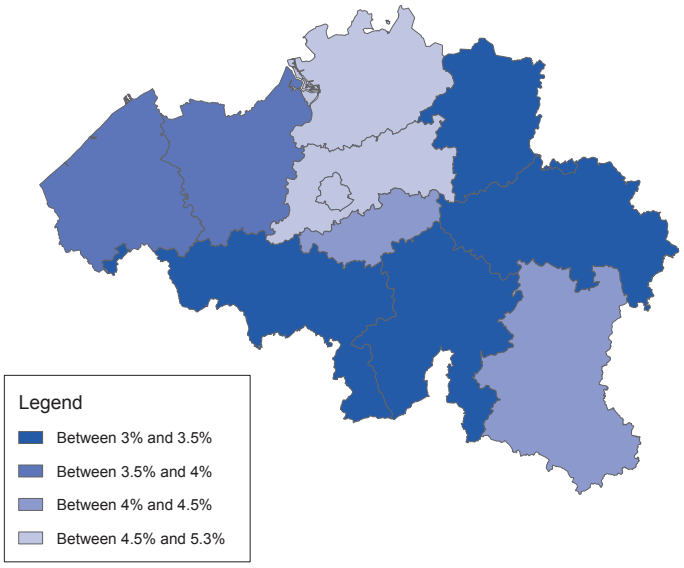
Table 7.1 shows national aggregate results of the OECD LEED analysis on the incidence of HGFs by sector and ownership. The incidence of HGFs in the total business population is highest in the United Kingdom (6.1%) and lowest in Belgium (4%). The disaggregated analysis shows that, within each of the four countries, capital regions have the highest incidences of HGFs: 8.6% in London, 7.7% in Berlin, 5.7% in Hovedstaden (Copenhagen's region in Denmark), and 5.3% in the Brussels Capital Region. Large urban areas attract more high-growth firms than others owing to the presence of economies of agglomeration such as quality in infrastructure, qualified human capital, cross-sector knowledge spill overs and top-level business services that make business growth possible. Agglomeration economies are particularly important drivers of growth at a time when most OECD countries, including those taken into consideration by this analysis, have gone through a de-industrialisation process that has diminished the importance of specialisation economies more closely associated with sector-based industrial development (e.g. sector-based knowledge spillovers and specialised labour pool). This is in line with evidence that shows that while the location effect is on the decline in most industrial clusters it remains stable in urban areas, thus suggesting that economies of agglomeration typical of cities have become more important than economies of specialisation typical of industrial clusters (Iuzzolino and Menon, 2011; Di Giacinto et al., 2012).

Sector-wise, Table 7.1 shows that with the exception of Belgium the presence of HGFs is proportionally stronger in services than in manufacturing, a finding consistent with the rest of the literature. Again, the United Kingdom is the country with the highest proportion of HGFs in services, while Belgium shows the lowest incidence. Local data tell us that, quite predictably, services-based HGFs in capital regions outnumber those located elsewhere: 9.5% of services firms in London are high-growth firms, 8.6% in Berlin, 6.4% in Brussels capital region, and 6.2% in the region of Copenhagen. The situation is more heterogeneous in manufacturing, where incidence rates are on average lower but where nonetheless some regions display a very large proportion of HGFs: for example, Dorset-Somerset and Eastern Scotland in the United Kingdom have respectively 10% and 8.9% of HGFs in manufacturing, while Brandenburg and Mecklenburg-Western Pomerania in Germany have both 8.8%. Interestingly, the UK and German regions with the highest percentages of manufacturing HGFs are lagging regions in their respective national contexts that have gone through

important moments of industrial restructuring in the recent past. Interestingly, only a minority of regions within each country boast higher-than-average HGF incidence rates both in manufacturing and services. This seems to suggest that high-growth firms can be found and, thus, be supported in different economic environments, although it is true that location in large urban areas represents a competitive advantage in the services sector.

Finally, with respect to high-tech sectors, Denmark (16.5%) and the United Kingdom (11.6%) stand out in the rate of HGFs in high-tech services as much as Belgium does in the proportions of high-tech manufacturing and foreign-owned HGFs (7% and 9.7% respectively). However, an analysis of HGF incidence rates by technology-intensiveness or ownership structure at local level is impaired by the low number of observations at the level of NUTS-2 regions in ORBIS.

Figure 7.2. **Incidence rates of HGFs at local level in Belgium, 2010**
Percentage values



Note: TL3 Regions.

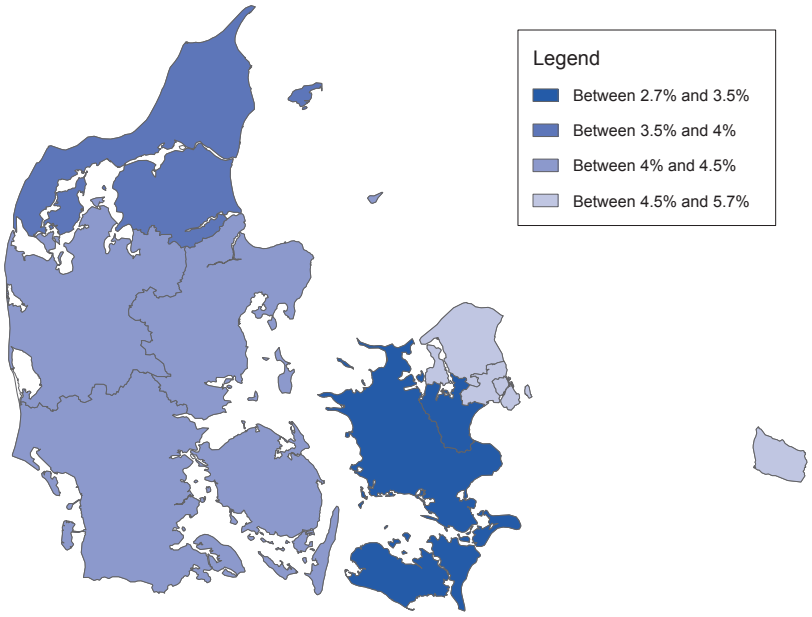
Source: OECD based on Hart, M. and Y. Temouri (2013), "High-Growth Firm Localities and Determinants: Evidence from OECD Countries".

Local entrepreneurial ecosystems support the emergence of high growth firms

The development of high-growth firms does not depend only on the characteristics of the firm (e.g. sector, size or degree of technology-intensiveness) or of the entrepreneur (e.g. industry and entrepreneurial experience, management practices, etc.), but it is also influenced by the surrounding environment. It has already been observed, for example, that large cities are hotbeds of HGFs especially in the services sector, while old industrial regions can provide the breeding ground for HGFs in manufacturing.

The local environment, therefore, matters for the development of growth-oriented entrepreneurship. This is captured in the concept of the "entrepreneurial ecosystem". Mason and Brown (2013, p.5) define an entrepreneurial ecosystem as "a set of interconnected entrepreneurial actors (both potential and existing), organisations (e.g. firms, venture capitalists, business angels and banks), institutions (universities, public sector agencies

Figure 7.3. **Incidence rates of HGFs at local level in Denmark, 2010**
Percentage values



Note: TL2 Regions.
Source: OECD based on Hart, M. and Y. Temouri (2013), "High-Growth Firm Localities and Determinants: Evidence from OECD Countries".

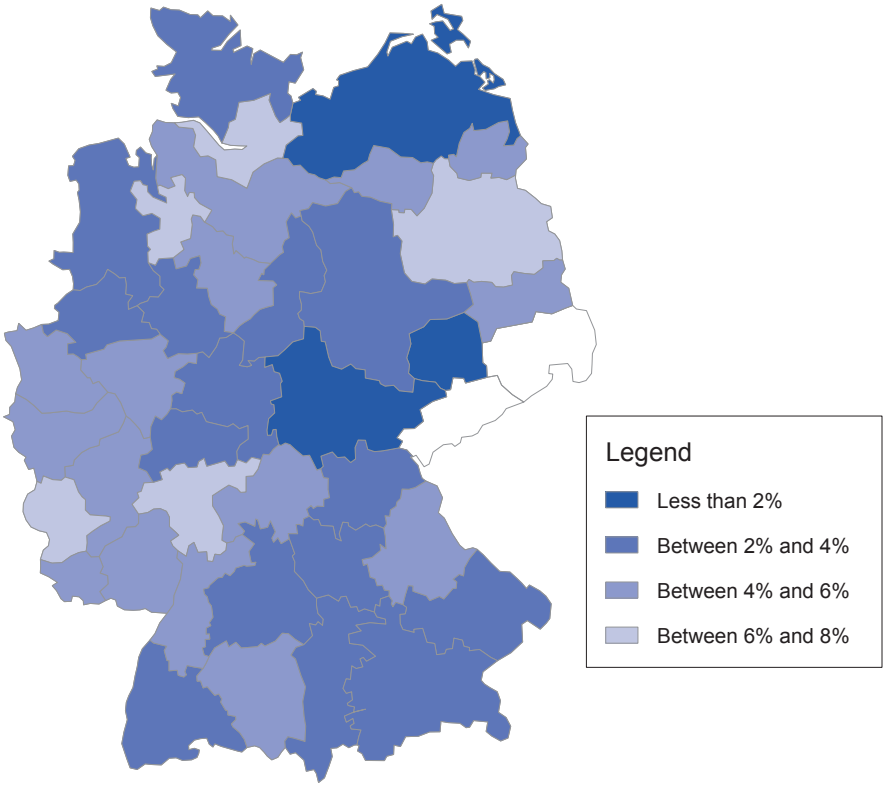
and financial bodies), and processes (business birth rate, rate of HGFs, number of serial entrepreneurs and blockbuster entrepreneurs, levels of entrepreneurial ambition, and sell-out mentality in the society), which formally and informally coalesce to connect, mediate, and govern performance within the local entrepreneurial environment".

Thus, entrepreneurial ecosystems are highly interactive and their performance depends on the quantity and quality of interactions among the ecosystem stakeholders and on the way such relationships are orchestrated by public or private actors. Owing to its holistic and interactive nature, the concept somehow recalls others such as clusters, innovation systems and learning regions which have already shaped economic development policies at local level in the past. However, what is distinctive in the entrepreneurial ecosystem approach is that it explicitly makes the entrepreneur the focus of attention, in the belief that entrepreneurship – innovative and growth-oriented entrepreneurship rather than the mere number of start-ups – is the key driver of economic growth. Importantly, ambitious and growth-oriented entrepreneurs are not just the outcome of a healthy ecosystem, but key players in its generation and further progress.

The role of the government is then primarily to set framework conditions favourable to entrepreneurship development at the national level (e.g. streamlined regulations, fair taxation and appropriate employment protection legislation), to feed the ecosystem (e.g. through the regeneration of a skilled labour force) and to facilitate interaction amongst the ecosystem stakeholders at the local level, which encompass leading and serial entrepreneurs, but also investors, education institutions (secondary, tertiary and vocational education institutions), technology intermediaries, specialised service providers (e.g. lawyers, accounting and business financing experts) and NGOs with an interest in entrepreneurship.

Figure 7.4. **Incidence rates of HGFs at local level in Germany, 2010**

Percentage values



Note: TL2 Regions. Data for Dresden and Chemnitz is not available for Germany.

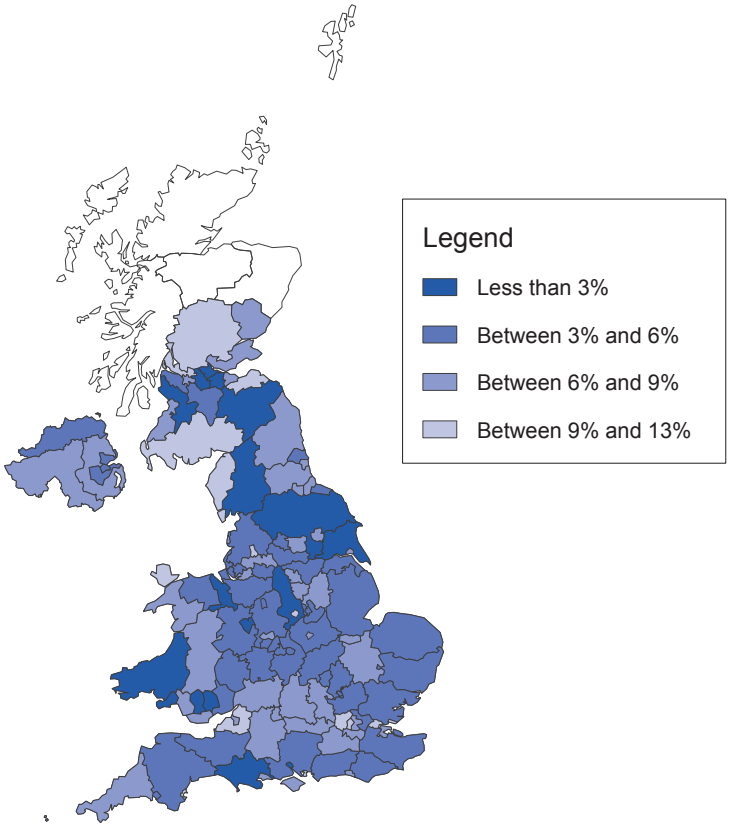
Source: OECD based on Hart, M. and Y. Temouri (2013), "High-Growth Firm Localities and Determinants: Evidence from OECD Countries".

For example, Isenberg (2011) identifies six key domains in an entrepreneurial ecosystem: a conducive culture; enabling policies and leadership; appropriate finance; high-level human capital; venture-friendly product markets; and support institutions. The author also stresses the importance of the local economic context, as each ecosystem emerges under a unique set of conditions and circumstances.

Although each entrepreneurial ecosystem is different, successful ones share certain commonalities. For example, entrepreneurs who have previously been successful are often key feeders into subsequent strong entrepreneurial ecosystems. Mason and Brown (2013) stress the importance of the "entrepreneurial recycling" process by which cashed-out entrepreneurs re-invest their returns in the local ecosystem by starting another business, becoming a business angel, setting a new venture capital fund, or acting as mentors to new entrepreneurs. In a similar vein, the Danish government think-tank FORA refers to "blockbuster entrepreneurs", who grow entrepreneurial businesses up to an exceptional size and create significant wealth, but also re-invest part of this wealth in the local entrepreneurial ecosystem by becoming mentors, investors or serial entrepreneurs. For this positive cycle to take off, some conditions must be met. For example, societal norms and national legislation should encourage, or at least not discourage, corporate spinoffs by which employees quit their company to start a new business. Similarly, "small exits" by which fast-growing companies are prematurely sold to external buyers should also

Figure 7.5. **Incidence rates of HGFs at local level in United Kingdom, 2010**

Percentage values



Note: TL3 Regions.

Source: OECD based on Hart, M. and Y. Temouri (2013), "High-Growth Firm Localities and Determinants: Evidence from OECD Countries".

be avoided in order to maximise the financial returns and learning experience for the ecosystem as a whole (Mason and Brown, 2013).

The role of connectors has also been stressed in successful local entrepreneurial ecosystems. Connectors bring advice, resources and additional networks to different ecosystem firms at the same time and thereby build bridges among them. In some top-notch ecosystems, connectors may be former entrepreneurs acting as investors and mentors in more companies at the same time, although this role is more often played by institutions such as business incubators, business accelerators, entrepreneur clubs or business associations. However, at least in reasonably strong ecosystems, incubators and accelerators tend to see the private sector strongly involved in the design and delivery of the programme. For example, it may be worthwhile to set up business accelerators that are public-private partnerships where the public sector co-sponsors the initiative while the private sector is the main source of advice to the entrepreneurs enrolled in the programme.

To wrap up, entrepreneurs are the key actors and main drivers of local entrepreneurial ecosystems, whereas other stakeholders such as government, investors, universities and NGOs feed the ecosystem but hardly ever trigger it. From this perspective, for example, the main role of universities may be to guarantee a continuous flow of a skilled and entrepreneurial workforce to the ecosystem, rather than being required to directly engage

with the business sector on other issues. This is in line with evidence on the importance for HGFs of being able to easily recruit skilled labour. In fact very few HGFs are university spinoffs.

Policy makers can buttress high-growth firms through setting adequate framework conditions, strengthening the local ecosystem and targeted programmes

The attention of policy makers towards high-growth firms is part of the progressive shift of interest from SME policies to entrepreneurship policies in OECD countries, although the two are more often complementary than conflicting. The objective of SME policies has traditionally been to create a level playing field where small and large firms can compete on equal terms by compensating for the lack of resources and disadvantage in the marketplace suffered by SMEs. Thus, the main focus of attention has been established small firms without making any particular distinctions between them. By contrast, the goal of entrepreneurship policies is to generate a business environment favourable to more and better start-ups, especially innovative and growth-oriented ones, and to increase entrepreneurial activity levels. The rationale behind this objective is that the start-up process has a positive impact on productivity growth and employment creation.

Policies for high-growth firms can be regarded as a subset of entrepreneurship policies and be divided into three major groups: policies affecting framework conditions; policies strengthening the local entrepreneurial ecosystem; and policies specifically targeting high-growth firms.

Policies affecting framework conditions

Framework conditions are primarily set at the national level but strongly affect entrepreneurship and business growth at the local level.[5] For example, interest rates and inflation rates have repercussions on business start-up and business growth because, if both rates are too high, they will raise production and investment costs. Similarly, volatile exchange rates will deter exports as entrepreneurs seek to avoid financial losses stemming from the depreciation or devaluation of the national currency.

At national level, three policy areas appear especially relevant to the development of high-growth firms: product market regulations, taxation, and employment protection legislation. Pro-business product market regulations will facilitate market entry by lowering start-up costs and will favour HGFs to the extent that latter are overrepresented among young firms. Anti-trust regulations will also positively influence the numbers of high-growth firms by creating market opportunities across a larger spectrum of economic sectors. Openness to trade and foreign investment is also expected to play a positive role since it has been observed how foreign ownership increases the chances of an enterprise to become a HGF, possibly because of the positive effects of being part of a group.

Taxation is also anticipated to affect the rate of high-growth firms at national level. Because tax codes make no difference between the income from a business activity and the income from dependent work, the taxation of earned income will affect the occupational choice between self-employment and wage employment. For example, some argue that a high income tax rate will prompt more people to choose a self-employment career because income from self-employment can be more easily concealed to tax authorities than income from wage employment (Henrekson and Johansson, 2009). However, while this is possibly true for own-account workers and small businesses, it is unlikely for fast-

growing firms that need to make transactions (e.g. hiring workers, contracting suppliers, paying invoices, etc.) rapidly under a stable legal framework. Thus, a high income tax is most likely to hold back high-growth entrepreneurship. The payroll tax will also matter, as fast-growing entrepreneurs are faced with the choice of whether or not to hire additional workers, who are often skilled and thus costly. Taxation of capital gains will influence the development of the venture capital industry and of secondary stock markets, thus in turn increasing or decreasing the chances of HGFs to receive external equity investments (Henrekson and Johansson, 2009).

Finally, employment protection legislation will impact high-growth firms in different ways. Firstly, strict employment protection legislation will increase the opportunity cost of entrepreneurship by reducing the incentive for quitting a job to start a business. Secondly, stringent employment protection legislation hinders the reallocation of labour towards more productive activities, thus penalising expanding HGFs in need of new skilled labour. This is corroborated by evidence that shows how low labour turnover, a proxy for rigid labour markets, and high levels of employment protection are negatively correlated with the incidence of HGFs at the local and national levels (Teruel and de Wit, 2011; Hölzl and Friesenbichler, 2012).

Policies to directly support the development of local entrepreneurial ecosystems

The main contribution of policy makers towards a strong local entrepreneurial ecosystem will consist in feeding the development of such ecosystems through appropriate resources (e.g. a qualified labour force) and facilitating productive interactions and networks among the ecosystem stakeholders. This broad mission can be brought forward through some relevant support measures.

First of all, it is important to encourage a local culture that rewards risk-taking and self-achievement and thus appreciates business creation and business growth. Awareness-raising campaigns, events that celebrate entrepreneurship and entrepreneurs, entrepreneurship education in schools and universities, but also dialogue with large companies to promote a spinoff culture, are all actions that buttress the local entrepreneurial culture. “Entrepreneurial recycling” and “serial business creation” are less likely to occur if the local culture does not recognise the value of entrepreneurship and entrepreneurs are not held in high esteem.

Secondly, interactions and networks among the ecosystem stakeholders need to be fostered with a view to generating peer learning and investment. One of the goals of policy makers can be, for example, to help fill the gap in early-stage equity finance occasioned by the lack of interest of traditional venture capital in start-up financing due to its inherent costs and low capital requirements. An approach to do this is by defraying the operating costs of investor clubs and business angel networks or by co-investing with them, although in both cases it would be important that public resources are spent to generate an appropriate level of angel investment and that these organisations have the right set of incentives to become self-sustainable in the long term (OECD, 2011).

Thirdly, firms are more likely to achieve high-growth in localities that have reached high skill equilibrium where the high skill demand of the business sector is met by the high skill supply of the education sector (see data on skills supply and demand in the country profiles of this publication). Local policy makers can help avert skills mismatches by fostering dialogue and collaboration between industry and educational institutions at secondary, tertiary and vocational levels (see Part 1 of this publication).

However, not only do workforce skills matter but also the skills of entrepreneurs and managers. For example, leadership and management skills, which primarily originate from entrepreneurial and industry experience, explain business high-growth performance. In this respect, an important task for local policy makers should be to support forms of business advice and business mentoring where ambitious and fast-growing entrepreneurs can learn how to achieve and manage business growth from the best sources of professional advice as well as from other experienced entrepreneurs (i.e. peer-to-peer learning). One example is business accelerators, which have sprouted in many countries to help young and small businesses to trigger and manage the process of growth. The OECD LEED Programme has recently benchmarked six such accelerators; the main results of this analysis are presented in the following section.

Targeted programmes: The example of business accelerators

Business accelerators are similar to business incubators, although they target existing fast-growing firms and do not have office space for rent. They provide a wide range of skills development services (e.g. business advice, business coaching, training and peer learning activities) and, in rarer cases, they take an equity stake in the company. Interestingly, most business accelerators are the result of public-private partnerships in which the public sector co-sponsors the programme but programme activities are delivered by private sector organisations (e.g. business consultancies and advisors). The box below compares three accelerators in different countries.

Box 7.1. **Three business accelerators compared**

Through a consortium of five private business consultancies, the Netherlands runs an intensive programme (Growth Accelerator) aimed at growth-oriented entrepreneurs who have the ambition to increase their annual turnover from EUR 3-5 million to EUR 20 million. Participant entrepreneurs go through a face-to-face diagnosis of their growth potential and then through intensive weekly or bi-monthly sessions of bespoke advice and training for five years. The public sector only covers part of the costs of the scheme and participants are expected to co-finance programme activities.

The United Kingdom has a decentralised approach to business development and has also launched a Growth Accelerator only applicable to England. In this case, the first business diagnosis is carried out through an online assessment tool and phone interviews. After this first screening, participant entrepreneurs meet with a programme manager who sets out a package of possible support and appoints a business coach who will work with the company. England's programme, launched in 2012 and budgeted with GBP 200 million, aims to assist 26 000 firms over a period of three years.

Finland runs a different model of business accelerators (Vigo). Vigo accelerators are privately-held profit-seeking companies set up and managed by experienced entrepreneurs and executives who offer managerial support, but also take equity stakes in the supported firms (no less than EUR 30 000 in each company). The Finnish government selects the accelerators, pays accelerator management fees, co-invests in the companies, and has a final veto power on the companies selected by the managers of the accelerators.

Source: OECD (2013b), *Key Findings of the Work of the OECD LEED Programme on High-Growth Firms*; and Autio E. (2013), "Promoting Leadership Development in High-Growth Firms", *www.oecd.org/cfe/leed/leadership-development-HGFs.pdf*.

The LEED Programme has benchmarked six different business accelerators in OECD countries, four of which were accelerators *tout court*, while the other two combined financing for high-tech start-ups and research commercialisation with forms of business advice more typical of accelerators. The six schemes were: Denmark's Growth Houses, Scotland's Companies of Scale, The Netherlands' Growth Accelerators, Flanders' Gazelle Jump, Germany's High-Tech Start-Up Fund (i.e. *Gründerfonds*), and Commercialisation Australia (OECD, 2013c).

The business accelerators were analysed through an assessment framework of 35 indicators grouped into 7 categories: i) context of the programme (i.e. objectives, governance, and geographical scope); ii) staff profile (i.e. academic and professional background); iii) client firms (i.e. selection process, prevailing sectors, market orientation, and follow-up); iv) type of business diagnosis (i.e. business concept, business organisation, customer relations, and operations); v) delivery arrangements (i.e. degree of support externalisation, client firms/staff member ratio, pro-activeness towards client firms, selection and evaluation of intermediary organisations); vi) monitoring and evaluation in place (i.e. coverage, type, independence, frequency, and use); and vii) performance of client firms (i.e. turnover, employment, export).[6] The main findings of the analysis are presented in Box 7.2.

Box 7.2. **OECD LEED benchmarking of Business Accelerator Schemes**

The main results of the OECD LEED's benchmarking of Business Accelerator Schemes in Australia, Belgium (Flanders), Denmark, Germany, the Netherlands and the United Kingdom were as follows:

Context

An interesting finding was that many business accelerators had not set specific quantitative targets on which to evaluate their performance (e.g. increase in sales turnover of participant firms). The reasons were different case by case and included the fact that some programmes were delivered by many intermediary organisations at the same time, which made homogenous standards difficult to set, or the acknowledgement that success can take multiple forms in this type of programme, including early discontinuation of support if a participant does not achieve the expected progress milestones.

Another interesting element was that most firms in business accelerators were from the wealthiest regions of the country, which in part reflected the location of business accelerators but which also signalled the risk that targeted programmes for high-growth firms may unintentionally favour leading regions over peripheral ones.

Staff

The most surprising aspect was that most managers in business accelerators did not have entrepreneurial experience, with the partial exception of the Danish Growth Houses and Commercialisation Australia. This weakness was generally alleviated by the recruitment of experienced entrepreneurs as consultants in charge of special training and mentoring sessions. Another approach to strengthening entrepreneurial competences in accelerator programmes would have been through the creation of external advisory boards with seats reserved to successful entrepreneurs, a path which had not been followed by any of the six schemes.

Box 7.2. **OECD LEED benchmarking of Business Accelerator Schemes** *(cont.)*

Participant firms

A peculiarity of the reviewed business accelerators was that participant firms were generally selected on the basis of their growth potential, which was in turn based on a mix of past performance and more qualitative criteria such as the ambition of the entrepreneur, the management structure of the firm and the innovativeness of their products and services. This makes high-growth schemes distinctive from most other public measures where selection is primarily, if not only, based on quantitative criteria.

In addition, participant firms in accelerators tended to be from different sectors. This reflects the fact that high-growth firms are not specifically found in any specific sector (while being more prevalent in services) and that peer learning and knowledge spillovers among entrepreneurs are highest when information can freely be shared among non-competitors.

Delivery arrangements

An important feature of business accelerators was that they were often the result of public private partnerships where programme activities are delivered by private sector organisations, generally consulting companies. In fact, government organisations rarely have the experience and expertise to train and consult fast-growing entrepreneurs, which makes reliance on external business development service providers needed. The extent to which this outsourcing happened, however, varied by programme, with some schemes externalising the whole set of activities (the Netherlands' Growth Accelerators) while others only a part of them (Scotland's Companies of Scale).

Monitoring and evaluation

Monitoring and evaluation arrangements differed, depending on the programme. In some instances, a proper evaluation based on comparison between participant firms and match firms was done (e.g. the Danish Growth House), but in others monitoring and evaluation was merely based on statistics on the take up of the scheme and opinions of recipients, while in still others no evaluation had been planned. This lack was sometimes justified by the small scale of some programmes (e.g. Scotland and Flanders), which made a serious evaluation exercise costly. At the same time, some bigger schemes would have benefited from a better evaluation of their performance.

Performance of client firms

None of the accelerators had been evaluated rigorously enough to attribute the post-intervention performance of participant firms to the activities of the programme. Nonetheless, four had tried to somehow measure the impacts on sales, export and employment of beneficiary firms. Two main findings emerge: first, there is a tentative positive relationship between the intensity of public support and sales performance in participant firms; second, there is not a consistent relationship among growth rates in turnover, exports and employment.

Source: OECD (2013c), "An International Benchmarking Analysis of Public Programmes for High-Growth Firms".

Conclusion and issues for consideration

High-growth firms have received growing attention from national and local policy makers because of the impact they have on job creation. There is, in fact, consolidated evidence that net job creation is concentrated in a few rapidly-growing firms rather than dispersed across a large score of slow-growing enterprises. An analysis of the average

profile of HGFs shows that they tend to be young and small, although a few larger and older HGFs remain a major source of employment creation. Interestingly, HGFs are not overly represented in technology-intensive sectors; instead, they are overrepresented in the services sector. The profile of the entrepreneur also matters. Industry experience, entrepreneurial experience, extended personal networks, and leadership and management skills are all key drivers of high-growth entrepreneurship that belong to the personal sphere of the entrepreneur.

The presence of high-growth firms also depends on the local context. For example, OECD LEED analysis shows that cities are particularly conducive to the development of HGFs, especially in the services sector, owing to the economies of agglomeration they offer. Similarly, old industrial regions may have a comparative advantage in manufacturing which translates in higher numbers of manufacturing-based HGFs. The relevance of the local context is captured by the concept of entrepreneurial ecosystem, which emphasises local culture and networks and synergies among the ecosystem stakeholders to explain the propensity of a place to generate growth-oriented entrepreneurs and high-growth firms.

The section below provides a summary of the main policy recommendations for the local level that derive from the analysis conducted in this chapter.

Key recommendations for developing a local entrepreneurship ecosystem to support high-growth firms

Develop an entrepreneurial culture which is supportive of and rewards risk-taking

- Support early-stage equity finance by reimbursing the initial operating costs of business angel networks or by co-investing with them without, however, interfering in their investment decisions. A veto power can nonetheless be introduced to avoid public resources being channelled to projects considered non-beneficial to the development of the local entrepreneurial ecosystem.
- Celebrate entrepreneurship and entrepreneurs through media campaigns and awareness-raising events that cast light on successful and serial entrepreneurs, turning them into role models for future and nascent entrepreneurs.

Create opportunities for business advice and mentoring

- Design business accelerator programmes in partnership with private sector organisations such as business consultancies and business development service providers. Ensure that, by and large, no economic sector is *a priori* excluded from participation in the programme, staff have adequate entrepreneurial experience, and peer-to-peer learning are part of the programme activities.

Build links between business and educational institutions

- Foster dialogue and collaboration between industry and educational institutions (secondary, tertiary and vocational levels), for example by encouraging the presence of industry representatives in the governing boards of local schools and universities, carrying out surveys of skills gaps among entrepreneurs, or sponsoring educational courses that respond to the unmet skills needs at the local level.

Keep the local ecosystem open to outsiders

- Keep the local entrepreneurial ecosystem open to foreign investors as an important source of knowledge, networks and market opportunities for local firms. For example, it has also been observed that foreign-owned firms are more likely to become high-growth firms.

Notes

1. French high-growth firms are also more likely to be part of a group, rather than being independent firms, and to have received a bank loan, although overreliance on debt finance can also preclude rapid expansion.
2. For a more comprehensive literature review on the subject: Wennberg K. (2013), "Managing high-growth firms: A literature review", background paper prepared for the OECD LEED workshop on "Leadership and Management Skills in High-Growth Firms", Warsaw, 6 May 2013. The workshop was organised in collaboration with the Polish Ministry of Economy.
3. In the OECD employment definition, high-growth firms are defined as "enterprises with average annualised growth in employees greater than 20% a year, over a three-year period, and with ten or more employees at the beginning of the observation period". The analysis at NUTS-2 level meant 39 regions in Germany, 37 in the United Kingdom, 11 in Belgium, and 5 in Denmark.
4. The use of ORBIS allows for a more disaggregated analysis at local level than is otherwise possible by only making use of data from national statistical offices (NSOs), but also calls for some methodological caveats. First of all, since ORBIS only includes incorporated businesses, the number of firms in this database at country level is smaller than the number of available NSO databases, which also reflects in the total number of HGFs. Secondly, since only incorporated businesses are counted in ORBIS, the size of high-growth firms is skewed towards bigger business size classes. Third, this bias is accentuated by the fact that smaller firms do not report full accounts. In summary, one needs to bear in mind that findings and conclusions below are based on relatively small numbers because the ORBIS database has fewer records than NSOs, firms with only partial accounts have not been included in the analysis and, of course, a local-level investigation implies fewer observations than a national-level one.
5. Given the local focus of the publication, this section discusses framework conditions only briefly.
6. Each indicator was linked to a set of questions, typically between one and three, which have assisted in assigning a score between 1 and 5. Each score was to portray a situation that progressively moves towards a best-practice scenario, based on past experience of the OECD LEED Programme in the analysis of entrepreneurship and SME development policies.

References

Audretsch, D. (2013), "Determinants of High-Growth Entrepreneurship", in OECD, *Key Findings of the Work of the OECD LEED Programme on High-Growth Firms*, interim report submitted to the 62nd session of the OECD LEED Directing Committee, 6-7 June 2013.

Autio, E. (2013), "Promoting Leadership Development in High-Growth Firms", background paper prepared for the International OECD workshop on "Leadership and Management Skills in High-Growth Firms", jointly organised with the Polish Ministry of Economy, Warsaw, 6 May 2013. *www.oecd.org/cfe/leed/leadership-development-HGFs.pdf*.

Di Giacinto, V., Gomellini, M., Micucci, G., and M. Pagnini (2012), "Mapping Local Productivity Advantages in Italy: Industrial Districts, Cities or Both?", *Bank of Italy's Temi di Discussione Working Paper*, No. 850, Rome.

Gabrielsson, J., Lindholm-Dahlstrand, A. and D. Politis (2012), "Sustainable high-growth entrepreneurship: A study of rapidly growing firms in the Scania region", paper presented at the International OECD-DBA workshop on "High-employment-growth firms: local policies and local determinants", Copenhagen, 28 March 2012, *www.oecd.org/cfe/leed/growthfirmsworkshop.htm*.

Hart, M. and Y. Temouri (2013), "High-Growth Firm Localities and Determinants: Evidence from OECD Countries", OECD, *Key Findings of the Work of the OECD LEED Programme on High-Growth Firms*, interim report submitted to the 62nd session of the OECD LEED Directing Committee, 6-7 June 2013.

Henrekson, M. and D. Johansonn (2010), "Gazelles as Job Creators: A Survey and Interpretation of the Evidence", *Small Business Economics*, Vol. 35, 227-44.

Henrekson, M. and D. Johansonn (2009), "Competencies and Institutions Fostering High-growth Firms", *Foundations and Trends in Entrepreneurship*, Vol. 5, 1-80.

Hölzl, W. and K. Friesenbichler (2012), "High Growth Firms in a Regional Perspective: Evidence for Austria", paper presented at the International OECD-DBA workshop on "High-employment-growth firms: local policies and local determinants", Copenhagen, 28 March 2012, *www.oecd.org/cfe/leed/growthfirmsworkshop.htm*.

Isenberg D. (2009), "The Entrepreneurship Ecosystem Strategy as a New Paradigm for Economy Policy: Principles for Cultivating Entrepreneurship", Babson Entrepreneurship Ecosystem Project, Babson College, Babson Park: MA.

Iuzzolino G. and Menon C. (2011), "Le Agglomerazioni Industriali del Nord-Est: Segnali di Discontinuità negli Anni Duemila [Industrial agglomeration in the North East : signals of discontinuity in two thousand years]", *L'Industria*, Vol. 32, N. 4.

Lazear E. (2005), "Entrepreneurship", *Journal of Labor Economics*, Vol. 23, No. 4.

Levratto N., Tessier L. and Zoukri M. (2013), "Do French Firms Grow Differently and Why? An Empirical Analysis Using Longitudinal Data", in OECD, *Key Findings of the Work of the OECD LEED Programme on High-Growth Firms*, interim report submitted to the 62nd session of the OECD LEED Directing Committee, 6-7 June 2013.

Mason C. and Brown R. (2013), "Entrepreneurial Ecosystem and Growth-Oriented Entrepreneurship", background paper prepared for the OECD international workshop on "Entrepreneurial Ecosystems and Growth Oriented Entrepreneurship", jointly organised with the Dutch Ministry of Economic Affairs, The Hague, Netherlands, 7 November 2013, *www.oecd.org/cfe/leed/Entrepreneurial-ecosystems.pdf*.

OECD (2013a), *Entrepreneurship at a Glance 2013*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/entrepreneur_aag-2013-en*.

OECD (2013b), *Key Findings of the Work of the OECD LEED Programme on High-Growth Firms*, interim report submitted to the 62nd session of the OECD LEED Directing Committee, 6-7 June 2013.

OECD (2013c), "An International Benchmarking Analysis of Public Programmes for High-Growth Firms", report submitted to the 62nd session of the OECD LEED Directing Committee, 6-7 June 2013.

OECD (2012), *Entrepreneurship at a Glance 2012*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/entrepreneur_aag-2012-en*.

OECD (2011), *Financing High-Growth Firms: The Role of Angel Investors*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264118782-en*.

Sutton J., (1997), "Gibrat's Legacy," *Journal of Economic Literature*, Vol. 35, 40-59.

Tuerel M. and de Witt G. (2011), "Determinants of High-Growth Firms: Why Have Some Countries more High-Growth Firms than Others?", EIM research paper, *www.accountancynieuws.nl/Uploads/Files/EIM_2.pdf*.

Wennberg K. (2013), "Managing High-Growth Firms: A Literature Review", background paper prepared for the International OECD workshop on "Leadership and Management Skills in High-Growth Firms", jointly organised with the Polish Ministry of Economy, Warsaw, 6 May 2013, *www.oecd.org/cfe/leed/Wennberg_Managing%20a%20HGF.pdf*.

Chapter 8

Job creation in the social economy and social entrepreneurship

This chapter looks specifically at the role of the social economy in job creation. Policy makers are paying increased attention to the social economy and social entrepreneurship following the financial crisis, and in the context of rising social inequalities in many OECD countries. Defining the scope and scale of these activities remains difficult, but their contribution to job creation and inclusion of disadvantaged people in the labour market is substantial and widely recognised. A number of barriers inhibit the creation and growth of social economy organisations. Accordingly, a supportive policy environment is needed to help social enterprises meet their objectives, including the creation of quality jobs. Such an environment should recognise and support social economy organisations and social enterprises as full economic agents, alongside the private and the public sector.

Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

In most OECD countries, government policies to address social and economic challenges are complemented by activities within the social economy. Social economy activities attempt to meet unsatisfied social and societal needs and contribute to finding solutions to problems such as unemployment, exclusion, inequality, lack of access to welfare services, and intergenerational poverty. Though the social economy has received wider attention recently due to the lasting impact of the global economic crisis, its contribution to more inclusive economic development has long been recognised.

This chapter will examine the role and capacity of the social economy organisations to create and maintain jobs. It will also assess the importance of various components of the policy environment in supporting social enterprises in achieving their objectives.

Social enterprises are increasingly being recognised for their capacity to create jobs and address social challenges

The renewed interest of governments in social enterprises as economic actors is evident in recent legislative developments to (re)define the boundaries of the sector and create enabling frameworks to support social enterprises and similar entities. As of 2014, new laws have been approved or are under discussion by the French and Italian legislatures.[1] Moreover, both social economy and social entrepreneurship are becoming more visible in the public domain thanks to a wide range of support programmes and initiatives, such as national awareness campaigns, publicity through social media, the development of specific courses taught at schools and universities, the integration of social enterprise modules within mainstream business degrees, and public and private programmes to promote social entrepreneurship among youth[2] and other target groups, including women and seniors.

Recent developments have contributed to advancing the policy agenda at the international level as well. In 2011, the European Commission launched the Social Business Initiative [COM (2011) 682 final] with the aim of creating an eco-system conducive to developing social businesses and facilitating access to funding. Within this framework, the European Social Entrepreneurship Fund was approved in 2013, to help raise capital and standardise compliance and reporting requirements for investment in social enterprises across member states.[3] At the beginning of 2014, the Strasbourg Declaration on social entrepreneurship[4] was presented at the end of a major event organised by the European Commission to serve as a legacy and a roadmap for the next European Commission on how to continue to establish ecosystems that foster the growth of social enterprises. In addition, efforts have been made to embed the social economy and social entrepreneurship in the post 2015 Millennium Development Goals agenda. In November 2013, a number of United Nation agencies created an inter-agency task force to assist countries and mobilise political will and momentum towards mainstreaming issues related to the Social and Solidarity Economy (SSE) in international and national policy frameworks.[5] These developments suggest that the social economy and social entrepreneurship are increasingly being

expected to contribute to finding effective solutions to important social and economic challenges, in both developed and developing countries.

Defining social economy, social entrepreneurship and social enterprises is still an issue

To understand the contribution that the social economy can bring, and how it should be supported for maximum efficiency, it is important to explore its variegated landscape. "Social entrepreneurship" and the "social economy" are different notions, though their boundaries are blurred, context-sensitive, and based on geographical and cultural traditions (Kerlin, 2006; Defourny and Nyssens, 2008).

The term ***social economy*** first appeared at the beginning of the 19th century in France and it refers to associations, co-operatives and mutual organisations and foundations. Social economy organisations are regulated by the principle of having stakeholders, not shareholders and, generally, by democratic and participative managements rules.

Social entrepreneurship can be defined as "entrepreneurship that aims to provide innovative solutions to unsolved social problems. Therefore it often goes hand in hand with social innovation processes, aimed at improving people's lives by promoting social changes" (OECD, 2010).[6] Social entrepreneurship is, therefore, mainly about solving social problems rather than exploiting market opportunities in order to make profits. Social entrepreneurs "… have one thing in common: the innovative use of resources to pursue opportunities to catalyse social change" (Mair and Ganly, 2010).

Social enterprises, or social businesses, occupy a central place in the social entrepreneurship landscape, regardless of their organisational form, which varies across countries. Many definitions of social enterprise exist,[7] with several countries adopting legal definitions. Social enterprises are defined by OECD as "any private activity conducted in the public interest, organised with an entrepreneurial strategy, but whose main purpose is not the maximisation of profit but the attainment of certain economic and social goals, and which has the capacity for bringing innovative solutions to the problems of social exclusion and unemployment" (OECD, 2000).

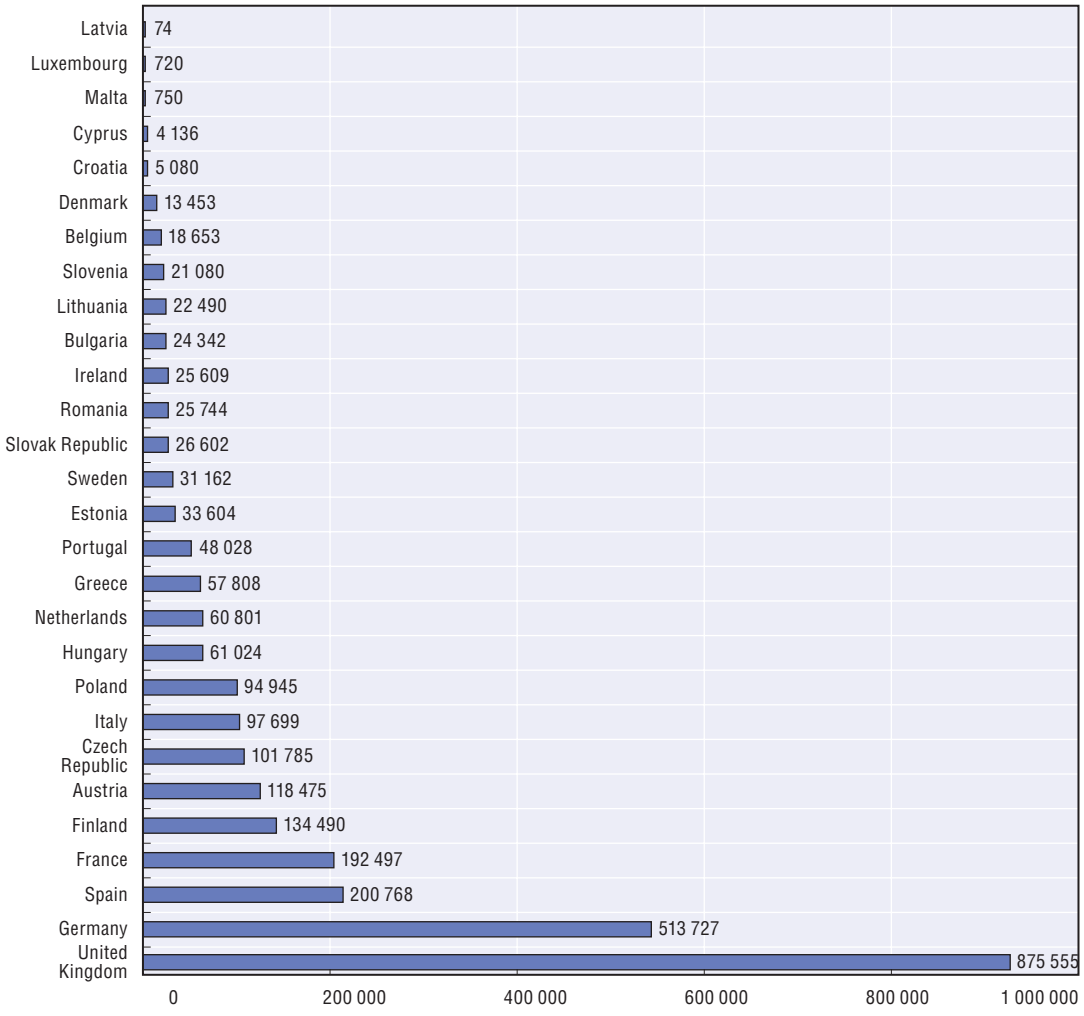
Estimating their size is essential, although difficult

The diversity of definitions, economic structures and legal frameworks makes estimating the size and scale of the social economy and social entrepreneurship difficult, especially for the purpose of making international comparisons (CIRIEC, 2012). Figure 8.1 gives an idea of its dimension in 28 European countries, based on an analysis of co-operatives, mutual, foundations and associations.

As shown in Table 8.1, associations and similar organisations represent the highest share of social economy organisations, especially in the UK and in Germany. Co-operatives represent the more entrepreneurial part of the social economy and make up the second highest share. Italy, Spain and France stand out with 71 578, 44 333 and 24 870 co-operatives respectively, reflecting their longstanding traditions both in social economy and social entrepreneurship (CIRIEC 2012).

Measuring social entrepreneurship is more difficult because its precise meaning varies significantly across countries. Several attempts to size the sector have recently been made.[8] The most comprehensive effort to date was in 2009, when the Global Entrepreneurship Monitor (GEM) constructed a dataset on social entrepreneurial activities in 49 countries

Figure 8.1. **The size of social economy in 28 European countries**



Source: OECD elaboration on CIRIEC (2012), *The Social Economy in the European Union*.

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through a household survey. Social enterprises were identified based on their perceived innovativeness, their revenue model and their social mission.[9]

As shown in Figure 8.2, the percentage of the working age population engaged in social entrepreneurship activities varies from 1% in Spain to around 5% in the United States and Finland. In most of the countries, the majority of social enterprises are early stage (under 42 months), except in Italy and United Kingdom where the proportions of early stage and established social enterprises are almost the same.

Data show that the role of the social economy in employment is not negligible

The social economy is responsible for a significant share of total employment. By one estimate, the social economy provides about 6.53% of the total paid employment in the EU-27, or 14.5 million jobs (CIRIEC, 2013).[10]

National data sources indicate that the social economy is growing in some countries. In France, employment in the social economy grew by 23% in the last ten years, compared to 7% growth in employment in the private sector (Bazin and Malet, 2011). In the Pays de la

Table 8.1. **The social economy in the European Union in terms of number of co-operatives, mutual companies, associations, foundations and other similar accepted forms**

	Co-operatives and other similar accepted forms	Mutual companies and other similar accepted forms	Associations and other similar accepted forms	Total
Austria	1 860	59	116 556	118 475
Belgium	166	26	18 461	18 653
Bulgaria	2 016	11	22 315	24 342
Cyprus	620	n.a.	3 516	4 136
Croatia	1 125	5	3 950	5 080
Czech Rep.	3 085	7	98 693	101 785
Denmark	523	53	12 877	13 453
Estonia	1 604	n.a.	32 000	33 604
Finland	4 384	106	130 000	134 490
France	24 870	6 743	160 884	192 497
Germany	7 415	328	505 984	513 727
Greece	7 197	11	50 600	57 808
Hungary	2 769	13	58 242	61 024
Ireland	509	100	25 000	25 609
Italy	71 578	n.a.	26 121	97 699
Latvia	74	n.a.	n.a.	74
Lithuania	490	0	22 000	22 490
Luxembourg	56	n.a.	664	720
Malta	57	n.a.	693	750
Netherlands	677	124	60 000	60 801
Poland	8 823	22	86 100	94 945
Portugal	2 390	95	45 543	48 028
Romania	1 747	897	23 100	25 744
Slovak Republic	382	10	26 210	26 602
Slovenia	77	3	21 000	21 080
Spain	44 333	428	156 007	200 768
Sweden	12 162	128	18 872	31 162
United Kingdom	5 450	105	870 000	875 555
Total	206 439	9 274	2 595 388	2 811 101

Note: The CIRIEC report does not take into consideration foundations in some countries. Additionally, some data are missing (i.e. non-available).

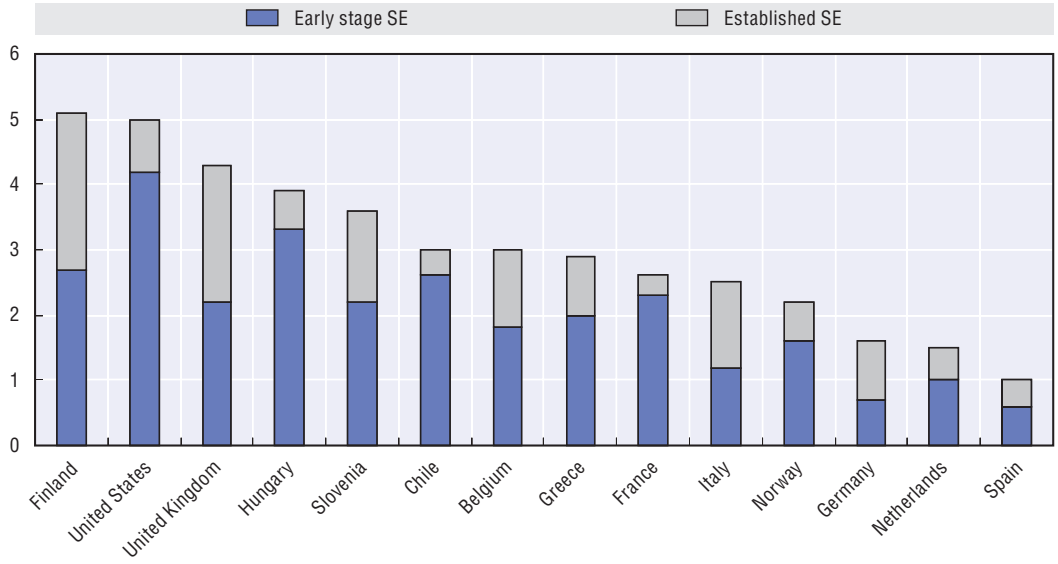
Source: OECD elaboration on CIRIEC (2012), *The Social Economy in the European Union*.

Loire region, for example, the social economy consists of 13 680 organisations (associations, co-operatives and mutual societies), which represents 12.8% of all employers. This number of employees is higher than that of the craftsmanship, and agriculture and food industries. Between 2000 and 2010, the social economy created 284 000 jobs, an increase of 26.5%. These jobs are all strongly territory-based with little possibility for delocalisation (Chochteau, 2014). In the Bourgogne region, the 6 000 institutions in the social economy employ more than 57 000 individuals. Despite the decrease of 0.3% in the number of employees in 2008, this sector registered a rise in 2009. Moreover, between 2005 and 2010, employment in social economy grew by 21%, as opposed to 2% in the private sector (Buckingham and Teasdale, 2013).

In Italy, the Italian National Statistical Institute (ISTAT) indicates a growth rate for the non-profit sector of 28% from 2001 to 2011, with 301 191 non-profit institutions at the end of 2011. The total number of co-operatives amounted to 61 398, of which 11 264 are social co-operatives.[11] This is a 98.5% increase in the number of social co-operatives within a decade. Even though volunteers make up a significant part of human resources involved

Figure 8.2. **Social entrepreneurship prevalence rate, 2009**

As % of the working population by enterprise



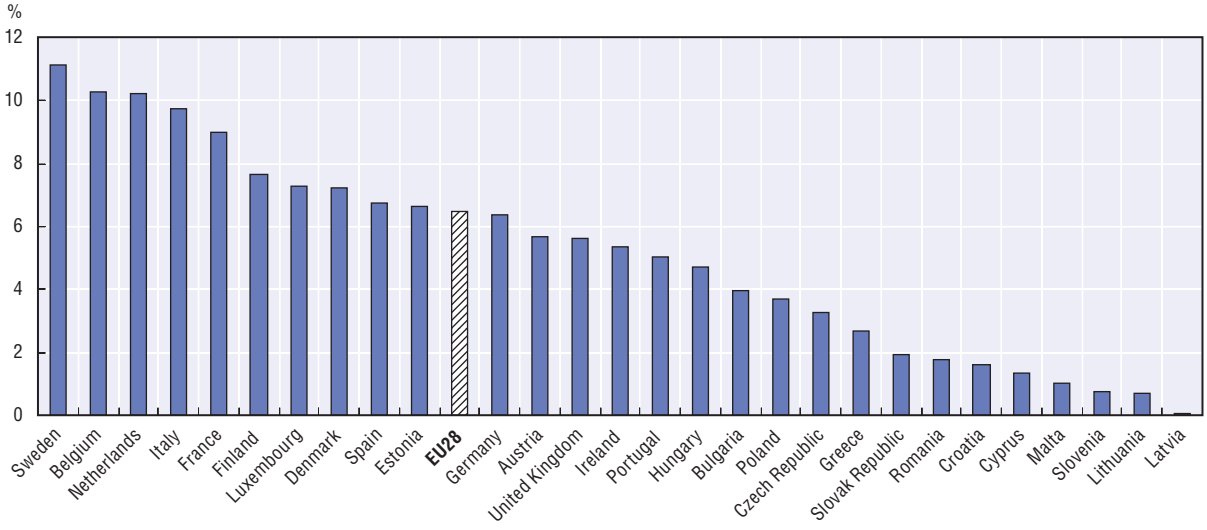
Note: The sample size of each country determines the precision of each of these estimates.

Source: OECD elaboration based on Terjesen, S., J. Lepoutre, R. Justo and N. Bosma (2011), *Global Entrepreneurship Monitor Report on Social Entrepreneurship*.

StatLink http://dx.doi.org/10.1787/888933136478

Figure 8.3. **Paid employment in the social economy, EU, 2009-2010**

As % of total employment



Source: OECD elaboration on CIRIEC (2012), *The Social Economy in the European Union*.

StatLink http://dx.doi.org/10.1787/888933136497

in the third sector, paid workers correspond to 16.7% of all workers in the non-profit sector (including external consultants and temporary staff) (Istat, 2013). A report has estimated that the Italian co-operatives employ more than 1 million individuals as paid workers (1 750 000 including seasonal workers) (EURICSE, 2014).

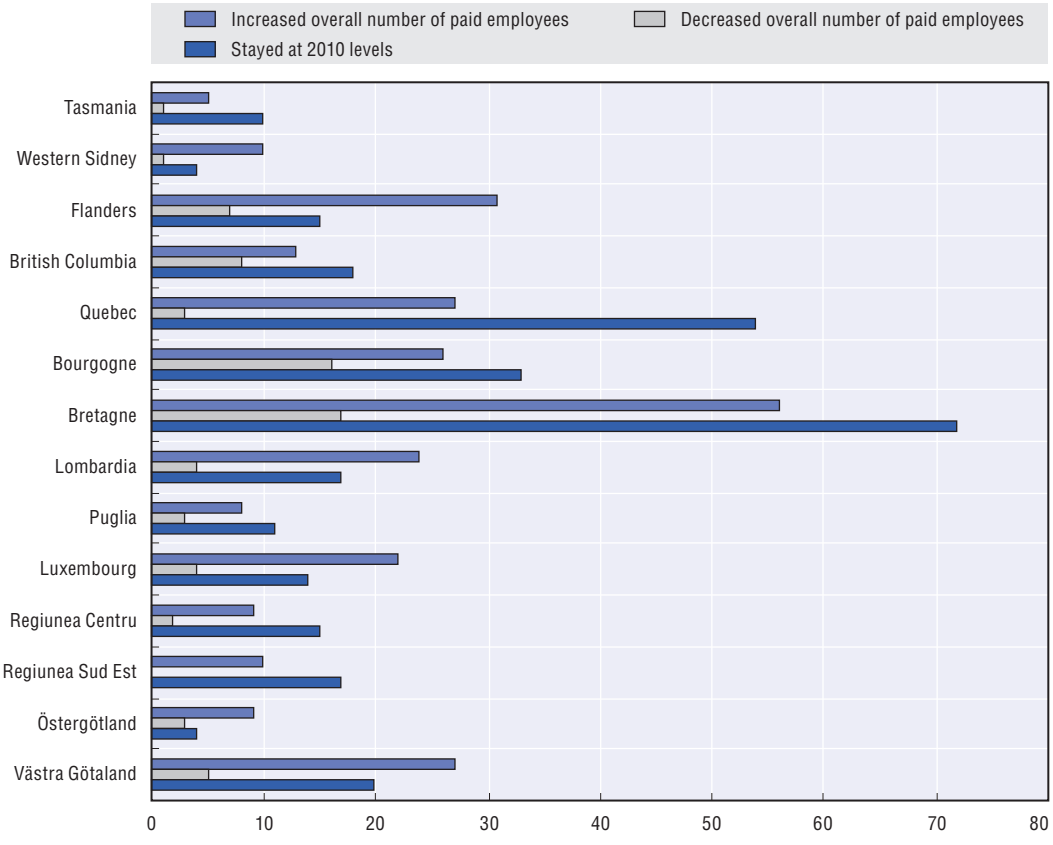
Job creation and retention in the social economy outweighs job destruction

The OECD recently undertook a survey to explore the impact of the social economy on job creation during the crisis. The results show that in the areas surveyed, a majority of social economy organisations have increased employment levels between 2010 and 2011 (see Figure 8.4). Across the areas surveyed, 42.3% of organisations increased their number of paid employees during the period, while 11.3% decreased them, and 46.4% maintained stable levels of employment. The number of full time equivalent (FTE) jobs in the social economy grew by 2.6 % compared to 2011. In total 47 268 FTE jobs were provided by the social economy organisations participating in the study, which equates to an average of 72.4 FTE jobs per organisation.[12]

The two most common factors reported as influencing the decision to increase paid employment positions were the "increased demand for more staff" (63.1%), and the "increased sales of goods and services" (52.2%). Only 12 social economy organisations out of 665 considered increased access to banking/credit finance as an important factor in the decision to increase employment levels.

The factors that were most often cited as being important in the decision to decrease employment levels in 2011 were prevailing economic conditions (50%), and decreased sales of goods and services (43.8%). The factors least often reported were decreased access to

Figure 8.4. **Changes in full time equivalent employment during 2011 by territory**



Source: Extrapolated from data in OECD (2013).

StatLink http://dx.doi.org/10.1787/888933136516

banking/credit finance, and decreased membership fee revenue. Other factors that were reported as being important included loss of public sector contracts (cited by 32.8% of respondents) and decreased subsidies (cited by 31.3% of respondents).

The 46.4% of social economy organisations in the OECD study that saw no change in employment levels during 2011 fell into three broad groups. Around half of this group (51.3%) claimed to have no need to increase employment levels. Another group (8.7%) should have reduced staff but may have been reluctant to do so because they were less driven by maximizing profits. A final group (39.9%) would have liked to employ more staff to help them meet demand for their services, but were prevented from doing so by economic factors, or in a small minority of cases, by a lack of available staff with the requisite skills (12.7% of this final group).

A central factor contributing to the resilience of employment among social economy organisations is the fact that social enterprises are frequently well-embedded in a local community. They are often active in distressed urban areas or in rural areas in which for-profit businesses tend not to go, and their presence can contribute to re-injecting trust and confidence in these communities and to (re)creating economic dynamics. The Ashton Community Trust, based in Belfast, is a good example. It became a relevant actor in the local development of a particularly disadvantaged community by promoting a high level of social and technological innovation and work inclusion in a number of economic sectors. Between 2005 and 2014, ACT succeeded in doubling the number of its staff (Box 8.1).

Box 8.1. **Ashton Community Trust: combining people- and place-based approaches (Belfast, Northern Ireland)**

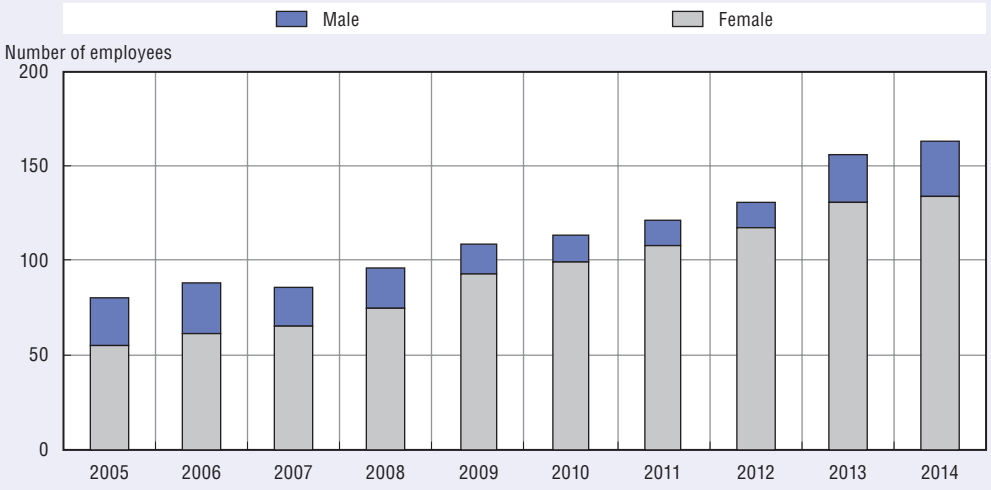
The Ashton Community Trust (ACT) is a social enterprise and development trust located in North Belfast, Ireland. ACT operates in some of the most deprived wards in Northern Ireland – for example, New Lodge has been ranked as one of the top three small areas with the highest rates of relative deprivation. The community was also significantly affected by the conflict in Northern Ireland, with over 20% of deaths and injuries happening in North Belfast.

Founded over 20 years ago, ACT is a registered charity whose multifaceted work includes provision of services, employment, training and community development. It has won numerous awards, including being named Social Enterprise of the Year in 2013 by Social Enterprise Northern Ireland. With an annual turnover of more than GBP 4 million and over 160 people on staff, the large majority of whom come from the local community, ACT is a key player in the revitalization of the North Belfast community. Its growing contribution to local job creation is evidenced by the fact that the number of staff it employs has doubled in the past nine years (Figure 8.5).

However, ACT's direct employment figures are only one piece of the story. For the past 20 years, it has also delivered a wide range of training and employment initiatives, focusing on those community residents most at risk of social exclusion, the long-term unemployed and the economically inactive. Through its 19 plus outreach centres, it served 2 145 learners, helped 1 385 residents gain a qualification, and helped sustain employment for 403 residents between April 2013 and March 2014.

Box 8.1. **Ashton Community Trust: combining people- and place-based approaches (Belfast, Northern Ireland)** *(cont.)*

Figure 8.5. **The variation in the number of employees between 2005 and 2014**



Source: ACT internal data (2014).

StatLink http://dx.doi.org/10.1787/888933136535

Its work to create vibrant community centres and resources also contributes to the revitalization of the North Belfast community. For example, the Ashton's McSweeney Centre offers day-care, complementary therapies, life coaching, counselling, essential skills, history programmes and good relations initiatives in a "one-stop" shop. ACT also worked with the Nerve Centre in Derry and the Massachusetts Institute of Technology to open the first Fab Lab (digital fabrication laboratory) in Ireland in June 2012. The Fab Lab Belfast is part of a network of over 150 Fab Labs worldwide that gives novices and expert's access to digital manufacturing technology (3D printer, various types of cutting machines, electronics station and large scale vinyl cutter) and technical staff assistance. Entrepreneurs, artists, and students alike are able to access this lab to help them develop their skills and create new products and prototypes. In 2012-2013, the Fab Lab engaged over 1 000 people (for more information, see *fablabni.com*)

Through a combination of direct employment and its people- and place-based approaches to community revitalization, ACT continues to make important contributions to the creation of quality jobs and building community cohesion and social capital more generally. For more information, see *www.ashtoncentre.com*.

Source: ACT (2013), *ACT Annual Report 2012-2013*.

Diversity in funding sources is a key issue in maintaining high levels of employment

The capacity for job creation and job retention within the social economy and social entrepreneurship depends on the amount and availability of funding sources. The incomes of social enterprises are derived from a variety of sources, such as market revenues, government subsidies and contracts with the public sector, commercial partnerships with the private sector, financial donations and non-monetary resources, such as volunteer workers. OECD data show that market resources, such as sales of good and services, public

contracts and membership fees, contribute to the majority of the aggregate income (54.3%), with sales of goods and services making up the biggest single source of income overall (31.8%). Public subsidies also make up a significant share of the aggregate income (30.6% in total).

There are remarkable differences in the nature of the main funding sources across countries. "Anglo-Saxon" countries tend to have more market-oriented social economies that are less dependent on public support. In contrast, in Romania, as well as in other Eastern and Central European countries, the social economy and social entrepreneurship is heavily dependent on philanthropic aid.

Various studies have indicated a positive return on the public investment in the social economy. A cost-benefit analysis (Ashoka/McKinsey, in Chauffaut et al., 2013) based on 10 social enterprises in France showed that public money to support social enterprises engaged in labour market reintegration activities resulted both in savings for the state (in terms of avoided costs of inactivity, subsidies, unemployment benefits), and in direct revenues through taxes on the activities undertaken by the social enterprises. For the 10 cases analysed, the sum of the savings and the gains systematically exceeded the amount of the money injected in the social enterprises.

The social economy has a pivotal role in creating jobs for vulnerable and at-risk individuals

Beyond creating jobs, the social economy has the capacity to (re)integrate vulnerable individuals into the labour market. More than three-quarters of the social economy organisations examined in the OECD study are involved in employment integration for vulnerable groups, either by providing training and work experience opportunities or by offering direct employment. The example of the Italian social co-operative *Vesti Solidale* (see Box 8.2) shows how re-integrating vulnerable individuals can generate both social and economic value and, in this specific case, also result in a positive environmental impact.

OECD data show that those social enterprises and entities which derive the majority of revenue from commercial sources are also likely to provide direct employment opportunities to vulnerable individuals.[13] This can be illustrated by the example of a social enterprise in Melbourne (see Box 8.3), in which 86% of the revenue originates from the sales of goods and services.

In France, social economy organisations often become engaged in a labour market programme known as "Integration into the labour market through the economic activity" (IAE - *Insertion par l'activité économique*). Since 2008, employment in the organisations offering these opportunities increased by 7%. In 2011, 166 000 people were hired in these bodies, which is an increase of 3.5% (DARES 2013). A long-standing French social enterprise working with disadvantaged individuals, the *Groupe VITAMINE T*, has proved resilient through a time of economic change (see Box 8.4), while providing an example of success in generating returns in the labour market. The rate of individuals finding a positive and better situation after a spell in the enterprise (the "exit rate") for *Groupe VITAMINE T* has been around 50 %.

Job quality in the social economy, however, remains a controversial issue

There is a paucity of analysis regarding working conditions and job quality in social economy and more analysis is needed.[14] Findings from the OECD study suggest that social economy organisations consider the following aspects of job quality as important: security of employment, provision of training, equality of treatment, adequacy of pay,

Box 8.2. *Vesti Solidale*: Job creation through recycling (Cinisello Balsamo/Milan, Italy)

Vesti Solidale is an Italian social co-operative founded near Milan in 1998. Its mission is to protect the environment while creating jobs for vulnerable individuals. Its principles are based on mutuality, solidarity, democracy as well as commitment and respect for human beings and the promotion of human rights along with the protection of the environment.

The primary activity of the co-operative is the collection and reuse of clothes and other materials – including shoes and bags, ink-jet cartridges and laser toners for printers, electronic equipment, cell phones – and promotion of environmentally sustainable consumption patterns. Additionally they offer different services – such as cleaning streets – aimed at protecting the environment and making green areas more accessible to the community. This non-profit organisation is actively and constructively collaborating with nearby municipalities and companies, and continuously seeking ways to extend its services.

Vesti Solidale 2012 activities in figures:

- 192 000 toners and cartridges collected from 1 941 private and 25 public offices by 9 people
- 3 967 tons of clothes, shoes and bags collected from 74 municipalities with 685 installed dumpsters by 20 people
- 190 tons of electronic equipment collected from 261 private companies by 6 people
- 8 300 used cell phones collected from 800 containers managed

Vesti Solidale has decided not to differentiate among various disadvantaged groups and rather provides jobs for people with diverse backgrounds, such as physically or mentally disabled people, ex-offenders, drug or alcohol addicts, homeless people, and refugees. Between 1998 and 2011 it employed 250 people, 65% of which came from marginalised social situations.

Vesti Solidale has also achieved a production value reaching 4,4 million Euro in 2012, with a profit margin of 4.9% before interest and taxes.

Source: Vesti Solidale (2012), Bilancio sociale [Social Balance], *www.vestisolidale.it*.

career progression opportunities, provision of a safe working environment, work/life balance, individual autonomy at work and positive working relationships (Buckingham and Teasdale, 2013). Of these aspects, it seems easier for them to provide positive working relationships and a safe working environment, rather than long term and adequately paid contracts, security of employment and career progression opportunities. Offering long-term positions seems to be hindered by the short-term nature of public contracts and the unpredictability of revenue from goods and services. One exception is the Italian social economy where the security and stability of employment appear not to be the most difficult aspects of job quality to deliver. For instance sixty-seven per cent of the 1 750 000 total employees (including seasonal workers) working in the co-operative sector had a permanent contract (EURICSE, 2014).

Government policy can help social enterprises overcome barriers to meeting their objectives in terms of job creation and long term sustainability

In addition to the general barriers faced by entrepreneurs (see Chapters 6 and 7), social entrepreneurs face an additional set of challenges that public policies can help address (OECD/EU, 2013). In some places, the legal framework – or lack thereof – can compromise the ability of social enterprises to effectively pursue dual social and economic objectives. Additionally, tax schemes under which social enterprises face the same taxes as for profit

Box 8.3. **Clean Force Property Services: Creating High Quality Work Opportunities (Melbourne, Australia)**

WISE Employment was founded in 1992 in West Melbourne as a not-for-profit employment agency for people with disabilities. In addition to working with jobseekers and employers to place over 10 000 job seekers into jobs each year, it operates four social enterprises: Clean Force Property Services, Equity Labour Services, Incito Maintenance and GBE Electrical.

The Clean Force Property Services (Clean Force), founded in Melbourne in 2001, was the first social enterprise in Victoria to focus on employing people with a mental illness. By securing and fulfilling cleaning contracts with businesses and community–based organisations, Clean Force is able to offer award wages through open and supported employment. In order to provide a suitable working environment for people with mental illness, Clean Force provides flexible working hours, individually designed roles, a team structure, and wrap-around support. Of its current roster of 84 employees, 74 have a mental illness.

Since opening its doors for business, it has generated and delivered over AUD 6.6 million in commercial cleaning contracts and high quality services and assisted over 200 workers in moving towards independent living, inclusion and integration into all aspects of the community. Over 86 % of Clean Force's revenue is generated through commercial sales, and over a period of 42 months, only two months were unprofitable. As an Australian Disability Enterprise, Clean Force also receives some funding from the Australian government.

In a Social Return on Investment (SROI) study of 28 employment-focused social enterprises, Clean Force had one of the highest SROI ratios: for every AUD 1 invested in Clean Force AUD 6.1 of social and economic value was created for stakeholders including the employees, family, case managers of the supported employees, WISE Employment and the Australian Government.

Along with financial return in both profitability and SROI, evidence suggests benefits in terms of workers' quality of life. A quality of life study conducted in 2011 found that 71% of participants answered more positively to questionnaire after six months of employment.

Thus, Clean Force's work demonstrates the role social enterprises can play not only in creating work opportunities for those traditionally excluded from the workforce, but in ensuring that these opportunities are high quality and benefit the workers and the communities alike.

Sources: SVA Consulting (2013), "Social enterprise: how to pick a winner", *http://svaconsultingquarterly.com/wp-content/uploads/pdfs/svaconsultingquarterly.5.1793.*; ConNetica (2013), *Australian Disability Enterprises: Building Better Business Opportunities*, OECD (2014), "Proceedings from the 10th Annual Meeting of OECD LEED Forum on Partnerships and Local Development", *www.oecd.org/cfe/leed/10th-fplg-meeting.htm.*

businesses fail to account for the social aspects of their work. Accordingly, establishing clear and enabling legal, regulatory, and fiscal frameworks for social enterprises should be a priority for policy makers.

Social enterprises also face specific barriers to accessing credit and financing, as many traditional financial institutions are reluctant to lend to them because they do not meet their client criteria and/or do not have sufficient guarantees. Policy makers can help to ensure the availability of sustainable finance that is tailored to the needs of social enterprises, for example through innovative institutional arrangements between governments and financial institutions that seek social returns as well as financial ones.

Additionally, a number of factors can limit social enterprises' market competitiveness. Benefits often given to SMEs are not always applicable to social enterprises, creating an uneven playing field. And although public procurement represents a significant part of

Box 8.4. *Groupe VITAMINE T*: Impact through entrepreneurship (Lesquin, France)

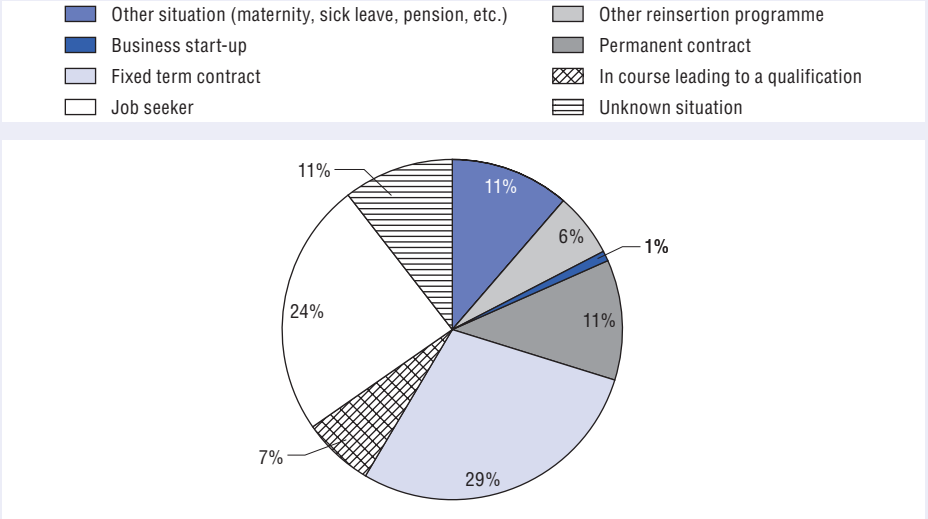
Founded in 1978, the *Groupe VITAMINE T* is now the leading French group for work integration through economic activity structures. It is composed of 13 enterprises operating in various sectors, including services, recycling and reselling white goods and vehicles, and food processing. The group employed 2 717 people in total which corresponds to 1 047,32 "full time equivalent" positions in 2012. Its total annual turnover in 2012 amounted to approximately EUR 40 million.

Groupe VITAMINE T's mission is to address job precariousness and unemployment. While the group's companies have genuine economic activity and are managed under the same fiscal and regulatory frameworks applicable to purely for profit business, they re-integrate vulnerable individuals into the labour market through their activities. The companies earn most of their revenue from the goods and services they produce and sell and are subject to the constraints of cost, quality and timing. *Groupe* VITAMINE T receives public money as remuneration for its social mission. In return, the *Groupe VITAMINE T* pays all business revenue taxes and employer contributions to the French social welfare system. The *Groupe VITAMINE T* strives to be financially independent in its operating margin, the cost covered by the state agencies being mostly for training expenditures.

In 2012, public subsidies for reintegration work amounted to EUR 5.8 million, representing 12.7% of the groups' revenues. But as these revenues are essential to the group's activities, they truly are a leverage as EUR 14.3 million are given back to the state in the form of taxes on revenue and other business taxes. Overall, for each euro invested by the public bodies, EUR 2.45 million is given back to society, not counting all other benefits and spillovers.

Figure 8.6 gives a detailed picture of the situation of the people in the labour market after training programmes inside *Groupe VITAMINE T*. Fifty four per cent of exits were positive (towards business start-up, permanent and fixed term contracts, continuation of another re-insertion programme or training course) although recently there has been a decrease in positive exit rates. This may be explained by the difficult economic and labour market context, a decrease in lower-skilled job openings in the context of deindustrialisation, amplified by a trend towards underemployment, which has led higher skilled persons to compete against *Groupe VITAMINE T*'s employees for lower-skilled jobs.

Figure 8.6. **Exit situation in 2012**



Source: Vitamine T (2012), *Social Report 2012.*

StatLink http://dx.doi.org/10.1787/888933136554

Source : Groupe VITAMINE T (2012), *Annual Report* and *Groupe VITAMINE T* (2012), *Social Report 2012.*

GDP (16% in Europe), practices that prioritise lowest cost procurement do not recognise that initial higher costs can be offset by the social aspects of social enterprises' work (OECD/EU 2013). Policy makers can help reduce these barriers by making the same support measures applicable to small and medium enterprises (e.g. tax reliefs or others) available to social enterprises and by making public procurement policies more responsive to the needs of the social enterprise sector (e.g. by removing hindrances such as capital requirements).

Finally, a lack of managerial skills and capacities can limit social enterprises' ability to meet their objectives. Policy makers can help to increase the capacity of social enterprises by developing business development services and support structures, including hubs and incubators. By promoting a culture of social entrepreneurship, policy makers can also build awareness of the sector and attract new talent to it. Finally, supporting research and increased knowledge of the sector and its needs, including on issues such as measuring social impact, can help to strengthen the sector more broadly.

Social economy organisations that were surveyed for the OECD study (Buckingham and Teasdale, 2013) insisted on the crucial role that government can play in providing financial support and improving access to markets, including through public procurement policy. They felt that governments could also assist social economy organisations in offering greater job security to their employees by increasing the length of funding and contract periods. In general, grants or subsidies were preferred as funding sources, as they were seen to nourish trust-based relations and did not always involve the significant outlay of resources required for tendering for contracts. Competitive tendering for public contracts was considered by a number of respondents to endanger the trust which exists among social economy organisations. Respondents called for preferential treatment to be given to social economy organisations to reward their social mission. This could be achieved through a more consistent use of social clauses in public procurements. Some felt that it would be useful to embed the payment of living wages to all staff as a mandatory requirement of all public contracts.

The organisations surveyed expressed a wish for governments to financially support the social dimension of their work, that is, the additional costs of employing and supporting vulnerable people. In addition, the need for governments to provide funding for training of staff was underlined. It was felt that governments could do more to raise the profile of the social economy within public discourse, while helping to foster collaboration and resource sharing between social economy organisations. Finally, it was thought that social enterprise could be given a higher profile within education systems.

Conclusion and issues for consideration

The social economy and social entrepreneurship have demonstrated their capacity to create jobs and to re-integrate vulnerable individuals into the labour market even during a time of crisis. By doing so, they contribute to building inclusive growth and to shaping more resilient local communities. Social enterprises play an important role at the local level not only by offering jobs to local people, often at risk of exclusion, but also by providing goods and services that are often not delivered either by the public or the private sector. Although they face a number of challenges in providing quality jobs, policy makers can help them in meeting their objectives in that regard. Support can be provided both at the national level (for example through building a supportive policy ecosystem for social enterprises) and at the local level (through, for instance, supporting the establishment of local networks

of social enterprises or of representative bodies, the creation of hubs and incubators to assist social enterprise start-ups, and the use of social clauses in local public procurements policies).

The contribution of social enterprises to the creation of economic and social value both at the national and local levels should be measured so that public policies can be tailored to strengthen their role and potential. Social impact measurement should be seen as an opportunity for all the stakeholders (social enterprises, public authorities in their role of regulators and funders, private investors) to better achieve their objectives. The section below summarizes the key recommendations emerging from this chapter.

Key recommendations for supporting the social economy and social entrepreneurship

Develop an appropriate legal framework

- Build enabling legal, regulatory and fiscal frameworks to bring clarity.

Facilitate access to financing and markets

- Provide sustainable finance that is tailored to the needs of social enterprises, including innovative institutional arrangements between governments and financial institutions and that seek social returns as well as financial ones.
- Support access to markets by creating a level playing field for social enterprises, by making the same support measures applicable to small and medium enterprises (e.g. tax reliefs or others) available to social enterprises.
- Make public procurement policies more responsive to the needs of the social enterprise sector.

Increase the capacity of the sector

- Offer business development services and support structures fostering a braided system of support, (targeting traditional and social enterprises) and which includes hubs and incubators.
- Promote a culture of social entrepreneurship in order to attract talent.
- Support research and increased knowledge of the sector and its needs, including on issues such as measuring social impact.

Notes

1. The French framework law on social and solidarity economy was approved in July 2014, and came into effect in August. (Projet de loi relative à l'économie sociale et solidaire, *www.assembleenationale.fr/14/ta/ta0387.asp*). The Italian law on social enterprises (Decreto legislativo n. 155/2006) is currently under revision. Both aim to better define the boundaries of the social economy and social entrepreneurship, while providing an enabling framework.
2. For example, the Jeun'ESS initiative in France, launched in 2011 as a public private partnership between a number of ministries and enterprises and foundations in the social economy sector, aims to promote the social economy amongst young people, particularly through the education system. It supports initiatives for young people in the social economy and the integration of young people into social economy organisations. A budget of almost EUR 2 million from 2010 till 2013 was allocated to this programme.
3. Regulation (EU) No. 346/2013 of the European Parliament and of the Council on European social entrepreneurship funds

4. See the following for more information: *http://ec.europa.eu/internal_market/conferences/2014/0116-social-entrepreneurs/docs/strasbourg-declaration_en.pdf*.
5. See the following for more information: *www.unrisd.org/80256B3C005BE6B5/search/D383EB2BF07FF084C1257BFA00420698?OpenDocument*. It is worth noting that the OECD is part of this new international taskforce.
6. Many other definitions exist which are reviewed in OECD (2010), *SMEs, entrepreneurship and innovation*, OECD Publishing, Paris.
7. Reviewed in OECD (2010), *SMEs, Entrepreneurship and Innovation*, OECD Publishing, Paris.
8. This includes a research project , SELUSI (Social Entrepreneurs as Lead Users for Service Innovation), which represents a useful source of information on social entrepreneurship in 5 European countries (Hungary, Romania, Spain, Sweden and UK). See SELUSI (2011), *www.selusi.eu/*.
9. Terjesen, S., J. Lepoutre, R. Justo and N. Bosma (2011), *Global Entrepreneurship Monitor Report on Social Entrepreneurship*.
10. This data was calculated in 2009-2010 when Croatia was not yet a member of the European Union: a complete representation of the total paid employment in the EU-28 (including Croatia) can be seen in Figure 8.3.
11. ISTAT, data extracted on 20 may 2014.
12. This overall trend should be treated with some caution: it considered only the organisations active at the end of 2011, excluding the dissolved ones and much of the net job creation was driven by a small number of large organisations (see Buckingham, Teasdale, 2013).
13. Contrary to the situation just mentioned, in those countries where resources are fewer and consumer demand is lower, such as Romania for instance, social economy organisations are better placed to provide training opportunities rather than direct employment, as the latter has a higher impact on the balance sheet (Buckingham, H. and S. Teasdale, 2013).
14. Some research does exist, such as the following: Richez-Battesti N., Petrella F., Melnik K., "Does the professionalism of management practices in non profits and for-profits affect job satisfaction?", in *The International Journal of Human Ressource Management*, pp. 1-22, juillet 2012. Richez-Battesti N., Petrella F., Maisonnasse J., Melnik K., 2013, "L'évaluation de la qualité de l'emploi au sein de l'économie sociale et solidaire abordée par un faisceau d'indices", in Caire et al. (dir.), *L'économie sociale et solidaire et le travail*, pp. 79-97, Coll. Logiques Economiques, L'Harmattan. C. Borzaga Depedri S. "Working for social enterprises: does it make a difference?" in Amin A. (ed.), Social Economy, ed. Zed Press, 2009; Depedri S.E. Tortia e M. Carpita "Incentives, Job satisfaction and Performance: Empirical Evidence in Italian Social Enterprises", n. 12, 2010, Euricse Working Paper series.

References

ACT (2013), *ACT Annual Report 2012-2013*.

Ashoka/McKinsey & Company (2012), "Étude d'évaluation de l'impact de l'entreprenariat social, en Chauffaut", D., C. Lensing-Hebben and A. Noya (eds.), L'entrepreneuriat social en France. Réflexions et bonnes pratiques, La documentation française, Paris.

Bazin, C. and J. Malet (2011), "Économie sociale : Bilan de l'emploi en 2010", *Recherches & Solidarités, www.recherches-solidarités.org*.

Borzaga, C and S. Depedri, "Working for social enterprises: does it make a difference?" in Amin A. (ed.), *Social Economy*, ed. ZedPress, 2009.

Buckingham, H. and S. Teasdale (2013), *Job creation through the social economy and social entrepreneurship*, A Report by OECD LEED, OECD Publishing, Paris, *www.oecd.org/cfe/leed/jobcreationthroughthesocialeconomyandsocialentrepreneurship.htm*.

Chanteux, J. (2014), "Un emploi avant tout !", en *Ressources solidaires*, 12 March 2014, *www.ressources-solidaires.org/Un-emploi-avant-tout-31601*.

Chauffaut, D., C. Lensing-Hebben and A. Noya (eds.), "L'entrepreneuriat social en France. Réflexions et bonnes pratiques", La documentation française, Paris.

CIRIEC (2012), *The Social economy in the European Union*, No. CESE/contract CES 18.106 – 2012, The European Economic and Social Committee (EESC).

Chochteau, G. (2014), "Un partenariat fort pour l'emploi dans l'économie sociale et solidaire sur la région avec la CRESS Pays de la Loire", Ressources Solidaires, *www.ressources-solidaires.org/Un-partenariat-fort-pour-l-emploi*.

ConNetica (2013), *Australian Disability Enterprises: Building Better Business Opportunities,* prepared for The Australian Department of Families, Housing, Community Services and Indigenous Affairs.

CRESS Pays de la Loire, *www.ressources-solidaires.org*, 27 February 2014.

Communication from the Commission to the European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions (2011), *Social Business Initiative Creating a favourable climate for social enterprises, key stakeholders in the social economy and innovation* Brussels, 25.10.2011 COM (2011) 682 final.

Dares Analyses, "L'insertion par activité économique en 2011", Octobre 2013, No. 063, *http://travail-emploi.gouv.fr/IMG/pdf/2013-063.pdf*.

Defourny, J. and M. Nyssens (2008), "Social Enterprise in Europe: Recent Trends and Developments", *EMES Working Paper*, 08/01, Liege, *www.emes.net*.

Depedri, S. Tortia, E and Carpita M., "Incentives, Job satisfaction and Performance: Empirical Evidence in Italian Social Enterprises", No. 12, 2010, *Euricse Working Paper series, www.euricse.eu/en/publications/working-papers*.

EURICSE (2014), *La cooperazione italiana negli anni della crisi* [The Italian co-operatives during the crisis], EURICSE, Trento.

Evans, M. and S. Syrett (2007), "Generating social capital? The social economy and local economic development", *European and Urban Regional Studies*, Vol. 14, No. 1, pp. 55-74.

Istat (2013), Censimento dell'industria e dei servizi 2011 [9th Census of industry and services and Census of non-profit organisations first results], Istat, *www.istat.it/en/files/2013/07/Fascicolo_CIS_PrimiRisultati_completo.pdf*.

Kerlin, J. (2006), "A Comparative Analysis of the Global Emergence of Social Enterprise", *Non-profit Studies Program* Working Paper 06-06, Georgia State University.

Mair, J. and K. Ganly (2010), "Social Entrepreneurs: Innovating towards Sustainability", in E. Assadourian (ed.), *State of the World 2010, Transforming Cultures: From Consumerism to Sustainability*, Worldwatch Institute, Washington, DC, p. 33304.

Mendell, M. et al. (2009), "Improving Social Inclusion at the Local Level Through the Social Economy : Report for Poland", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2009/01, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5kg0nvg0pnnt-en*.

Mendell, M. et al. (2010), "Improving Social Inclusion at the Local Level Through the Social Economy: Report from Korea", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2010/15, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5kg0nvg4bl38-en*.

Mendell, M., B. Enjolras and A. Noya (2010), "L'économie sociale au service de l'inclusion au niveau local: Rapport sur deux régions de France: Alsace et Provence – Alpes – Côte d'Azur", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2010/14, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5kg0nvhxwgbp-en*.

Monzón, J.L. and R. Chaves (2005), *The social economy in the European Union*, CIRIEC, EESC Publishing, Bruxelles, *www.ciriec.ulg.ac.be/fr/telechargements/RESEARCH_REPORTS/EESC2007_%20EnglishReport.pdf*.

Monzón, J.L. and R. Chaves (2012), *The social economy in the European Union*, CIRIEC, EESC Publishing, Bruxelles, *www.ciriec.ulg.ac.be/fr/telechargements/RESEARCH_REPORTS/EESC_CIRIECReport2012_EN.pdf*.

Nicholls, A. (2009), "We do good things, don't we?: blended value accounting in social entrepreneurship", in *Accounting, Organisations and Society*, Vol. 34.

Noya, A. (ed.) (2009), *The Changing Boundaries of Social Enterprises*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264055513-en*.

Noya, A. and E. Clarence (eds.) (2007), *The Social Economy: Building Inclusive Economies*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264039889-en*.

OECD (2014), "Proceedings from the 10th Annual Meeting of OECD LEED Forum on Partnerships and Local Development", Stockholm, 23-25 April 2014, *www.oecd.org/cfe/leed/10th-fplg-meeting.htm*.

OECD (2010), *SMEs, Entrepreneurship and Innovation*, OECD Studies on SMEs and Entrepreneurship, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264080355-en*.

OECD (2003), *The Non-profit Sector in a Changing Economy*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264199545-en*.

OECD (2000), *Social Enterprises*, OECD Publishing, Paris. *http://dx.doi.org/10.1787/9789264182332-en*.

OECD/EU (2013), *Policy Brief on Social Entrepreneurship: entrepreneurial activities in Europe*, EU Commission/ OECD, Publication Office of the European Union, Luxemburg, *www.oecd.org/cfe/leed/Social%20 entrepreneurship%20policy%20brief%20EN_FINAL.pdf*.

Richez-Battesti N., Petrella F., Melnik K., "Does the professionalism of management practices in non profits and for-profits affect job satisfaction?", *The International Journal of Human Ressource Management*, pp. 1-22, July 2012.

Richez-Battesti N., Petrella F., Maisonnasse J., Melnik K., 2013, "L'évaluation de la qualité de l'emploi au sein de l'économie sociale et solidaire abordée par un faisceau d'indices", in Caire et al. (dir.), *L'économie sociale et solidaire et le travail*, pp. 79-97, Coll. Logiques Économiques, L'Harmattan.

SELUSI (2011), Social Entrepreneurs as Lead Users for Service Innovation, *European Policy Brief*, *ftp://ftp.cordis.europa.eu/pub/fp7/ssh/docs/selusi-policy-brief_en.pdf*.

Social Enterprise (2013) The People's Business. State of Social Enterprise, 2013, Social Enterprise UK, London.

Spear, R., et al. (2010), "Improving Social Inclusion at the Local Level Through the Social Economy: Report for Slovenia", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2010/16, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5kg0nvfx2g26-en*.

Spear, R., et al. (2013), "Boosting Social Entrepreneurship and Social Enterprise Creation in the Republic of Serbia", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2013/12, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k3xz6lswcwl-en*.

SVA Consulting (2013) "Social enterprise: how to pick a winner", SVA Consulting Quarterly, *http://svaconsultingquarterly.com/wp-content/uploads/pdfs/svaconsultingquarterly.5.1793.pdf*.

Terjesen, S., J. Lepoutre, R. Justo and N. Bosma (2011), Global Entrepreneurship Monitor Report on Social Entrepreneurship, *www.gemconsortium.org/docs/cat/127/social-entrepreneurship*.

Vesti Solidale (2012), Bilancio sociale [Social Balance], *www.vestisolidale.it*.

VITAMINE T (2012a), *Annual Report 2012*.

VITAMINE T (2012b), *Social Report 2012*.

PART III

Local economic strategies and systems

Chapter 9

New growth and investment strategies – creating jobs and opportunity

This chapter explores the challenges that local economies are confronting in the pursuit of viable economic growth and job creation in the aftermath of the global financial crisis and the protracted economic slowdown. It identifies how local economies are re-engineering themselves towards increased productivity and growth within this new global economic paradigm, increasing trade with emerging markets, and better defining the economic niches in which they are most productive. The evidence shows that local economies matter a great deal to nations, acting as cylinders to national growth engines, and offering opportunities for economic diversification and re-balancing. The chapter outlines best practice strategies for growth and investment, and highlights the role that strong and decisive local leaders can play in developing longer term economic visions, implementing policy innovations, and integrating investments across diverse areas such as transport, skills, land, arts, sciences and services.

There is a new challenging context for local development

The second decade of the 21st century is going to be unlike the first decade, which ended so spectacularly with the financial and economic crash. The deep aftermath of the crash is still playing itself out within governments and markets. There is a long way to go before sovereign debt concerns are fully addressed, and there remain major challenges in the asset portfolios of financial institutions and others. Although job creation and disposable income levels are rising in the faster growing economies, in Europe overall, the growth of job creation and consumer spending is very slow and will be so for some time. However for local economies seeking to mount effective job creation, investment and development efforts, there are new considerations that must be taken into account. Local economic development is now being shaped by a series of global constraints which will impact upon existing economic strategies. In particular:

- The crisis has accelerated the process of global restructuring that was already in flow, fostering different paces of growth and development in many places, increased mobility of capital and jobs, new trade and investment patterns, and additional challenges, for example for peripheral locations.
- Global trends in demographics and industrialisation have spurred a rapid increase in urbanisation and the growth of cities, with two important consequences. Firstly, there is now a substantial growth in private sector interest in developing solutions and services for cities and city governments (as they represent a large a growing market for solutions and services) and second, there is increased competition between cities as there are many more cities entering the fray for contested investments/assets and other market opportunities.
- Awareness of the climate imperative is such that it has shifted from being an emergent idea in the last cycle to being a core activity in the new one, at least in part because rapid urbanisation would be extremely damaging if new models are not adopted, and also due to the fact that the need for large scale adaptation provides significant scope for new job creation and firm formation (the green economy – see also Chapter 11).
- Fiscal restraint in many OECD countries is reducing the size of transfer payments between higher tier and local governments. In many cases, local governments are being asked to undertake a wider range of activities with fewer resources, although in some cases local governments are provided with the freedom or opportunity to utilise new revenue raising instruments. Overall, local governments are poorer and the scope to use new instruments or to mount public and privately funded local development is limited by the weaknesses in demand from private capital. Consequently, the major opportunities often lie with skilful use of public budgets to achieve transformative investments and changes in addition to achieving efficient service delivery.
- Financial markets and systems of investment are adjusting to much lower rates of debt financing. For example, the pattern of property development being substantially financed with debt financing (as was common in the last cycle) is not likely to repeat itself, and both property developers and urban regeneration leaders will have to adjust

their financial models to use a wider set of financial tools and to engage with different equity investors.

- Technology continues to evolve rapidly, in telecoms, retail, information management, energy production, and media/entertainment. One feature of the new technologies in the current cycle is the growing and widespread use of technology in city management.

Taken together these trends and forces suggest important changes in the context in which local development and regeneration will happen over the next 10 to 15 years. The expanded integration of the global economy, and the growth of new markets, has important impacts on the geography of flows of capital, firms, jobs and knowledge. The changes in global financial systems also mean that new ways of capitalising redevelopment need to be found.

The fortunes of local economies have diverged according to geographic location and functional roles in the global economy

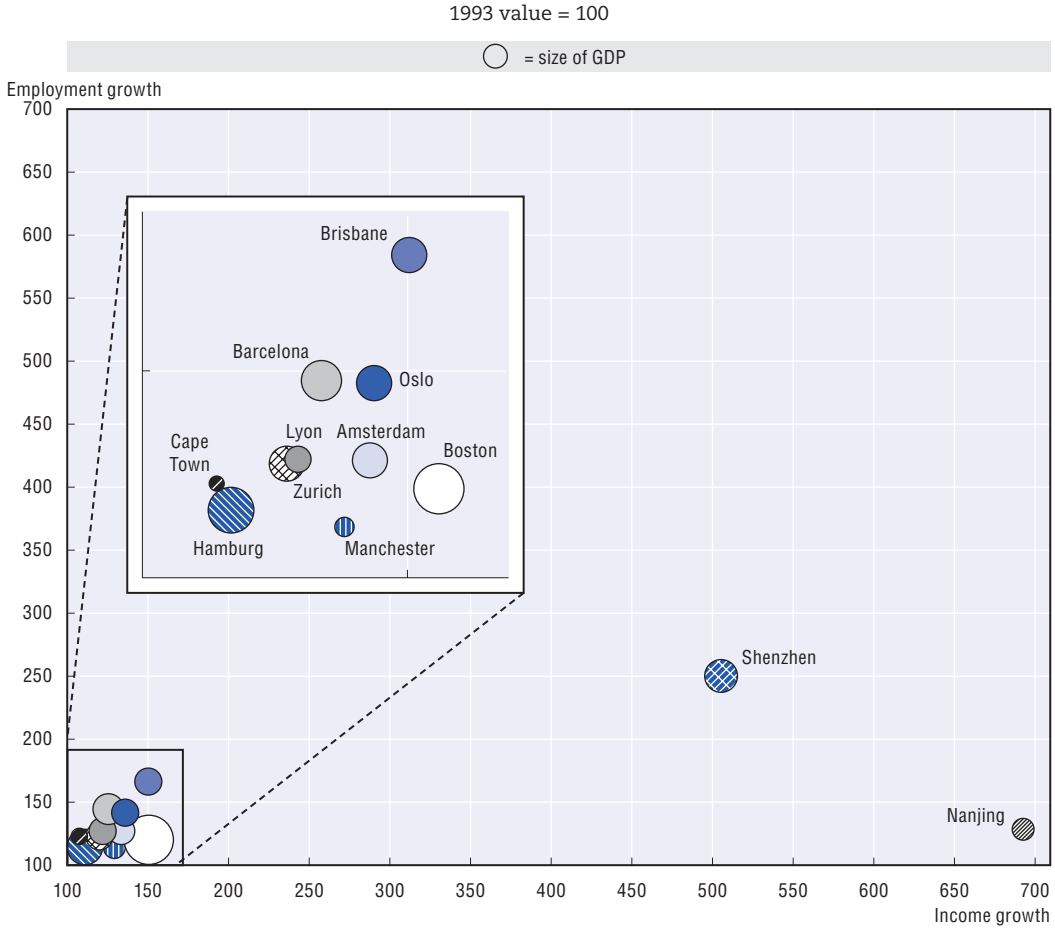
Few local economies have been able to transition into the new economic cycle without adjusting their horizons for achieving employment and growth and facilitating investment. Local economies affected by the crisis are concerned to reverse job losses and business growth, tackle stalled office space and retail investment, expand promising but underdeveloped sectors and build economic inclusiveness in a more high skilled economy. These are not new ambitions for many areas but the crisis and its protracted recovery mean that achieving these goals is both more challenging and more difficult than a decade ago.

Recent OECD LEED Programme analysis of 12 middleweight local economies as part of the New Growth and Investment Strategies project (OECD 2013) reveals contrasting economic fortunes over the past two decades (see Figure 9.1.).* While the analysis concentrated on middleweight economies, the policy implications are relevant at other spatial scales.

Within advanced developed economies, Brisbane has experienced the strongest pattern of overall growth in income and (especially) employment since 1993, off a booming commodities platform, and Boston has achieved impressive income performance which has continued since the financial crisis. Oslo and Barcelona also showed above average capacity to create more jobs. By contrast, Manchester has struggled in terms of employment generation, even though wage growth has been good, while Hamburg has largely stagnated, failing to grow by more than 15% in terms of incomes or employment. Thus, the nine developed local economies analysed face the new business cycle with very different momentum and therefore with different strategic impetus.

Among the three emerging cities analysed, the Chinese pair of Shenzhen and Nanjing immediately stand out for their remarkable progress in terms of wages and income. Shenzhen, in particular, has accomplished spectacular growth and also managed to accommodate an enormous population and employment rise, much of which has occurred in the last decade. The growth of these two second-tier cities now places them on an economic par with mid-size European and North American metro regions, and indeed presents them with some of the same imperatives of economic diversification and knowledge-intensive development. The much smaller and more peripheral city of Cape Town has achieved modest growth by contrast. Its reliance on international-facing sectors, however, including tourism, film and agricultural exports, brings forth many pertinent strategic and investment dilemmas.

Figure 9.1. **Income and employment growth of 12 selected cities, 1993-2011**



Source: OECD (2013), *Delivering Local Development: New Growth and Investment Strategies, www.oecd.org/cfe/leed/NGIS_final2.pdf.*

Robust evidence-based economic strategies can act as foundations for inclusive growth

Strategies matter because they provide a means to build a common agenda, to think and plan for the long term, and to act consistently over a long development cycle, within a culture which is often short term in nature. They can be the subject of "multi-party agreements" that can span several business cycles and many electoral cycles. In addition, they are a means to see linkages between different aspects of local development and to understand complex phasing and sequencing issues and critical paths to success. For example they often show links between land use, transport, housing and, environment, or between education, skills, economy, and productivity, or between planning, branding, and promotion.

Strategies require robust and diverse data collection, and economic intelligence gathering across economic geographies to monitor economic growth, labour and capital productivity, employment growth/unemployment reduction and business base scale and diversity. Knowing which economic indicators will be used to judge the success of the plans and policies is also important, and such knowledge should be used to judge investment priorities. Robust strategies require robust evidence bases which go beyond data collection and provide comprehensive analysis from which the right policy choices can be made.

Manchester has done more than any UK city to develop its evidence base in order to identify the conurbation's specific challenges and opportunities and then enact the requisite changes to drive growth and reform. Two initiatives have been critical to this approach: undertaking the Manchester Independent Economic Review (MIER) and creating the Greater Manchester Authority (10 local authorities). MEIR resulted in: a deeper level of integration and strengthened governance capacity (the Combined Authority); greater understanding of Greater Manchester as a single functional economic area; evidence of the centrality of investment in transport infrastructure to GM's growth trajectory; and the creation of a single assessment framework and the Greater Manchester Strategy (see Box 9.1 below).

Box 9.1. **The Manchester Independent Economic Review (MIER)**

The Manchester Independent Economic Review (MIER), led by global economic experts, was one of the most robust economic analyses ever undertaken of a city. A series of six projects were commissioned from prominent economists and business leaders, supported by a policy advisory group and secretariat. The review found that:

- Outside London, the Manchester City Region (MCR) is best placed to take advantage of the benefits of agglomeration and increase its growth.
- In the north of the UK, Manchester, Leeds-Bradford and Liverpool have higher productivity than other cities, and firms in Manchester have significantly higher productivity than firms outside these city regions elsewhere in the north.
- Although MCR is characterised by relatively high agglomeration economies, firms in the region do not exploit these as effectively as firms elsewhere in the UK.
- There is no evidence that the clustering of particular sectors, with one or two exceptions, is important for productivity, and productivity differences are largely explained by the extent of agglomeration economies, skills, and to a lesser extent access to transport within the city region.
- Skills are a large part of the explanation for the productivity gap between the Southeast and the rest. Manchester does well in terms of skills compared to other cities in the north, but not compared to the Southeast and Bristol.
- Inadequate transport networks within MCR are an important cost of increasing the size of the city, and improvements would provide the largest economic payoff.
- Housing is the other main cost of increasing agglomeration, and there is an avoidable mismatch between supply and demand.
- There is no rationale for supporting policies which try to redistribute activity in some places at the expense of others which are more productive.
- All local authority districts in MCR have seen rates of worklessness reduce until the very recent past, but with increasingly polarised neighbourhood outcomes.
- The causes from the consequences of economic and social deprivation at the neighbourhood level cannot be disentangled.

Source: New Economy Manchester (2014), *http://neweconomymanchester.com*.

New growth and investment strategies are prioritising intangibles, such as knowledge-sharing, in addition to capital investments

OECD research in the 12 second tier cities has identified common themes, with certain types of investment proving vital to achieving economic success and embedding economic resilience into local economies (OECD, 2013). By looking at individual city approaches it is

possible to determine policy trends, identify which interventions are working, and gain insights into the multifaceted context in which economic development operates.

Some examples of individual city growth strategies are identified below:

- **Amsterdam's** new growth agenda reaches out to markets through a combination of knowledge-intensive sectors, research, competitive education, international talent attraction and improved mechanisms for entrepreneurship. Growth in seven specific clusters is primarily to be directed towards a southern airport corridor and a western logistics corridor. The catalytic element to the growth strategy is the creation of a Humus Layer (*Humuslaag*) or "breeding ground" for future innovation. This refers to a dense and active network of researchers, students, entrepreneurs, research institutes and companies to devise new ideas and successful initiatives. As such, the major trend is the engagement of universities as much more important actors in future growth and investment than previously.
- The strategic response of **Barcelona** places considerable reliance on diversification within the knowledge economy and improved visibility for six sectors, half of which are established in international value chains (design, media and food), and another three with high potential (biotechnology, energy, sustainable mobility). The principal focus within this overall approach is a commitment to overhauling the conditions for establishing small businesses and to upgrading the city's business environment. The capacity of the start-up community is being raised through new financing, public bidding and talent-spotting opportunities. Furthermore, outreach to Asian investment and international student communities has been accelerated.
- **Cape Town's** Economic Development Strategy addresses the fact the city's capital-intensive growth path has been unable to accommodate a large pool of unskilled and semi-skilled workers within the labour force. New themes of creativity and low carbon/resource efficiency have emerged instead, to be complemented spatially by the development of efficient metropolitan growth corridors. Regional priorities are to broaden and deepen the skills base, to invest in economic infrastructure, to position the region as a place to do business and to ensure clear career pathways across all sectors. Opportunities for reaping the benefits of clusters are explored in five broadly defined areas – heavy industries, light industries, design, urban and coastal functions. The aim is for superior productivity, job creation and SME development compared to the rest of South Africa, with fairer, smarter and more resilient outcomes.
- **Hamburg's** vision grasps the city's opportunity to gain greater international profile as an environmentally sustainable, yet innovative, open and culturally diversified place. Two key economic tasks underpin the overall cluster-oriented strategy. First, the upgrade and expansion of port facilities is immediately sought to improve accessibility for Chinese ships in a fast-changing market. Second, the growth of the SME-based and green economy is to be subsidised via a new investment and development bank, and supported by more efficient processes within local government departments. Improved collaboration between unified business sectors and secondary schools is also targeted to prepare the new generation for employment in the fields of aviation, logistics, maritime and renewable energy.
- **Manchester's** Greater Manchester Strategy (GMS) reflects a growing consensus around the urgent need to transition into a knowledge economy through innovation, technology, competition and investment. The GMS proposes to utilise university assets more

effectively in order to expand the knowledge base. It will also extend and deepen the international trading links of the region's businesses in China, India and the Middle East. Such an expansion of the knowledge economy will require development of the region's skills and infrastructure provision. An improved correspondence with knowledge firms' skills requirements will be sought through the implementation of a demand-led system with employers at its centre. A more unified planning regime will manage investment in the conurbation's utilities, digital, housing and transport infrastructure.

A nearly universal theme of local growth strategies is the attempt to increase employment by supporting an enhanced research base through the clustering of scientific and technology SMEs around the region's leading universities. Highly competitive regional higher education assets are now being properly and effectively integrated into growth agendas. Lessons have been learnt about how to inspire commercially profitable synergies between university laboratories, large science/technology firms and start-ups. In some cases, the higher education role in growth is more direct and extends to the expansion of international student communities and the development of commercial links with overseas educational institutions.

Local growth strategies have focused primarily on a number of "employment-generating sectors"

Common sectors which have emerged in local economies include:

- **Specialised financial and professional services** are still important as niche finance, engineering and consultancy firms have strong records in job creation. The cost-effective offer that middleweight cities can uphold compared to larger nearby financial hubs is a competitive edge, and these services can complement more established clusters as part of a more rounded ecosystem. Oslo and Brisbane both encourage central business district (CBD) development honed for these firms because of the invaluable support functions they provide to their dominant commodities industries.
- **Life sciences and opportunities in healthcare and bio-medicine** matter. They are a key growth area for Manchester – which has developed a biomedical centre of excellence – as well as for Amsterdam and Oslo. Advantages are recognised by those cities that host a cluster, possessing horizontal organisational structures capable of innovating quickly in a fast moving market. Some cities, including Hamburg, aim to integrate a unified supply chain, which includes financial dimensions.
- **Creative industries and media** have stimulated medium-term job growth in the medium-sized cities examined, which can be attributed in part to the role of anchor institutions (which have acted as catalysts for investment) and in part to the fact that space and cost constraints for start-ups are a major inhibitor to growth in larger centres. The arrival of MediaCityUK is a major boost to Manchester's media cluster, for example, while Zurich is solving the problem of real estate access through the redevelopment of former industrial gear plant AMAG-Areal. International events – from film festivals to design capitals to sporting quadrennials – are increasingly sought after to raise the visibility of these industries to new audiences.
- Economies at different points of the value chain are targeting investment in a **global software** sector that is witnessing rapid growth. Major firms in the sector presently display more mature and sustainable business models which have developed over several business cycles, strong operational performance and potential to provide services

Table 9.1. **Growth strategy assets and initiative**

	Status of strategy	Assets leveraged	Key initiatives
Amsterdam	Seven sector strategy created in 2011 in tandem with the Amsterdam Economic Board	– Logistics experience at seaport, greenport and airport – New actor coalitions to co-ordinate and collect finances for key projects – Research institute and university communities	– Integration along two development corridors: the southern airport corridor and a western logistics corridor that connects the greenport – "*Humuslaag*" – densification of research networks to prompt innovation – Five new sector-specific science parks – Convert office space to alternative usages under "*kantorenloods*" scheme
Barcelona	*Barcelona Creixement* (Growth) 30-point initiative, complements 2011/12 EUR 1.4 billion Metropolitan Action Plan	– Diverse specialisms in design, media, food, biotechnology, energy and sustainable mobility – Gateway position to the Mediterranean – Climate, quality of life	– Mechanisms to foster a start-up culture – employment markets, financing, spaces, spread of positive entrepreneurial values – China and Mediterranean outreach strategy round-table – Leadership in smart urbanism through Mobile World Capital
Boston	Set of initiatives led by the city of Boston and Boston Redevelopment Authority since 2010	– Highly diversified economy – Youthful and very high skilled working population – Venture capital community	– Innovation District – Create Boston, single PoC for sector businesses
Brisbane	2031 Economic Development Plan	– Mining and energy resources – Proximity to Asia-Pacific	– Attraction of business visitors through conventions and cultural events – Outreach programme to Chinese, Japanese and Malaysian resource firms – Digital economy investment and leadership
Cape Town	Economic Development Strategy at city level. One Cape 2040 integrates province and central city strategies	– Affluent consumer base – Experience of foreign markets – Maturity of ICT/agribusiness sectors	– Metropolitan public transport corridors – Radically improve the skills base
Hamburg	Vision Hamburg-Responsible Growth	– Sustainability advantages – Enlarged cultural diversity – Deep talent base	– Cluster strategy in aviation, logistics, maritime, renewable energy – Upgrade of port facilities – Subsidised growth of SME economy
Manchester	Greater Manchester Strategy, revised in late 2012	– University expertise in bio-medical, pharma, oncology – Advantageous supply chain position – More unified planning regime	– Expand trade links – China, India, Middle East – Grow Oxford Road science corridor – Employer-led skills programmes – Upgrade of utilities, digital infrastructure and housing
Oslo	No dominant strategy name, but clear cumulative focus	Global leadership in maritime, energy and environment – Business-friendly stability and workforce	– World-class cluster groupings, especially in oncology – High-speed rail links with Gothenburg and Copenhagen, 8 m city-region

Source: OECD (2013), *Delivering Local Development: New Growth and Investment Strategies, www.oecd.org/cfe/leed/NGIS_final2.pdf.*

across many industries. At one end of the scale, cities such as Nanjing and Shenzhen are committing investment to create more operational space for software multinationals. At the other, Boston and Lyon are attracting fast-growth medium-sized software firms, either through dedicated incubators or assured access to venture capitalist funding.

- Mobility, cost and quality of place advantages have prompted renewed commitment to the value of **leisure and business tourism**. This is especially the case in Amsterdam and Brisbane, where tourist assets are viewed as capable of attracting a new generation of students and investors. Convention centre upgrades are also taking place or have just concluded in Cape Town, Shenzhen, Hamburg, Zurich and Brisbane. By contrast, the previously critical role of leisure tourism to the economies of Barcelona and Cape Town has been downplayed in their recent strategies to reflect their governments' intention to create a more visible business identification for their city.

However some less common sectors are also playing a role in redefining local economies and boosting jobs:

- **Agriculture and gastronomy** exports form an important role in future growth strategies for some cities which have a long record of quality produce. For Amsterdam, the "flowers and food" sector is one of seven growth poles, and food is one of six emerging sectors in Barcelona.
- The potential of the **green economy** through clean technology has increasingly been grasped by middleweight cities with agile knowledge industries. Indeed, growth in this field is a pre-occupation for cities as ostensibly contrasting as Zurich and Cape Town. Similarly, sustainable mobility is being prioritised by many local areas. Electric vehicle technology is a key priority for Barcelona while Hamburg also aims to host Japanese investment in the sector in the near future. Chapter 11 of this publication explores the employment potentials associated with green growth in further detail.
- While cities such as Hamburg and Oslo have enduring **maritime** sector strengths, others are now identifying investment and employment opportunities because of their gateway position. Barcelona has recently forged a nautical cluster in the district of Barceloneta, bringing together all sector companies and entities in order to attract investment and create jobs. Meanwhile, Cape Town is investing in skills development in tandem with local universities in order to make its marine sector more competitive.

The global market is an increasingly important driver of growth

In each of the sectors identified, the global market is playing an increasingly important role in growing jobs and securing investment. Outreach to a plethora of high-growth international markets is an important theme in new growth strategies, because linkages are anticipated to drive exports, industry growth and inward investment opportunities. For localities whose medium-term economic rationale is slightly more settled, the growth agenda places greater emphasis on precisely this form of expanded market connectivity than it does on new sectors or clusters. It is not only firms and investors that are sought after in international markets. International students are also a significant element of local economic strategies. International education is now a major export industry.

The potential of Chinese and to a lesser extent Indian, markets are subject to special focus for many European local economies. It is especially emphasised by Manchester, not least because of the amount of life science investment taking place in regional pockets in these countries, and the fruitful co-operative links that may therefore be opened up. Manchester also has a very strong Chinese student focus. Amsterdam has similar ambitions, with a new focus on medium-sized Chinese firms, with whom engagement requires more in-depth market assessment. Hamburg seeks to develop profitable exchanges exporting sustainable development technologies to Chinese port cities.

The revenue capability of the Gulf States means many cities are searching for ways to engage with this market. Manchester has an advantage through the investment from Abu Dhabi in Manchester City Football Club, which is the platform for further exploration of investment opportunities from the emirate.

The potential of large firms in countries in Asia such as Indonesia, Malaysia, the Philippines and Viet Nam is identified by Manchester as well as more proximal cities such as Brisbane. Typically these firms' experience in resource industries and real estate are identified as the most auspicious market opportunities. Although less focused upon than

China, Indian firms are a target of cities such as Hamburg, for whom a new office in Mumbai aims to enhance shipping trade and physics research links.

Conversely, the strong research nations of Finland, Germany, Israel, Korea and Sweden are viewed as key partners for Nanjing and Shenzhen's upgrading clusters, as well as for research-intensive cities such as Zurich, Boston and Oslo. Scientific exchange with Japanese and Korean companies is a priority for Hamburg in fields such as electric vehicles, offshore wind farms and mechanical engineering.

However, local growth markets also matter. Amsterdam's tourism and convention marketing, for example, is now mostly focused on Germany, the United Kingdom and Belgium because of high disposable incomes and the sheer potential associated with their proximity.

It is notable that Latin American markets are less visible on the investment map. Even Barcelona, which has attracted large numbers of South American immigrants since 2000, identifies far greater opportunity in Asia. Manchester has noted the potential of Brazilian and Mexican investment, but concrete initiatives have yet to be taken. Hamburg, however, has recently established a European Trade Centre for Latin America. Elsewhere, only Hamburg has incorporated Russian investment as a core part of its economic strategy, primarily because of its logistics and trade gateway role. Cape Town is most prominent in building links with Turkish investors.

Overall, from the analysis carried out by the OECD LEED Programme it is clear that local economies which have pursued robust evidenced-based strategies and local development interventions during the decades prior to the crisis are now innovating substantially in order to create a new momentum for growth, investment and jobs. There is a new impetus for thinking differently about the future economy and sources of employment. In several cases governments and leadership partnerships have shown willingness to change course with new strategies and programmes or to pursue even more vigorously approaches which have worked in the past but need redoubled and sustained efforts in new markets.

Funding the future – putting in place financial support for local investment strategies

The crisis has resulted in changing means to secure capital investment in order to enable local economies to generate jobs (OECD, 2009). Capital investment played a part in the response to the crisis through various "public works" programmes in the early years, and the availability of bank finance for SMEs, mortgages and infrastructure projects has been a major focus of wider public policy initiatives over the past five years. At the same time, changes to the internal structure and organisation of banks have led to them pursuing a reduced role in financing local development projects, and the emergence of new financial offerings from institutions, multilateral organisations and sovereign funds has produced a decisively changed map of potential local investment tools.

Investment remains a critical driver of job creation and employment. Local economic adjustment in terms of land use, infrastructure, skills and amenities is driven by the rate at which new investment can be secured. Sector growth and productivity is also partially driven by investment, and new trade development efforts often require investment in new connectivity (both transport-based and digital) and promotional activity.

Public capital investment capability in many local economies has shrunk. Many municipalities have had to become much leaner and more efficient in order to uphold indispensable projects. Amsterdam, for example, experienced the biggest cuts in its

municipal history. An annual budget of approximately EUR 6 billion, has undergone large-scale reform and streamlining. Together with the boroughs, approximately EUR 120 million was saved in 2011, of which EUR 72 million was accounted for by the city. It has nonetheless persevered with priority investments into ICT (EUR 18 million), poverty reduction (EUR 12.5 million) and Olympic bid preparations (EUR 2 million). Like many others, Amsterdam is still reliant on the flow of investment secured prior to the recession, namely the TopStad programme of international positioning.

Across Europe, in particular, some local economies are achieving small reductions in their public sector deficits, and areas of improved tax revenue and asset income. Cost-saving budgetary measures taken by national governments, however, are set to continue, resulting in a forecast decline in direct investments at the sub-national level (DCL/CEMR, 2012). The likely scenario for most advanced economies is that debt-stabilisation and deficit reduction will remain urgent priorities for several more years, while debt reduction to prudent levels will be an ongoing concern over the next two decades (IMF, 2012). By 2015 in England, for example, local government will have been required to make savings of GBP 20 billion, in the Greater Manchester Area by the end of 2013 this translated into a budget reduction of GBP 1.3 billion.

Many high-performing local economies have seen the national redistribution of tax revenues by central government work against them in recent years. The retention of revenues generated within the city or metropolitan area is highly sought after. Manchester's new City Deal is perhaps the most innovative. A new evolving Infrastructure Fund sees the city earn back national tax revenues attributable to investment in infrastructure. In addition, the utilisation of public sector pension funds for commercially viable investment has taken place, with the prospect of much wider expansion into demand-side infrastructure projects. The city is also becoming smarter about how to prioritise public investment. The Greater Manchester Investment Framework now rigorously assesses the GVA impact and "jobs per pound" of public funding.

Many local economies continue to prioritise the creation of optimal financing conditions for start-ups and SMEs to flourish. This is especially the case for Barcelona, which has created a suite of incentives for entrepreneurs to grow in a range of sectors. A tax-free zone, a one-stop financing centre and seven annual investment forums to connect angel funds to growing businesses are just three of the initiatives Barcelona has undertaken to make business creation and growth much easier. Their approach reflects a slightly different business model based on growing the city's entrepreneurial reputation as a precursor to wide-ranging venture capital investment.

Public investment has been used directly to maintain private sector jobs in the case of Hamburg. The Employee Qualification Programme, ran by the Ministry of Economic and Labour Affairs, provides training support for named employees previously without a job or threatened by redundancy prior to being hired. Up to six months of training can be subsidised by up to EUR 3 000 per employee, with SMEs and larger firms requested to pay upwards of 30% of the cost.

Elsewhere, privately backed funds to grow important science sectors have emerged in some cities. Amsterdam, Lyon and Nanjing have seen funds established in healthcare and life sciences sectors for small businesses, with immediate support from local and international firms seeking to create a productive ecosystem. Similar initiatives in digital sectors are also visible.

The following tables demonstrate some of the investment tools emerging in local economies. Local and national measures often work in parallel and cities have become more confident in the approaches they take and have become more demanding of national governments. The ongoing pressure on public budgets across OECD member countries requires policy to be flexible and responsive. Greater collaboration across political boundaries is bringing about new approaches to investment and a more judicious approach to making public investments.

Table 9.2. **Investment tools**

	Public investment tools	Private investment tools and flows	Key knock-on benefits
Barcelona	– Pla Empenta – city redirects EUR 80 million of local public funds from investment budget up to 2016 in housing space, to attract EUR 300 million in private investment	– Barcelona City Protocol – certification system to measure urban efficiency and quality in privately designed public services – Tax-free zone for mobile technology start-ups in 22@ district	– Reactivation of housing and commercial real estate construction – Improved delivery of public services and smart urbanism credentials
Boston	– Limited flexibility to raise funds, relies on state government for capital grant funding for life science and transport projects	– Up to 20% tax cuts for investments into Innovation District – MassChallenge USD 1 million entrepreneur competition – USD 150 000 loans to creative start-ups	– Incubate world-leading business ideas – Increase tax revenue from corporate occupation
Hamburg	– City's own venture capital company for SMEs, BTG Hamburg, supports companies' equity base	– Employee Qualification Programme, funds up to EUR 3 000 of training per employee to protect at-risk jobs – PROFI R&D project support up to EUR 1 million – Hamburg Innovation Trust Development Programme supports high-risk SME technology products	– Support for fragile SME jobs in ICT, life sciences and trade sectors
Manchester	– "City Deal" to earn back up to GBP 30 million a year national tax revenues generated by metropolitan infrastructure investment – GBP 300 million Evergreen Fund using pension fund investments – Regional Growth Fund attracts public-private bid co-operation – GBP 1.2 billion metropolitan Transport Fund borrows against future income and uses temporary increase in council tax	– High-tech Enterprise Zone around the airport, offering five-year business rate discounts and simplified setup	– Improved co-operation with central government over transport delivery and housing – Help areas transition from public sector investment dependence – Resurrect development surrounding the airport

Source: OECD (2013), *Delivering Local Development: New Growth and Investment Strategies, www.oecd.org/cfe/leed/NGIS_final2.pdf.*

An effective local development system is needed to make economic development happen

"Local development systems" are defined as networks of public, business and non-governmental sector partners which work collaboratively within a defined area to create better conditions for economic growth, social cohesion and employment generation. Local development systems tend to be relatively complex, as they require effective co-ordination between many different types of organisation and stakeholder group. This potential constraint is also the local development system's most significant strength. It is often the task of local government to construct a system which holds together all its various component parts (public and private sector organisations; citizens and businesses; knowledge-based institutions and development agencies and companies) in a positive tension which makes maximum use of all available resources, expertise and experience. These systems are fundamental to local development success.

Table 9.3. **National/supranational investments and impacts**

	Main national/supra-national level investments	What has changed since the crisis?	Economic and growth benefits
Boston	– USD 200 million capital grant state-level funding for key road works around Innovation District – Health sector/hospital research funding	– Growing amount of state aid from Massachusetts	– More cohesive life sciences cluster
Hamburg	– Key beneficiary of Federal Economic Stimulus Package, for e-mobility and universities – EUR 672 million of European Investment Bank loans from 2007-11, including in SME financing – EUR 40 million of federal funds for aviation cluster from the Ministry of Education and Research	– Recognition of cluster competitiveness to complement infrastructure support	– More integrated academic-industry links – Improved high-technology infrastructure
Manchester	– GBP 560 million Northern Hub rail investment – Support for GBP 130 million rail links with North England – GBP 32.5 million for sustainable travel projects – GBP 25 million Growing Places Fund allocation for key housing and Enterprise Zone infrastructure – Nominated a super-connected city, awarded up to GBP 12 million from Urban Broadband Fund	– More competition for funding based on economic case. City beginning to be more successful in bids.	– Improved commuter accessibility, lower congestion costs, talent pool expansion

Source: OECD (2013), *Delivering Local Development: New Growth and Investment Strategies, www.oecd.org/cfe/leed/NGIS_final2.pdf.*

The construction of an effective local development system does not necessarily mean creating new institutions. It may consist of an evolution of the existing system, where leveraging existing strengths is essential. Though the recalibration of a local development system may involve the phasing out of existing, or the creation of new organisations, it is important, however, to strike a balance. The precise range of organisations found within a local development system depends on its requirements and other factors such as institutional and legal frameworks. Typically though, maps of local development systems will contain the full range of organisations from the public sector, private sector, civil society as well as higher tiers of government.

The OECD LEED Programme's systems analysis and approach has recently been used to create a local development system for the One Plan Regeneration Strategy for Derry~Londonderry. The engagement embedded three days of learning and global practice into the local strategy and helped shape the local development system necessary to deliver the ten pillars of the strategy and create 12 900 jobs over the life of the plan (see *www.ilex-urc.com* One Plan, pages 66-71: *Delivering Success*).

Development agencies are a critical pillar of the system

One key organisational option for promoting economic development is the use of development agencies and companies. These institutions have played a fundamental role in the delivery of local economic development since the end of Second World War. The first development agencies were established as a response to the place-based crises caused by war damage, industrial decline and dereliction. While the tendency to set up agencies as a response to a crisis remains today they are also created for other reasons. Two major sources of variation are the extent to which agencies are established for all territories as a means of promoting competitiveness and productivity (e.g. in France) or whether they are only established for certain particular places that are perceived as needing additional help (e.g. in Canada and Germany). In developing countries, such as Brazil and South Africa, bottom-up initiatives to create agencies exist in one or two places, and only a few national governments (e.g. Mexico and Bulgaria) have opted to create comprehensive coverage of certain kinds of agencies.

Box 9.2. **When strategy and system align**

One Plan, the regeneration plan for Derry~Londonderry was unveiled in 2011 as the city's regeneration blueprint, following an unprecedented consultation process throughout the city and with central government resulting in the plan being included as a commitment in the Northern Ireland Executive's Programme for Government and Economic Strategy. The new plan envisages a step change for the city, which sits at the bottom of the UK urban ranking, with 12 900 jobs, an additional GBP 500 million in wages and profits in Derry's economy, as well as a fiscal balance boost of some GBP 200 million annually by 2020.

One Plan is an integrative strategy that brings together different interests united behind a shared vision and supported by delivery capacity – the local development system – to match that vision. It has been used as the catalyst for reform because it is about new thinking and new understanding, and focusing on the longer-term. One Plan is built on three fundamental principles: ***integration*** – economic, physical, social, environmental, organisational; ***participative process*** – a whole-system, multi- disciplinary approach; ***robust evidence bases*** – providing focus to the "real" or "actual" challenges.

It represents a whole-system approach to local development, characterised by a can do approach; co-operation; openness and transparency among key players across different sectors, with partnership and participation fundamental components of change. It sets out clear objectives and priorities supported by a broad range of stakeholders and provides an effective organisational framework. It ensures adequate resources and capacity to deliver.

To deliver this step change successfully, the One Plan requires a multi-disciplinary approach involving many organisations and individuals with a wide range of expertise, experience and capacities. Collaboration between seemingly separate entities across a system for local development is key as is the continuing principle of interdependency and connectedness. The Strategy Board oversees delivery and holds all key stakeholders and budget holders accountable.

Source: Mountford, D., et al. (2012), "Delivering Local Development in Derry~Londonderry, Northern Ireland: Inclusive Growth Through One Plan", *http://dx.doi.org/10.1787/5k92s6tv9c0r-en*.

From past reviews the OECD LEED Programme identifies four major organising roles for development agencies: economic roles; leadership roles; governance and co-ordination roles; and implementation roles. Development agencies are primarily "market facing" (labour markets, property markets, investment markets, visitor markets, among others), rather than "citizen facing", and involve market-based transactions, and incentive structures, rather than direct public service delivery (although good public services are critical to wider economic development). They are organisations especially suited to "contested" activities such as locational and investment decisions, or "collaborative/multi-lateral" activities such as cross-sectoral and inter-municipal planning and joint ventures. Such economic development interventions can often be delivered by market-like bodies and business-led development approaches (brokerage, marketing, joint ventures, incentives, capitalisation, competitive recruitment, etc.). These are consistently delivered for local governments and their partners through a corporate, rather than a municipal, or administrative, structure.

The neutral and nimble nature of the development agency model often positions them as catalysts for change within the local development system, as is demonstrated by the example below. The Cape Town Partnership is an important example of a delivery vehicle being used to influence and shape city wide economic, social inclusion and investment agendas.

Box 9.3. **Cape Town Partnership (Cape Town, South Africa)**

The Cape Town Partnership (CTP) was established in July 1999 by the City of Cape Town and key private sector partners to manage, promote and develop the Cape Town Central City. The Partnership's vision is of an "inclusive, productive and diverse city centre that retains its historic character and reflects a common identity for all the people of Cape Town." A city centre management vehicle, the Central City Improvement District (CCID), was launched by the Partnership in November 2000, as an integrated operation within the CTP, but with a separate board and financing mechanism.

The CTP does not duplicate or replace the role of the public sector, particularly in its statutory and regulatory roles, but seeks to add value to the public services and planning processes. In conjunction with a wide range of stakeholders, the Partnership acts as an initiator, facilitator, co-ordinator and manager of projects. The CTP also manages the CCID, a non-profit organisation that provides complementary services and programmes that make the Central City a cleaner, safer, and more attractive place – vital for development, investment and growth in the city.

The Agency was the catalyst for the economic revitalisation of Cape Town – it fundamentally changed the city reducing serious crime in the Central City by 90% since 2000; over ZAR 18 billion of investment has been realised from the capital value of current leases, new developments, investment purchases, upgrades and renewals and significant numbers of jobs have been created.

Local economic leadership is now a joint public-private venture

Local economic development is a complex process that requires unique kinds of leadership if it is to succeed. It is often led or facilitated by local governments, but because it is a "market-facing" activity that operates over longer time frames, broader geographies, and wider institutional collaboration than is usual for local government services or regulatory roles, it requires distinctive leadership arrangements. This has become even more starkly observable since the global crisis that began in 2008.

Since 2008, despite the huge challenges of the banking and economic recession many local leaders were encouraged "not to waste the crisis' but instead to use it as an opportunity for reform and enhanced leadership. Leadership interventions have been observed from localities across the globe. They include: creating/adapting local development strategies; (re)designing local development system; fostering policy innovation; promoting alignment and collaboration; and ensuring clear communication. There are new challenges (e.g. unemployment, social discontent, economic restructuring and city budget constraints) and new opportunities to leverage (e.g. new growth markets, new sources of investment, new investment mechanisms, new partnerships and job growth in emerging sectors). Local economic leadership must also recognise that many of the economic stakeholders in a local economy do not exercise a vote in elections. Important implications arise from this: local and regional leaders must find means to engage them in economic strategies despite having no direct mandate to represent them or lead them.

Key elements of post-crisis local leadership can be summarised as:

- An ethos of focussed pragmatism is perceptible in many leadership approaches. Compromises are often made in recognition of the need for co-operative development to improve the coherence of growth cluster and mobility strategies. Pragmatic approaches exhibit themselves through careful stewardship of balance sheets, and the projection

of values of reliability and consistency to re-assure the entire business community. The vigorous commitment to sound fiscal platform which is evident in many places also affects how a local authority does business through its own supply chains.

- During a period where hostility to immigration among some domestic populations has grown, local leadership has in some cases taken a lead in communicating to the public the values of diversity, openness and population attraction.
- There is sincere engagement with, and learning from, the private sector. Many localities display public sector leadership that is active, incisive, and evinces a strong desire to look positively, rather than reluctantly, at private sector co-operation. Many have commented that honesty and authentic business-friendliness are core factors in re-assuring investors to commit their long-term future to a given location.
- Another element of a more professional and customer-focused approach of local leadership is the willingness of senior leadership and promotional groups to engage in face-to-face interaction with firms both at home and abroad. In addition to conventional trade missions, cities now leverage events and trade fairs locally in order to offer a proposition about the city.
- The organisation of new governance configurations reflects an acknowledgement that growth and investment success cannot be achieved in one or two political cycles, and long-term, multi-cycle approaches are critical factors of resilient growth agendas. Leaders of city governments and business groups alike understand that there is a need to focus on core assets.

For local private sector leaders across the world, the trends and tensions of the economic crisis has driven a new phase of enhanced engagement with local development. This new leadership imperative for local private sector leaders has stimulated activity, which can be categorised into three broad groups: a) new investment, employment and innovation; b) new strategic partnerships; and c) revitalised business leadership groups.

Effective participation by the private sector in the wider system of local economic development is an important feature of successful local economies, particularly at a time of crisis and uncertainty. It not only ensures that the voice of business – a critical stakeholder in local development success – is heard and understood but also that a private sector ethos of efficiency, innovation and entrepreneurship energises the wider group of stakeholders within the local development system to deliver with greater impact.

The private sector has, however, become much more active as a strategic partner with more pragmatic business-minded governments as the following example from the Western Cape demonstrates.

Box 9.4. **Strategic partnership and local business leadership: The West Cape Economic Development Partnership**

The Western Cape's business community has become more structurally engaged with the public sector to solve enduring conditions of poverty, inequality and unemployment in the region. This involvement is manifested in the new regional Economic Development Partnership (EDP), which is accountable not only to government but is a non-partisan cross-sector organisation encompassing the whole economic delivery system. Unlike other regional development agencies in South Africa, the EDP is not government-directed but a private sector-led partnership. Business groups account for a substantial proportion of the EDP members. Individual companies are not directly eligible for membership, but participate through business associations.

Box 9.4. **Strategic partnership and local business leadership: The West Cape Economic Development Partnership** *(cont.)*

The EDP aims to reconfigure the regional economy in order to grow employment commensurate with value growth. Its commercial basis and political flexibility allows it to prioritise the overall system of employment and adopt a linked approach towards central urban and outer regional development. To achieve its goal, the EDP is involving the private sector at the level of leadership, strategy, market intelligence acquisition and agenda-setting. It aims at gradually developing collaborative implementation capacity. In doing so it hopes that business stakeholders will be forging and sharing an evidence-led economic vision and a concomitant set of business attraction, retention and expansion initiatives.

Source: WCEDP (2012), Prospectus: Lead. Co-ordinate. Drive, *http://fileshare.wwc.co.za/docs/500/final-edp-prospectus-lo-res-web.pdf*.

Conclusion and issues for consideration

Effective local development does not happen by accident. Working simultaneously to create and foster leaders, build strategy, and create a system of delivery is essential for the process to endure into the longer-term effort required to make a meaningful impact. The essential insight of recent OECD LEED work in this area has been that local development is an integrated process that works over cycles. Integration means that economic, social, environmental, spatial, and institutional are interdependent and either mutually reinforcing or contradicting. In local development these elements have to be combined in purposeful ways that often require "whole of government" and "multi-sector partnership" approaches. The success of this approach also requires national government to be a part of "whole of government" thinking.

The crisis has reminded policy makers that local economic development operates both within governmental spheres and within markets where factors well outside the control of local and other sub-national governments impact upon the outcome. Local economic development also happens over a wider geographical space than local government, and in some cases at a larger scale than regional (or even national) governments, which implies that substantial inter-governmental co-operation is required. In addition, the time frame in which economic development outcomes appear is more akin to business cycles (12-15 years) than to the electoral cycles (3-4 years) of governments.

Many local economies are emerging from the crisis with a renewed focus on economic leadership. Collaborative leadership platforms which were emerging before 2008 are now building longer term economic visions, looking outwards to a changing world economy. At the same time, investment in new local economic platforms is bringing together science, transport, skills, land, investment, arts and services in ways that are designed to provide an integrated system. Local economies have a significant challenge in the years ahead; growth will be variable; and retaining jobs and investment will continue to be as important as attracting new jobs and investment as local economies pursue the goal of inclusive growth.

Key recommendations for new growth and investment strategies that create jobs and opportunity

Provide stable framework conditions and promote a positive local business climate

- Focus on medium-term economic success while also protecting and nurturing fragile but important local developments (such as emerging SME sectors).
- Consider giving tax incentives in emerging sectors with job creation potential.

Target investments to catalyse broader economic change

- Invest in transport infrastructure at the national and local levels, as connectivity is critical for realizing investment and for enabling citizens to access jobs.
- Invest in niche higher education facilities, as this will provide comparative advantage at a time when research infrastructures are increasingly expensive and complex, and where cutting-edge skills are inherently scarce.

Facilitate co-ordinated approaches to growth and investment at the level of functional economic geographies

- Support more autonomous decision making by local governments and local agencies. Many currently lack the tools or administrative pathways to enact policy across the functional economic area.
- Rationalise complex policies and programmes into a simple-to-pursue framework.
- Develop an evidence-based and trend-based rather than politicized approach to guide investments and shape policy.

Note

* For additional background see Brookings Institution (2012), Boraine (2009), Covey and Brown (2001), Clark, Huxley and Mountford (2011), Hamann et al, (2009), Lee (2012), McKinsey Global Institute (2011), Metropoolregio Amsterdam (2012), Clark, Huxley and Mountford (2010), and Clark, and Mountford (2007).

References

Brookings Institution (2012), "Global MetroMonitor", *www.brookings.edu/research/interactives/global-metro-monitor*.

Boraine, A. (2009): "Public-Private Partnerships and Urban Regeneration in the Cape Town Central City: Lessons from the first Ten Years of the Cape Town Partnership", paper delivered at International Downtown Association 55th Annual Conference, Milwaukee.

Covey, J. and L. Brown (2001), "Critical Co-operation: An Alternative Form of Civil Society–Business Engagement", IDR Reports 17.1; Institute for Development Research, Oxford.

Clark, G. and D. Mountford (eds.) (2007), *Investment Strategies and Financial Tools for Local Development*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264039865-en*.

Clark, G., J. Huxley and D. Mountford (2011), "Recession, Recovery and Reinvestment: The Role of Local Economic Leadership in a Global Crisis – The Barcelona Principles in Practice", in Bailey, D. and C. Chapain (eds.), "The Recession and Beyond: Local and Regional Responses to the Downturn", Routledge, Oxford, pp. 267-87.

Clark, G., J. Huxley and D. Mountford (2010), *Organising Local Economic Development: The Role of Development Agencies and Companies*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264083530-en*.

DCL (Dexia Credit Local) and CEMR (Council of European Municipalities and Regions) (2012), Subnational Public Finance in the European Union, *www.ccre.org/en/communiques/view/338*.

Hamann, R., Pienaar, S., Kranz, N. and I. Schlamann (2009): "Assessing the effectiveness and accountability of different types of cross-sector partnerships in South Africa", International Sustainable Development Research Conference, 5-8 July 2009, Utrecht University, Netherlands.

IMF (International Monetary Fund) (2012), Fiscal Monitor: October 2012, *www.imf.org/external/pubs/ft/fm/2012/02/pdf/fm1202.pdf*.

Lee, Y. (2012), "Growth. Impact. Value through Strategic Partnerships", presentation for Boston World Partnerships, available at *www.slideshare.net/ashish_tandon/boston-as-a-preffered-investment-destination*, accessed 1 October 2012.

McKinsey Global Institute (2011), "Urban World: Mapping the Economic Power of Cities", *www.mckinsey.com/insights/mgi/research/urbanization/urban_world*.

Metropoolregio Amsterdam (2012), Economische Verkenningen 2011, *www.metropoolregioamsterdam.nl/files/Economische%20verkenningen%20MRA%202011.pdf*.

Mountford, D., et al. (2012), "Delivering Local Development in Derry~Londonderry, Northern Ireland: Inclusive Growth Through One Plan", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2012/15, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k92s6tv9c0r-en*.

New Economy Manchester (2014), *http://neweconomymanchester.com*.

OECD (2013), "Delivering Local Development: New Growth and Investment Strategies", *Local Economic and Employment Development (LEED)*, OECD Publishing, Paris, *http://www.oecd.org/cfe/leed/NGIS_final2.pdf*.

OECD (2009), *Recession, Recovery and Reinvestment*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *www.oecd.org/cfe/leed/recessionrecoveryandreinvestment.htm*.

WCEDP (2012), Prospectus: Lead. Co-ordinate. Drive, *http://fileshare.wwc.co.za/docs/500/final-edp-prospectus-lo-res-web.pdf*.

Chapter 10

Managing demographic transitions in local labour markets

Demographic changes will have broad economic, social, and political impacts worldwide, with some local areas experiencing the effects of an ageing population, stagnation in population growth, or even shrinking populations particularly sharply. For these areas, the importance of strengthening economic and social resilience – as opposed to a singular focus on growth – is clear. Better managing and supporting older workers will become increasingly relevant, including creating opportunities for more flexible working later in life and easing transitions into retirement. Additionally, new economic opportunities will come from an increased demand for products and services oriented to the ageing population (the "silver" and "white" economies).

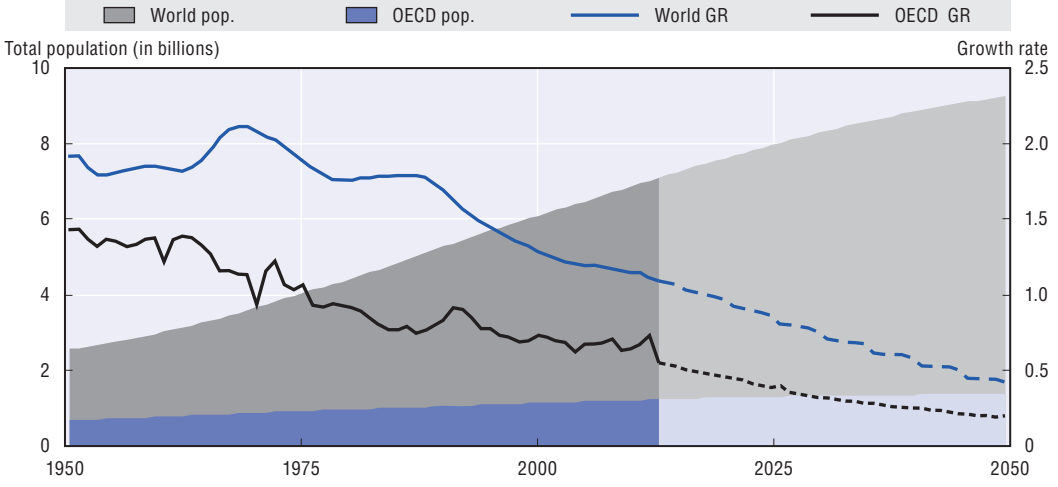
The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Demographic changes are occurring in cities, regions, and nations worldwide. We are living longer, healthier lives, while at the same time, fertility rates are falling. Some countries have been able to leverage past waves of demographic change for considerable economic growth, while others have fared less well. This highlights the importance of the governance and policy environment as a mediator between demographic change and economic development (Bloom and Canning, 2005). Action is needed at all levels of government to ensure that the opportunities brought by population ageing and population growth stagnation are maximized and the potential harms minimized. For local areas feeling these changes particularly sharply, the importance of strengthening economic and social resilience – as opposed to a singular focus on growth – is especially clear (OECD, 2014a).

Demographic change shows general trends, but with distinctive local impacts

Local areas experience demographic change as the result of a number of interrelated factors, some that are global (e.g. ageing of the baby boomer population and decreasing fertility rates) and some that are localised and specific (e.g. de-urbanisation, spatial mismatches, administrative and territorial changes) (OECD, 2014a). Globally, the population is continuing to grow, but at an increasingly slower rate. Down from a peak of 2.1% in 1968, the 2012 world population growth rate was 1.1%, a number that is predicted to fall further to 0.4% by 2050 (see Figure 10.1). For OECD countries, the average fertility rate has declined from 2.76 in 1970 to 1.70 in 2011. As it stands, Israel is the only OECD country with a fertility rate above the replacement level (3.00 compared to 2.1) (OECD 2014b).

Figure 10.1. **Population and growth rates, 1950-2050, actual and projected**



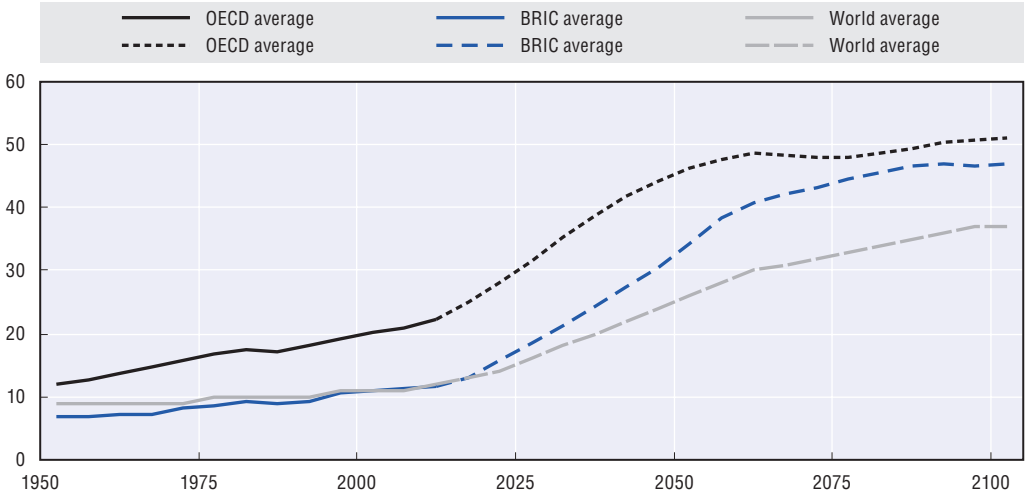
Note: Calculated estimate values for OECD totals are projections from 2031-49.

Source: Adapted from OECD (2014a forthcoming), *Fostering resilient economies: Demographic transition in local labour markets*.

StatLink http://dx.doi.org/10.1787/888933136573

This decline in fertility rates not only means a slowdown in population growth, but also fundamental changes to the population age distribution. The share of the population under age 15 is shrinking and the share over age 65 is growing. These shifts can be seen in the elderly dependency ratio (the population aged 65 years and older per 100 persons aged 15-64 years). The average 2010 OECD elderly dependency ratio is 22, a figure which is expected to rise to 46 by 2050.

Figure 10.2. **Elderly dependency ratio, 1950-2100, actual and projected**



Note: All values beyond 2010 are medium variant estimates calculated by the United Nations Population Division. BRIC represents a group figure composed of Brazil, Russian Federation, India and China.

Source: United Nations Population Division (2010), *World Population Prospects: The 2010 Revision*, online, *http://esa.un.org/unpd/wpp/unpp/panel_indicators.htm*. As reported in OECD (2013a), *Trends Shaping Education 2013*, *http://dx.doi.org/10.1787/trends_edu-2013-en*.

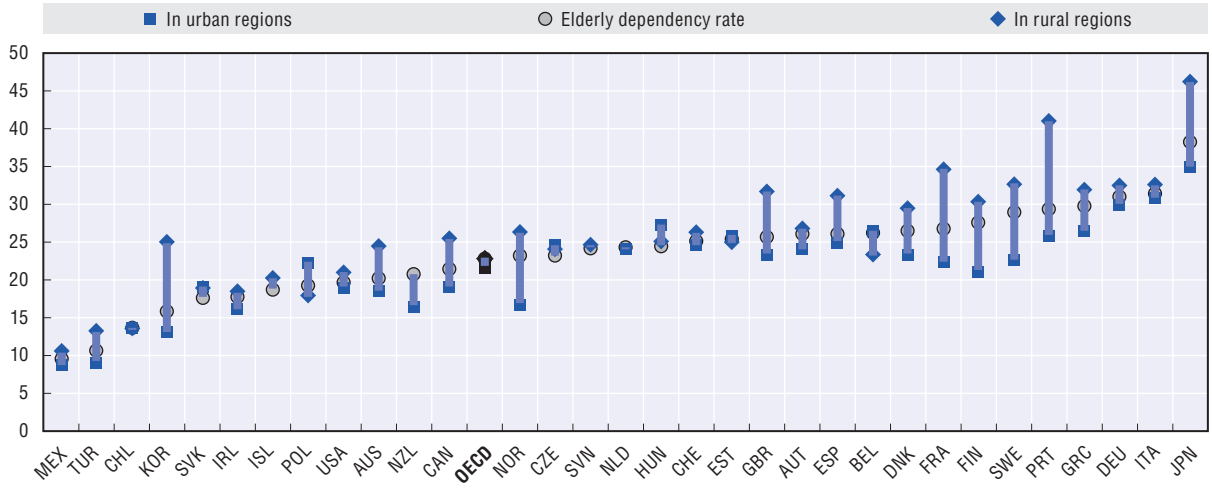
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Some countries rely on the in-flow of international migrants to compensate for population stagnation. In Germany, for example, without immigration, the population would be expected to fall by 20 million by 2050 (CEMR, 2006). However, international migration cannot be seen as a panacea. It is unlikely to be of the scale needed to offset declining native population growth and many migrants need additional support to integrate into the labour market, as they may have low levels of education/skills, language barriers and a lack of local networks (OECD, 2006a, 2014a; Froy, Giguère and Hofer, 2009).

In other places, the international outflow of migrants further contributes to population stagnation and shrinkage. For example, Iceland, Mexico, Ireland, Japan, and Poland had a negative annual net migration rate between 2008 and 2010. In general, the economic crisis reduced net migration in OECD countries, and countries particularly hard hit by the crisis – such as Iceland, Ireland, Portugal, and Spain – have had particularly large decreases in net migration (OECD, 2013b).

However, these aggregate statistics only tell a partial story. These trends can look significantly different at the local level, as other localised factors serve to compound or offset them. As shown in the country profiles in Part IV of this publication, population growth rates show significant intra-country variation. The elderly dependency rate likewise varies considerably within countries, with rural regions typically having higher dependency ratios than urban regions.

Figure 10.3. **Elderly dependency ratio: Urban and rural variations, 2012**



Source: OECD (2014), *OECD Factbook 2014: Economic, Environmental and Social Statistics*, *http://dx.doi.org/10.1787/factbook-2014-en*.

StatLink *http://dx.doi.org/10.1787/888933136611*

Much of these intra-national differences can be attributed to internal migration, which varies significantly by region and type of area. Areas that are more remote, or are experiencing deindustrialisation, are particularly vulnerable to negative net migration rates. Capital cities and regions tend to experience net gains in terms of migration (OECD, 2014a). Figure 10.4 shows the extent of this regional variation in a number of OECD countries. While there is a general trend of rural areas showing more population loss due to migration than urban areas, some urban areas, known as "shrinking cities" show especially striking population loss.

Box 10.1. **Shrinking cities: Reasons and responses**

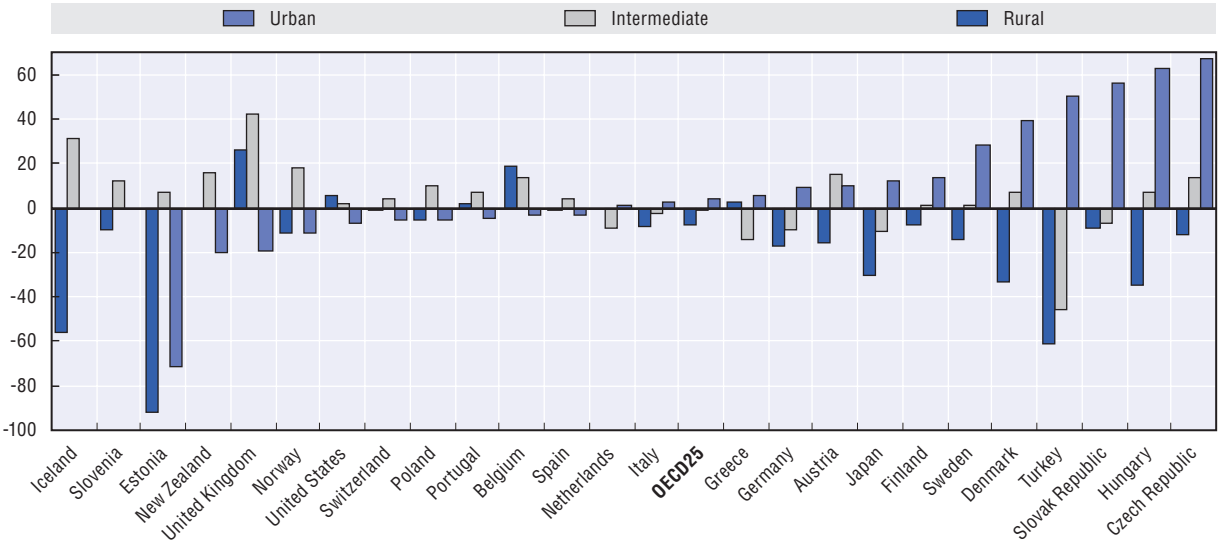
Across OECD member countries, examples of "shrinking cities" can be found. The reasons for this shrinkage are as varied as the responses.

- Despite overall growth in the United States population, over 10% of US urban regions have been shrinking mainly due to economic reasons. Many such cities are in the "Rust Belt" in the Midwest. Some of these cities are adopting "smart growth" approaches that focus on "right-sizing" and greening the living environment, as opposed to a more singular focus on demolition to facilitate new development.
- In Japan, in contrast, population shrinkage due to demographic change is a nationwide problem. While most shrinkage has been in rural areas, it is now starting to affect some urban areas. To address these challenges, local governments will need to balance future needs with the declining resource base, including maximising different institutional capacities (e.g. NGOs and volunteers). Regional-level efforts may also be needed.
- In Australia, a combination of economic, demographic, and environmental reasons have led to population decline in a number of cities. While some are already exploring stabilising their economies and populations in the context of shrinking population, overall, there is limited acknowledgement of the need for this new type of planning.
- Finally, in Poland, urban shrinkage is due to a combination of economic and political changes, including deindustrialisation and emigration. In the face of shrinkage, the city of Walbrzych is exploring how to revitalise its local economy, including through supporting entrepreneurship and creative industries using European Union funds.

Source: Martinez-Fernandez, C., Kubo, N., Noya, A., and Weyman, T. (2012) *Demographic Change and Local Development: Shrinkage, Regeneration and Social Dynamics*, *http://dx/doi.10.1787/9789264180468-en*.

Figure 10.4. **Annual regional migration rate per typology of region, 2009-2011**

Net flows across TL3 regions per 10 000 regional population



Note: Available years: Iceland, Norway and Sweden 2010-12; Germany, Netherlands and United States 2008-10; Greece only 2001; New Zealand only 2006; United Kingdom 2006-08 data do not include Scotland and Northern Ireland. Chile and Mexico are not included since data refer only to total flows over a period of five years. Korea is not included since annual flows are given by the gross sum of monthly movements. Regional data are not available in France and Ireland and only for larger (TL2) regions in Australia and Canada.

Source: OECD (2013), *OECD Regions at a Glance 2013*, *http://dx/doi.org/10.1787/reg_glance-2013-33-en*.

Overall, issues of demographic change and economic decline are more pressing for peripheral regions with a mono-functional economic structure. For central urban regions with a diverse economic structure and/or regions with large business services, industry or logistics sectors, population decline is of a smaller scale and is therefore less pressing of an issue (OECD, 2014a).

These changes will present both challenges and opportunities for local labour markets

Populating ageing will have major consequences for all facets of human life, from the economic sphere (economic growth, savings, investment and consumption, labour markets, pensions, taxation and intergenerational transfers) to the social sphere (health and health care, family composition and living arrangements, housing and migration) to politics (voting patterns and representation) (United Nations, 2009). Despite variations at the level of local labour markets, a number of general emerging challenges and opportunities can be identified.

Declining numbers of youth and an overall stagnation in the working age population will result in the *size of the labour force shrinking or stagnating*. This can result in a tight labour market, more competition for workers, and even potential labour shortages (OECD, 2014a). As discussed earlier, international migration can help to offset these changes, but issues related to *migrant integration* arise. Older workers may see their *wages decline,* despite the tight labour market. Research suggests cohort-specific effects: the wage premium for older, more experienced workers will decrease as the supply of these workers increases, as it is predicted to do (Triest, Sapozhnikov and Sass, 2006).

As the number of older workers increases, another labour market concern emerges – *ageism and discrimination* against these workers. Older workers are not always perceived positively, especially in terms of their ability to adapt to technological and organisational

change. Employers may also be biased against hiring them because their wage and non-wage costs can be high (OECD, 2006b). Especially as young people struggle to find employment in the current economic situation, older workers can also be perceived as being in competition with young people for a limited number of jobs (OECD 2011a).

Demographic changes to the age structure of the labour market can also lead to *skills shortages*. While older workers bring expertise and experience, they are also more likely to see their human resources degrade in the face of technological change and/or lack of use, and are also less likely to partake in training or skills upgrading (OECD, 2006b). Additionally, an overall shrinking of the labour force also implies an overall shrinking of the skills supply.

Outside of the labour market specifically, a decrease in the population and the number of households *reduces market demand in general*, potentially leading to an oversupply of services and goods such as housing. Such a surplus in housing may in turn result in vacant properties. Facing the coupling of labour force shortages and decreased demand for goods and services, *firms may reduce activities or relocate* from shrinking to growing regions (OECD, 2014a). At the same time, however there will be *growth in the "silver" and "white" economies*—respectively, the market for goods and services increasingly demanded by an ageing population and the market for health and care services.

Local public officials face another direct set of challenges: they may find their resource base shrinking as *tax revenue from the labour market and businesses decrease* in light of the changes described above. Simultaneously, an ageing population will *increasingly rely on public systems* to provide the quantity and quality of goods and services they need (health care, infrastructure, transportation, etc.) (OECD, 2014a). These factors, like many of the others, are interconnected. Declining tax bases from business relocation decreases the ability of public agencies to maintain public infrastructure. Deteriorating infrastructure, in turn, may further encourage business relocation.

Local economies can leverage opportunities generated by the silver and white economies

Demographic change can bring clear opportunities. New and growing customer profiles are emerging as populations age – from those that can be classified as older workers, to those just starting retirement, to the elderly. As the size of each of these groups grows, so will their demand for age-sensitive products and services. As described by Heniz and Naegele (2009), seniors have considerable spending power and show age-specific changes in consumption needs, making the development and improvement of new age-sensitive products and services an important aspect of economic development.

These products and services include those oriented to the aged population such as tourism and recreation (the "silver" economy), and those related to health care and care for the dependent, disabled, and elderly population (the "white" economy) (OECD, 2014a). Information and communication technologies such as tele-care/tele-medicine, "smart" homes and assistive technology have also been identified as potential areas of growth (Heinz and Naegele, 2009; European Commission, 2007). There is also enormous potential for encouraging older and elderly people-inclusive developments. Some examples of how regions and businesses have already seized these opportunities – by developing housing, cultural and tourism activities geared towards seniors – are described in the text box below.

Box 10.2. **Seizing opportunities in the silver and white economy**

The silver economy in North Rhine Westphalia. The municipal association for economic development in North Rhine Westphalia recognized the potential of the silver economy and initiated a number of activities to support growth and employment in this sector. These activities include an association to promote adapted housing, an initiative of craftsmen that offer services to convert apartments and houses for elderly residents, and tourism and wellness services for seniors in the Teutoburger Wald region. The latter is developed through a network of 25 partners that includes hotels, guest houses, wellness providers, and recreational and tourist information services.

Seniorpolis. The Seniorpolis expertise centre seeks to develop a wide variety of business operations that meet the needs of the ageing populations. To do so, it is working with a variety of partners, including universities, research centres, private enterprises, and public agencies. Its work falls into four main categories: housing, learning, care, and relaxation. In the area of housing, it is involved in research for developing housing solutions for seniors (e.g. housing technology, functional and structural solutions) as well as senior building development and renovations. It is also involved in activities to promote lifelong learning, such as the development of a senior citizen's art and culture activities, and academy and distance learning systems. In terms of care, it develops good practices related to self-help and preventative care, digital service solutions, and security and well-being. Finally, it is working to develop a variety of exercise, cultural, entertainment, multimedia, and tourism services and events. Much of this work is piloted and tested in its Senior Citizen's Village in Ristijärvi, Finland. This village includes a nursing home, senior citizen housing, a fitness centre, a community studio, an academy of art and culture and a distance learning centre. For more information, see *www.seniorpolis.com*.

Source: Hollbach-Grömig, B. and Jan Trapp, J. (2006) The impact of demographic change on local and regional government, Council of European Municipalities and Regions (CEMR), *edoc.difu.de/edoc.php?id=Z7EAY9OD*; OECD (2008), OECD Rural Policy Reviews: Finland 2008, *http://dx.doi.org/10.1787/9789264041950-en*.

Supporting the development of the white economy may pose particular challenges, as it requires a fundamental shift in health care services. Mainstream healthcare is focused on "curing" the patient, while in an ageing society, the focus needs to be shifted to "management of symptoms" and management of the variability of symptoms (OECD, 2014a). The needs in the white economy are also very diverse. More professionals are needed to develop monitoring systems and procedures for at-home caring. The number of workers required to work in rehabilitation or telemedicine may also see significant expansion. Additionally, day-visit centres for older people could be more widely developed to assist those who live alone and those who cannot care for older family members because of work obligations (OECD, 2014a). Finally, overall, a balance must be found between promoting growth in these sectors and overburdening public finances, which often bear the brunt of healthcare costs.

Migrants already make up a large and growing share of the elderly care workforce in OECD many countries (Fujisawa and Colombo, 2009). While many of these migrants are currently lower-skilled, their prevalence in the care sector suggests that they will be an important piece of improving the quantity and quality of care going forward. Thus, local policy makers would fare well to put in place policies and programmes that promote their labour market and social integration (e.g. development of career pathways programmes for migrant careworkers, language instruction, etc.) Attention should also be paid to quality of jobs in the care sector, as these jobs are typically low-wage and poor working conditions

and discrimination can be challenges (Spencer, et al., 2010). The box below describes how a career pathways approach can be used to create opportunities for progression – a key component of job quality – for frontline health care workers.

Box 10.3. **Career pathways for frontline health care workers**

Jobs to Careers: Transforming the Front Lines of Health Care Workers is an initiative to test the effectiveness of a career pathways approach for clerical, technical, and direct service workers in 17 sites across the United States. It is sponsored by the Robert Wood Johnson Foundation in collaboration with the Hitachi Foundation and the U.S. Department of Labor.

Frontline healthcare workers in the United States are predominantly female and disproportionally ethnic minorities. They often have low levels of educational achievement and generally receive low wages and poor training. A number of barriers hinder upskilling and career progression, including lack of education, lack of knowledge of how to navigate the education system, limited time for training and lack of employer support.

To help overcome these barriers, partnerships were created between health care employers and educational institutions in the 17 Jobs to Career programme sites. These partnerships used a career pathways approach that created defined "rungs" on a career ladder from entry level to more advanced positions, each with a corresponding set of credentials and skills. These pathways helped workers either advance within occupations, or between occupations, or transcend professional scope.

Research on 6 of the 17 sites identified a number of promising strategies. First, programmes should be designed with employer needs in mind – for example where there are vacancies or in high growth jobs. Based on these desired objectives, mapping career ladders, identifying any missing steps between rungs, and identifying the competencies and credentials needed at each level is essential. Additionally, career pathways programmes must be designed in a way that aligns the needs and customs of educational institutions and workplaces, including modifying curricula as needed and integrating work-based learning opportunities. Attention must also be paid to formal systems and organisational cultures, as shifts in these can be critical to project success. Incentives and rewards should be structured in a way to make the programmer attractive to workers. Both monetary (e.g. pay raises) and non-monetary awards (e.g. enhanced feelings of self-worth) can incentivize participation. Participant recruitment can be achieved through a variety of means, including marketing directly to eligible employers and asking supervisors for recommendations. Finally, a team effort is needed for project management and monitoring.

Source: Zacker, H.B. (n.d.), "Creating Career Pathways for Frontline Health Care Workers", *www.jff.org/publications/creating-career-pathways-frontline-health-care-workers.*

Skills, training and workforce age management practices for older workers have also become increasingly important

Capitalizing on new areas of growth can be complemented by improving the participation and productivity of older workers in the labour market. A number of barriers/disincentives to employment of older people must be addressed. These barriers include poor health, a lack of relevant skills, low motivation and job satisfaction, negative stereotypes about older workers on the part of employers, poor workplace age management practices, and policies such as early retirement schemes and pension structures that make working less desirable. These are described in more detail in Table 10.1.

Table 10.1. **Factors affecting older workers' labour market participation and productivity**

Barrier	Description
Health	Risk of health problems increases with age. Poor health is a common factor leading to workers' withdrawal from the labour force and can decrease productivity for those who stay in the labour market. Stressful working conditions can also exacerbate mental health problems.
Qualification and skills	Older workers are often at risk of suffering from outdated skills and are less likely to participate in training.
Motivation, job satisfaction and employers' perceptions	These factors directly influence workers' propensity to continue employment. Prejudice and stereotypes about skills and productivity affects both older workers' motivation and the opportunities offered to them.
Age-appropriate workplace settings and the quality of work	Larger companies might have the financial resources to adjust job profiles to an ageing workforce and implement age-management measures, but smaller firms often are unable to cope with these tasks and expenses. Family care responsibilities also increase with age, and employment opportunities may be not be flexible enough to allow for these responsibilities.
Labour market and social security regulations	Formalised early retirement schemes and pension systems combined with reduced activation efforts by public employment services and wage profiles could lead to premature lay-offs and preferred early retirement.

Source: Adapted from Bertelsmann Stifung and Europam Policy Center (2013), *Second career labour markets: Assessing challenges – advancing policies*, and OECD (2014a, forthcoming), *Fostering resilient economies: Demographic transition in local labour markets*.

To tackle such issues, action is required across all levels of government. Many national governments are in the process of raising the retirement age which will increase labour participation among the older age cohorts, lessen pressure on national old age entitlements, and encourage longer and more active working lifestyles (OECD, 2014a). Likewise, wage regulations and pension systems are in the purview of national governments. Outside of these national policies, however, there is still significant room for local level policy makers to improve labour force participation and productivity. The textbox below provides an example of Perspective 50plus, a German national programme to encourage labour market participation of older, vulnerable workers through the creation of regional employment pacts. This programme is particularly interesting because of the flexibility given to these pacts to design interventions tailored to the local context.

Older workers face a number of risks related to skills. For one, their skills can become obsolete as technology changes, but they are less likely to participate in education and training than younger workers. This is likely due to a combination of factors, including reluctance on the part of employers and public employment services to offer training to older workers as well as a lack of motivation on the part of older workers to invest in training, as the payback period is shorter than for younger workers (OECD, 2011a). Thus, increasing the training opportunities available to older workers (i.e. through employer-based and PES-based training) must be combined with "marketing" the benefits of training. Local policy makers have an important role in making sure training opportunities for older people are tailored to the local labour market and facilitating partnerships between employers, PES, and/or training institutions (as described in Box 10.4).

Data from the OECD's Programme for the International Assessment of Adult Competencies (PIAAC) shows an overall negative relationship between age and literacy proficiency, which may be due to a combination of cohort differences in education and ageing-related skills loss. Evidence suggests that declines in information-processing skills can be mitigated by learning during childhood and young adulthood, prior exposure to tasks involving literacy and numeracy, educational interventions in adulthood, and certain physical, social, and particularly mental activities (OECD, 2013c).

Unfavourable working conditions can also "push" older workers out of the labour market. Working with employers to mitigate these "push" factors through age management practices can help prolong labour market participation. One approach is creating more

Box 10.4. **Perspective 50plus: Employment Pacts in the Regions**

The German Federal Ministry of Labour and Social Affairs introduced Perspective 50plus in 2005 to complement pensions and benefit reforms aimed at reducing the rate of early retirement in Germany. Through this programme, funding was made available to regional employment pacts to support the activation and labour market integration of older workers. These regional employment pacts aim to involve all appropriate regional and local stakeholders (such as jobcentres, employers and training institutions)

In particular, the programme was designed to target older workers (age 50 and over) who are recipients of minimum income benefits. In 2010, 190 000 people participated in the programme, with an average age of 54. Participants experienced a wide variety of barriers to employment. The majority had only completed the lowest levels of education and not more than one-third had vocational qualifications. On average, they had been unemployed for more than two years, and 13% had not been employed in the previous ten years. Additionally, participants showed high levels of social marginalization and poor health was common.

Regional pacts were given considerable latitude in programme design and delivery. They could choose to use programme funding to purchase services from external providers, fund additional internal staff positions, provide services themselves, provide employment subsidies, etc. This is in contrast to typical German labour market policy interventions, which are strictly defined at the legislative level. Regional employment pacts have taken advantage of this flexibility to provide a wide range of different tools and instruments, including profiling, assessments, special training measures, internships in companies, placement activities (adapted to the special needs of the target group), wage subsidies for employers, time management, and publicity campaigns to raise awareness of the challenges of demographic change. For example, jobcentres in rural regions were able to use unorthodox approaches to solving transportation problems, such as support for obtaining a driver's license or interest free loans for buying a car.

An evaluation of the programme found that it had better outcomes than standard operations and lower costs per participant and per durable employment take-up. The evaluation attributed the programme's relative success to a number of factors, including the intensity of interactions between jobseekers and jobcentre staff, a focus on personal and personalized services, and an attention to human capital investment (i.e. training) as opposed to a work first approach.

Source: OECD (2006c), "Germany: 'Perspective 50 Plus" – Employment pacts for older workers in the regions", *www.oecd.org/cfe/leed/37729545.pdf*; Knuth, M. (2014), "Broken Hierarchies, Quasi-markets, and Supported Networks – A Governance Experiment in the Second Tier of Germany's Public Employment Service", *Social Policy & Administration*, Vol. 48, No. 2 pp. 240-261.

flexible working arrangements – from full-time to part-time work – while also improving working conditions for part-time work. Job carving (customising job duties to create specialist job roles or swapping job duties to make the most of individual skills) is another approach. Larger companies are more likely to have the resources and expertise to implement such strategies, while smaller and medium-sized enterprises may need additional support (OECD, 2014a).

Information campaigns can help to remove the mental barriers and negative perceptions of age and ageing workers and encourage enterprises to take the responsibility for implementing age-sensitive workplace design, management and leadership. Awareness could be raised of the benefits and challenges of active ageing to employers, and they could be encouraged to invest in their staff and stimulate age-friendly HR policies (OECD, 2014a).

The Benefits of Maturity project, described in the textbox below, identifies, shares, and rewards best practices in workplace age management policy through media campaigns, events, a website, and a national competition.

Box 10.5. **The Benefits of Maturity Project: Identifying and awarding best practices**

The Academy for the Development of Philanthropy in Poland launched the "Benefits of Maturity" project following research that showed Poland had an exceptionally low labour market participation rate amongst the population 50+, and that there was little awareness of the gravity of this problem. The project aims to raise awareness of the low labour market participation rates of this group, promote the advantages of employment and share best practices on employing older workers. Activities include a national information campaign, seminars for employers and employment agencies, a website where research and best practices are distributed, and a competition for employers and employment services.

Since 2009, more than a dozen companies that have implemented age management programmes have been awarded recognition in the competition. Among these is a company from Kraków in the Małopolska region, EMITel, which has a high share of older workers, and seeks to increase motivation to work, to improve relations between workers of different ages, and to utilise older workers' knowledge and limit the costs of external training. The HR department developed a special programme designed to ensure older workers play an active role in the company, by means such as giving them new work roles as coaches, trainers and experts for other colleagues, and sharing their knowledge with others in a formal way.

Source: Benefits of Maturity (n.d.), "About the 'Benefits of Maturity' Project by the Academy for the Development of Philanthropy in Poland", *www.zysk50plus.pl/storage/fck/file/Benefits_of_Maturity.pdf*.

Older workers also need assistance understanding the career options available to them in the latter parts and end of their careers. Mid-life career reviews, as described in the box below, are being piloted in the United Kingdom as part of the government's larger work to encourage people to stay employed longer. This pilot experience demonstrates the values of reviews at this stage of life and the importance of taking a holistic approach with clients. Beyond mid-life, transitions into retirement can also be improved, for example by encouraging older works to take advantage of freelance and entrepreneurship opportunities, serve on voluntary boards, and be mentors to younger workers.

Entrepreneurship can be a means for seniors to stay active after redundancy or retirement from long-held employment posts (OECD/The European Commission, 2013a; OECD/The European Commission, 2013b). However, this potential is not always realized. Seniors often have high levels of technical skills and access to finance, but need support in developing entrepreneurship specific skills. Box 10.7 summarises key ways that policy can influence an older person's decision to enter into self-employment, as identified by a LEED-European Commission policy brief on the topic (2013).

Finally, creating environments that allow workers to balance caregiving and workplace responsibilities can also encourage higher rates of labour market participation across the board, including for older workers who may have other family responsibilities. More generally, creating family friendly policies (flexible working hours, affordable and accessible childcare, etc.) can also help to encourage labour force participation of women and contribute to increased fertility rates (OECD, 2014a).

Box 10.6. **Mid-life Career Reviews**

Like governments across the OECD, the United Kingdom is exploring how to encourage older workers' participation and productivity in the labour market. As part of this, the Department of Business, Innovation, and Skills asked the National Institute of Adult Continuing Education (NIACE) to pilot a Mid-life Career Review project, This project is based on the idea that if people had access to rounded career guidance throughout their working lives, they would be better able to manage their careers and lives, including working longer, considering different types of work, and retiring healthily and independently. Seventeen pilot partners were engaged to deliver mid-life career reviews to over 3 000 clients aged 45-65. These partners included National Careers Services providers, learning providers, voluntary organisations, workplace learning advocates, union learning reps and community learning champions.

Mid-life reviews were delivered through a range of approaches, including group work, face-to-face interaction, and telephone sessions. In these sessions, over half of clients discussed training or learning opportunities or career development. Other common topics included volunteering, self-employment, finances, health, retirement options and caring responsibilities. As evidenced by the variety of topics covered, many of the pilot sites found that mid-life career reviews should focus on the client as a whole and the multiplicity of issues that affect their likelihood of working (health care, caring responsibilities, finances, etc.).

These pilots had benefits both for the clients and for employers. Almost three-quarters of surveyed advisers reported that the pilot resulted in improved services for mid-life clients. Fifteen out of seventeen pilot sites reported that the mid-life career reviews increased client confidence and motivation. Peer support in the form of group work was particularly effective for clients who felt less confident. Employers also felt these schemes brought real benefits in addition to the direct benefits to employees, including gaining deeper understanding of the needs, interests, and aspirations of older workers; reviewing developing working practices and policies; and being able to provide support to older workers.

Initial research on this project reveals a number of other key findings for policy and practice:

- "There is a demand for mid-life career reviews but people need to be well informed of the benefits if they are to take up the offer."
- "The offer should not be 'one size fits all', but tailored to meet individual needs."
- "The approach can be embedded into provision by career guidance and learning providers, as well as by employers."
- "Mid-life career reviews can be supported by peer and voluntary efforts – 'expert signposters' in the community and workplace."
- "Partnership working is key to the delivery of the mid-life career review approach."

Source: NIAC (2014), "Midlife career review: Extending working life through career review at mid-life", *www.niace.org.uk/current-work/mid-life-career-review*.

Building resiliency and sustainability

The above sections offer specific strategies for how local policy makers can mitigate potential negative effects of demographic change on local labour markets. Broader than any specific strategy, however, is the need for an approach that builds community resilience and ensures that political, economic, and social systems will continue to thrive despite the changes to come. A key component of this approach should be a focus on sustainability. Typically, conversations about sustainability have been framed in terms of growth. As the

Box 10.7. **Policy approaches to promoting senior entrepreneurship**

Promote the benefits of entrepreneurship. "Superact" is one of several projects in the area of active learning by adults supported by the Grundtvig project in Europe. It features personal stories about older entrepreneurs with disadvantaged backgrounds in order to promote entrepreneurship to other potential older entrepreneurs.

Improve entrepreneurship skills with training. The "fe:male" network seeks to connect "up and coming" female entrepreneurs across Europe with a platform for networking as well online business tools, training events, and opportunities for mentoring. The network makes targeted outreach efforts to women over 50, ethnic minorities, single parents and long-term unemployed, recognising that they face particular barriers in the labour market.

Develop and support networks. "Biiugi" provides an online platform to connect experienced older entrepreneurs with less experienced or prospective older entrepreneurs in Germany. Members can create online profiles and connect with other members virtually. Members with a premium membership have access to additional online services, such as live chatting.

Improve access to finance. The Mature Entrepreneur project in Poland aims to support entrepreneurship among those over the age of 50. Participants receive grants of up to PLN 50 000 to help them start a business, in addition to training and business advice. In order to promote entrepreneurship to older people, a television series was made about the project participants.

Ensure there are no disincentives for entrepreneurship in social support systems. In order to make self-employment more attractive to older people, Sweden has recently undertaken new policy actions to reduce sick leave contributions for all self-employed workers and guarantee them covered leave for seven days (European Commission, 2010).

Source: OECD/The European Commission (2013), *Senior Entrepreneurship*, *http://dx/doi.org/10.1787/-en*; European Commission (2010), "European Employment Observatory Review: Self-employment in Europe 2010", *http://ec.europa.eu/social/BlobServlet?docId=6137&langId=en*.

population age structure continues to shift, it becomes increasingly important to develop models of sustainable planning focused not just on growth, but also on managing shrinking communities and demographic change (OECD, 2014a). A number of overarching principles, as described below, can help to guide this response.

Designing comprehensive, local solutions

OECD LEED research on local responses to demographic shows the importance of a comprehensive approach that encompasses a multitude of policy areas, including greening, revitalisation, economic development and social cohesion. Because of the significant territorial differences in demographic change – and the resources that local areas have at their disposal to draw on to address these changes – any approach must be tailored to the local context (Box 10.4 on Perspective 50Plus provides one example of such an approach). This requires co-ordination at the horizontal level (i.e. between local policy makers) and at the vertical level (i.e. between levels of government) so that the full scale of challenges and opportunities are realised. Efforts to align public financing are also critical as policy makers at all levels face shrinking budgets and cannot afford to waste money through inefficiency or duplication of services. The experience of Aviles, Spain shows the importance of a co-ordinated, comprehensive response. As described below, local, national and international partners were able to come together to reinvest in the city and reverse population decline.

Box 10.8. **Aviles, Spain: From urban decline to economic development**

Aviles is a medium-sized city in the old-industrialised region of northern Spain. Following de-industrialisation in the 1970s and restructuring policies of the Spanish government in the 1980s, Aviles experienced sharp increases in unemployment and decreases in population. Additionally, the city experienced severe environmental degradation as a result of its unorganized growth and subsequent de-industrialisation.

To address these challenges, both internal (city council, business associations, trade unions, port authority, etc.) and external (European Union, Spanish government, etc.) stakeholders have collaborated in support of a number of approaches to local development (for example, through the 2008 Aviles Local Pact on Progress). Local government and representatives of the main business and trade union associations signed on to promote an entrepreneurial culture, the creation of businesses, employee training, housing, social services, environmental quality, digital infrastructure, and connections to networks of excellence. There is also strong consensus around the new Urban Development Master Plan.

More specifically, strategies include the following:

- **Diversifying the local economy to make it less vulnerable to external shocks** through (1) the development of new business areas, (2) supporting the development of new businesses, and (3) enlargement of the port. These activities have also been supported by improving transportation in the city.
- **Developing the knowledge economy** by creating a base of technological services, most notably through the creation of the Steel Technological Centre which provides technical services to small companies. Additionally, through city marketing and development of several initiatives, efforts have been made to attract the creative class and develop cultural tourism.
- **Improving the quality of urban life** by cleaning up the coastal inlet which was highly contaminated by industrial waste, rehabilitating the urban centre, and improving local social cohesion policies.

Compared to 15-20 years ago, the city is showing signs of recovery. Migration trends have turned from negative (-3.9% between 1981 and 2001) to positive (+ 1.3% between 2001 and 2009), and the employment rate rose between 2000 and 2006. There is also an increase in the number and diversity of jobs.

Source: Sánchez-Moral, S., Méndez, R. and J. Prada (2012), "Aviles (Spain): From Urban Decline to the Definition of a New Development Model", *http://dx.doi.org/10.1787/9789264180468-en*.

Using data and evidence to design policies

Policy responses should be based on accurate and up-to-date information and data on the current and future demographic and economic context. Quality local population forecasting and a common legal framework for small-scale surveys are important parts of this picture (OECD, 2014a). Indicators of demographic change and adequacy of existing policy responses can also help to provide a "snapshot" of the overall situation. The table below describes tools to help provide these snapshots at the national and regional levels. In addition to contributing to the development of more effective policies, these types of data and tools can serve as the base around which partners come to a shared understanding and begin to design co-ordinated responses.

Table 10.2. **Examples of composite indexes**

Name	Description
Active Ageing Index	● Developed in 2012 by the European Center for Social Welfare Policy and Research. ● Includes four domains and 22 indicators that represent different aspects of active and health ageing. ● Three domains refer to the actual experiences of active ageing (employment, unpaid work/social participation, independent living) and a fourth capture the capacity for active ageing as determined by individual characteristics and environmental factors.
Global AgeWatch index	● Supported by international organisations such as the World Bank, the World Heatlh Organisation, the International Labour Organisation, and the United Nations Educational, Scientific, and Cultural Organisation. ● Contains four domains (income security; health status; employment and education; and enabling environment)
Demographic Change Dashboard	● Developed by the OECD LEED Programme using the Consultative Group of Sustainable Development Indices Dashboard tool. ● Evolving tool designed to assess performance levels of demographic transition at a regional scale between 2000 and 2010. ● Component indicators fall into the areas of demography, economy, labour, and skills and education.
Older Workers Friendly Places to Work Index	● Developed by OECD LEED Programme based on categories from the American Association of Retired Person's "Best Employers for Workers over 50". ● Index based on questionnaire that looks at regional workplace policies in the following areas: recruitment; work culture; training and skills development opportunities; and company health and benefits.
Elderly Friendly Places to Live Index	● Developed by the OECD LEED Programme based on the eight key areas for a city's age friendliness identified by the World Health Organisation (WHO) (2007). ● Based on the following: outdoor spaces and buildings; transport; housing; social participation; respect and social inclusion; civic participation and employment; communication and information; and community support and health services.

Source: OECD (2014a, forthcoming), *Fostering resilient economies: Demographic transition in local labour markets*.

Building community ownership and solidarity

Demographic change cannot just be the concern of a select group of policy makers, but rather requires a collective, community-wide response (OECD, 2014a). According to Schlappa and Neil, (2013) "…citizen engagement is essential for developing a meaningful and realistic strategy… and deep collaboration between public agencies and citizens may make the difference between success and failure." Developing intergenerational solidarity is also a key part of the response. This solidary can be seen as a desirable value in and of itself, but also as a means to promote mutually beneficial exchange of resources such as time and money between generations (OECD, 2011b). *Tradice Slovácka,* a social enterprise in the Czech Republic, provides an example of an integrated approach to promoting job creation, intergenerational solidarity, and social capital creation (see Chapter 8 for a review of social entrepreneurship and the social economy more broadly).

Conclusion and issues for consideration

Policies that promote not only growth, but also economic and social resilience, are particularly relevant in the face of the demographic changes described in this chapter. At the level of local labour markets, actions can be taken to capitalize on new opportunities in the silver and white economies in areas such as healthcare, senior housing, age-sensitive tourism and recreation. Additionally, local policy makers have an important role to play in creating the types of environments that encourage older workers' participation in the labour force. Strategies which have been implemented locally include creating and promoting opportunities for older workers to upgrade their skills, building awareness of how employers can better support older workers; and promoting flexible and non-traditional working arrangements.

While other relevant policy responses (pension reform, early retirement schemes) are more in the purview of national policy makers, the interplay between these policy levels also deserves attention. Alignment of public finances can help to minimize waste and duplication and careful attention should be paid to giving local policy makers the

Box 10.9. **Tradice Slovácka in the Czech Republic**

Tradice Slovácka in the Czech Republic is an example of a social enterprise working on issues related to job creation and intergenerational solidarity. In 2006, two local councils were seeking uses for municipal buildings that would at least partially maintain their public function while increasing employment in the area. They worked with a local folk group to create a 'public benefit' organisation to manufacture folk costumes and accessories. European Structural Funds helped to finance investment in the building and some basic equipment while the company's ongoing expenses are covered by its sales of goods and services. Seventeen women of various ages are employed across the two centres, in addition to a number of subcontractors who are often between 60 and 75.

Both older and younger generations are able to share their knowledge with each other. The older workers teach younger workers the craft of creating folk costumes and accessories through integrated work arrangements and workshops offered by outside consultants. Since younger workers tend to be more proficient in newer technologies, such as sewing machines, so they are also to teach their older colleagues some skills. The company's workshops operate with an ''open door policy" – anyone interested can come to observe the craftspeople at work. To promote lifelong learning and prevent anti-social behaviour among young people, *Tradice Slovácka* also provides courses for unemployed people, older people and mothers on maternity leave. They are mainly run by external specialists, with costs subsidised by the company. These courses include the teaching of traditional crafts, sewing classes, and computer training for older people.

Source: Eurofund (2007), "Tradice Slovácka, Czech Republic: Comprehensive approach", *www.eurofound.europa.eu/areas/populationandsociety/cases/cz007.htm*; OECD (2014a), *Fostering resilient economies: Demographic transition in local labour markets*.

flexibility to tailor policy responses to the local context. Within the local and regional level, co-ordination across policy areas (healthcare, urban planning, family support policies, etc.) can also help to foster community resilience. Finally, regardless of specific approaches used, basing them on accurate and up-to-date data and evidence and garnering widespread community participation and buy-in are important steps in the process.

Key recommendations for managing demographic change

Leverage opportunities generated by the silver and white economies

- Support growth and activities in age-sensitive markets such as housing, healthcare, and tourism.
- Focus on job quality and inclusion in growth sectors, particularly health care which has a large proportion of migrant workers.

Promote skills, training and workforce age management practices for older workers

- Encourage older workers to upgrade their skills and provide opportunities for them to do so.
- Build employer awareness of the need to better support older workers and offer supports on how to do so.
- Promote flexible and non-traditional working arrangements for older workers, including part-time work and job carving.

Focus on resiliency and sustainability in developing a response

- Develop approaches that are co-ordinated vertically (i.e. between levels of government) and horizontally (i.e. across policy areas).
- Use a data-driven approach to diagnosing problems and identifying solutions.
- Build buy-in not only amongst institutional stakeholders, but also in the community more broadly in order to promote intergenerational solidarity.

References

Benefits of Maturity (n.d.), "About the "Benefits of Maturity" Project by the Academy for the Development of Philanthropy in Poland", *www.zysk50plus.pl/storage/fck/file/Benefits_of_Maturity.pdf*.

Bertelsmann Stifung and Europam Policy Center (2013), "Second career labour markets: Assessing challenges – advancing policie", *www.bertelsmann-stiftung.de/cps/rde/xbcr/SID-B7C703A2-6368A65C/bst/xcms_bst_dms_38023_38024_2.pdf*.

Bloom, D. E., and D. Canning (2005), "Global demographic change: Dimensions and economic significance" (*Working Paper* No. 1), *Harvard Initiative for Global Health Working Paper Series*, Cambridge, Massachusetts.

CEMR (2006), "The impact of demographic change on local and regional government", CEMR, Brussels.

Eurofund (2007), "Tradice Slovácka, Czech Republic: Comprehensive approach", *www.eurofound.europa.eu/areas/populationandsociety/cases/cz007.htm*.

European Commission (2010), "European Employment Observatory Review: Self-employment in Europe 2010", European Commission, Luxembourg, *http://ec.europa.eu/social/BlobServlet?docId=6137&langId=en*.

European Commission (2007), *Europe's Demographic Future: Facts and Figures on Challenges and Opportunities*, European Commission, Luxembourg, *http://dx.doi.org/10.2767/15724*.

European Commission and United Nations Economic Commission for Europe (2013) "Policy Brief: Introducing the Active Ageing Index, March 2013", *www1.unece.org/stat/platform/download/attachments/76287837/activeageingindex.pdf?version=1&modificationDate=1366286568393*.

Froy, F., S. Giguère and A. Hofer (eds.) (2009), *Designing Local Skills Strategies*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264066649-en*.

Fujisawa, R. and F. Colombo (2009), "The Long-Term Care Workforce: Overview and Strategies to Adapt Supply to a Growing Demand", *OECD Health Working Papers*, No. 44, OECD Publishing, Paris, *http://dx.doi.org/10.1787/225350638472*.

Heinze and Naegele (2009), 'Silver Economy' in Germany – More than only the 'economic factor: Old age'!", GEROBILM, *www.sowi.rub.de/mam/content/heinze/heinze/heinze_naegele_gerobilim.pdf*.

HelpAge International (2014), *Global AgeWatch Index 2013 Insight Report*.

Hollbach-Grömig, B. and J. Jan Trapp (2006), "The impact of demographic change on local and regional government", Council of European Municipalities and Regions (CEMR), *edoc.difu.de/edoc.php?id=Z7EAY9OD*.

Knuth, M. (2014), "Broken Hierarchies, Quasi-markets, and Supported Networks – A Governance Experiment in the Second Tier of Germany's Public Employment Service", *Social Policy & Administration*, Vol. 48, No. 2, pp. 240-261.

Martinez-Fernandez, C., Kubo, N., Noya, A., and T. Weyman (2012) *Demographic Change and Local Development: Shrinkage, Regeneration and Social Dynamics*, OECD Publishing, Paris, *http://dx/doi.10.1787/9789264180468-en*.

NIAC (2014), "Midlife career review: Extending working life through career review at mid-life", National Institute of Adult Continuing Education, *www.niace.org.uk/current-work/mid-life-career-review*.

OECD (2014a forthcoming), *Fostering resilient economies: Demographic transition in local labour markets*, OECD Publishing, Paris.

OECD (2014b), *OECD Factbook 2014: Economic, Environmental and Social Statistics*, OECD Publishing, Paris, *http://dx.doi/10.1787/factbook-2014-en*.

OECD (2013a), *Trends Shaping Education 2013*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/trends_edu-2013-en*.

OECD (2013b), *International Migration Outlook 2013*, OECD Publishing, Paris, *http://dx/doi/10.1787/migr_outlook-2013-en*.

OECD (2013c), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Paris, *http://dx/doi/10.1787/9789264204256-en*.

OECD (2013d), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, *http://dx/doi.org/10.1787/reg_glance-2013-33-en*.

OECD (2011a), "Helping Older Workers Find and Retain Jobs", in OECD, *Pensions at a Glance 2011: Retirement-income Systems in OECD and G20 Countries*, OECD Publishing, Paris, *http://dx/doi.10.1787/pension_glance-2011-8-en*.

OECD (2011b), "Background Document: OECD Ministerial Meeting on Social Policy", Paris, 2-3 May 2011, Session 3 Paying for the Past, Providing for the Future: Intergenerational Solidarity, *www.oecd.org/els/public-pensions/47 712 019.pdf*.

OECD (2008), *OECD Rural Policy Reviews: Finland 2008*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264041950-en*.

OECD (2006a), *From Immigration to Integration: Local Solutions to a Global Challenge*, Local Economic and Employment Development (LEED), OECD Publishing, Paris, *http://dx/doi/10.1787/9789264028968-en*.

OECD (2006b), *Live Longer, Work Longer*, OECD Publishing, Paris, *http://dx/doi/10.1787/9789264035881-en*.

OECD (2006c), "Germany: 'Perspective 50 Plus"-Employment pacts for older workers in the regions", LEED Forum on Partnerships and Local Development, *www.oecd.org/cfe/leed/37729545.pdf*.

OECD/The European Commission (2013), *Senior Entrepreneurship*, OECD Publishing, Paris, *http://dx.doi/10.1787/9789264188167-en*.

OECD/The European Commission (2013), *The Missing Entrepreneurs: Policies for Inclusive Entrepreneurship in Europe*, OECD Publishing, Paris, *http://dx.doi/10.1787/9789264188167-en*.

Sánchez-Moral, S. Méndez, R. and Prada, J. (2012), Aviles (Spain): From Urban Decline to the Definition of a New Development Model" in Martinez-Fernandez, C., et al. (2012), *Demographic Change and Local Development: Shrinkage, Regeneration and Social Dynamics*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264180468-en*.

Schlappa, H., and W.J.V. Neil (2013), "From crisis to choice: Re-imagining the future in shrinking cities", Cities of Tomorrow – Action Today URBACT II Capitalisation, URBACT, Saint-Denis.

Spencer, S., Martin, S., Bourgeault, I.L, and E. O'Shea (2010), *The Role of Migrant Care Workers in Ageing Societies: Report on Research Findings in the United Kingdom, Ireland, Canada, and the United States*, International Organization for Migration.

Triest, R., M. Sapozhnikov and S. A. Sass (2006), *Population Aging and the Structure of Wages*, CRR WP 2006-5, Center for Retirement Research at Boston College.

United Nations (2009), *World Population Aging*, United Nations, New York.

United Nations Population Division (2010), *World Population Prospects: The 2010 Revision*, online, *http://esa.un.org/unpd/wpp/unpp/panel_indicators.htm*.

World Health Organisation (2007), *Global Age-friendly Cities: A Guide*, World Health Organisation, Geneva.

Zacker, H.B. (n.d.), "Creating Career Pathways for Frontline Health Care Workers", Jobs for the Future, *www.jff.org/publications/creating-career-pathways-frontline-health-care-workers*.

Chapter 11

Seizing opportunities from green growth

While most local economies continue to strive for economic growth, it is now widely recognised that global economic development is placing unsustainable pressures on the environment, including those leading to climate change. There are increasing calls for a decoupling of economic activities from environmental pressures and for a "greening" of production and consumption processes. Green growth will create challenges, such as the transition of workers from one sector to another, but also opportunities, in terms of economic diversification and innovation. Any real change in emissions will require a transformation in the way that people live and work, and local actors can play an important role in driving forward this transformation. Local flexibility in education and training systems is also important as green growth, particularly in its early stages, has tended to be concentrated in certain localities and regions.

Climate change will have variable impacts on the labour market at the local level

While most economies continue to strive for economic growth, it is now widely recognised that economic development is placing unsustainable pressures on the environment, and leading to climate change. There are thus increasing calls for a decoupling of economic activities from environmental pressures (see OECD, 2012a), and for a "greening" of production and consumption processes. This includes a focus on the development of a low-carbon economy and the better management of limited resources, such as water. Reducing the impact of economic production and consumption on the environment will require a transformation in the way that people live and work, and local actors can play an important role in driving forward this transformation. The role of local education and training institutions in being able to respond to change is also important as green growth tends to be concentrated in certain localities and regions.

Overall, green growth is not expected to create a large number of new jobs. The global energy sector, for example, only accounts for around 1-2% of global employment, so the likely employment effects of restructuring this sector will be small (OECD, 2012b). The number of people employed in carbon-intensive industries is also limited: around 90% of total CO2 emissions are attributable to 10 industries that account for just 16% of total employment in OECD countries (OECD, 2012a). However such sectors tend to be concentrated in certain countries, and in particular local regions (see Box 11.1 below). Eco-innovation is also relatively geographically concentrated, with Greater Copenhagen in Denmark, and California in the United States being recognised, for example, for their clusters of clean-tech industries. In both carbon-intensive, and eco-innovation regions, rapid changes may lead to skills shortages and bottlenecks, with not enough skilled people available to meet public and private sector demands, even as some workers are displaced from declining sectors (OECD-CEDEFOP, 2014; Martinez-Fernandez et al 2013a, 2013b, 2013c, 2013d).

The green transition will require local flexibility in vocational training systems

Demand for green skills is driven by three main trends: 1) skills will need to be adjusted across occupations and industries as they adapt; 2) new and emerging economic activities are creating new occupations and skills profiles and; 3) structural changes mean that workers need to be retrained, as they move from declining to growing sectors (OECD-CEDEFOP, 2014). Many education and training institutions will see green growth as simply another aspect of the economy for which they need to prepare their students, and indeed, the number of uniquely "green" skills needed to support the transition is relatively limited (OECD, 2012a). However the breadth of courses that will need to change and adapt is significant – ultimately there will be a need to mainstream the skills associated with environmental preservation and protection across many different courses and programmes (ibid.).

Box 11.1. **What will the overall effect of a greener economy be on the labour market?**

Some experts fear that greening the economy will lower productivity – as extra costs are put on producers, with limited short term benefits – and the overall size of the economic pie will reduce. Others predict that in fact adaptation will lead to technological and process innovation and hence provide an economic boost to certain local economies and industries. In terms of the overall impact on the labour market, predictions are that it will be largely neutral. However it is likely to affect certain industries more than others, and hence certain labour market areas where such industries are concentrated. These industries include:

Carbon-intensive industries: such as agriculture; fishing; mining and quarrying; electricity and gas; transport, (air, internal and water); coke; refined petroleum and nuclear fuel; chemicals and chemical products; other non-metallic mineral; and basic metals. Most employment in carbon-intensive industries is found in agriculture and inland transport.

New greener industries and drivers of eco-innovation: such as energy efficient construction and renewable energies (for example wind, solar, geothermal, ocean, waste-energy, biomass).

Change within these industries will have different labour market impacts depending on the number and type of people they employ. The agriculture and transport sectors, for example, are more likely to employ low qualified and older workers, while chemicals industries and electricity employ higher skilled workers.

Source: OECD (2012a), "The Jobs Potential of a Shift Towards a Low-Carbon Economy", *http://dx.doi.org/10.1787/5k9h3630320v-en*.

Table 11.1 lists the types of skills which can be considered "green", in that they will help to support the transition to more sustainable means of production and consumption. Skills to support innovation and adaptability will be as important as technical skills, as industries gradually adapt to the need to better harness and dispose of resources. At the same time, modular technical "top up" courses may be required for those that are already in work, particularly given the rapid technological changes associated with emerging environmental technologies. Stakeholders in Extramadura in Spain, for example, complain that too many resources are put into initial vocational training, with a lack of continuous learning to support adaptation by workers to new greener working practices (Miranda et al, 2011a).

In many cases firms will themselves undertake to provide top up training in green technical skills for workers. In the region of Hull in the United Kingdom, the company Siemens is developing a new off-shore wind energy scheme, and the local university and college system have been asked to concentrate on providing people with standard engineering skills. The company itself will provide top up training to enable engineers to adapt to their specific industry context, which is likely to bring the region 1 300 jobs. Larger firms such as Siemens have the resources to provide their own training, however, small to medium enterprises will have more limited human resource management and training capacities, and may benefit from public assistance and support.

In addition, while education and training organisations may not need to revolutionise the way that they do business to support green growth, the concentration of carbon-intensive industries and new forms of eco-innovation in certain regions means that they will need to be responsive and flexible – adapting to changing business needs at the local level and to local greening strategies as they are developed. Those businesses

Table 11.1. **The types of skills required to support the transition to greener growth**

Area of change	Skills requirements
New means of energy production and waste management	• Technological skills (e.g. in research, engineering, new building techniques).
The broader transition (from carbon-intensive to more energy efficient forms of production and consumption)	• Management skills and knowledge as to effective techniques for reducing energy use, waste and pollution. • Skills for innovation and management of change, including communication skills. • Transversal generic skills to support transition of workers across industries.

that are driving forward greater energy efficiency in London, for example, complain that education and training supply has been slow to respond to their emerging needs, in the context of a relatively centralised system (Miranda et al, 2011b).

Indeed, the transition towards greener growth is a particularly important instance of the need for education and training organisations to work alongside other local actors within an integrated approach. In California, for example, the NORTEC Workforce Investment Board has used a State "Clusters of Opportunity" grant to work with the local college and university on an Alternative Fuel and Vehicle Sector Initiative, which promotes the training and research in the development and deployment of alternative fuels and vehicles. This initiative was delivered in partnership with the City of Chico, County of Butte, Butte College and the California State University, Chico, and others (OECD, 2014a). At the same time, national governments will need to play a role in assuring coherence in new green skill credentials, while providing consistent environmental quality/energy efficiency standards across regions and sectors.

The green transition brings employment challenges, but also opportunities

The greening of the economy will present challenges for local employment and labour organisations as jobs are lost in some sectors and gained in others. Again, this may be less about changing the way such institutions do business, and more about being prepared for change in specific local areas. In regions which host carbon-intensive industries, jobs are likely to be lost over the coming years, and in order to support a "just" transition (ILO, 2010), employment and training agencies in these regions will need to help workers to find new work that is appropriate to their skills. In some regions, such actions have been undermined by the economic downturn – in the El Bierzo district in Spain, a cross-government funded agency called Ciuden was set up to help promote transitions from coal-based activities to new activities in carbon capture and energy efficient construction. The agency continues to invest in this area, but its actions have been undermined by the broader context of the loss of jobs and resources in the country (Martinez-Fernandez et al, 2013b). Some regions that are strongly dependent on carbon-intensive activities, such as coal mining, may also need to manage population decline as total employment falls and some workers and youth move elsewhere – support from national governments in assuring mobility will be useful here.

In general, certain types of jobs (e.g. work in public transport) may become more prevalent while others (such as automobile manufacture) decline, meaning consequent changes in emphasis within skills and education curricula, and career advice. In the process, an emphasis on transferable skills will be important, to understand how workers in declining sectors can transfer to new emerging niches. In the United States, for example, companies involved in wind energy generation are retraining and re-employing workers displaced from the construction sector in the wake of the housing boom. In Denmark,

technical components once used for shipbuilding and construction have now transferred to the fields of wind, tidal and wave energy installations (OECD, 2012a). In the area of Mulhouse in France, a project called 'TransverS'AL' has for a number of years been helping to prepare people for such shifts between sectors, advising people of the particular skills that they are likely to require as they transition from one area of the economy to another (see Box 11.2 below).

Box 11.2. **Transferring from declining to growing sectors: A project in Mulhouse in Alsace, France**

The Employment and Training Centre of Mulhouse (*Maison de l'Emploi*, MEF Mulhouse) has been working with partners since 2008 on a scheme called TransverS'AL (meaning the "horizontal approach") within south Alsace. The project brings together four labour market areas comprising 240 communes and around 460 000 inhabitants. South Alsace has a working population of 129 000 (35% in the service industry, 28% in business, 9% in construction and 28% in manufacturing). Since 2003, 8 000 manufacturing jobs have been lost in the automobile, chemical, food processing and machine construction/electronics industries in the region. In response to these changes, MEF Mulhouse has worked with partners to better support the transition of workers to more stable career paths within emerging sectors.

The origins of the project

In March 2008, after a loss of jobs at a large textile manufacturing firm (DMC), the union for people employed in clothes, leather and textiles (CFDT HACUITEX) asked MEF Mulhouse to create a platform for skills and employment in the textile industry, with a particular focus on transferable skills. As it developed, the project started to look not only at textiles but also at other new and emerging occupations, for example in the low-carbon construction sector.

At the start of the project, the MEF sought to create an open dialogue within the region by creating a platform for communication and exchange on industrial change, employment and skills. A four month period of consultation took place with relevant local and regional actors in order to analyse the principle challenges facing the region. Fifteen objectives were developed and shared by the different actors, around four themes: research and analysis, co-operation with companies, training, and communication.

The approach

The project continues to operate six years later in 2014, with a focus on:

- Awareness raising campaign regarding the importance of continuing professional and vocational training in the region, aimed at employers, employees and unions, and including a telephone helpline.
- A series of sector studies in the areas of textiles, metalworking, buildings and public works, personal services, chemicals, plastics, pharmaceutics, temporary work, local shopping, logistics and transport, and automobiles. These focused on deepening understanding on the organisation of these firms, labour mobility and skills needs and future prospects (in terms of declining and growing industries). A study on labour mobility was also carried out to better measure in detail the creation and destruction of jobs in the region.
- The creation of a website to enable workers and businesses to better understand the horizontal career paths and training options which could support mobility from declining to emerging sectors. In addition to giving detailed guidance on particular transitions from one sector to another, the website also includes testimonials from people that have successfully made the transition. See *www.transversal-sudalsace.fr*

Source: MEF Mulhouse (2014), *www.mef-mulhouse.fr/* (accessed 30 July 2014).

Businesses need both incentives and support to green their workforce

In some cases businesses are leading the way in providing training to their staff and the local community. In Chile, for example, the Emiliana Organic Vineyards (which belongs to *Concha y Toro*) has created an annual training programme for its workers in organic wine growing techniques, while drawing up an agreement with the Catholic University of Chile to provide training courses for residents in surrounding communities. The company also offers 4 university scholarships and 12 technical scholarships for the children of employees who wish to continue their studies. In producing organic wines, the company is partly responding to demand from customers in European markets, who are willing to pay more for organic products (Martinez-Fernandez et al, 2013a).

In some regions, specific funds have been made available to help boost such employer-led training. In Scotland, in the United Kingdom, the Low Carbon Skills Fund was set up by Skills Development Scotland to give Scottish businesses with up to 250 employees the opportunity to apply for up to GBP 12 500 towards employee training costs. It provided funding for up to 25 episodes of training and provides 50% of training costs, up to a maximum of GBP 500 per episode.

Elsewhere in the United Kingdom, a national scheme to encourage employers to take greater ownership for training is in some regions being geared to the low-carbon sector (see Box 11.3 below). In Nottingham, a scheme called Employer First focuses on encouraging SMEs, in particular, to jointly commission relevant training.

Box 11.3. **Employer First – investing in skills for the low-carbon sector, Nottingham, East Midlands, UK**

Over 65 000 people work in the low-carbon sector in the East Midlands region of the United Kingdom, with over 40 000 within manufacturing and engineering (62%). The majority of low-carbon businesses in Nottinghamshire are in the construction, manufacturing, engineering and advisory sectors, and 90% of these firms are small or micro enterprises. Employer First, a not for profit employer-owned co-operative organisation led by a precision engineering company called FilterTechnic, is developing skills and employment solutions for this sector. It harnesses investment from employers and funding from national government under the Employer Ownership of Skills Pilot. Key objectives are to:

- Stimulate employer investment in apprenticeship training and workforce development;
- Design a 'skills engine' to identify and develop new skills requirements based on employer needs, including development of a new apprenticeship framework for the low-carbon sector;
- Develop a talent pipeline to stimulate the supply of the future workforce, including business engagement across schools on STEM based initiatives, colleges and universities to encourage careers within the low-carbon sector;
- Create pre-employment pathways to enable employers to shape recruitment programmes and voluntary classroom /work- based training initiatives aimed at increasing the job readiness and take up of entry level employment;
- Put in place Independent Skills Advisors to engage SMEs and identify skills needs linked to business direction, competitiveness and growth;
- Support business networking for SMEs to share market knowledge, excellence in skills and training investment, engagement with R&D to drive product innovation and linkages to business support initiatives.

Source: OECD (2014b, forthcoming), *Employment and Skills Strategies in England, the United Kingdom*.

Helping firms to adapt will not just require formal training but also other forms of technical assistance and knowledge sharing. The Department of Energy in the UK finances an organisation called Carbon Trust to provide information to firms about business opportunities within the low-carbon economy both abroad and at home. In particular, they consult with firms on how to reduce their energy bills, and provide inexpensive finance to energy saving projects (Miranda et al, 2011b).

In some regions, green growth has been harnessed to provide new opportunities for unemployed and low-skilled people. For example in California, the Sacramento Green Workforce Initiative focuses on providing unemployed and underemployed individuals with entry-level or advanced training for jobs. As part of this initiative, the Sacramento Employment and Training Agency (SETA) and an organisation called Partnerships for Prosperity (PFP), offer training in energy auditing, solar panel installation, and pre-apprenticeship training in clean energy construction. In the northern California, the Northern Rural and Training and Employment Consortium (NORTEC) have also focused on how green skills training can help to lift people out of poverty (see Box 11.4) (OECD, 2014a). A note of caution is required here, however. In preparing such courses, Californian workforce agencies have been able to build on California's thriving clean-tech economy. In regions where this sector is more precarious such schemes have sometimes failed, through training people in narrow economic activities which have later disappeared, and in skills and technologies that have rapidly become obsolete.

Box 11.4. **Pathways Out of Poverty Programme**

The purpose of the Pathways Out of Poverty Programme in the NORTEC region of California is to teach workers the skills required in emerging energy efficiency and renewable energy industries. Training programmes prepare individuals for careers in any of seven energy efficiency and renewable energy industries:

- The energy-efficient building, construction, and retrofit industries
- The renewable electric power industry
- The energy efficient and advanced drive train vehicle industry
- The biofuels industry
- The deconstruction and materials use industries
- The energy efficiency assessment industry serving residential, commercial, or industrial sectors
- Manufacturers that produce sustainable products using environmentally sustainable processes and materials.

The programme is open to low-income adults with skills deficiencies, which includes unemployed individuals, high school dropouts, individuals with criminal records, and disadvantaged individuals within areas of high poverty. Services include occupational training, apprenticeships, on-the-job training, and customised training. Training is intended only for occupations that are in high demand.

Source: OECD (2014a, forthcoming), *Employment and Skills Strategies in the United States.*

Green growth brings the potential for innovation and local industrial development

Green growth is a source of potential innovation and economic diversification that can be further developed in many local economies across the OECD. Many governments see renewable energies, for example, as a promising sector for the creation of valuable

and stable jobs, particularly in rural areas, since exploitation of major renewable energy sources is space-intensive (Martinez-Fernandez et al, 2013b). The main benefits are perceived to be the provision of new job and business opportunities; opportunities for diversifying rural economies; the generation of innovation in products, practices and policies; skills development and community capacity building; and the provision of more affordable energy (ibid). However, economic and workforce development opportunities are also constrained in some rural areas by limited infrastructure and a lack of skilled people. In the region of Negev in Israel, for example, capacity to develop the clean-tech sector has been constrained by a lack of skilled staff, a lack of business services and difficulties in attracting in new talent due to the limited broader development and amenities in the region (Potter et al, 2012).

There are many different terms for innovative forms of economic activity that better harness and use energy and resources and better manage waste, including "clean-tech", and the low-carbon economy. Theyel (2012) describes clean-tech as encompassing environmentally-friendly production methods across a broad category of activities including energy generation, infrastructure, storage, and efficiency; agriculture and nutrition; air quality; water purification and management; transportation fuels and logistics; building construction; materials development; recovery and recycling; information technology for greater efficiency; and cleaner manufacturing and industrial processes. It should be noted however, that what is "clean" in any of these given sectors can sometimes be difficult to define (see Box 11.5).

In order for regions to become leaders in clean-tech, they will need to build strongly on local comparative advantage as competition to host eco-innovation is already high. Patenting information shows that very few industries in a few high-income countries account for a very large share of environmental research and development (OECD, 2012a). However eco-innovation more broadly (including adaptation of green technologies developed by other firms) is much more widespread. The benefits of engaging in such innovation go beyond environmental protection – research suggests that eco-innovation is associated with higher skills requirements and stronger export performance for firms, although these links may be weaker than for non-environmental innovations (ibid.).

The region of Copenhagen is a well-known centre of eco-innovation and clean-tech. In the city of Copenhagen itself there are some 610 clean-tech companies, specialised in industries such as architecture; design and engineering; electronics; ICT, and software and artificial intelligence (Martinez-Fernandez et al, 2013c). The clean-tech cluster also expands into adjacent regions such as mid-Jutland, with its centre for the wind energy industry, and Aalborg University in North Denmark with its expertise in software programming and complex data management. The dynamism of these clean-tech clusters is driven by national regulatory regimes that encourage innovation, a supportive local policy environment, and globally connected centres of training and research excellence. These socio-economic conditions allow firms in the region to fast-track the commercialisation of clean-tech products and services (ibid.).

The Copenhagen example also demonstrates the importance of industry platforms in generating eco-innovation, involving co-operation between firms within and across sectors to create a local "community of practice". The sharing of knowledge among a group of industries can lead to the development of new industrial practices, particular where such industries have a high absorption capacity. For example, the largest wind turbine producer

Box 11.5. **What is a "green" or "clean" product or service?**

The bringing together of inputs to produce goods and services, and the distribution of the final output to consumers is the result of a complex array of interactions between numerous businesses and consumers. Recognizing the often complex relationship between products/services and the inputs required to produce them raises several issues with defining the green economy:

1) **Considering the function of an end-use product or service alone may not be sufficient**. It is also important to consider the chain of products and processes that leads to the production of that final end-use product. A product may be considered green, but the inputs used to produce that product may or may not be green. Moreover, that green product (or service) could also be used in the production of a product (or service) that is not green. For instance, hybrid automobiles are listed as a green product by many organisations. While the energy efficiency of driving a hybrid may be greater, one must also take into consideration the energy consumption and potential pollution of producing and eventually disposing of the battery that is central to a hybrid's power source. Similar examples can be found when considering the environmental consequences of generating electricity using biomass or the potential hazardous waste issue surrounding nuclear power.

2) **Transportation costs** need to be taken into consideration when identifying the products and services that constitute a green economy, particularly when products are distributed internationally.

3) It is not sufficient to consider each product or service separately, without understanding their **linkages to other products/services**. This is particularly clear in the development of symbiotic circular economies (see Box 11.6 below) where the waste product of one industry is used by another.

Source: Eberts, R.W. (2011), "Framework and Tools for Assessing and Understanding the Green Economy at the Local Level", *http://dx.doi.org/10.1787/5kgc8n8n66wf-en*.

in Denmark, Vestas, began in the agri-food industry, producing milk coolers. From this, the firm went on to produce turbo coolers and then ship engines (Cooke, 2011).

New jobs often emerge from old

New types of eco-innovation often arrive on the back of older jobs at the local level. After examining a number of clean-tech initiatives in OECD countries, Cooke (2012) found that, "in every case, clean-tech clusters emerged from something else and combined capabilities from diverse industries." Diversification usually occurs through a branching process, building on the resources and capabilities of existing regional industries and institutions (Theyel 2012, Boschma and Frenken 2009, and Neffke et al. 2011). Companies in older industries often become suppliers and sources of employees, investment capital, and innovations for companies in the new industries. The concept of "related variety" is relevant here – new sectors may be more likely to emerge if they are closely connected with old ones. In some cases, these connections will be based on the possibility of sharing the same types of workers and worker skills. In fact, it is estimated that the probability that a firm will diversify into an industry that is strongly skill-related to its core activity is over 100 times larger than the probability that it will diversify into unrelated industries (Neffke et al, 2013). Diversification may also be spurred by the in-migration of "transformational" talent from other sectors and from other regions and countries (Neffke et al, 2014).

While individual business leadership is important, change often occurs across networks of firms and local supply chains. In some regions, firms are starting to work with each other to ensure that waste products feed other local industries, forming what is known as "circular economies". Such economies have the benefit not only of reducing waste, but also of maximising the value-added to be gained from resources within local production processes (see Box 11.6 below).

Box 11.6. **Kalundborg Regional Industrial Symbiosis Centre, Denmark**

Industrial symbiosis projects are those where waste and energy flows are seen as inputs for other sectors rather than as something for disposal. In Kalundborg in the Sjaelland province of Denmark a network of 9 partners, including the municipality, has been set up to support this process, with more than 30 bilateral or trilateral relations occurring between firms in the cluster, where one industry benefits from collaborating with another.

As an example, the surplus heat from a 150/620 MW coal-fired power plant is used to heat the community and other companies, in addition to a nearby fish farm, whose sludge is then sold as a fertiliser. Steam from the power plant is sold to Novo Nordisk, a pharmaceutical company, and NovoZymes, an enzyme manufacturer, in addition to a Statoil plant. A by-product from the power plant's sulfur dioxide scrubber contains gypsum, which is sold to a wallboard manufacturer, thereby reducing the amount of open-pit mining needed for gypsum extraction. Furthermore, fly ash and clinker from the power plant is utilised for road building and cement production. The network has evolved gradually since 1972, starting with collaborative projects between the municipality and a refinery. Gradually, the number of partners and synergies has increased. By the end of the 1980s, the partners realised that they had effectively "self-organised" into what is probably the best-known example of industrial symbiosis in the world. For more information, see *www.symbiosis.dk*.

Source: Martinez-Fernandez, C., et al. (2013c), "Measuring the Potential of Local Green Growth: An Analysis of Greater Copenhagen", *http://dx.doi.org/10.1787/5k4dhp0xzg26-en*.

Business-university partnerships can be important in driving disruptive eco-innovation

Universities and vocational training institutions are often key partners in the promotion of eco-innovation at the local level, through helping to build knowledge-sharing platforms, enabling firms to overcome expensive trialling and testing costs and providing relevant training. In Ireland, Fingal County Council and Dublin City Council have helped to form a clean-tech cluster, known as the Greenway, in collaboration with Dublin City University, the Dublin Institute of Technology, the Dublin Airport Authority, and Ballymun Regeneration Ltd. The Greenway provides a "test-bed platform" for companies seeking to trial and commercialise their technologies on a municipal scale (OECD, 2014c).

Universities and training institutions have also been central to a cross-border initiative between Ghent in Belgium and Terneuzen in the Netherlands in relation to the "bio-based" economy. Bio Base Europe is a joint initiative by the EU, Belgium and the Netherlands, which was established in order to meet the need for more research and training facilities for bio-based products and processes in Europe. The move towards bio-based products involves the sustainable production and conversion of biomass for food, health, fibre, industrial products and energy (Martinez-Fernandez et al, 2013d).

In Ghent, an organisation called the Bio Base Europe Pilot Plant has been developed to "close the critical gap between scientific feasibility and industrial application of new bio-based products and processes". The plant provides a laboratory on an industrial scale to test new products and processes in a real industrial setting. The technologies available at the pilot plant include biorefining, biomass pretreatment, biocatalysis, fermentation, downstream processing and "green chemistry". At the same time, a bio-base training centre has been established across the border in Terneuzen in the Netherlands which acts as a training facility for companies to undertake staff training. Staff are able to learn bio-based processes on the job in the safe environment of the centre. In addition to training staff, the centre also supports companies in hiring qualified employees for functions within the bio-based sector (ibid.).

Local leadership is needed to accelerate the transition

Local public actors such as local authorities can play an important role in facilitating the transition and diffusing the wider adoption of green practices (see Chapter 9 of this publication and also Miranda et al 2011a, 2011b, Martinez-Fernandez et al, 2013b). In particular so called "anchor institutions" can lead by example by adopting greener working practices and in so doing provide learning for other organisations in their jurisdiction, reducing implementation costs for other actors to follow. This is especially relevant for new, emerging industries such as clean-tech where technology and its application are at early stages and there is significant "learning by doing" (Cooke, 2012). Government can communicate the market opportunities emerging from moving to a green economy, while also being an important customer for new green products and services, allowing them to become more visible to larger markets (Martinez-Fernandez et al, 2013b).

Municipal governments have been a key driver for industrial development in North Jutland in Denmark, for example. The region has become specialised in building and developing renewable energy through Combined Heat and Power (CHP) systems in the context of the decentralisation of power generation in Denmark in the 1980s. After this reform, municipalities became particularly strong consumers of CHP systems, which enable heat to be produced as a by-product of electricity generation. Most municipalities now use a customised mix of biomass, biogas, wind, solar and marine energy depending on location and the type of solution required. This creates a fertile area for the development of innovations that are then sold not just nationally but internationally (Cooke, 2012).

A number of OECD countries are moving towards more decentralised energy systems. However, the local public sector is often lacking both the policy flexibility, and the funding required to take a lead role in green and low-carbon initiatives. While saving energy will generate longer-term financial benefits it may require considerable upfront costs. As identified in Chapter 9, Hamburg is helping to fuel growth in the green economy through a new investment and development bank. In the United Kingdom, the Salix Recycling Fund aims to increase capital investment in energy efficient technologies within the public sector by providing a ring-fenced fund, matched by the partner organisation, to be spent on energy saving projects with paybacks of less than 5 years. Salix works with local authorities, higher education institutions, emergency services and the National Health Service, and has financed over 7 400 projects. The project is expected to realise a reduction of over 2.5 million tonnes of carbon dioxide over its lifetime. On average, projects have realised a payback of 3.5 years (Miranda et al, 2011b).*

* For more information, see *www.salix.co.uk*.

City and urban leaders have a particular responsibility to drive forward greener growth, given that the majority (70%) of people will be living in cities by 2050. Living in large urban areas can help people to reduce their carbon footprints through the utilisation of public transport and other such mechanisms. However there is a rising need for solutions to air pollution, traffic congestion, and the management of water, waste and energy in urban environments (OECD, 2013). A number of cities and smaller urban areas have developed long-term strategies to reduce their carbon footprint; including setting ambitious targets to become 'carbon-neutral' in the future (see Box 11.7 below).

Box 11.7. **Local strategic approaches to greening the economy in London, Copenhagen and Leuven**

London, United Kingdom: The Mayor of London is committed to London becoming a world leading low-carbon capital city with an ambitious target of cutting carbon emissions by 60% by 2025. The emission reduction policy of London has three target areas – to increase decentralised energy production in London by small scale renewable electricity installations and by generating heat and power from waste; to make energy savings through better isolation of buildings, and reducing the energy use for other purposes than heating (boilers, electrical appliances etc.); and to reduce emissions from the transport sector by a transition from cars to bicycles and walking, and by increasing the number of low-carbon vehicles.

Copenhagen, Denmark: In the Copenhagen Carbon Neutral Plan for 2025 the city has committed to reducing carbon emissions by 20% by 2015 through 50 specific initiatives, many involving more efficiency in the energy supply (wind, geothermal, solar replacing coal) and transportation.

Leuven, Flanders: In May 2012, the City of Leuven launched an ambitious strategy to become climate neutral by 2030. The "Leuven Climate Neutral" action programme involves the local University and Engineering School, the INBEV brewery group, the IT firm IMEC and a network of public and civil society organisations in a series of working groups. A base-measurement of the city's actual GHG emissions was undertaken by a specialised consulting firm in co-operation with the university and the Flemish Institute for Technology Development (VITO). The strategy is broad, as it is felt that all aspects of the production and consumption habits of local firms and residents will need to be reviewed in the transition towards becoming carbon neutral.

Source: GLA (2014), 'The Mayor's Climate Change Mitigation and Energy Annual Report', London, United Kingdom; Martinez-Fernandez, C., et al. (2013c), "Measuring the Potential of Local Green Growth: An Analysis of Greater Copenhagen", *http://dx.doi.org/10.1787/5k4dhp0xzg26-en*; Martinez-Fernandez, C., et al. (2013d), "Green Growth in the Benelux: Indicators of Local Transition to a Low-Carbon Economy in Cross-Border Regions", *http://dx.doi.org/10.1787/5k453xgh72ls-en*.

Such locally led strategies to green the economy can be supported by the effective measurement of change. As green growth is a broad issue it can be particularly challenging to quantify. Following the development of green growth indicators at the national level (see OECD, 2011), the OECD has developed local indicators of green growth in consultation with local stakeholders. These allow local economies to compare themselves against OECD and national averages through a dashboard technique. It is also possible to measure the preparedness of local institutions and local education and training systems to support greener growth, although this requires a more ambitious set of data collection. For examples on both approaches see Martinez-Fernandez et al. (2013c) and OECD (2013).

Conclusion and issues for consideration

If economic growth is not to have long-lasting negative impacts on the environment, the way that that people live and work will need to fundamentally change in the coming years. Local actors and institutions will have a strong role to play in driving forward this change, and the measurement of change and the benchmarking of regions is likely to act as a catalyst for local action. There are challenges to be managed (such as the transition of workers from carbon-intensive sectors to other sectors of the economy) but also opportunities to be harnessed (for example economic diversification and innovation in clean-tech, and the development of circular economies). Universities and vocational training institutions are important players in building the knowledge-sharing networks that can support such innovation and diversification. As green growth is currently concentrated in particular local economies and regions, they also need flexibility to adapt the education and training that they deliver. Green growth is a particularly strong example of where an integrated approach is required between employment and training institutions and other local actors to drive through and accelerate the transition.

Key Recommendations for seizing opportunities from green growth

Ensure local flexibility in vocational training systems

- Education and training institutions need to have sufficient flexibility to adapt their curricula to training needs that emerge from the greening of production and consumption processes at the level of local labour markets (e.g. from carbon-intensive and eco-innovation industries).
- Top up training needs to be available on a modular basis, accessible to existing workers and adaptable to the needs of specific industries. Management training will also be important, particularly for SMEs, on the best means of greening their firms.

Support transitions out of carbon-intensive industries through identifying transferable skills

- Career pathways need to be build out of carbon-intensive industries and into other forms of local employment, with an emphasis on identifying and building on transferable skills.

Support knowledge-sharing between firms and research institutions to encourage eco-innovation

- Knowledge-sharing networks need to be encouraged to support new forms of eco-innovation, and the growth of greener economic activities out of more traditional carbon-intensive industries.

Local leadership is needed to accelerate the transition

- The public sector should take a lead role in greening their workplaces and their public procurement processes, to stimulate similar developments in the private and not-for-profit sector.
- Local environmental strategies and targets can be made more robust through better measurement of the transition (in terms of changes to carbon footprint, usage of natural resources, pollution levels, but also the degree to which local institutions are greening their production and consumption processes).

References

Boschma, R. and Frenken, K. (2009) "Technological relatedness and regional branching", in *Dynamic Geographies of Knowledge Creation and Innovation* (eds. Bathelt, H., Feldman, M., and Kogler, D.), New York: Routledge, Taylor and Francis.

Cooke, P. (2012), "Creating clean-tech clusters: lessons for the Negev", in "Clean-tech Clustering as an Engine for Local Development: the case of the Negev Region, Israel", *OECD Local Economic and Employment Development (LEED) Working Papers*, 2012/11, OECD Publishing, Paris, *www.oecd.org/israel/clean-techclusteringasanengineforlocaldevelopmentthenegevregionisrael.htm*.

Eberts, R.W. (2011), "Framework and Tools for Assessing and Understanding the Green Economy at the Local Level", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2011/08, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5kgc8n8n66wf-en*.

GLA (2014), "The Mayor's Climate Change Mitigation and Energy Annual Report", London, United Kingdom.

ILO (2010), "Climate change and labour: The need for a 'just transition'", *International Journal of Labour Research*, Vol.2, Issue 2.

Martinez-Fernandez, C. et al. (2013a), "Chile's Pathway to Green Growth: Measuring progress at local level. A case study report", OECD Local Economic and Employment Development, Paris, *www.oecd.org/cfe/leed/Green_growth_Chile_Final2014.pdf*.

Martinez-Fernandez, C., et al. (2013b), "Improving the Effectiveness of Green Local Development: The Role and Impact of Public Sector-Led Initiatives in Renewable Energy", *OECD Green Growth Papers*, No. 2013/09, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k3w6ljtrj0q-en*.

Martinez-Fernandez, C., et al. (2013c), "Measuring the Potential of Local Green Growth: An Analysis of Greater Copenhagen", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2013/01, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k4dhp0xzg26-en*.

Martinez-Fernandez, C., et al. (2013d), "Green Growth in the Benelux: Indicators of Local Transition to a Low-Carbon Economy in Cross-Border Regions", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2013/09, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k453xgh72ls-en*.

MEF Mulhouse (2014), *www.mef-mulhouse.fr/* (accessed 30 July 2014).

Miranda, G., et al. (2011a), "Climate Change, Employment and Local Development in Extremadura, Spain", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2011/04, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5kgdpmh7zxzv-en*.

Miranda, G., et al. (2011b), "Climate Change, Employment and Local Development in London, UK", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2011/05, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5kgdpmfkc6f7-en*.

Neffke, F. and Matté Hartog and Ron Boschma and Martin Henning (2014), "Agents of structural change. The role of firms and entrepreneurs in regional diversification", *Papers in Evolutionary Economic Geography (PEEG)* 1410, Utrecht University, Section of Economic Geography, revised Apr. 2014.

Neffke, F., M. Henning (2013), "Skill relatedness and firm diversification", *Strategic Management Journal,* 34(3): 297-316.

Neffke, F., Henning, M. and R. Boschman (2011) "How do regions diversify over time? Industry relatedness and the development of new growth paths in regions", *Economic Geography*, Vol. 87, No. 3, pp. 237-265.

OECD (2014a, forthcoming), *Employment and Skills Strategies in the United States*, *OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2014b, forthcoming), *Employment and Skills Strategies in England, the United Kingdom, OECD Reviews on Local Job Creation*, OECD Publishing, Paris.

OECD (2014c), *Employment and Skills Strategies in Ireland*, OECD Reviews on Local Job Creation, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264207912-en*.

OECD (2013), "Green Growth in Brandenburg: An Analysis of the Regional Growth Core Schönefelder Kreuz", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2013/15, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k3wb8kmckf4-en*.

OECD (2012a), "The Jobs Potential of a Shift Towards a Low-Carbon Economy", *OECD Green Growth Papers*, No. 2012/01, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k9h3630320v-en*.

OECD (2012b), *Energy*, Green Growth Studies, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264115118-en*.

OECD (2011), *Towards Green Growth: Monitoring Progress: OECD Indicators*, OECD Green Growth Studies, OECD Publishing, Paris, *http://dx/doi/org/10.1787/9789264111356-en*.

OECD/Cedefop (2014), *Greener Skills and Jobs*, OECD Green Growth Studies, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264208704-en*.

Potter J. et al. (2012), "Clean-tech Clustering as an Engine for Local Development: The case of the Negev Region, Israel", *OECD Local Economic and Employment Development (LEED) Working Papers*, 2012/11, OECD Publishing, Paris, *http://dx.doi.org/10.1787/5k98p4wm6kmv-en*.

PART IV

Country profiles

Policies to support local job creation need to be better informed by local and regional data. The 35 country profiles in this section present data for a number of core indicators at the lowest comparable local and regional level available. This includes data on local skills supply and demand, presented for the first time in this publication. This data is accompanied by a broader set of indicators on unemployment, the share of employment in knowledge intensive services and high and medium-high tech manufacturing (or research and development activities if the former is not available), and long-term demographic change. Together, this data provides indications as to the sustainability of local labour markets in each country and their prospects for resilience and growth.

Australia

Skills supply and demand

Figure 12.1 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2011, 24 labour force regions[1] were in "high skills equilibrium", where a high supply of skills (the percentage of people with post-secondary education) is matched by a high skills demand (the percentage of medium and high skills occupations).[2] The highest level of skills supply and demand is observed in Lower Northern Sydney and Inner Melbourne. Twenty-five labour force regions were in "low skills equilibrium", where a low skills supply is matched by a low skills demand.

Data on trends has also been collected. Table 12.1 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2006 and 2011. North Western Melbourne, Wollongong and Sunshine Coast regions moved into a high skills equilibrium during this period.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Wollongong and Sunshine Coast, also show relatively high unemployment rates.

Unemployment and youth unemployment

Figure 12.2 shows the unemployment rate for labour force regions in 2012. The Remainder-Balance region in Western Australia had the lowest unemployment rate at 2.2%, compared to the national rate of 5.0%. Unemployment was highest in Wollongong (NSW) and the Far North Statistical Region (QLD) at 8.9%. While national unemployment has increased to 5.6% in 2013, it remains lower than the OECD average (7.9%).

National youth unemployment in 2013 was 12.2%, and it ranged from 9.4% in Western Australia to 17.2% in Tasmania (Figure 12.4). The geographical disparities in youth unemployment generally follow the overall unemployment trends.

Research and Development

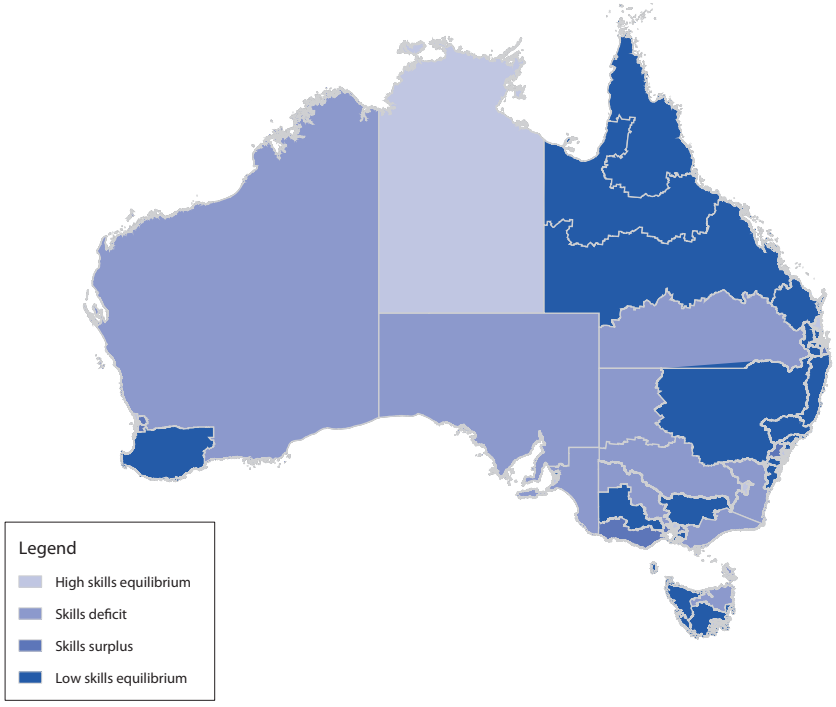
Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of regional data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.3 shows R&D expenditure as a percentage of GDP in the states and territories in 2003 and 2009. The Australian Capital Territory had the highest concentration of R&D spending, at 4% of GDP. Western Australia doubled its expenditure on R&D over time, with 2.6% spent on R&D in 2009. Expenditure on R&D activities appears to be lowest in Queensland and in Northern Territory.

Demographic change

Demographic change can impact the local supply of skills. From 1990 to 2012 the population of Australia grew at an average annual rate of 1.5%. Figure 12.5 shows that all the states and territories have experienced an increase in population. Queensland was the fastest growing state, with an increase of 1.7 million inhabitants and an average annual rate of 2.6% during the two decades analysed. Tasmania and South Australia were the slowest.

1. Population density can vary significantly across Australian regions.
2. GVA, income and wages were not available at this geographical level.

Figure 12.1. **Skills supply and demand, Australian labour force regions, 2011**



Source: Labour Force Survey and Census, Australian Bureau of Statistics.

StatLink http://dx.doi.org/10.1787/888933136630

Definitions and methodology

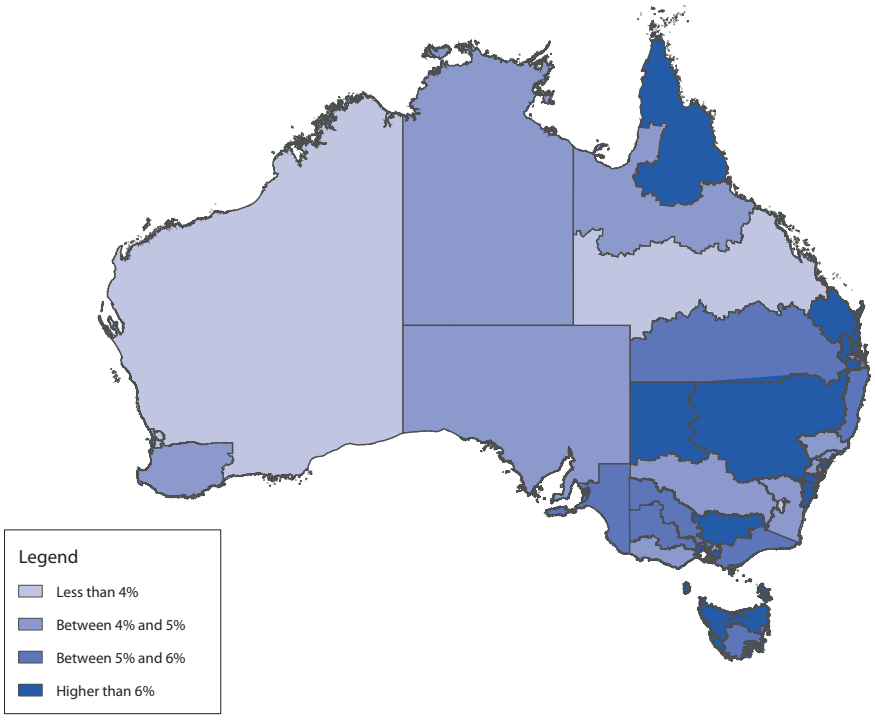
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.1. **Places to watch: Greatest increases in skills supply and/or demand, Australian labour force regions, 2006-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Canterbury-Bankstown (NSW)	Gold Coast North (QLD)	Far West (NSW)
Central Western Sydney (NSW)	Northern Adelaide (SA)	Gosford-Wyong (NSW)
Ipswich City (QLD)	Southern and Eastern (SA)	Hunter excluding Newcastle (NSW)
North BSD Balance (QLD)	West Moreton (QLD)	Inner Sydney (NSW)
North Western Melbourne (VIC)		Northern and Western (SA)
Outer Western Melbourne (VIC)		Northern-North West (QLD)
South and East BSD Balance (QLD)		Outer South Western Sydney (NSW)
South Eastern Melbourne (VIC)		South Eastern (NSW)
Southern (TAS)		Sunshine Coast (QLD)
Western Adelaide (SA)		Wollongong (NSW)

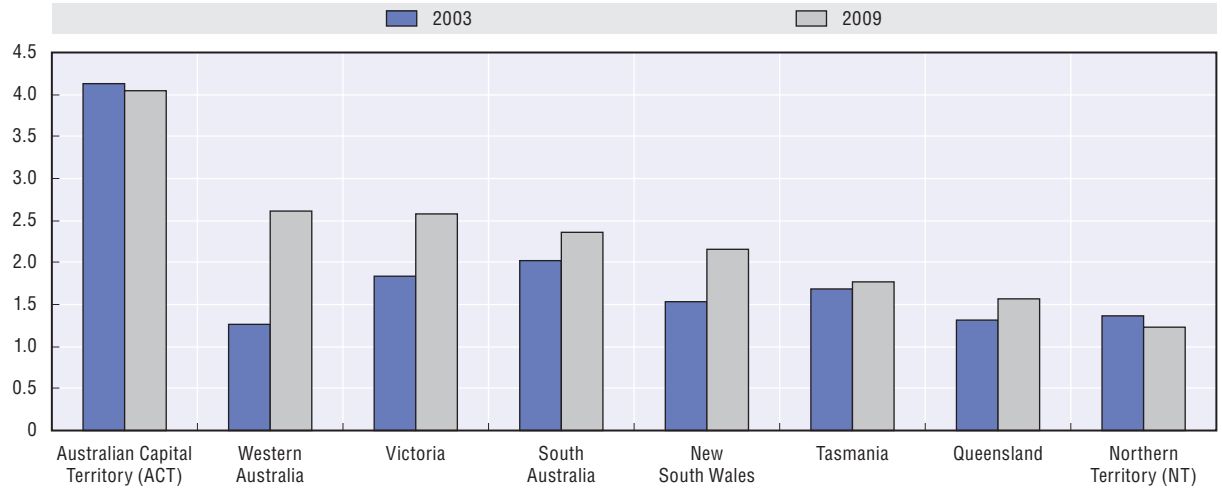
Figure 12.2. **Unemployment rate, Australian labour force regions, 2012**



Source: Labour Force Survey, Australian Bureau of Statistics.

StatLink http://dx.doi.org/10.1787/888933136649

Figure 12.3. **Research and Development expenditure as % of GDP, Australian states and territories, 2003-2009**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

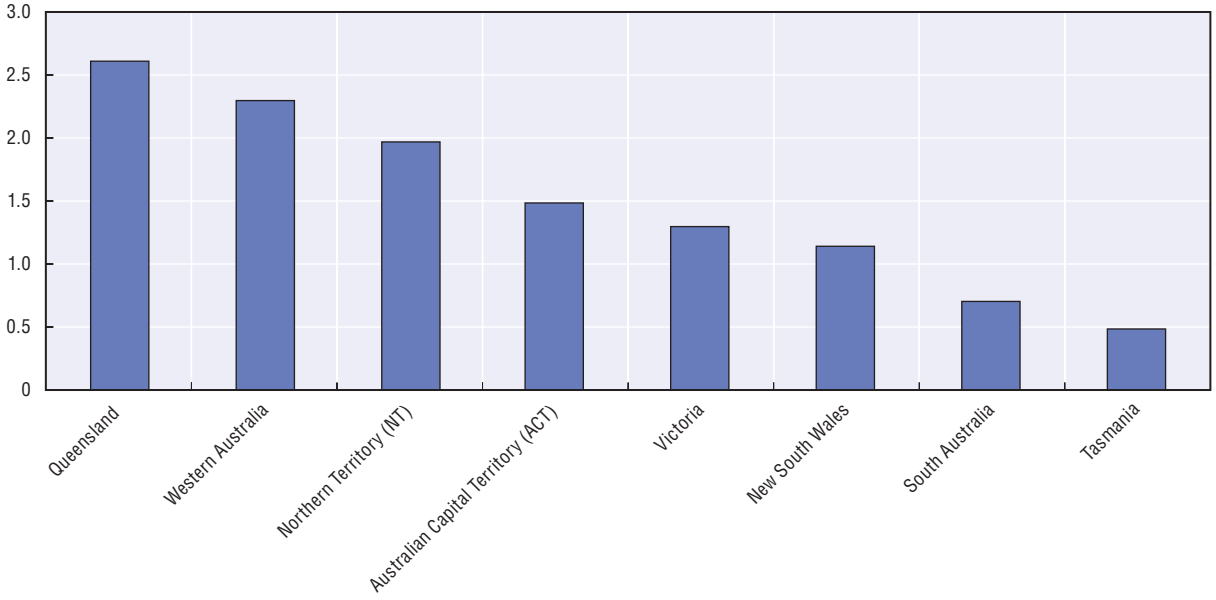
StatLink http://dx.doi.org/10.1787/888933136668

Figure 12.4. **Youth unemployment rate and unemployment rate, Australian states and territories, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en.*
StatLink *http://dx.doi.org/10.1787/888933136687*

Figure 12.5. **Average annual population change (%), Australian states and territories, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", OECD Regional Statistics (database), *http://dx.doi.org/10.1787/data-00520-en.*
StatLink *http://dx.doi.org/10.1787/888933136706*

Austria

Skills supply and demand

Figure 12.6 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. Out of the 9 regions, Vienna, Lower Austria and Vorarlberg were found to be in "high skills equilibrium" in 2011, with a high supply of skills (the percentage of people with post-secondary education) matched by a high skills demand (the percentage of medium and high skills occupations and GVA per worker). In contrast, three regions – Styria, Carinthia and Burgenland – found themselves in a situation of "low skills equilibrium", where a low skills supply is matched by a low demand.

Data on trends has also been collected. Table 12.2 lists the regions that showed the greatest percentage increase in skills supply and/or demand between 2004 and 2011. Upper Austria and Vorarlberg showed the greatest increase in skills demand while Burgenland and Tyrol showed the greatest increase in skills supply.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Vienna, also show relatively high unemployment rates.

Unemployment and youth unemployment

Figures 12.7 and 12.9 show unemployment and youth unemployment rates in the regions of Austria. In 2013 the national unemployment rate was 4.9%, which is below the OECD average. Tyrol and Salzburg had the lowest rates – around 3%. Vienna showed the highest unemployment rate at 8.4%. The three low skills equilibrium regions of Styria, Carinthia and Burgenland have unemployment rates that are close to the national level.

The national youth unemployment rate was just below 9% in 2012. Styria has the lowest rate of 5%, while Carinthia and Burgenland have rates of around 11%. In Vienna, however, the youth unemployment rate was 17%.

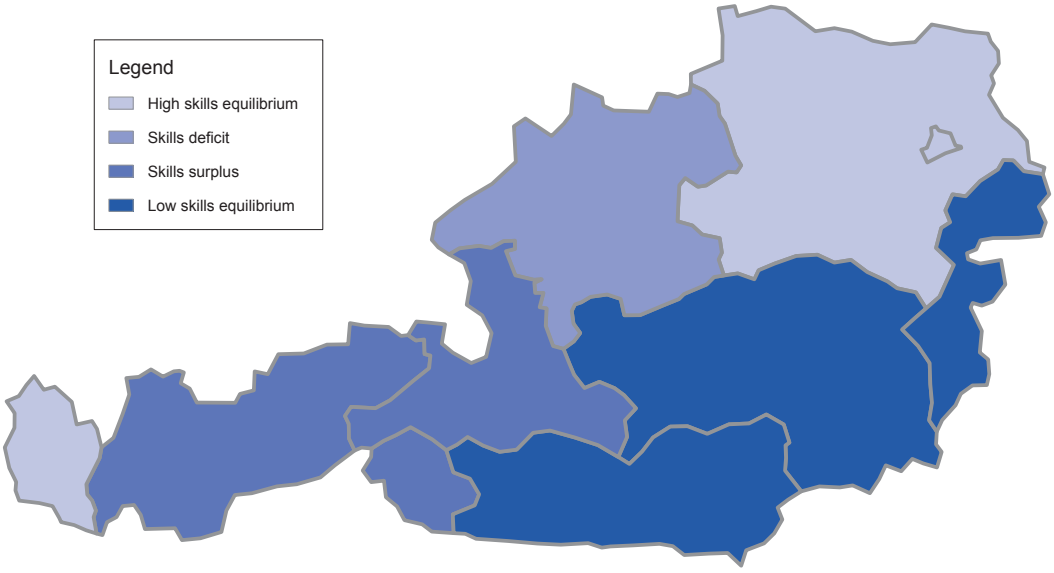
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. Figure 12.8 shows the share of employment in each region in knowledge intensive services and high and medium-high tech manufacturing. In 2008, an average of about 30% of the workforce was employed in knowledge intensive services and about 6% in high and medium-high tech manufacturing. Voralberg and Upper Austria are the leading regions for high and medium-high tech manufacturing with around 8% of employment in this sector. In Vienna, almost 44% of the total employment is found in the knowledge intensive service sector.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.10 shows average annual population change between 1990 and 2012. The Austrian population increased by almost 10% between 1990 and 2012 with an annual rate close to 0.5%. Vienna has the largest and fastest growing population, and it is also the most densely populated region. Voralberg and Tyrol have also been rapidly growing with an average annual growth rate of 0.7%. None of the regions experienced population decline during this period, although Styria and Carinthia showed a very slow growth.

Figure 12.6. **Skills supply and demand, Austrian regions, 2011**



Source: Labour Force Survey and Regional Account, Statistik Austria.

StatLink http://dx.doi.org/10.1787/888933136725

Definitions and methodology

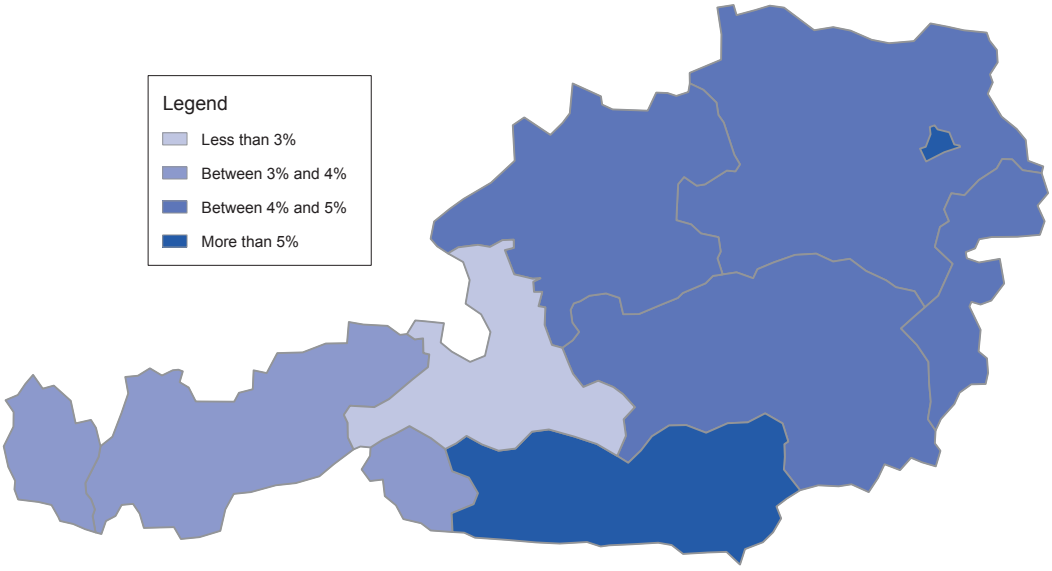
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.2. **Places to watch: Greatest increases in skills supply and/or demand, Austrian regions, 2004-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Burgenland		Upper Austria
Tyrol		Vorarlberg

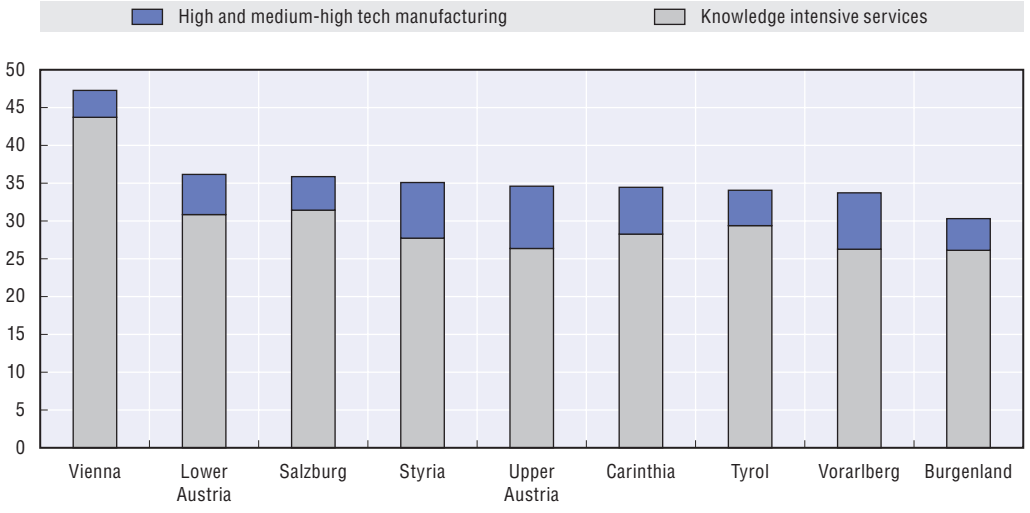
Figure 12.7. **Unemployment rate, Austrian regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

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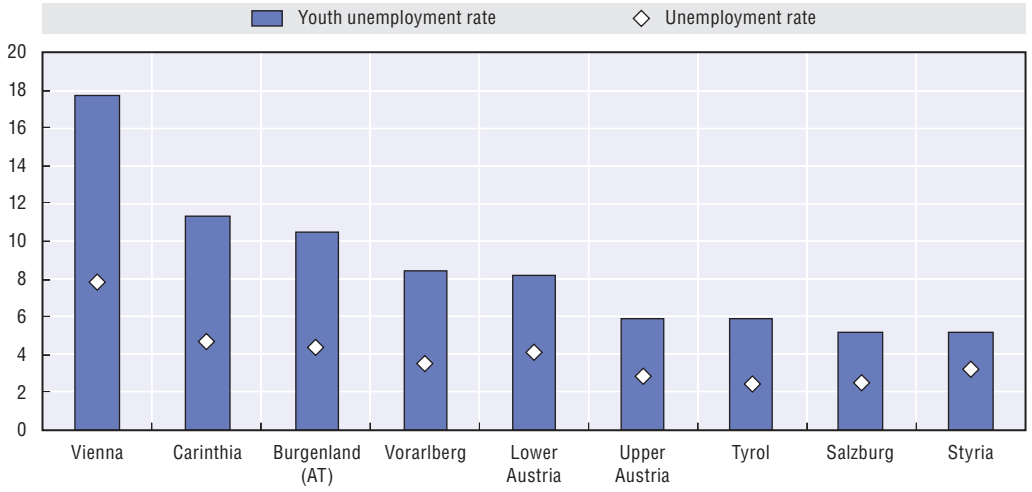
Figure 12.8. **Share of employment in knowledge intensive services and high and medium-high tech manufacturing, Austrian regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

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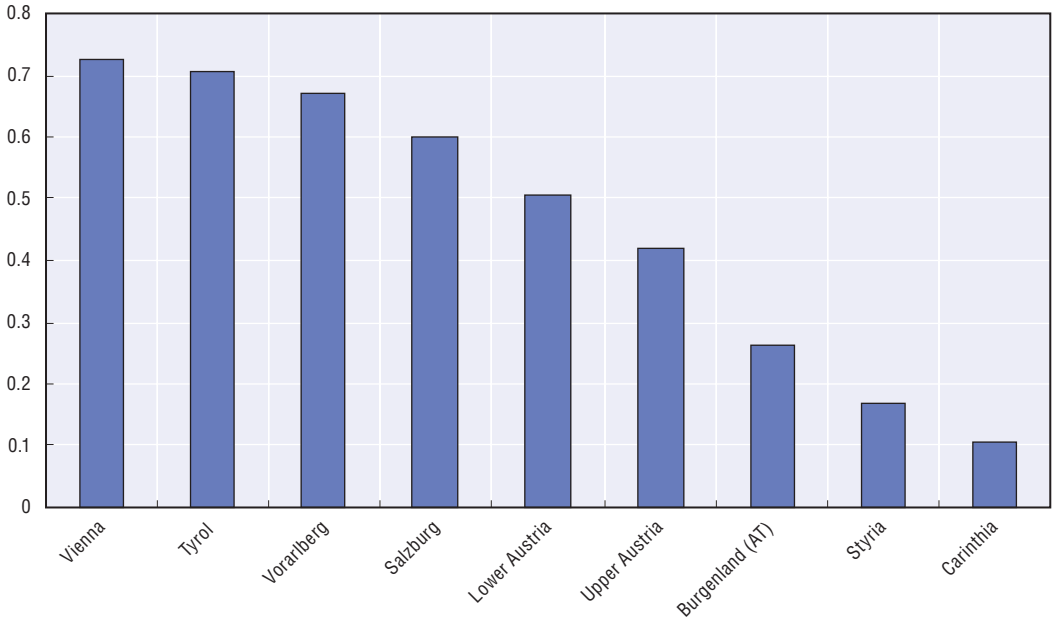
Figure 12.9. **Youth unemployment rate and unemployment rate, Austrian regions, 2012**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933136782

Figure 12.10. **Average annual population change (%), Austrian regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933136801

Belgium

Skills supply and demand

Figure 12.11 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2010 five sub-regions (Antwerp, Brussels Capital region, East Flanders, Flemish Brabant and Walloon Brabant) could be found in "high skills equilibrium" where a high supply of skills (percentage of people with post-secondary education) is matched by a high demand for skills (percentage of medium and high skills occupations and GVA per worker). In contrast, West Flanders, Hainault, Liege province, Luxembourg province and Limburg were in "low skills equilibrium", where a low skills supply is matched by a low skills demand.

Data on trends has also been collected. Table 12.3 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2001-2010. The provinces of Hainault and East Flanders showed the most increase in skills supply, while Luxembourg and Walloon Brabant showed the greatest increase in skills demand during the nine-year period.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Brussels Capital region, also show relatively high unemployment rates

Unemployment and youth unemployment

Figure 12.12 shows the unemployment rate in the sub-regions of Belgium in 2012. The national rate was 7.5%, with sub-regions showing significant variation. While in West-Flanders the unemployment rate in 2012 was only 3.9%, in Brussels Capital Region it was 17.4%. At the end of 2013, the national unemployment rate had increased to 8.4%, above the OECD average.

The national youth unemployment rate was 23.7% at the end of 2013 ranging from 16.6% in the Flemish Region to 39.9% in the Brussels Capital Region (Figure 12.14).

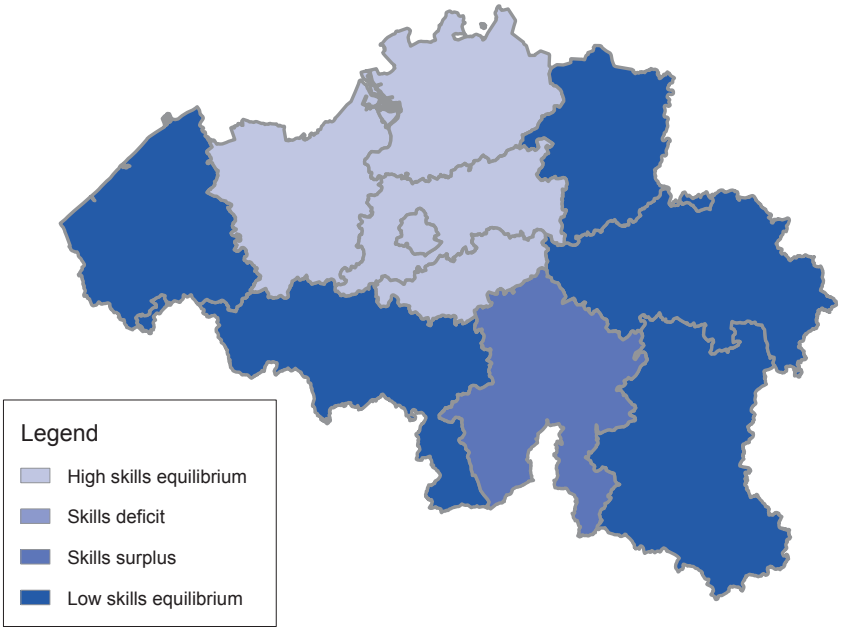
Research and Development

Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of regional data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.13 shows the share of R&D personnel in total employment between 2002 and 2009 in the three regions of Belgium. The Brussels Capital Region has a particularly high percentage, at just under 4%. With a slight setback between 2003 and 2005 this rate has been constant from 2006 until 2009. The percentages of R&D personnel as percentage of total employment in the Flemish and Wallonia regions were 1.9% and 1.6% by the end of 2009.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.15 shows average annual population change between 1990 and 2012. During this period the average population growth in Belgium was 0.5% annually. This corresponds to a population increase of 1.1 million people in 22 years. There is variation among the sub-regions, however, with Walloon Brabant showing the highest growth rate at an average of 1% annually and Hainaut showing the lowest at 0.2% annually.

Figure 12.11. **Skills supply and demand, Belgian sub-regions, 2010**



Source: Labour Force Survey, Statistics Belgium and National Bank of Belgium.

StatLink http://dx.doi.org/10.1787/888933136820

Definitions and methodology

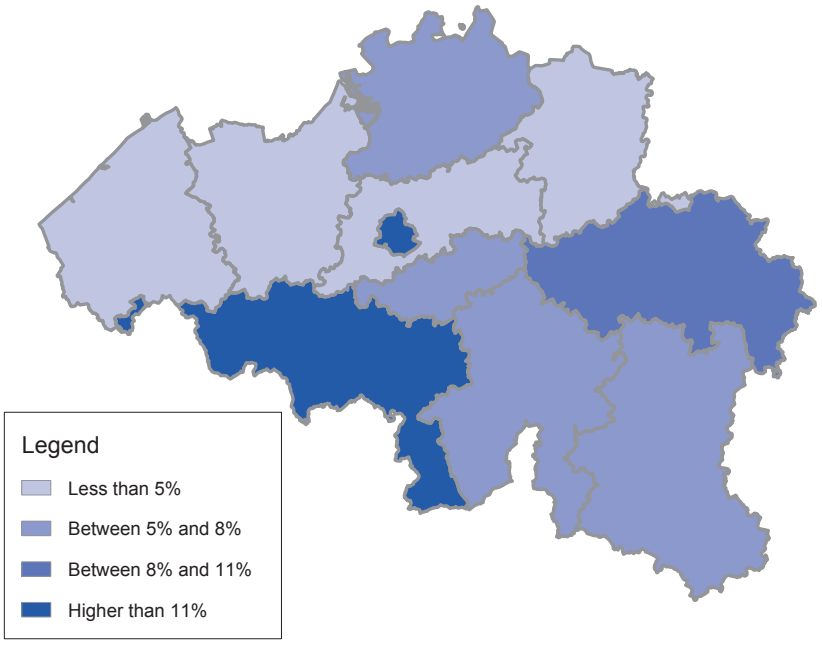
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.3. **Places to watch: Greatest increases in skills supply and/or demand, Belgian sub-regions, 2001-2010**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
East Flanders		Luxembourg province
Hainault		Walloon Brabant

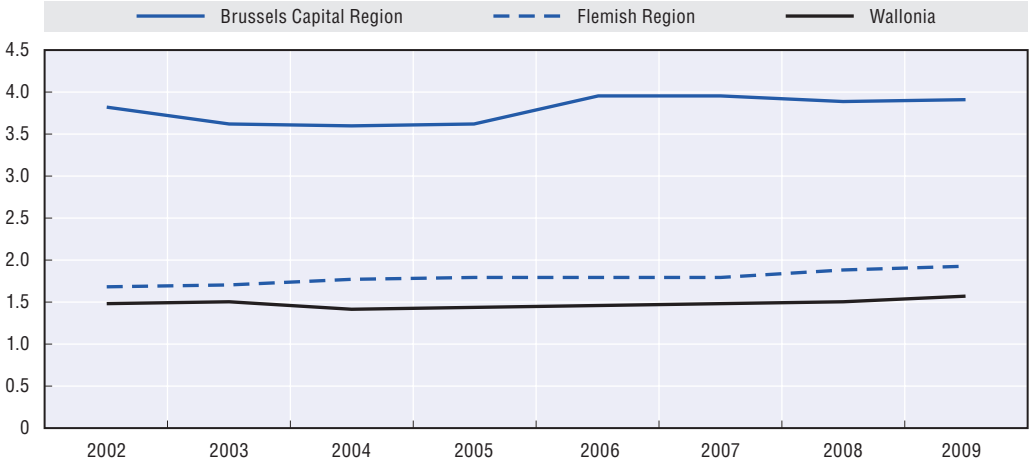
Figure 12.12. **Unemployment rate, Belgian sub-regions, 2012**



Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en*.

StatLink http://dx.doi.org/10.1787/888933136839

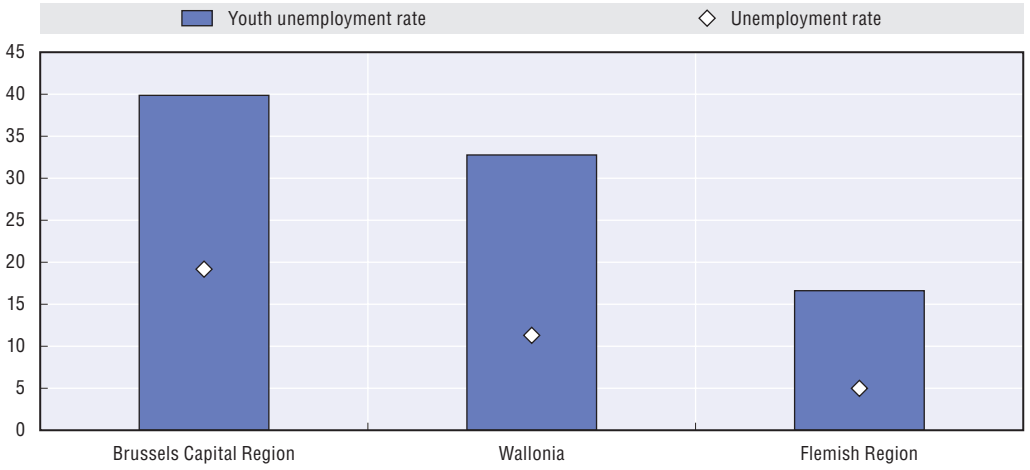
Figure 12.13. **Research and Development personnel as % of total employment, Belgian regions, 2002-2009**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933136858

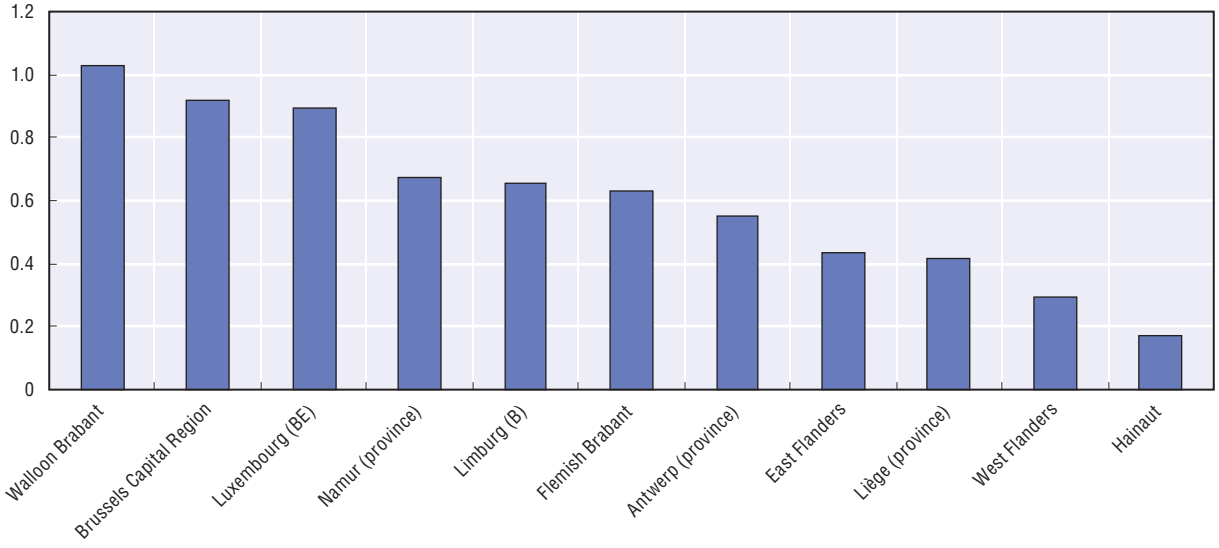
Figure 12.14. **Youth unemployment rate and unemployment rate, Belgian regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933136877

Figure 12.15. **Average annual population change (%), Belgian sub-regions, 1990-2012**



Source: OECD (2012), "Small regions, TL3: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00525-en*.

StatLink http://dx.doi.org/10.1787/888933136896

Canada

Skills supply and demand

Figure 12.16 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2011, 28 economic regions in Canada[1] were found in a situation of "high skills equilibrium", where a high supply of skills (the percentage of people with post-secondary education) is matched by a high skills demand (the percentage of medium and high skills occupations and income). Twenty-five economic regions were in "low skills equilibrium", where a low supply of skills is matched by a low demand for skills. (Note that a number of these regions have small populations).

Data on trends has also been collected. Table 12.4 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2006 and 2011. During this time, Avalon Peninsula (NL), Fredericton-Oromocto (NB), North Coast & Nechako (BC), Northeast (BC) showed the greatest increase in both skills supply and demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Montréal and Laurentides (QC) and Windsor-Sarnia, London and Toronto (ON), also show relatively high unemployment rates.

Unemployment and youth unemployment

Figure 12.17 shows the unemployment rate in economic regions in Canada. In 2011, the national unemployment rate was 7.5% and it varied between 3.5% in Banff-Jasper-Rocky Mountain House (AL) and 21.5% in South Coast-Burin Peninsula (NL) economic regions. In 2013, the national unemployment rate (7%) was below the OECD average (7.9%).

Youth unemployment similarly has shown a slow improvement since 2009 and at 13.6% in 2013, is below the OECD average (see Figure 12.19).[2] Among the provinces, the youth unemployment rate is around double the total unemployment rate, which is similar to other OECD countries. The lowest rate was registered in Saskatchewan at 7.9%, while it was highest in Nova Scotia at 18.3%.

Research and Development

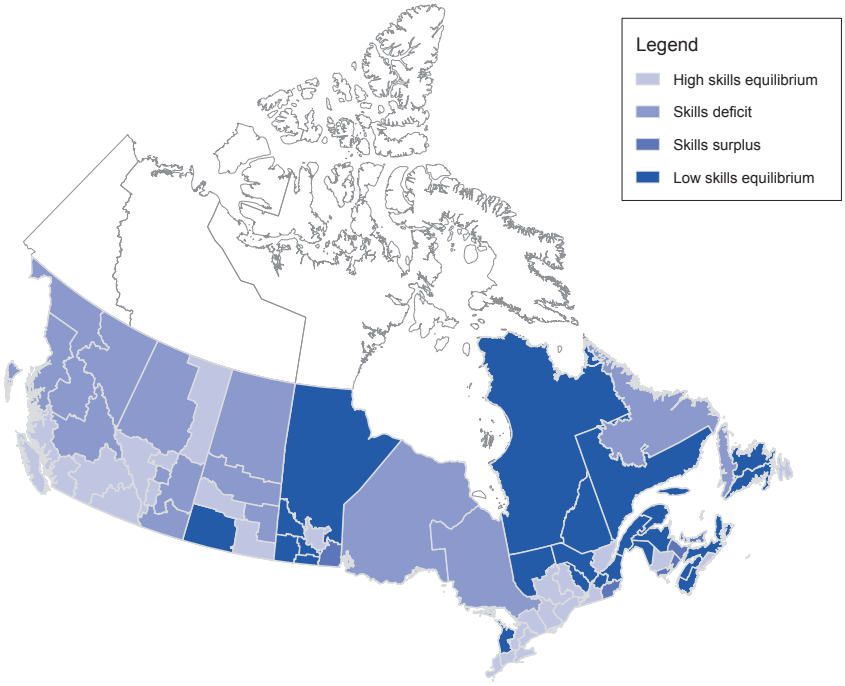
Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of regional data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.18 shows the weight of R&D personnel in total employment and R&D expenditure as percentage of GDP. In 2010, among the ten provinces and the territory covered by the data, the highest share of R&D activities was in Quebec (2.5% of GDP expenditure and 1.7% of the total employment) and the lowest in Yukon.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.20 shows average annual population change between 1996 and 2012 for the 13 provinces and territories. During this period there was an average growth of 1.1% per annum, and only one province registered a population decline: Newfoundland and Labrador. Population growth is fastest in Alberta at 2.5% annually, followed by Nunavut at 2% and Ontario at 1.4%.

1. Due to lack of data, Yukon, Northwest Territories and Nunavut economic regions are not included in the skills analysis.
2. Data on youth unemployment is not available for Yukon, Northwest Territories and Nunavut.

Figure 12.16. **Skills supply and demand, Canadian economic regions, 2011**



Source: Customised Labour Force Survey, Statistics Canada.

StatLink http://dx.doi.org/10.1787/888933136915

Definitions and methodology

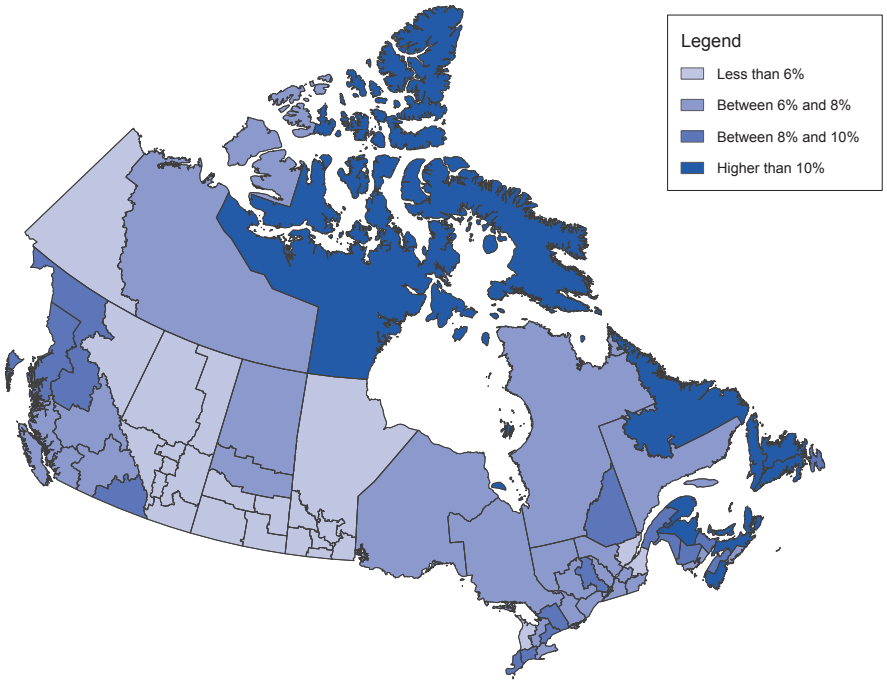
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.4. **Places to watch: Greatest increases in skills supply and/or demand, Canadian economic regions, 2006-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Bas-Saint-Laurent (QC)	Avalon Peninsula (NL)	Cape Breton (NS)
Cariboo (BC)	Fredericton - Oromocto (NB)	Gaspésie - Îles-de-la-Madeleine (QC)
Chaudière-Appalaches (QC)	North Coast & Nechako (BC)	Northwest (ON)
Kootenay (BC)	Northeast (BC)	Prince Albert & Northern (SK)
Laval (QC)		Regina - Moose Mountain (SK)
Muskoka - Kawarthas (ON)		Saint John - St. Stephen (NB)
Notre Dame - Central Bonavista Bay (NL)		South Central (MB)
Southeast (MB)		Southwest (MB)
Stratford - Bruce Peninsula (ON)		Wood Buffalo - Cold Lake (AL)
Thompson - Okanagan (BC)		Yorkton - Melville (SK)

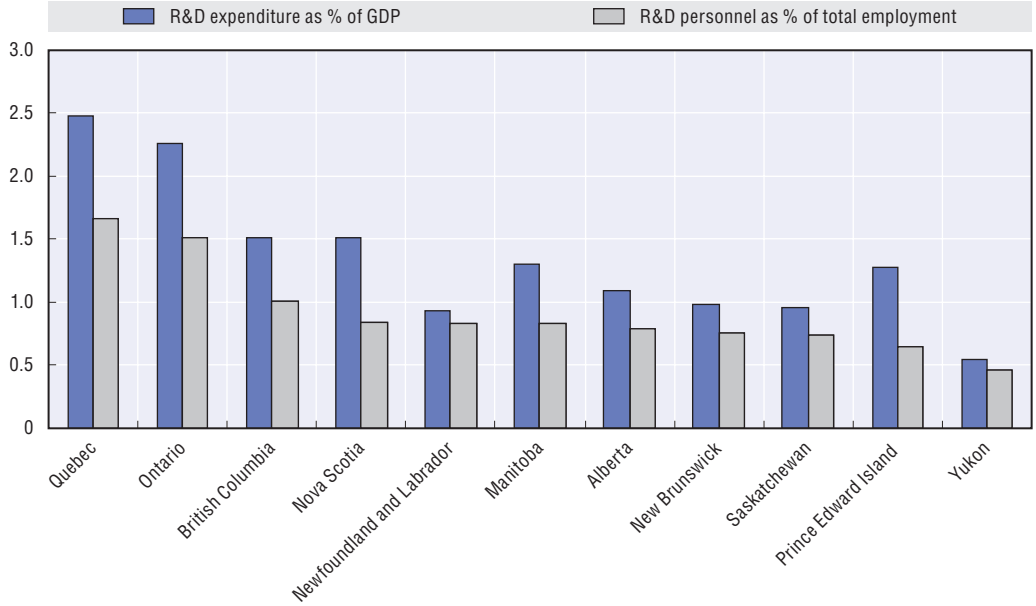
Figure 12.17. **Unemployment rate, Canadian economic regions, 2011**



Source: Labour Force Survey, Statistics Canada.

StatLink http://dx.doi.org/10.1787/888933136934

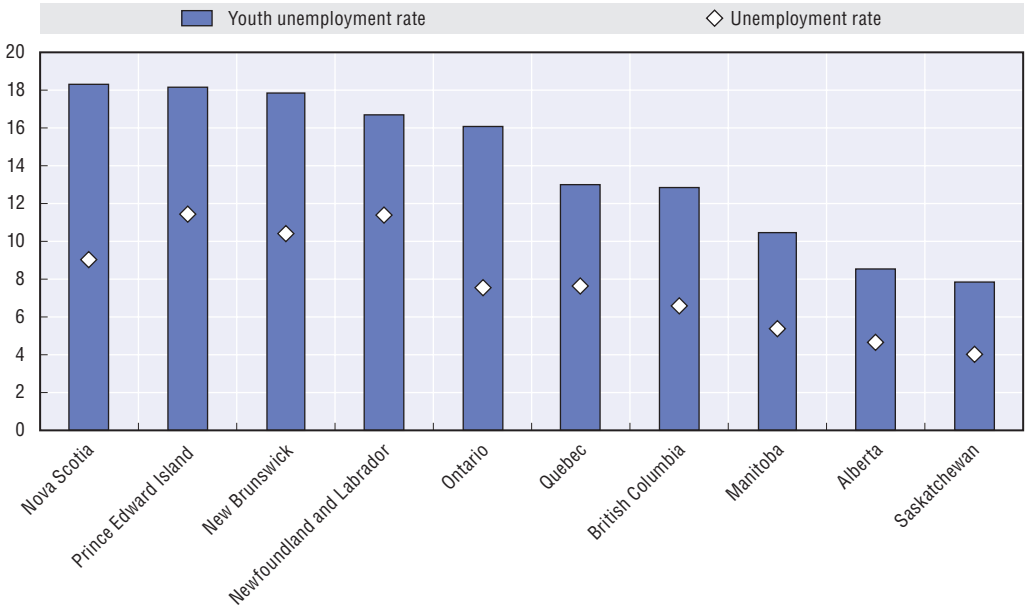
Figure 12.18. **Research and Development expenditure as % of GDP and personnel as % of total employment, Canadian provinces and territories, 2010**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933136953

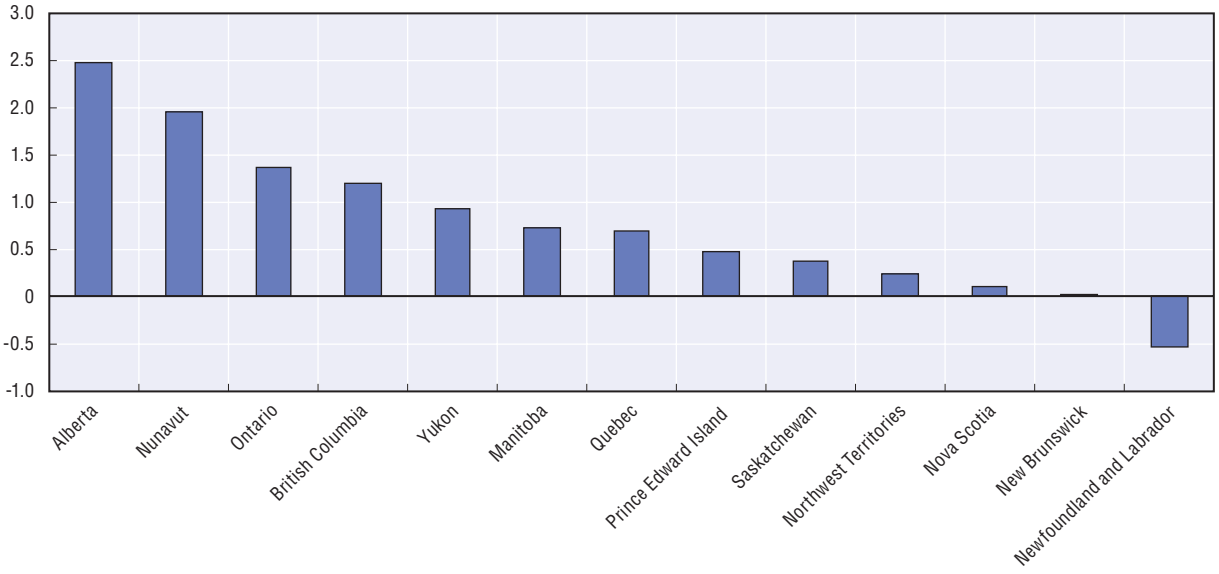
Figure 12.19. **Youth unemployment rate and unemployment rate, Canadian provinces, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933136972

Figure 12.20. **Average annual population change (%), Canadian provinces and territories, 1996-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933136991

Chile

Skills supply and demand

Figure 12.21 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2012, four administrative divisions of Chile, Antofagasta, Magallanes y Antártica, the Metropolitan Region of Santiago and Los Lagos, were in "high skills equilibrium" where high skills supply (the percentage of people with post-secondary education) is matched by a high demand (the percentage of medium and high skills occupations).[1] Some skills mismatches can be noted: a skills surplus can be observed in the Tarapacá, Atacama, Valparaíso and Arica Y Parinacota regions. In contrast skills deficits can be observed in the Bió-Bió, Araucanía, Los Rios and Aysén regions.

Data on trends has also been collected. Table 12.5 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2010 and 2012. In Los Lagos, the greatest increase of both skills supply and demand moved the region to high skills equilibrium. Antofagasta and Arica Y Parinacota showed the greatest increase in skills supply while Maule and La Araucanía in skills demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as the Metropolitan Region of Santiago, also show relatively high unemployment rates.

Unemployment and youth unemployment

The unemployment rate in Chile has been slowly decreasing since 2009, and was 5.9% in 2013. This figure is lower than the OECD average of 7.9%. Figure 12.22 shows that the lowest rates could be observed in Los Lagos and in Magallanes y Antártica, where unemployment was 3% and 3.7% respectively. The highest unemployment rate was in the central region of Bió-Bió at 7.6%.

The national youth unemployment rate was 16.1% in 2013 which is equivalent to the OECD average. The lowest level of youth unemployment was in Magallanes y Antártica and Los Lagos (around 10% both) – see Figure 12.24. The highest rates were in the regions of Araucania and Valparaíso (both at 19.7%) and Bió-Bió (20.1%).

Research and Development

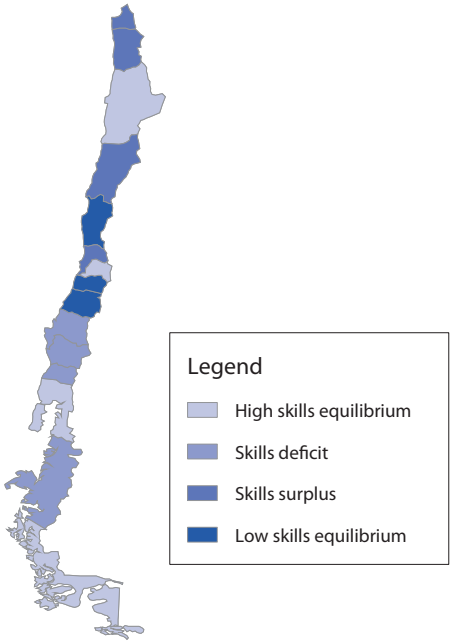
Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of regional data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.23 shows the R&D expenditure as percentage of GDP and personnel as percentage of total employment in 2010. Both indicators are very high in Los Rios and Magallanes y Antártica.

Demographic change

Demographic change can impact the local supply of skills. Between 1990 and 2012, Chile experienced a population increase of on average 1.5% annually. This corresponds to a population growth of 4 million people in 22 years. All administrative divisions showed an increase, ranging from 4.6% in Tarapacá to 0.2% in Arica Y Parinacota (see Figure 12.25).

1. GVA, income and wages were not available at this geographical level.

Figure 12.21. **Skills supply and demand, Chilean regions, 2012**



Source: Labour Force Survey, Instituto Nacional de Estadísticas (INE).

StatLink http://dx.doi.org/10.1787/888933137010

Definitions and methodology

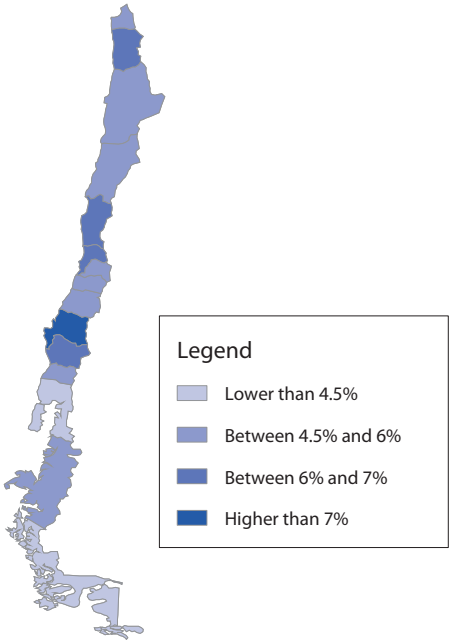
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.5. **Places to watch: Greatest increases in skills supply and/or demand, Chilean regions, 2010-2012**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Antofagasta	Los Lagos	La Araucanía
Arica y Parinacota		Maule

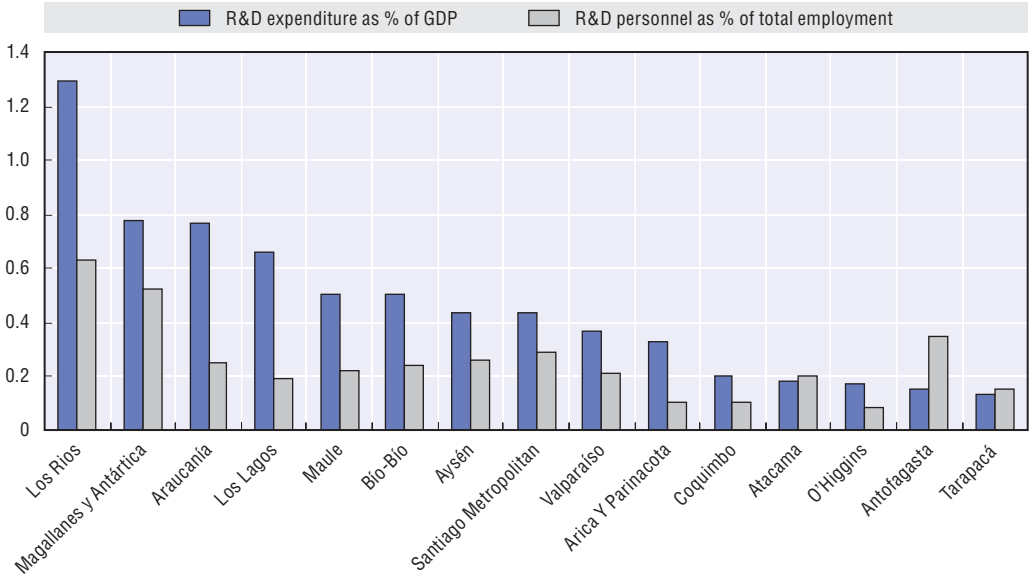
Figure 12.22. **Unemployment rate, Chilean regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933137029

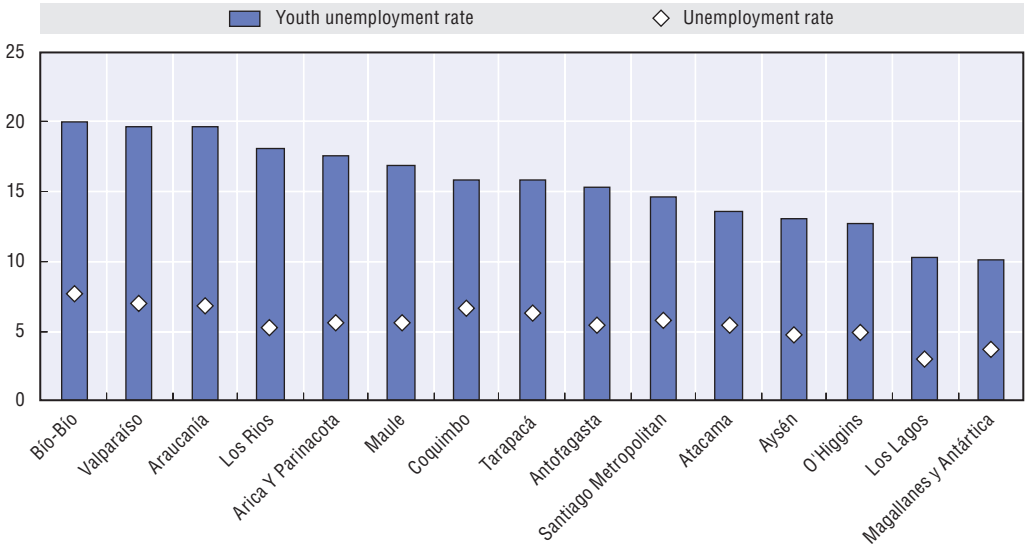
Figure 12.23. **Research and Development expenditure as % of GDP and personnel as % of total employment, Chilean regions, 2010**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933137048

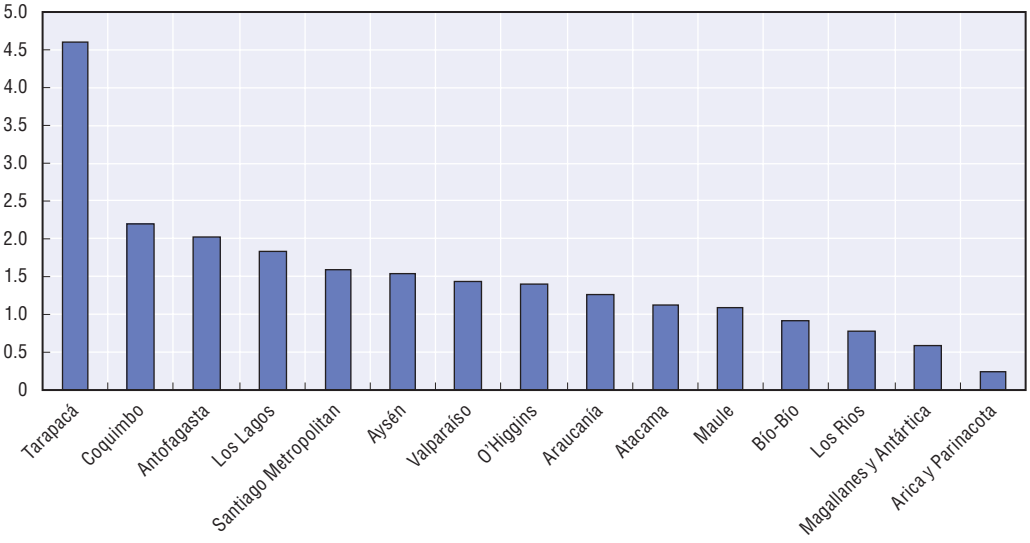
Figure 12.24. **Youth unemployment rate and total unemployment rate, Chilean regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933137067

Figure 12.25. **Average annual population change (%), Chilean regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933137086

Czech Republic

Skills supply and demand

Figure 12.26 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2010, the sub-regions of Prague, Central-Bohemia, Hradec Králové region, Zlín region, South-Moravia and the Moravia-Silesia are all in "high skills equilibrium", where a high supply of skills (the percentage of people with post-secondary education) is matched by a high skills demand (the percentage of medium and high skills occupations and GVA per worker). Six regions were in "low skills equilibrium" where a low supply of skills is matched by a low skills demand.

Data on trends has also been collected. Table 12.6 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2000 and 2010. Central Bohemia and Hradec Králové region showed the greatest increase in skills supply while the Moravia-Silesia and Zlín region showed the greatest increase in skills demand. Despite these increases, these four regions have not changed their positions over time in the skills analysis. The Vysocina showed an increase in both skills supply and demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as the Moravia-Silesia and the South-Moravia, also show relatively high unemployment rates.

Unemployment and youth unemployment

The national unemployment rate in 2012 was 7% which is one percentage point lower than the OECD average. Figure 12.27 shows that there are significant inter-regional variations, with Prague having the lowest rate at 3.3% and Ústi nad Labem the highest at 11.4%.

Youth unemployment in 2013 varied between 9.7% in Prague and 24.8% in the Northwest (see Figure 12.29). The national rate of 19% exceeds the OECD average (16%).

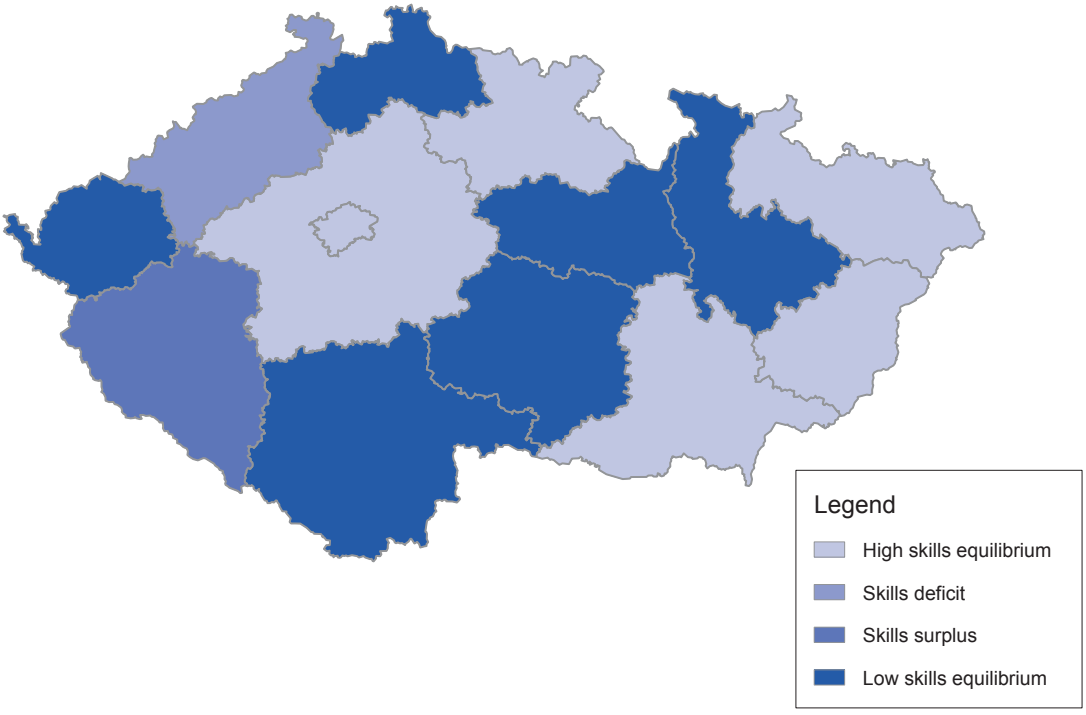
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. As shown in Figure 12.28, employment in knowledge intensive services is particularly high in Prague at 44%, followed by Moravia-Silesia (25%). In the other sub-regions it varies between 21% and 23%. Employment in high and medium-high tech manufacturing is particularly high in the Northwest, in the Southwest and in Central Bohemia (between 14%-15%).

Demographic change

Demographic change can impact the local supply of skills. Between 1992 and 2012, the average annual population change in Czech Republic was 0.1%. The Central-Bohemian region showed the highest population increase (on average 0.8% annually), while the population of Central-Moravia decreased by on average 0.1% annually and Moravia-Silesia by 0.2% (see Figure 12.30).

Figure 12.26. **Skills supply and demand, Czech Republic sub-regions, 2010**



Source: Labour Force Survey and Regional accounts, Czech Statistical Office.

StatLink http://dx.doi.org/10.1787/888933137105

Definitions and methodology

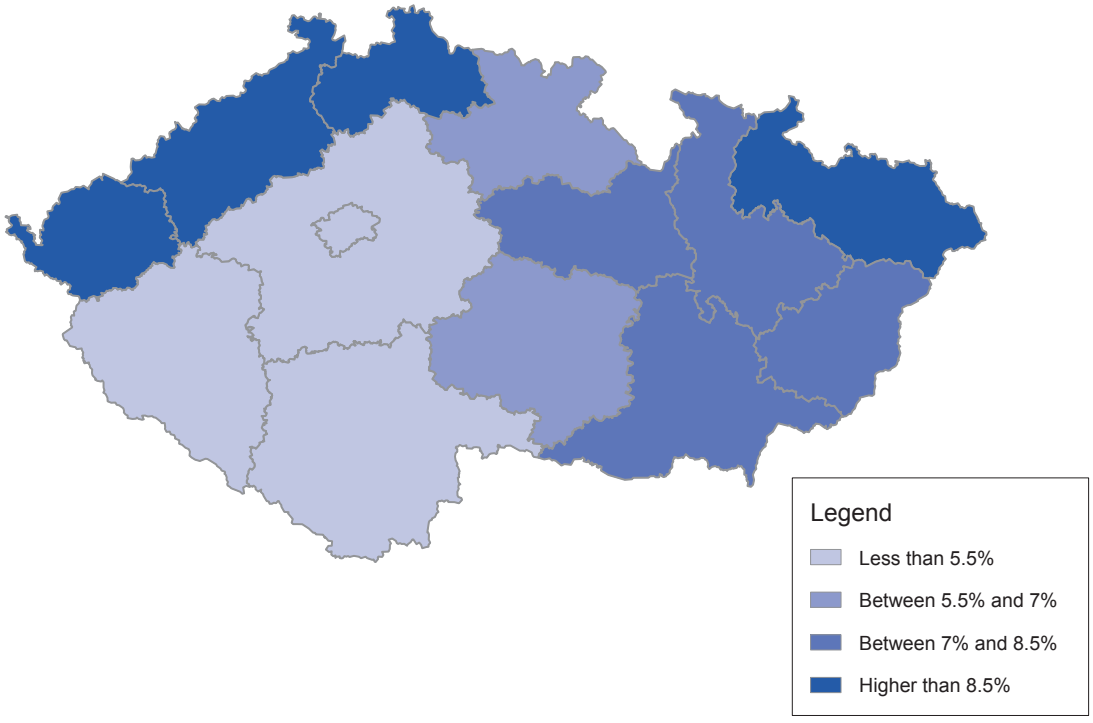
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period..

Table 12.6. **Places to watch: Greatest increases in skills supply and/or demand, Czech Republic sub-regions, 2000-2010**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Central Bohemia	Vysocina	Moravia-Silesia
Hradec Králové region		Zlín region

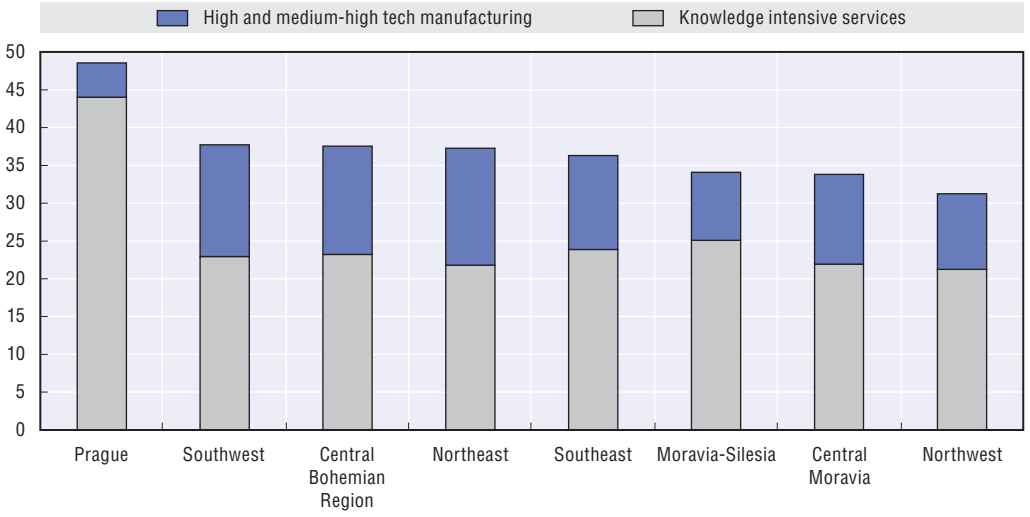
Figure 12.27. **Unemployment rate, Czech Republic sub-regions, 2012**



Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en.*

StatLink http://dx.doi.org/10.1787/888933137124

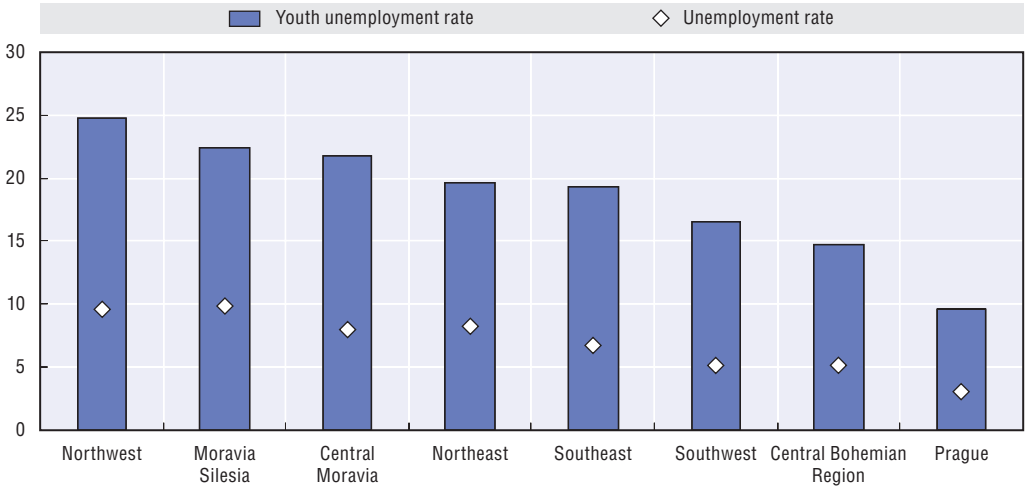
Figure 12.28. **Share of employment in knowledge intensive services and high and medium-high tech manufacturing, Czech Republic regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en.*

StatLink http://dx.doi.org/10.1787/888933137143

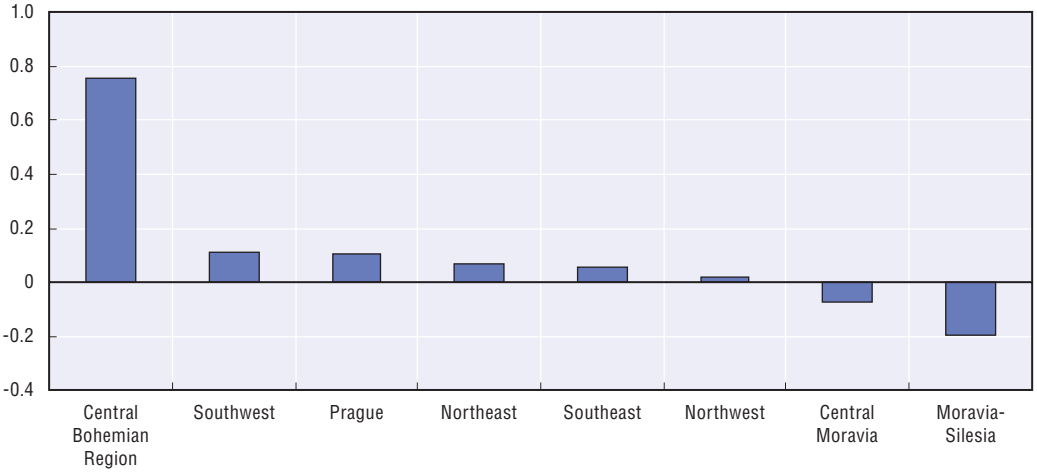
Figure 12.29. **Youth unemployment rate and unemployment rate, Czech Republic regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933137162

Figure 12.30. **Average annual population change (%), Czech Republic regions, 1992-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933137181

Denmark

Skills supply and demand

Figure 12.31 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2011 the Capital Region was in "high skills equilibrium", with a high supply of skills (the percentage of people with post-secondary education) matched by a high skills demand (the percentage of medium and high skills occupations and GVA per worker). Zealand and Northern Jutland were in "low skills equilibrium", where a low supply of skills is matched by a low skills demand. Central Jutland and South Denmark experienced a skills surplus, where skills supply exceeds demand.

Data on trends has also been collected. Table 12.7 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2006 and 2011. Northern Jutland showed the greatest increase in skills supply while the Capital Region showed the highest increase in skills demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as the Capital Region, also show relatively high unemployment rates.

Unemployment and youth unemployment

Figures 12.32 and 12.34 show unemployment and youth unemployment in regions in Denmark. In 2013, the national unemployment rate was 7% which is lower than the OECD average. Disparities in unemployment rates are not significant: Northern Jutland shows the lowest unemployment rate at 6.4%, while the Capital Region has the highest rate at 7.4%.

Youth unemployment ranges between 12.7% in the Capital Region to 14.3% in Northern Jutland. The national rate in 2013 was 13.1% which is around 3 percentage points lower than the OECD average.

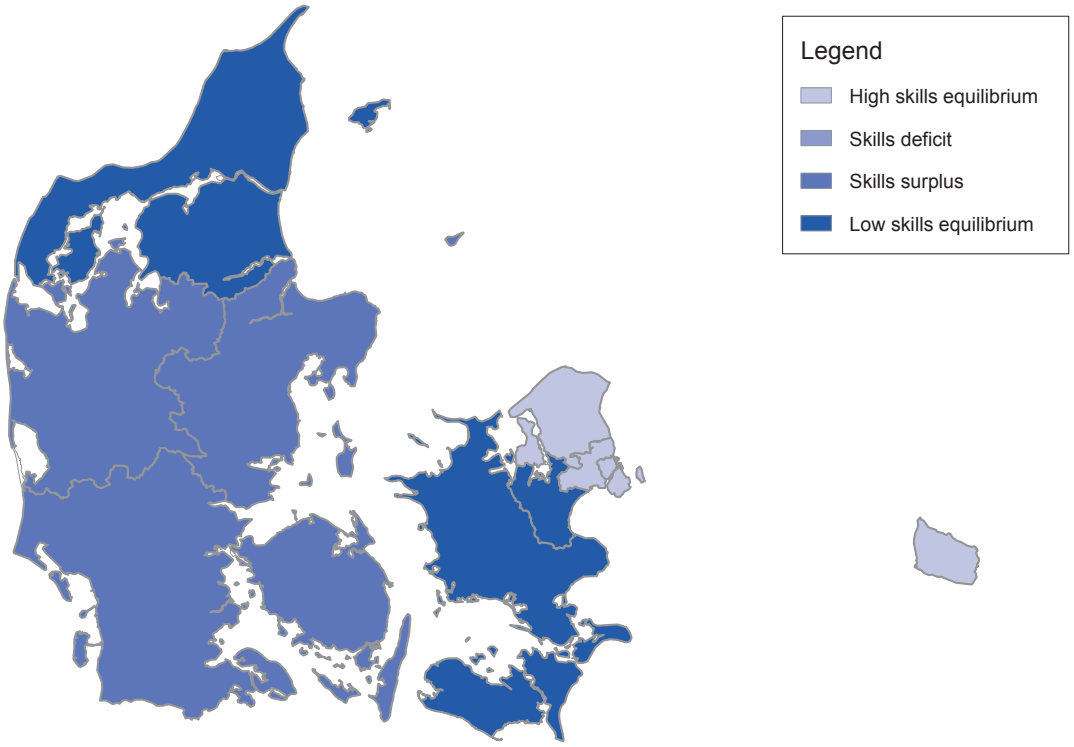
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. In the Capital Region more than 50% of the workforce is employed in knowledge intensive services. In Zealand and Central Jutland, employment in knowledge intensive services is slightly above 40% while in Northern Jutland and Southern Denmark, it is slightly below 40%. High and medium-high tech manufacturing is more limited. It accounts for almost 5% of the total employment in the Capital Region and almost 7% of total employment in Southern Denmark (see Figure 12.33).

Demographic change

Demographic change can impact the local supply of skills. Figure 12.35 shows average annual population change between 2005 and 2012. During this period, Denmark experienced a growth in its population of on average 0.4% per year. At the regional level, the Capital Region grew by 0.7% annually while the population of Northern Jutland remained stable. Zealand and Southern Denmark grew slowly while the growth rate in Central Jutland was closer to that of the Capital Region.

Figure 12.31. **Skills supply and demand, Danish regions, 2011**



Source: Labour Force Survey and regional accounts, Statistics Denmark.

StatLink http://dx.doi.org/10.1787/888933137200

Definitions and methodology

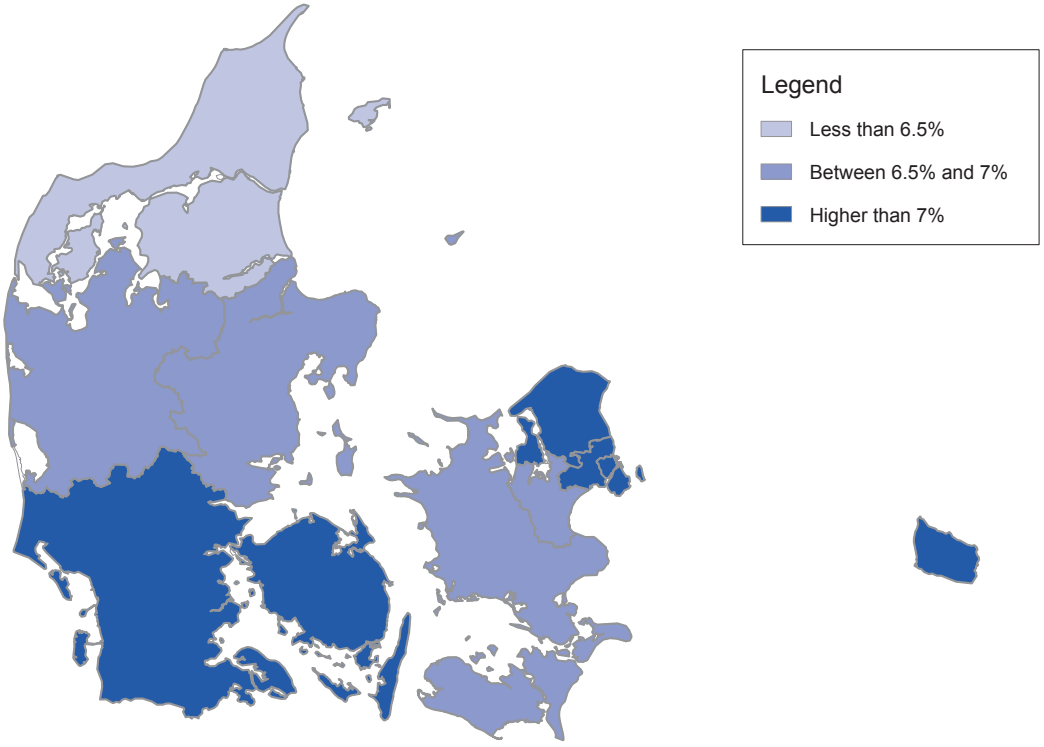
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.7. **Places to watch: Greatest increases in skills supply and/or demand, Danish regions, 2006-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Northern Jutland		Capital Region (Region Hovedstaden)

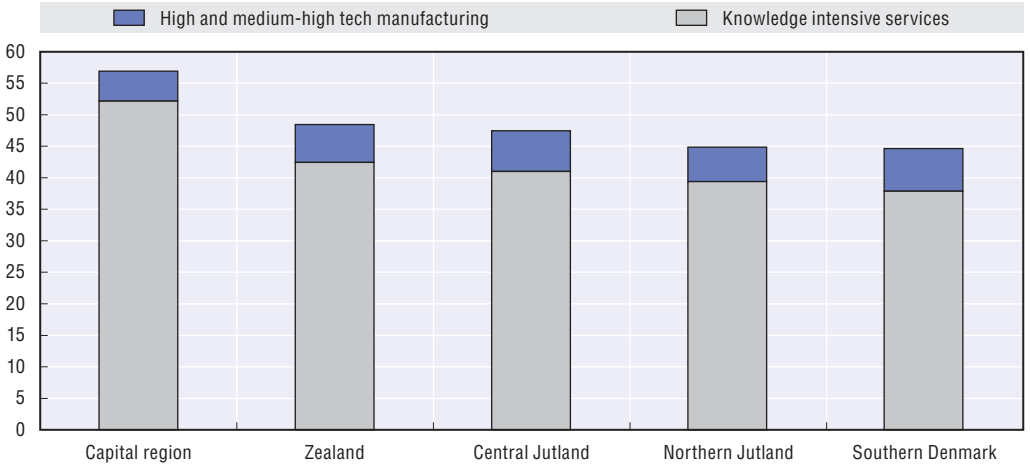
Figure 12.32. **Unemployment rate, Danish regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933137219

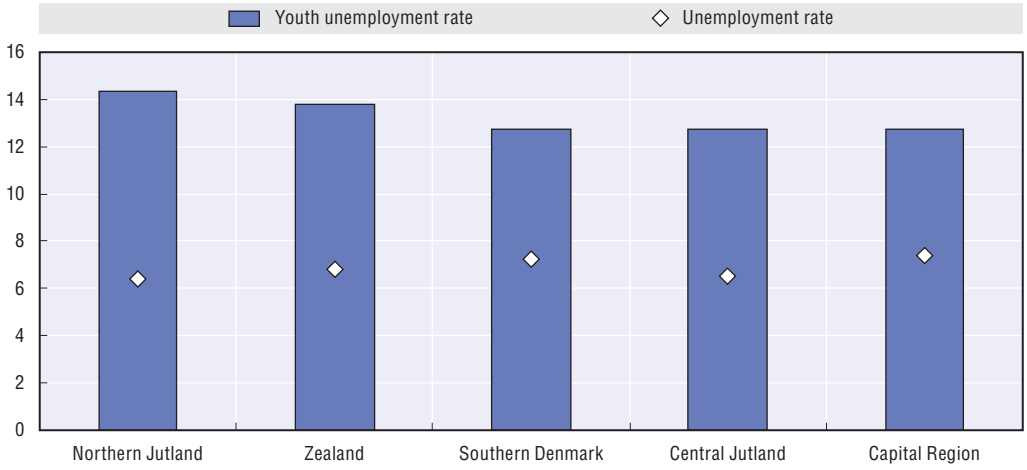
Figure 12.33. **Share of employment in the knowledge intensive services and in high and medium-high tech manufacturing, Danish regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933137238

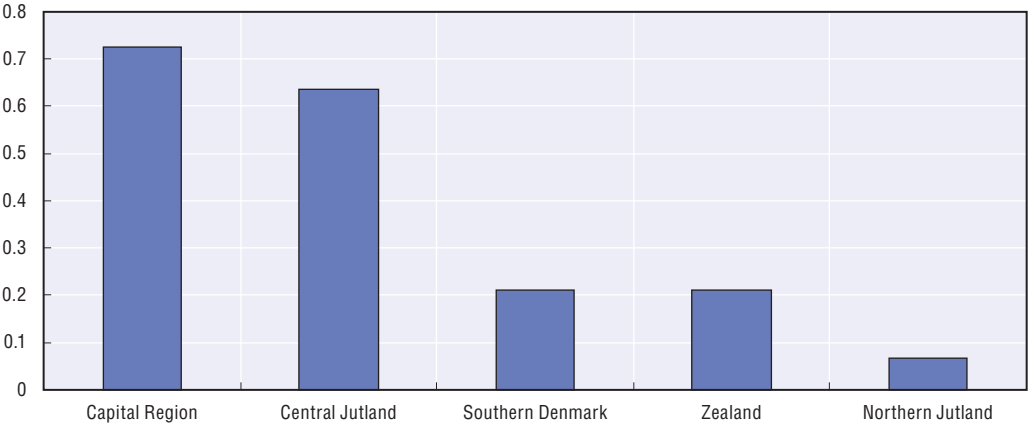
Figure 12.34. **Youth unemployment rate and unemployment rate, Danish regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933137257

Figure 12.35. **Average annual population change (%), Danish regions, 2005-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933137276

Estonia

Skills supply and demand

Figure 12.36 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2011 both North Estonia – including the capital city Tallinn – and South Estonia were in a "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) was matched by a high skills demand (percentage of medium and high skills occupations and GDP per worker).

Data on trends has also been collected. Table 12.8 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2007 and 2011. Central Estonia showed the greatest increase in skills supply and North-East Estonia showed the greatest increase in skills demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Northern Estonia, also show relatively high unemployment rates.

Unemployment and youth unemployment

The unemployment rate in Estonia has declined significantly in recent years: while in 2010 the national rate was 16.9%, by 2013 it fell to 8.6%. This figure is still higher than the OECD average. Figure 12.37 shows the unemployment rate in 2013 broken down by sub-region. While North-Eastern Estonia has had high unemployment rates in the past, the rate fell by ten percentage points in three years to 15% in 2013. For the other sub-regions the unemployment rate varies between 7.4% and 8.2%.

National youth unemployment (Figure 12.39) shows similar patterns: it reached 33% in 2010 and within three years it decreased to 18.7%. However, this is still three percentage points higher than the OECD average. Data was not available for this indicator at the regional or sub-regional level.

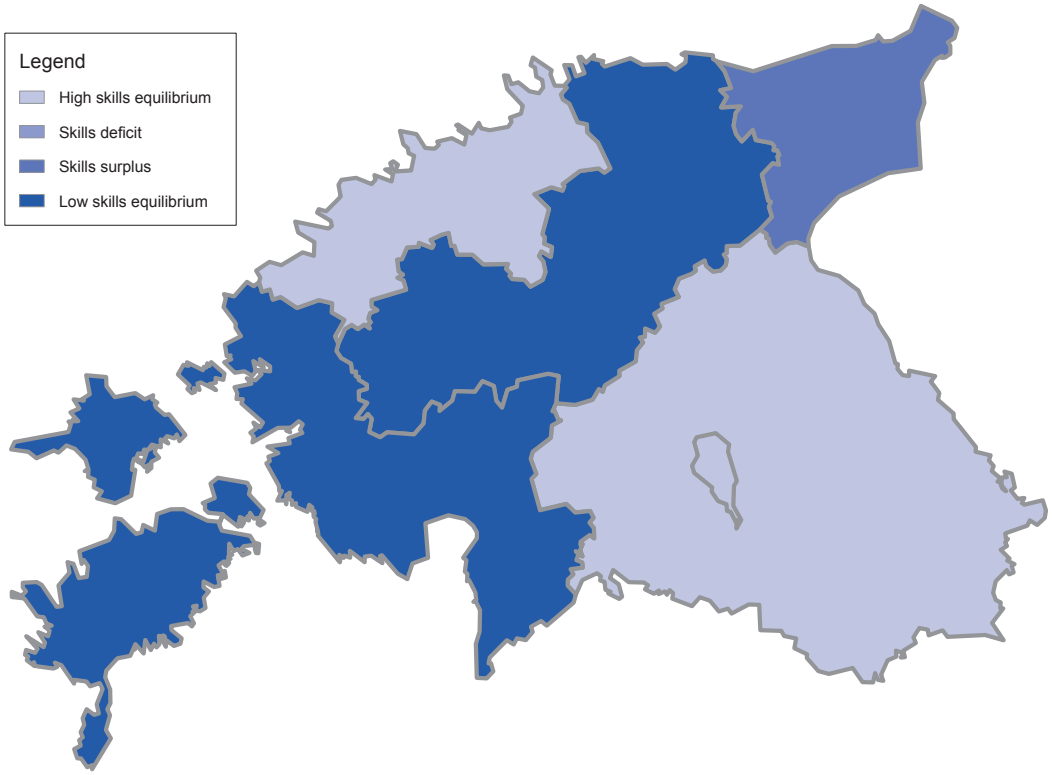
Research and Development

Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.38 shows the share of R&D in overall employment and R&D expenditure as a percentage of GDP. Data was not available at the regional level in Estonia for these indicators. The share of personnel employed in R&D increased between 2002 and 2010 from 1.2% to 1.8% but fell back by one percentage point in 2011. R&D expenditure as percentage of GDP expanded from 0.7% to 1.6%, with a small set-back in 2007.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.40 shows average annual population change at the sub-regional level. Between 1990 and 2012, Estonia lost 15% of its total population. This corresponds to an annual average change of -0.7%. Since 2000, the country's population size has been relatively stable with an annual average population decline of 0.2%. The region of North East Estonia saw the largest decrease in population during this period.

Figure 12.36. **Skills supply and demand, Estonian sub-regions, 2011**



Source: Labour Force Survey and Regional account, Statistics Estonia.

StatLink http://dx.doi.org/10.1787/888933137295

Definitions and methodology

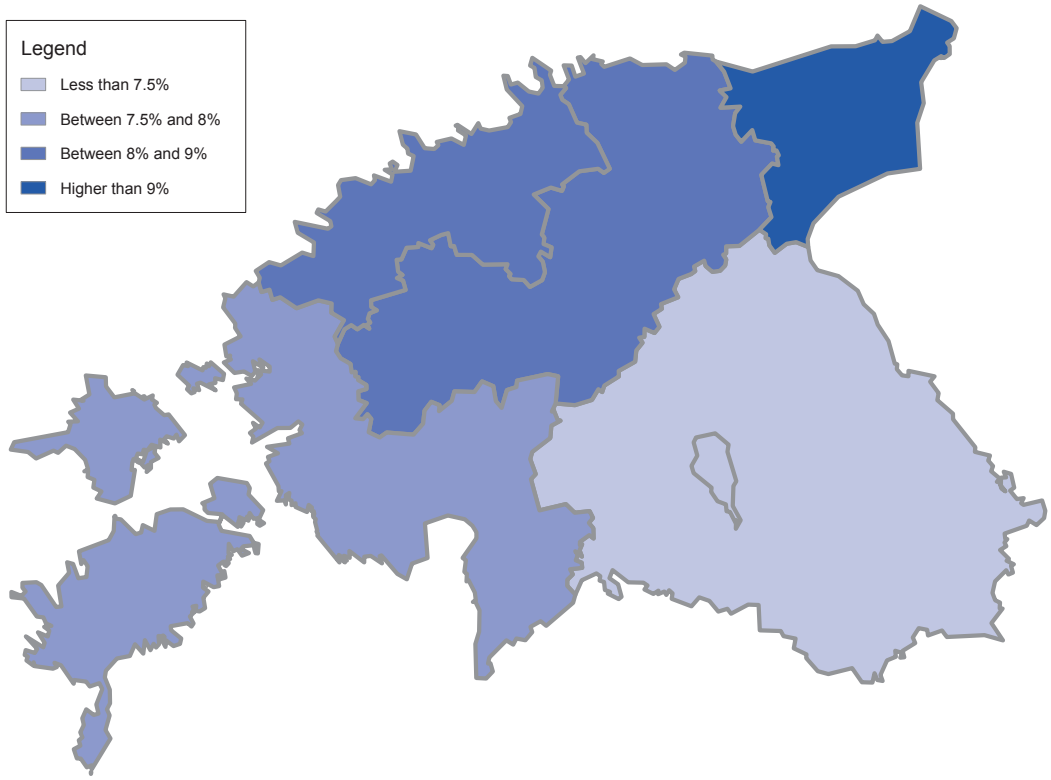
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.8. **Places to watch: Greatest increases in skills supply and/or demand, Estonian sub-regions, 2007-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Central Estonia		North-East Estonia

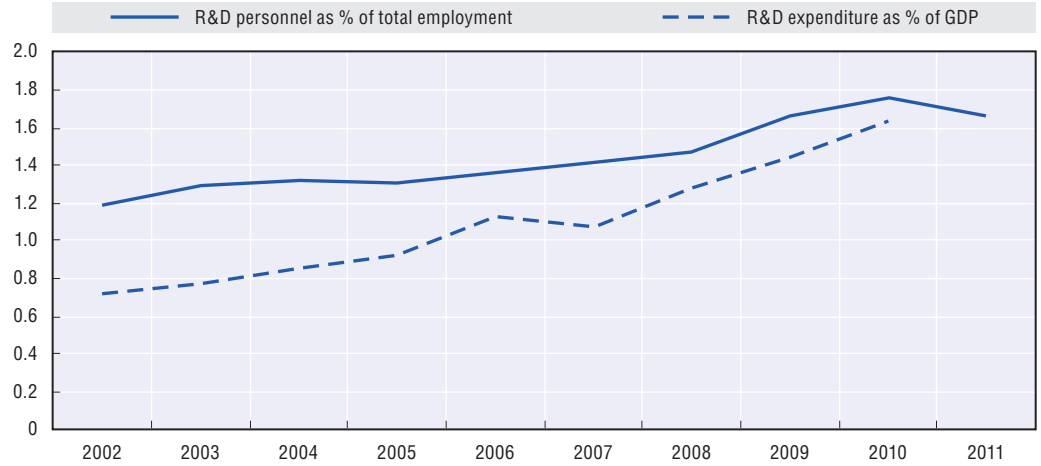
Figure 12.37. **Unemployment rate, Estonian sub-regions, 2013**



Source: Labour Force Survey, Statistics Estonia.

StatLink http://dx.doi.org/10.1787/888933137314

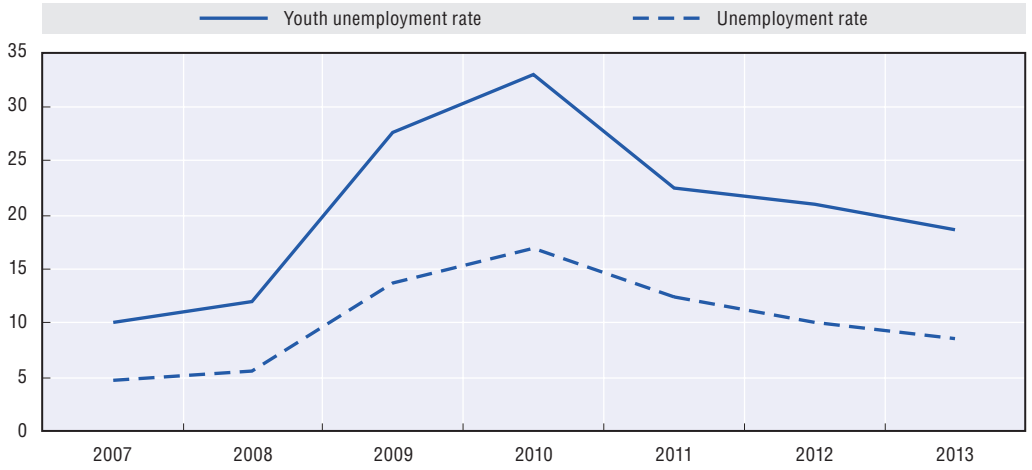
Figure 12.38. **Research and Development expenditure as % of GDP and personnel as % of total employment, Estonia, 2002-2011**



Source: "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521*.

StatLink http://dx.doi.org/10.1787/888933137333

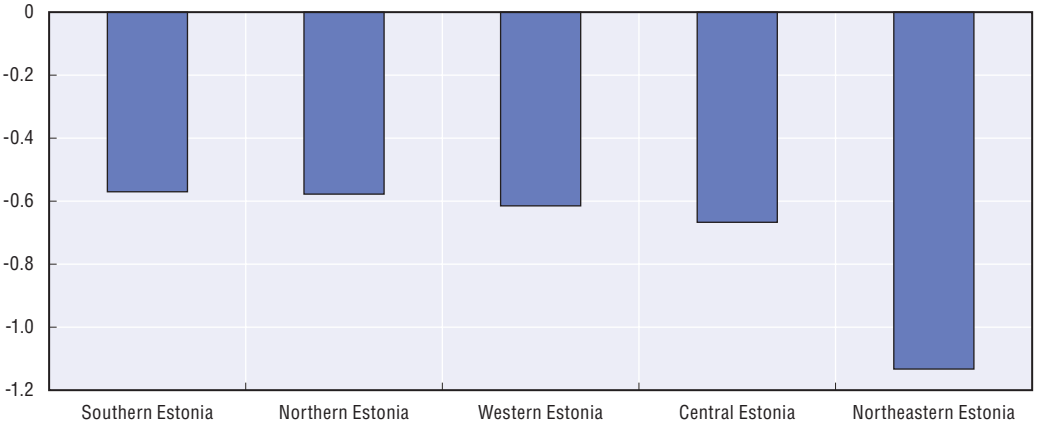
Figure 12.39. **Youth unemployment rate and unemployment rate, Estonia, 2007-2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933137352

Figure 12.40. **Average annual population change (%), Estonian sub-regions, 1990-2012**



Source: OECD (2012), "Small regions, TL3: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00525-en*.

StatLink http://dx.doi.org/10.1787/888933137371

Finland

Skills supply and demand

Figure 12.41 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2008 seven sub-regions could be found in "high skills equilibrium", where a high supply of skills (the percentage of people with post-secondary education) is matched by a high skills demand (the percentage of medium and high skills occupations and GVA per worker). Seven regions were found to be in "low skills equilibrium", where a low skills supply is matched by a low skills demand.

Data on trends has also been collected. Table 12.9 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2000 and 2008. In the Central Ostrobothnia and Kainuu regions, both skills supply and demand showed a relatively high increase.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Central Finland and Northern Ostrobothnia, also show relatively high unemployment rates.

Unemployment and youth unemployment

The Finnish national unemployment rate was 8.2% in 2013 which is slightly higher than the OECD average. As shown in Figure 12.42, the Aland sub-region had the lowest unemployment rate (3.9%). Other areas with relatively low unemployment include Central Ostrobothnia (4.7%) and Ostrobothnia (5.6%). In contrast, the unemployment rate was highest in North Karelia at 12.5% and in Kainuu at 11.5%.

Since 2009 youth unemployment has slowly improved, with a national rate of 19% in 2012. Figure 12.44 shows that the region of Aland had the lowest rate at 7.5%, while Eastern and Northern Finland had the highest rate at 22.2%.

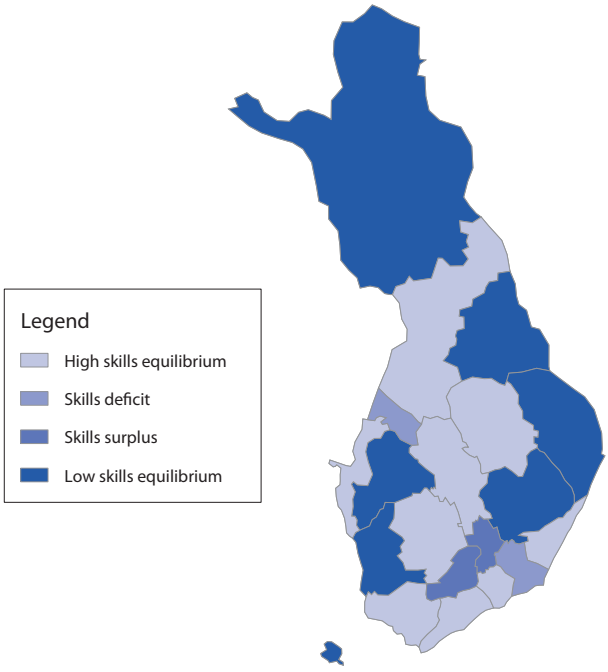
Research and Development

Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.43 shows the percentage of employment in R&D and R&D expenditure as a percentage of GDP from 2002-2010. Data was not available at the regional or sub-regional level. Expenditure on R&D as a percentage of GDP was constant 3.4% until 2007, when it increased to 4%. R&D personnel as a percentage of the total employment slightly decreased during the financial crisis, but in 2010 it was again at the 2006 level of 3.3%.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.45 shows average annual population change for Finland's regions between 1990-2012. The national population increased on average by 0.4% annually, which corresponds to a population growth of half a million people over 22 years. The capital region Helsinki-Uusimaa grew at the fastest pace at 1.2% annually, followed by the region of Aland at 0.8%. Eastern and Northern Finland is the only region where population slightly decreased over time.

Figure 12.41. **Skills supply and demand, Finnish sub-regions, 2008**



Source: Labour Force Survey and Regional Accounts, Statistics Finland.

StatLink http://dx.doi.org/10.1787/888933137390

Definitions and methodology

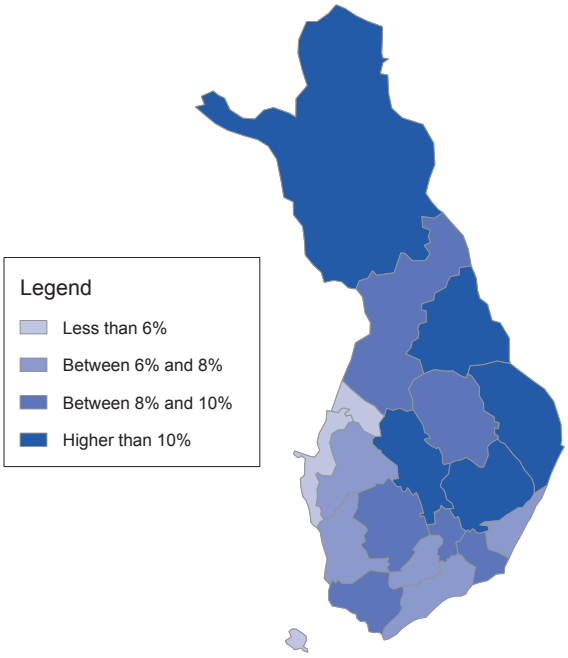
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.9. **Places to watch: Greatest increases in skills supply and/or demand, Finnish sub-regions, 2000-2008**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
North Karelia	Central Ostrobothnia	Kanta-Häme
South Karelia	Kainuu	Northern Ostrobothnia

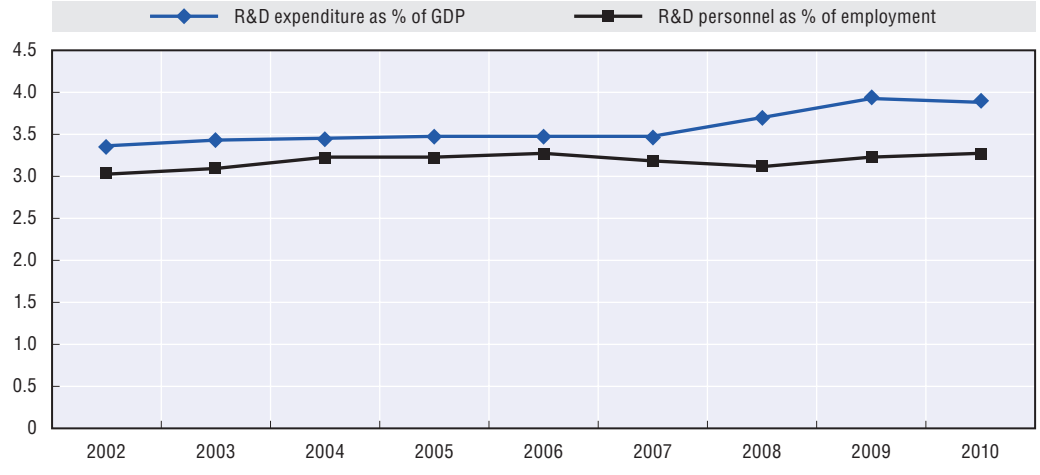
Figure 12.42. **Unemployment rate, Finnish sub-regions, 2013**



Source: Labour Force Survey, Statistics Finland.

StatLink http://dx.doi.org/10.1787/888933137409

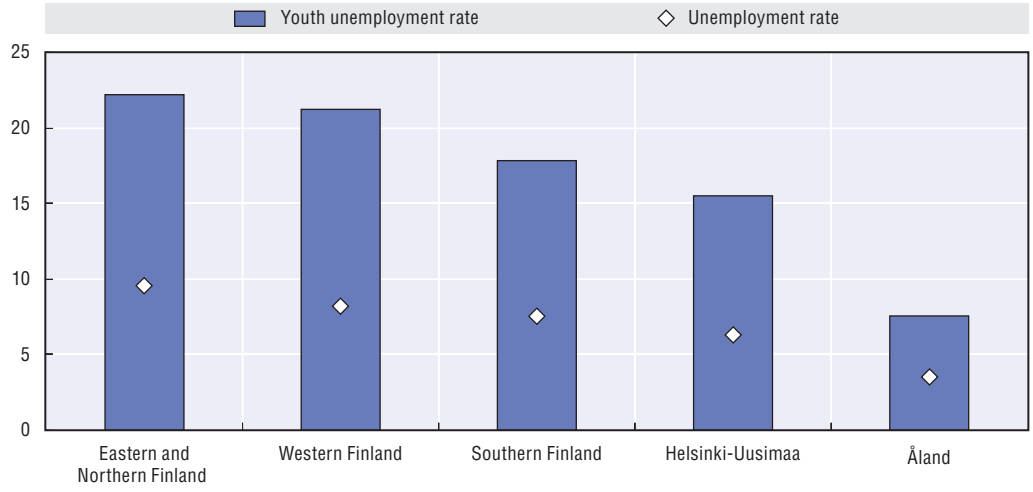
Figure 12.43. **Research and Development expenditure as % of GDP and personnel as % of total employment, Finland, 2002-2010**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

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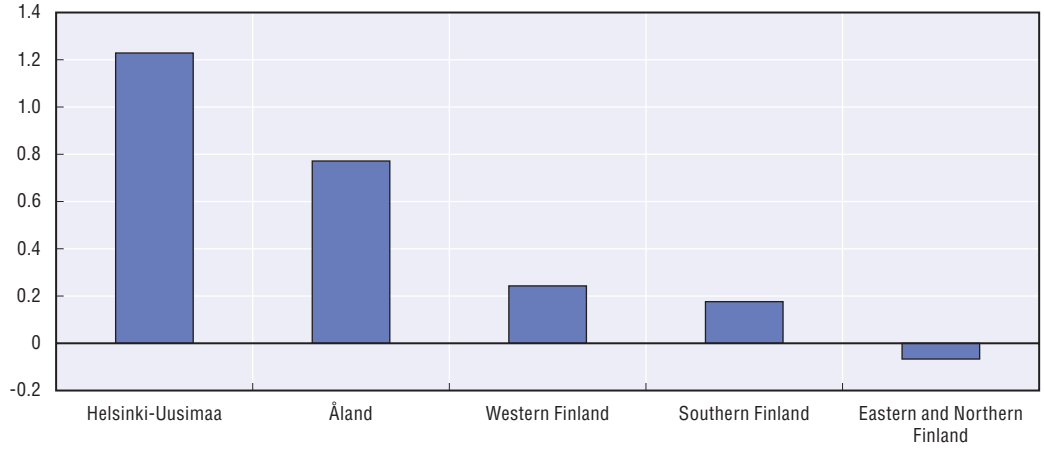
Figure 12.44. **Youth unemployment rate and unemployment rate, Finnish regions, 2012**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933137447

Figure 12.45. **Average annual population change (%), Finnish regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933137466

France

Skills supply and demand

Figure 12.46 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2009 there were 37 departments in "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) was matched by a high skills demand (percentage of medium and high skills occupations and GVA per worker). Forty departments could be found in "low skills equilibrium", where a low supply of skills was matched by low skills demand. A further 19 departments had a skills mismatch, with 11 being in a situation of "skills surplus", with a higher skills supply than demand.

Data on trends has also been collected. Table 12.10 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2006 and 2009. Fourteen departments showed an increase in supply and fourteen in demand, while five registered an increase in both skills supply and demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some departments in high skills equilibrium, such as Pyrénées Orientales, Hérault and Gard, also show relatively high unemployment rates.

Unemployment and youth unemployment

Figure 12.47 shows the unemployment rate in the French departments in 2013. The national unemployment rate is 10.3% which is higher than the OECD average. Sub-regional unemployment rates varied between 6.1% in Lozère and 14.8% in Pyrénées-Orientales.

The youth unemployment rate was 24.6% in France in 2012. Figure 12.49 shows how this varies at the level of France's regions. Limousin has the lowest youth unemployment rate at 17.5%, which is still higher than the OECD average (16.3%). The situation is especially severe in the regions of Languedoc-Roussillon at 38.3% and in Nord-Pas-de-Calais at 35.2%.

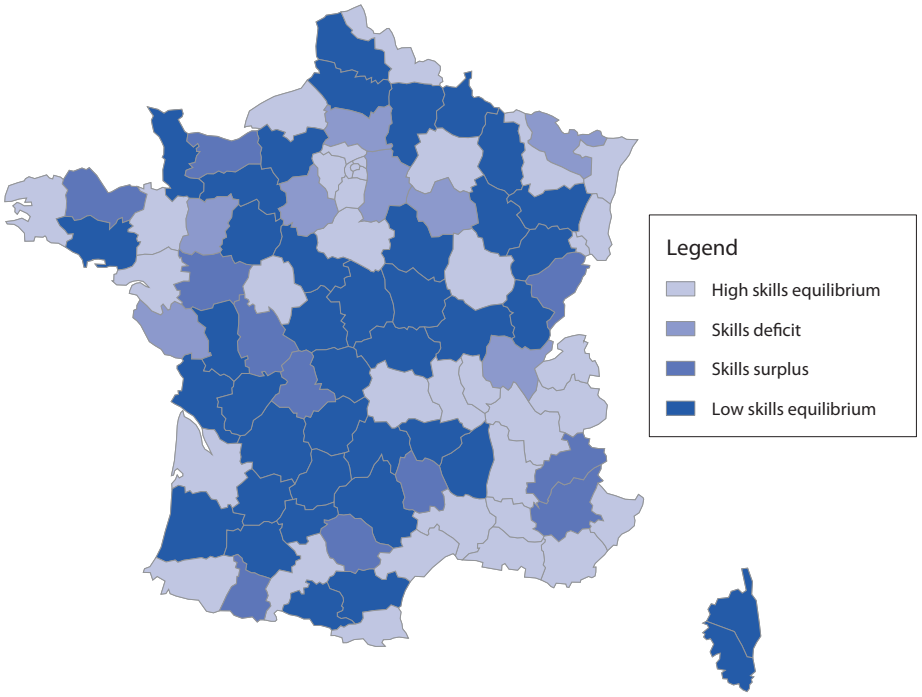
Employment in knowledge-intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. Figure 12.48 shows the share of employment in high and medium-high tech manufacturing and in knowledge intensive services in 2008 for French regions. The highest percentage of employment in knowledge intensive services was in Ile de France, the capital region, where 46.5% of people were employed in this sector. This sector is also strong in Lower Normandy, Midi-Pyrénées and Brittany. High and medium-high tech manufacturing is more typical in the regions of Franche-Comté, Alsace and Upper Normandy.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.50 shows the annual average population change between 1990 and 2012. The population grew on average 0.7% annually, which corresponds to the increase of almost nine million people in 22 years. All the 22 regions of France increased their population except Champagne-Ardenne which showed a slow decrease. The highest increase was in Languedoc-Roussillon and in Corsica.

Figure 12.46. **Skills supply and demand, French sub-regions, 2009**



Source: Census, INSEE and OECD (2012), "Small regions, TL3: Regional accounts", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00527-en*.

StatLink http://dx.doi.org/10.1787/888933137485

Definitions and methodology

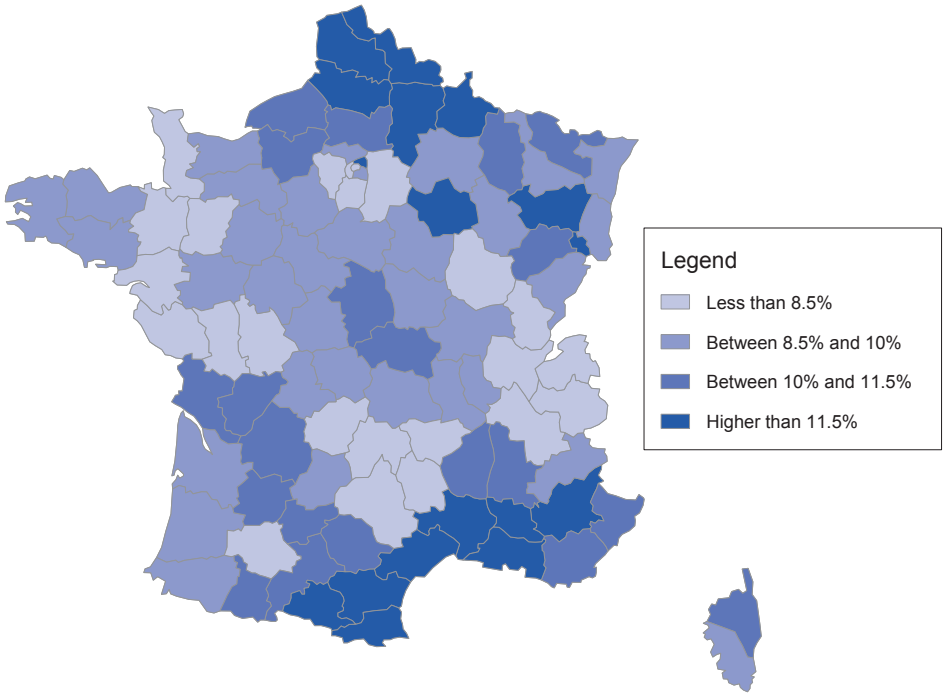
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.10. **Places to watch: Greatest increases in skills supply and/or demand, French sub-regions, 2006-2009**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Aube; Cantal; Creuse; Deux Sévres ; Hautes Alpes ; Haute Vienne; Ille et Vilaine; Landes; Lot; Manche; Meuse; Orne; Tarn; Vaucluse	Nièvre; Indre; Mayenne; Vendée; Vosges	Aisne; Cher; Eure et Loir; Essonne; Haute Corse; Haute Marne; Haute Saône; Loire; Marne; Oise; Paris; Seine Maritime; Val d'Oise; Yonne

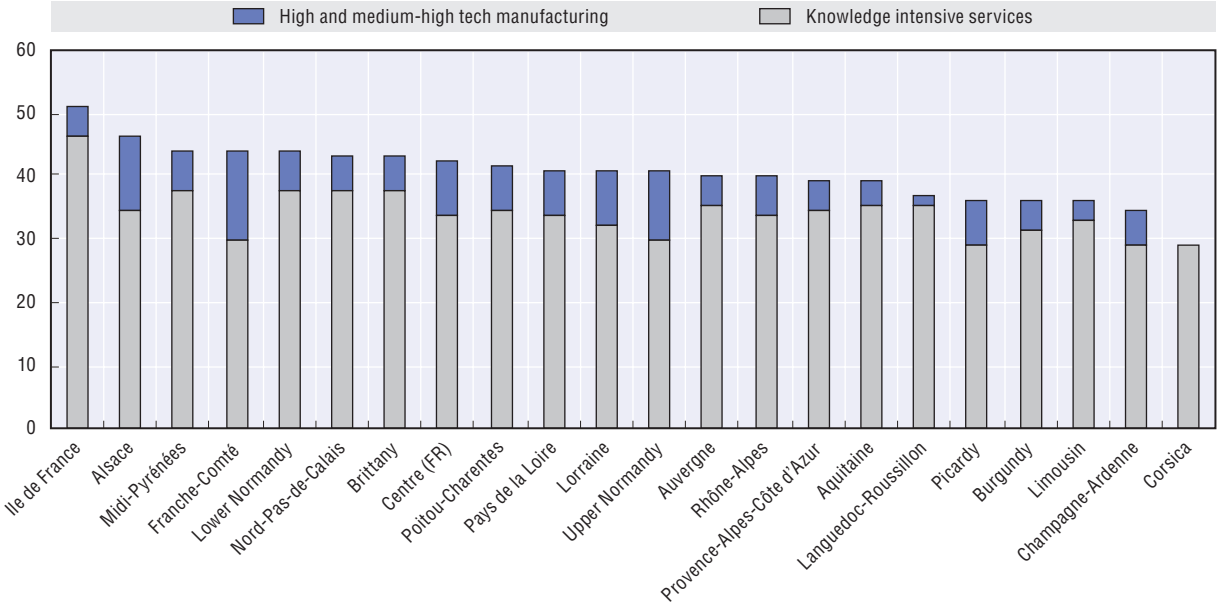
Figure 12.47. **Unemployment rate, French sub-regions, 2013**



Source: INSEE.

StatLink http://dx.doi.org/10.1787/888933137504

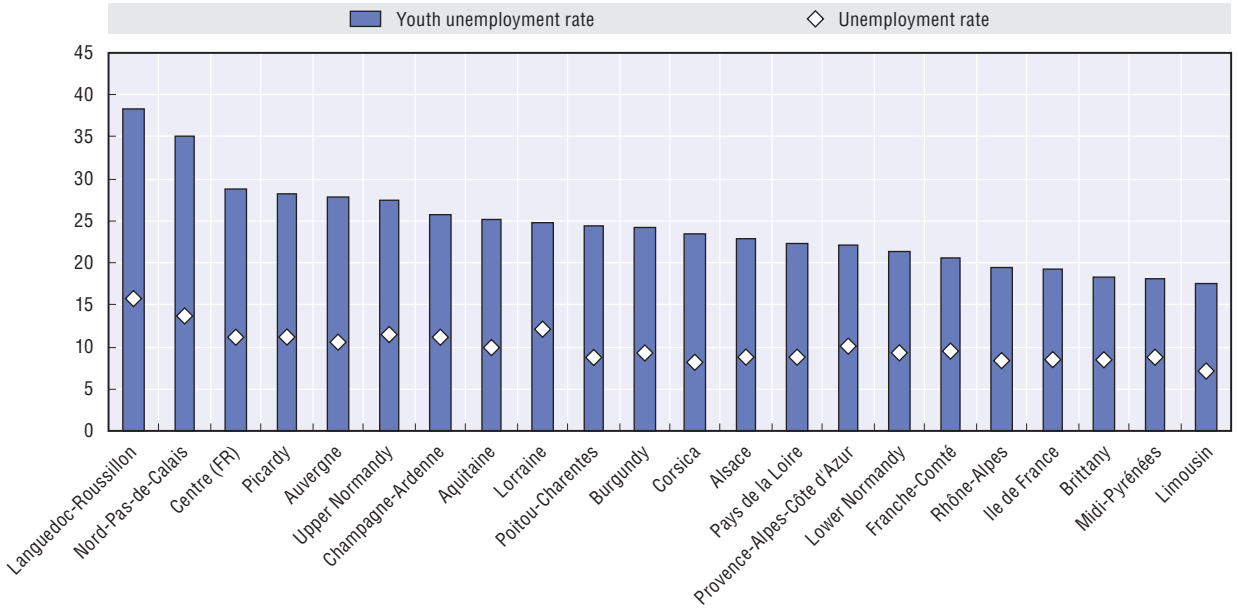
Figure 12.48. **Share of employment in knowledge intensive services and high and medium-high tech manufacturing, French regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933137523

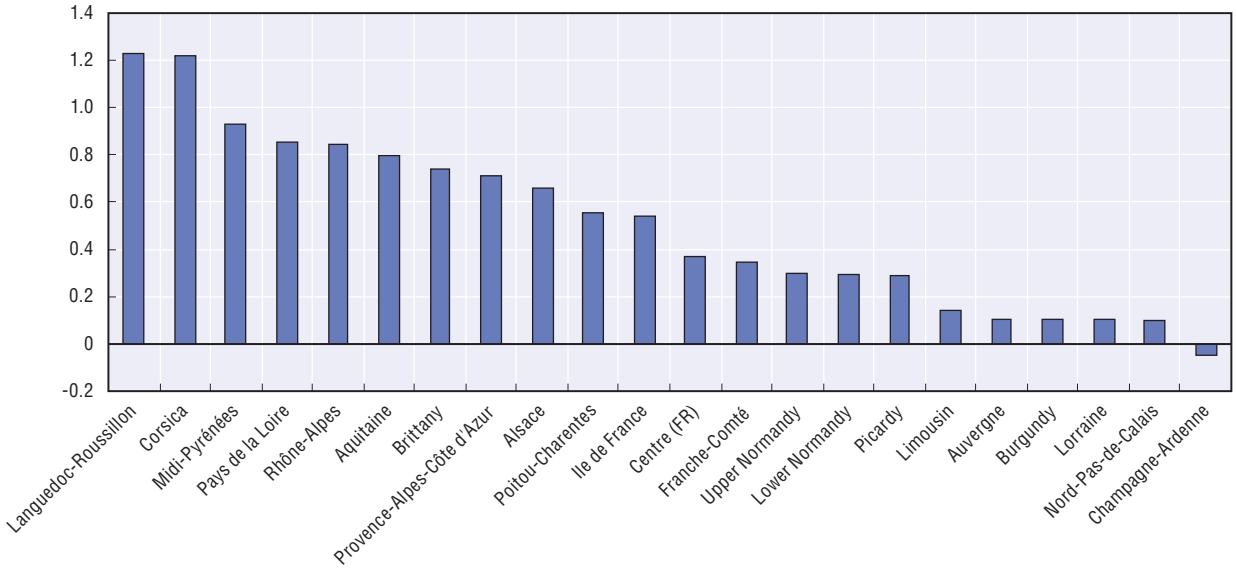
Figure 12.49. **Youth unemployment rate and unemployment rate, French regions, 2012**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en.*

StatLink *http://dx.doi.org/10.1787/888933137542*

Figure 12.50. **Average annual population change (%), French regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en.*

StatLink *http://dx.doi.org/10.1787/888933137561*

Greece

Skills supply and demand

Figure 12.51 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2011, Crete and Attica – the region of the capital city – are the only two sub-regions in "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and GVA per worker). The sub-regions of East Macedonia and Thrace, the Ionian Island as well as Peloponnesus found themselves in "low skills equilibrium", where a low supply of skills is matched by a low demand for skills. West Macedonia, Central Greece and the South Aegean region all show a skills deficit.

Data on trends has also been collected. Table 12.11 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2002-2011. Central Greece, West Greece and Thessaly showed the greatest increase in skills supply while Attica; East Macedonia and Thrace; and West Macedonia showed the greatest increase in skills demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Attica and Crete, also show relatively high unemployment rates.

Unemployment and youth unemployment

Figures 12.52 shows unemployment rate for sub-regions in 2012. The unemployment rate for Greece as a whole was 24.3% in 2012, compared with a rate of 7.7% in 2008. Unemployment kept increasing also in 2013 reaching 27.3%, which is more than three times higher than the OECD average. Unemployment rate was between 26% and 30% in Central Greece and in West and Central Macedonia.

The national youth unemployment rate of 58% is the highest among OECD countries in 2013. The lowest rate can be found in the Aegean Islands and Crete with 43%, while in Central Greece and in Athens it reached around 60%. In Northern Greece, it was 61% (see Figure 12.54).

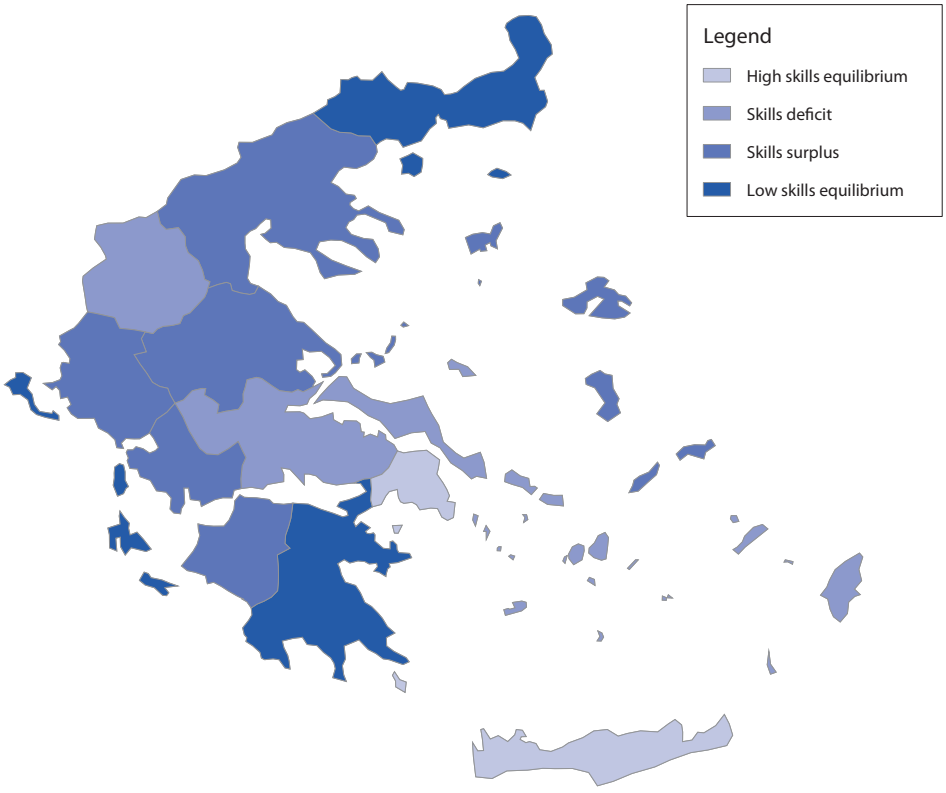
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. Among the larger regions of Greece, Attica had the highest share of employment in knowledge intensive services (33%) and high and medium-high tech manufacturing (3.4%) in 2008 (see Figure 12.53). In the Aegean Island and Crete; Northern Greece; and Central Greece employment in the knowledge intensive services was around 20% of total employment, while employment in high and medium-high tech manufacturing accounted for less than 1.5%.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.55 shows the average annual population change between 1990 and 2012. The average annual growth was around 0.5% over this period. The South Aegean region and Ionian Islands had the highest annual rate (1.2%). Crete, Attica and Central Macedonia follow with 0.7%.

Figure 12.51. **Skills supply and demand, Greek sub-regions, 2011**



Source: Labour Force Survey and Regional Accounts, Hellenic Statistical Authority.

StatLink http://dx.doi.org/10.1787/888933137580

Definitions and methodology

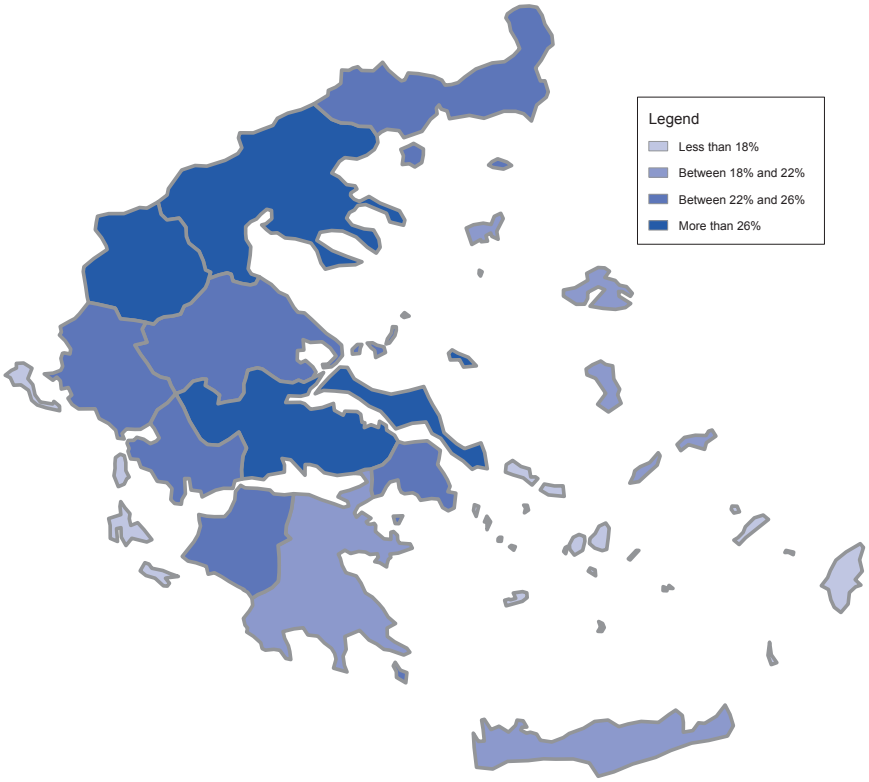
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.11. **Places to watch: Greatest increases in skills supply and/or demand, Greek sub-regions, 2002-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Central Greece		Attica
Thessaly		East Macedonia and Thrace
West Greece		West Macedonia

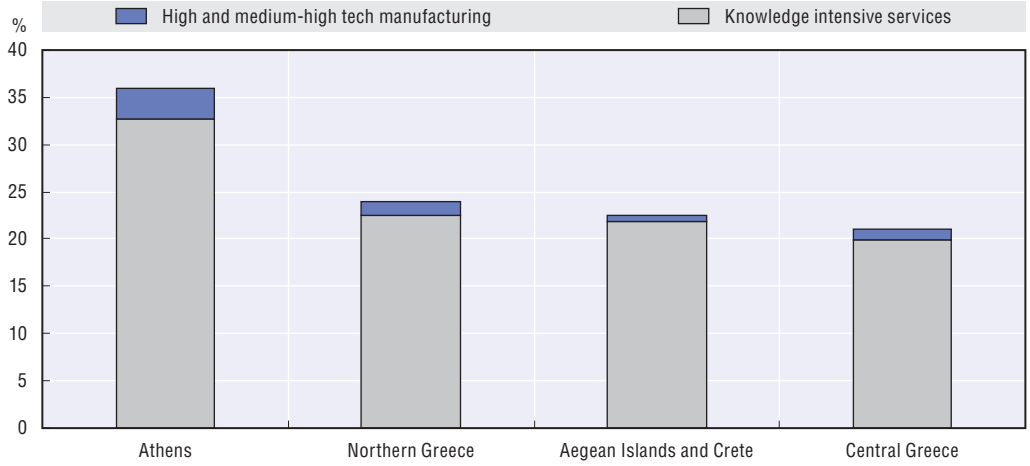
Figure 12.52. **Unemployment rate, Greek sub-regions, 2012**



Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en*.

StatLink http://dx.doi.org/10.1787/888933137599

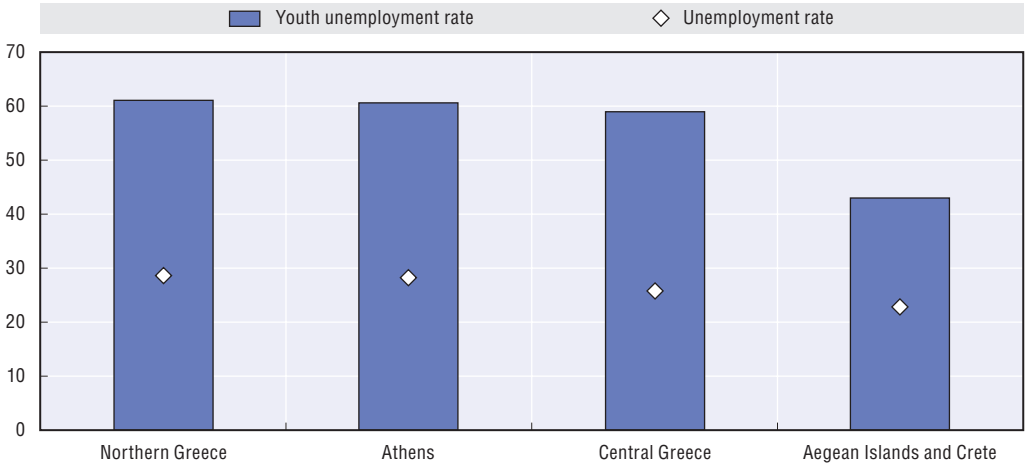
Figure 12.53. **Share of employment in the knowledge intensive services and high and medium-high tech manufacturing, Greek regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933137618

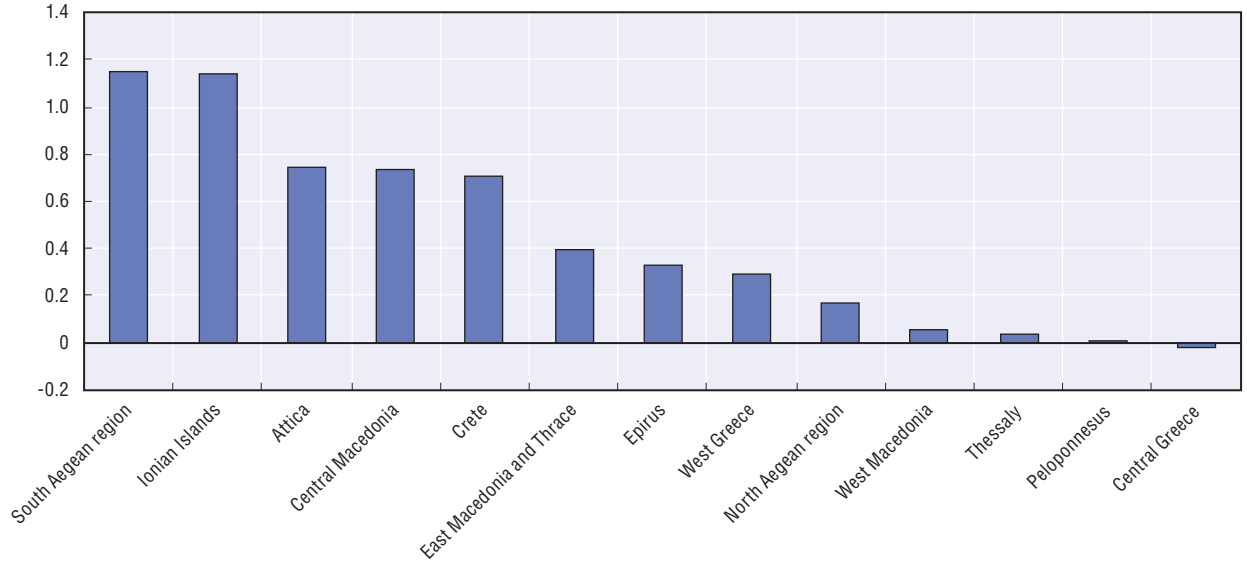
Figure 12.54. **Youth unemployment rate and unemployment rate, Greek regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933137637

Figure 12.55. **Average annual population change (%), Greek sub-regions, 1990-2012**



Source: OECD (2012), "Small regions, TL3: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00525-en*.

StatLink http://dx.doi.org/10.1787/888933137656

Hungary

Skills supply and demand

Figure 12.56 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2011 eight sub-regions were in a"high skills equilibrium" where a high skills supply (percentage of people with post-secondary education) is matched by high skills demand (percentage of medium and high skills occupations and GVA per worker). Six sub-regions were in a"low skills equilibrium", where a low skills supply is matched by a low skills demand.

Data on trends has also been collected. Table 12.12 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2003-2011. Bekes, Baranya, Csongrad and Somogy counties increased their skills supply, while the skills demand has grown the most in Budapest, Tolna, Gyor-Moson-Sopron and Fejer counties.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Borsod-Abauj-Zemplen and Baranya, also show relatively high unemployment rates.

Unemployment and youth unemployment

Nationally, the unemployment rate in 2013 was 10.2% which is higher than the OECD average; however there has been a slight improvement in recent years. In 2011 unemployment varied between 6.3% in Gyor-Moson-Sopron and 18.8% in Nograd (see Figure 12.57).

Trends in youth unemployment (see Figure 12.59) follow those of total unemployment, but vary between 21.1% in Southern Transdanubia and 35.6% in Northern Great Plain. The national youth unemployment rate in 2013 was 27.2%, almost double the OECD average.

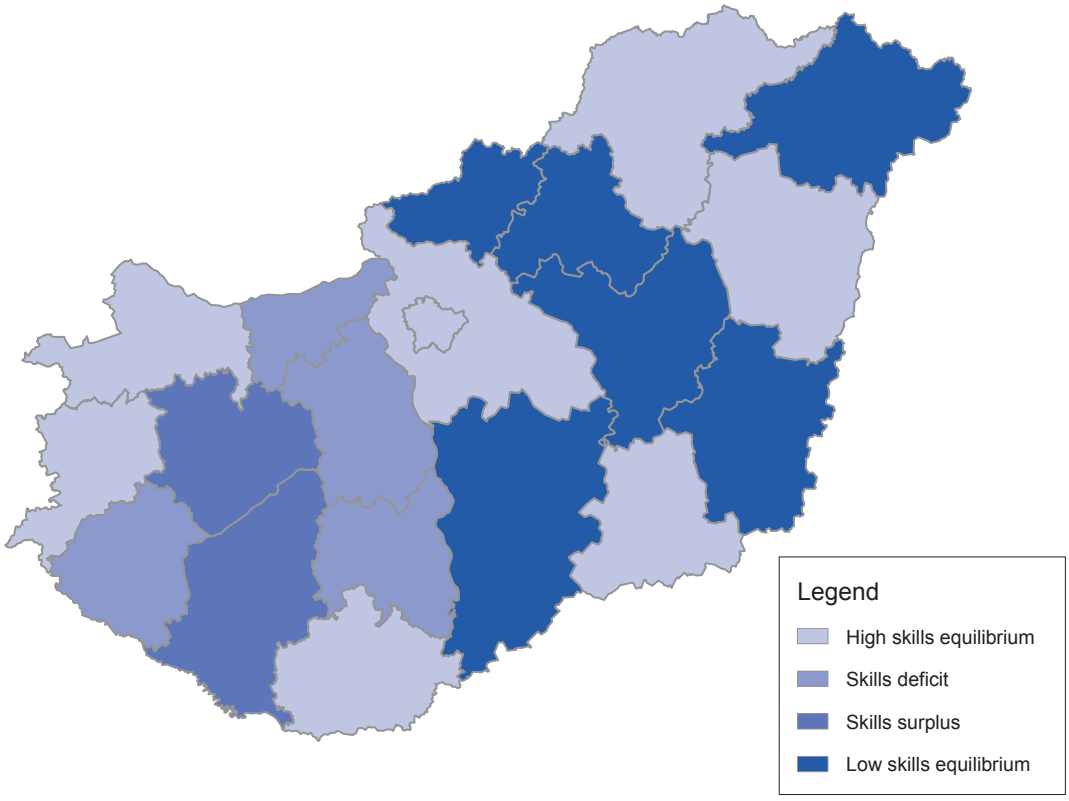
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. Figure 12.58 shows the share of employment in the knowledge intensive services and high and medium-high tech manufacturing in 2008. The largest share was in Central Hungary (which includes the capital city of Budapest), where 44% of the total employment was in these sectors. High and medium-high tech manufacturing is present mainly in Central- and Western-Transdanubia where it represents respectively 16% and 14% of the regional workforce.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.60 shows average annual population change between 1990 and 2012. During this time, the Hungarian population shrunk by almost half a million people. Among the 20 sub-regions, only three experienced a population growth. Pest county, which surrounds the capital city, grew fastest (on average 1.4% annually since 1990). As a result of these trends, the population of the capital city decreased by an average of 0.6% annually.

Figure 12.56. **Skills supply and demand, Hungarian sub-regions, 2011**



Source: Labour Force Survey and Regional Accounts, Hungarian Central Statistical Office.

StatLink http://dx.doi.org/10.1787/888933137675

Definitions and methodology

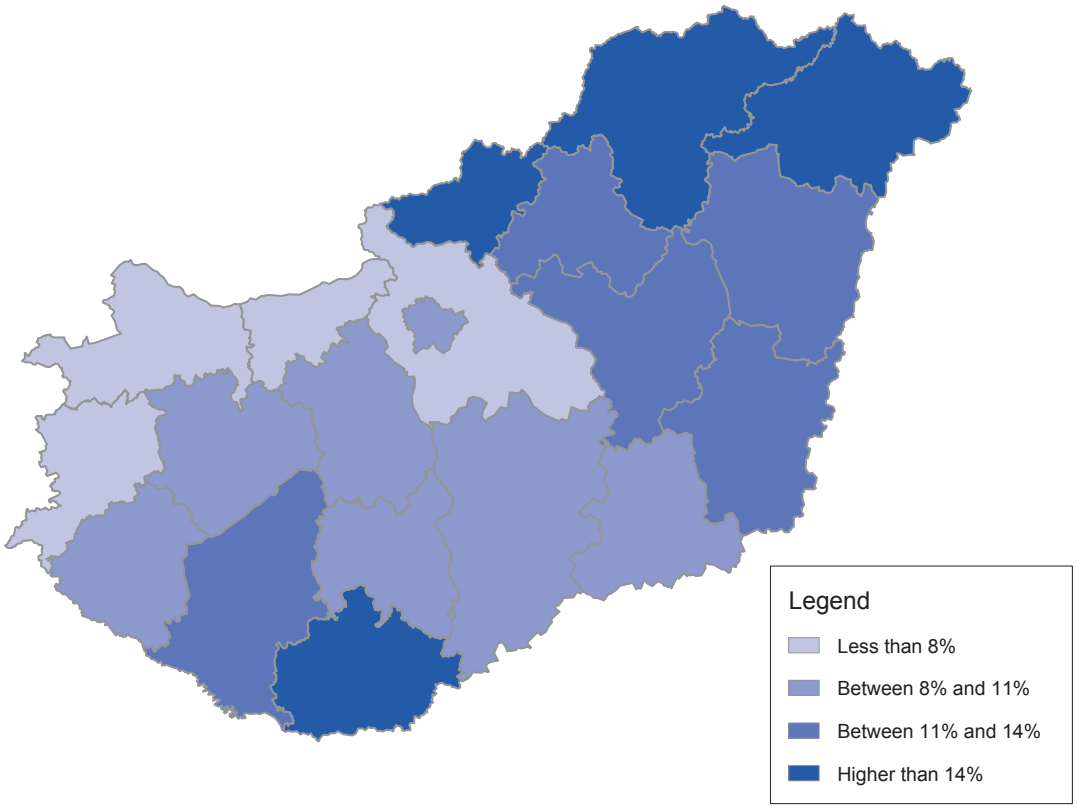
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.12. **Places to watch: Greatest increases in skills supply and/or demand, Hungarian sub-regions, 2003-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Baranya		Budapest
Bekes		Fejer
Csongrad		Gyor-Moson-Sopron
Somogy		Tolna

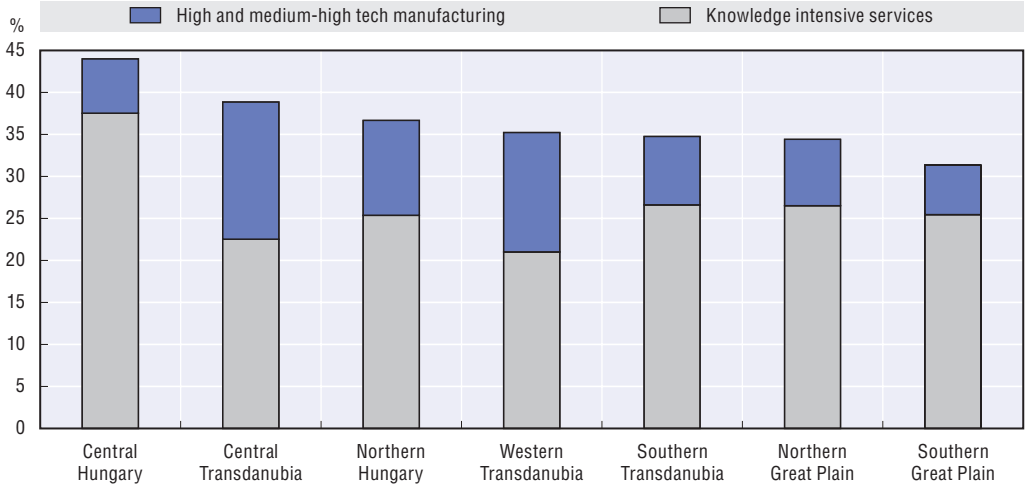
Figure 12.57. **Unemployment rate, Hungarian sub-regions, 2011**



Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en.*

StatLink http://dx.doi.org/10.1787/888933137694

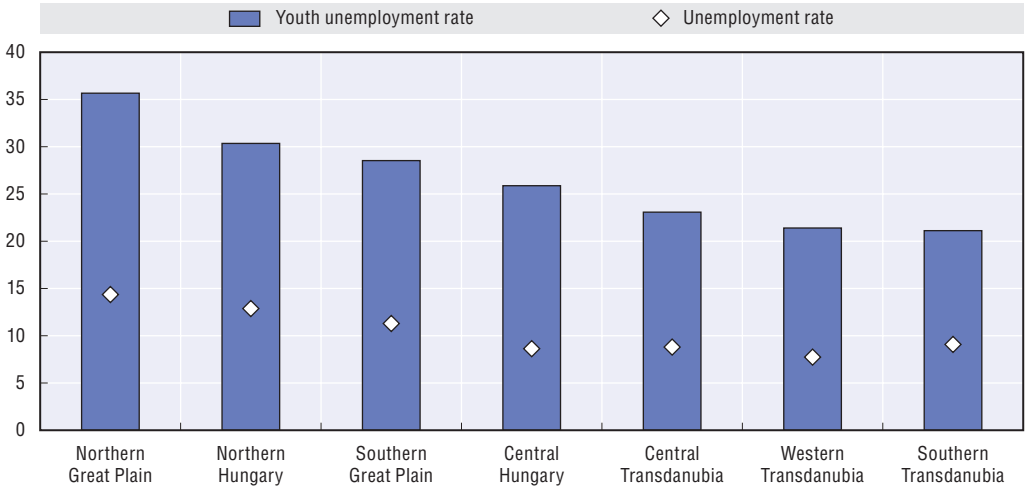
Figure 12.58. **Share of employment in the knowledge intensive services and high and medium-high tech manufacturing, Hungarian regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en.*

StatLink http://dx.doi.org/10.1787/888933137713

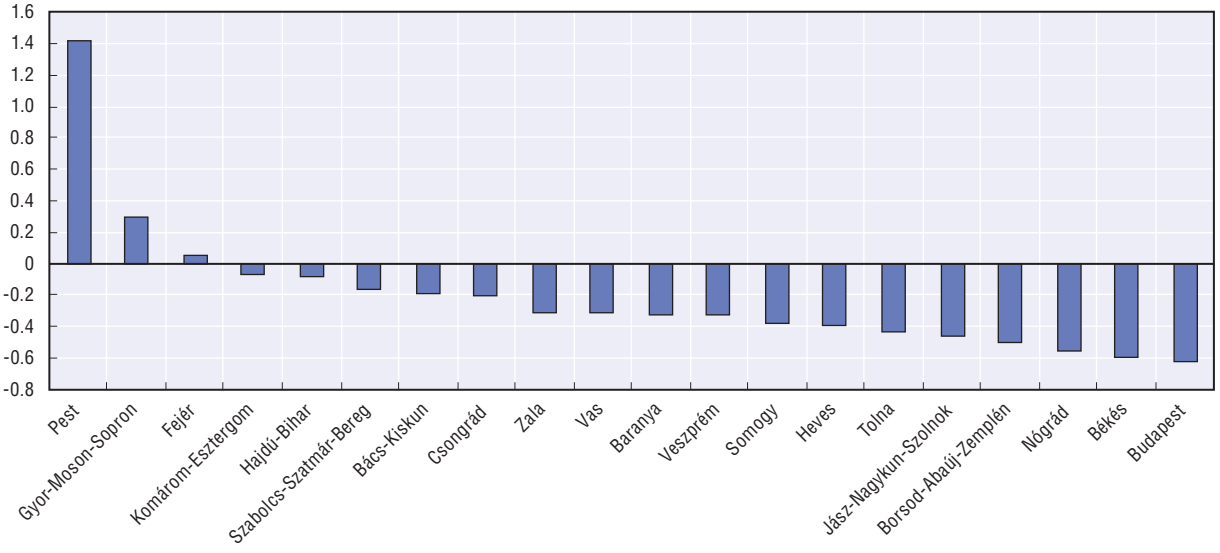
Figure 12.59. **Youth unemployment rate and unemployment rate, Hungarian regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933137732

Figure 12.60. **Average annual population change (%), Hungarian sub-regions, 1990-2012**



Source: OECD (2012), "Small regions, TL3: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00525-en*.

StatLink http://dx.doi.org/10.1787/888933137751

Ireland

Skills supply and demand

Figure 12.61 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand in the 8 sub-regions of Ireland. In 2012, three sub-regions, Dublin, the Mid-East and the South-West, were in a "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations).[1] The Border, Midland and the South-East were in a "low skills equilibrium", where low skills supply is matched by low skills demand. The Mid-West was in skills deficit while the West showed a skills surplus.

Data on trends has also been collected. Table 12.13 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2010-2012. The Mid-East has shown the highest increase of both skills supply and demand, while in the South-West the skills supply has increased most, moving the region to a high skills equilibrium. Dublin has shown the highest increase of skills demand during the analysed period.

It should be noted that the above tool does not provide an indicator of labour market inclusion, although in the case of Ireland, all the regions in high skills equilibrium showed unemployment rates lower than the national average.

Unemployment and youth unemployment

Figure 12.62 shows unemployment rates for sub-regions in Ireland in 2012. Regional disparities are prevalent – in 2012, the unemployment rate was 12.1% in Dublin and 18.7% in the South-East. In 2013, the unemployment rate across Ireland was 13%. This figure is almost three times as high as the rate in 2007 and it is higher than the OECD average.

The youth unemployment rate increased significantly from 9.1% in 2007 to 30.4% in 2012. In 2013, for the first time since the financial crisis it improved to 26.8%. The two regions of Ireland show similar trends over the years with the Southern and Eastern region showing slightly lower rates than the Border, Midland and Western region (see Figure 12.64).

Research and Development

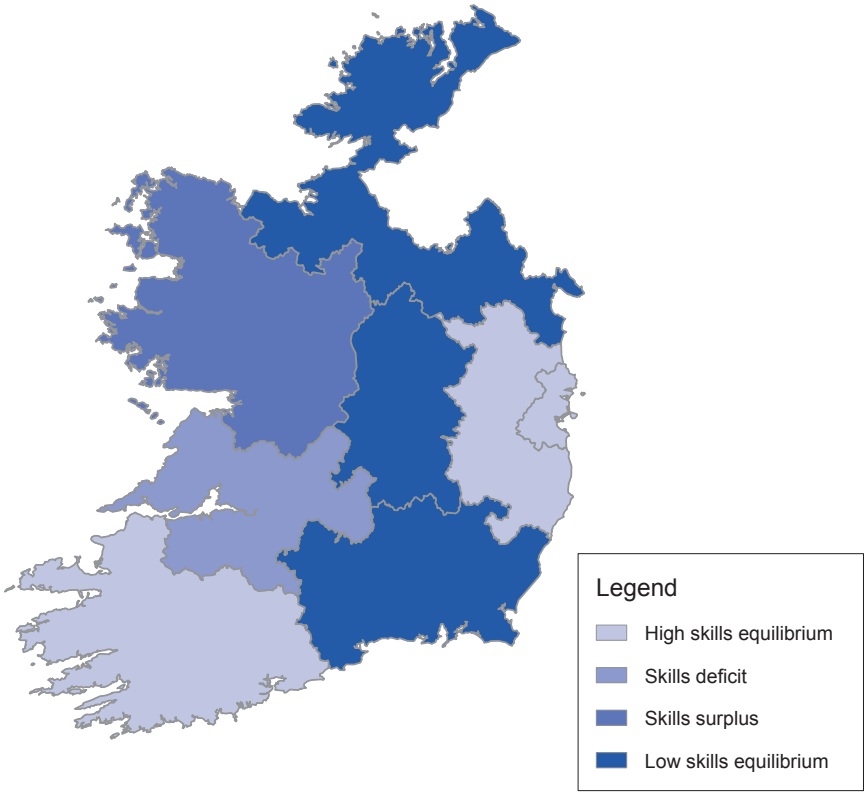
Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of regional data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.63 shows the share of Research and Development personnel as a percentage of total employment between 2002-2010. Within this period, there has been a steady increase in both the Southern and Eastern region and the Border, Midland and Western region with the former showing slightly higher figures.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.65 shows average annual population change between 1991-2012. The country encountered a significant increase in its population over the last two decades: since 1991, the population expanded by 1.1 million people. There was at least 1% annual growth in all sub-regions between 1991-2012, with the most growth in the Mid-East (3.1%).

1. GVA, income and wages were not available at this geographical level.

Figure 12.61. **Skills supply and demand, Irish sub-regions, 2012**



Source: Quarterly National Household Survey (QNHS), Central Statistical Office (CSO).

StatLink http://dx.doi.org/10.1787/888933137770

Definitions and methodology

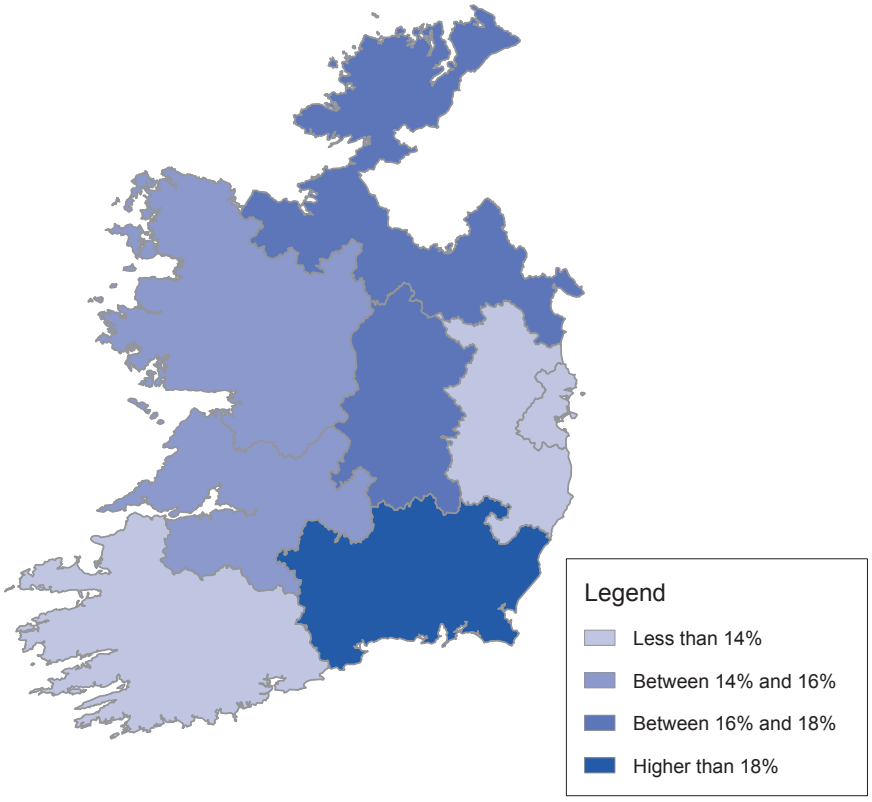
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.13. **Places to watch: Greatest increases in skills supply and/or demand, Irish sub-regions, 2010-2012**

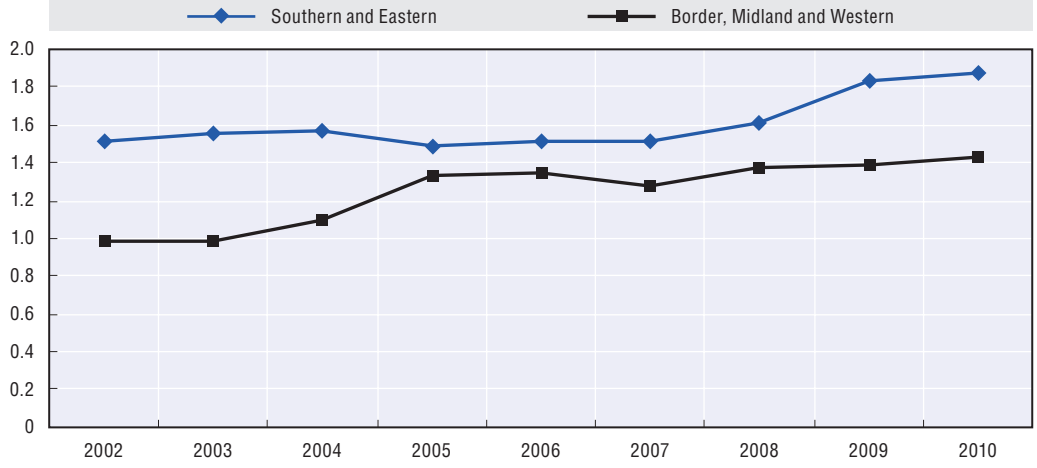
Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
South-West	Mid-East	Dublin

Figure 12.62. **Unemployment rate, Irish sub-regions, 2012**



Source: Quarterly National Household Survey (QNHS), Central Statistical Office (CSO).

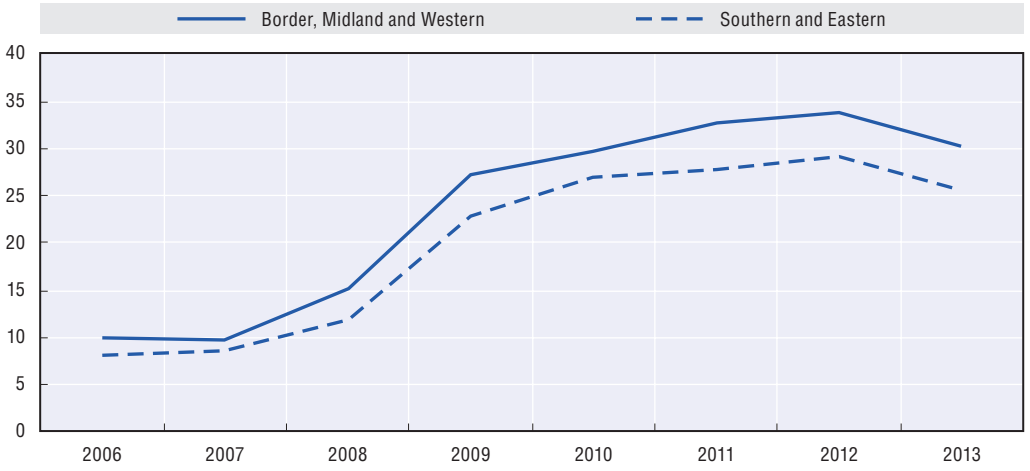
Figure 12.63. **Research and Development personnel as % of total employment, Irish regions, 2002-2010**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en.*

StatLink http://dx.doi.org/10.1787/888933137808

Figure 12.64. **Youth unemployment rate, Irish regions, 2006-2013**

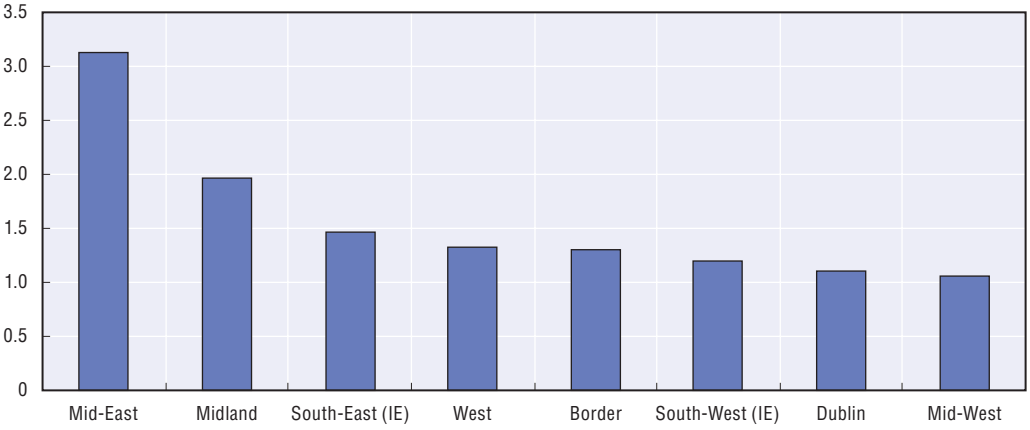


Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933137827

StatLink http://dx.doi.org/10.1787/888933137789

Figure 12.65. **Average annual population change (%), Irish sub-regions, 1991-2012**



Source: OECD (2012), "Small regions, TL3: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00525-en*.

StatLink http://dx.doi.org/10.1787/888933137846

Israel

Skills supply and demand[1]

Figure 12.66 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2010, seven sub-districts were in a "high skills equilibrium", where a high skills supply (percentage of people with post-secondary education) is matched by high skills demand (percentage of medium and high skills occupations and income per employed). Six sub-districts were found in "low skills equilibrium", where low skills supply is matched by low skills demand.

Data on trends has also been collected. Table 12.14 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2005 and 2010. Ashkelon and Akko showed the greatest increase in skills supply while Hadera and Yizreel showed the greatest increase in skills demand. The Golan sub-district showed the greatest increase of both skills supply and demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. However, because unemployment rates are not collected at the sub-district level, comparisons cannot be done between the skills analysis and unemployment rates.

Unemployment and youth unemployment

Figure 12.67 shows total and youth unemployment across regions in Israel in 2013. Unemployment has been improving since 2006 with only one short-term setback in 2009. In 2013, the national rate was 6.2%, which is lower than the OECD average (7.9%). There are small regional variations. The lowest rate was 5.1% in the Central district and the highest was 8% in the Northern district.

In 2013, youth unemployment rate was 10.5%, more than five percentage points lower than the OECD average. The lowest youth unemployment rate was registered in the Tel Aviv district at 7.6% and the highest in the Northern district (14%).

Research and Development

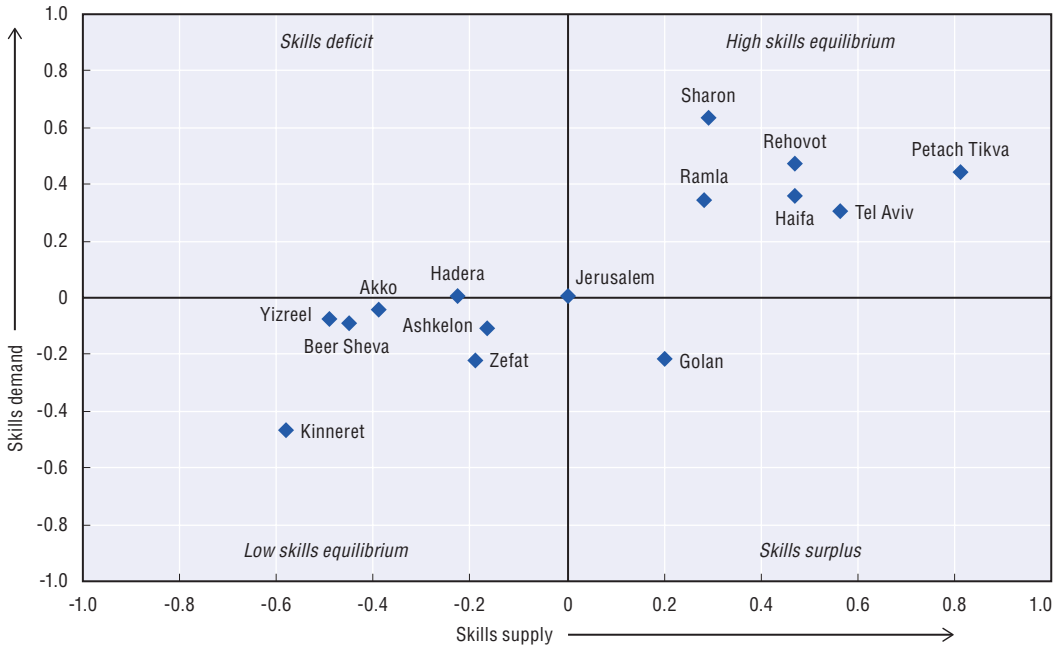
Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.68 shows gross domestic expenditure on R&D between 1991-2012 (data was not available at the regional level). In Israel gross domestic expenditure on R&D has significantly increased over the analysed period, moving from around 2 000 million U.S. dollars in 1991 to 9 000 million U.S. dollars in 2012.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.69 shows population trends between 1996-2012. During this period, the population increased in all regions with an average annual rate of 2.2%. The highest growth was registered in the Central District (3.3%) and in the Southern District (2.6%). The slowest growth was experienced in the Tel Aviv District (0.8%).

1. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Figure 12.66. **Skills supply and demand, Israeli sub-regions, 2010**



Source: Labour Force Survey, Central Bureau of Statistics, Israel.

StatLink http://dx.doi.org/10.1787/888933137865

Definitions and methodology

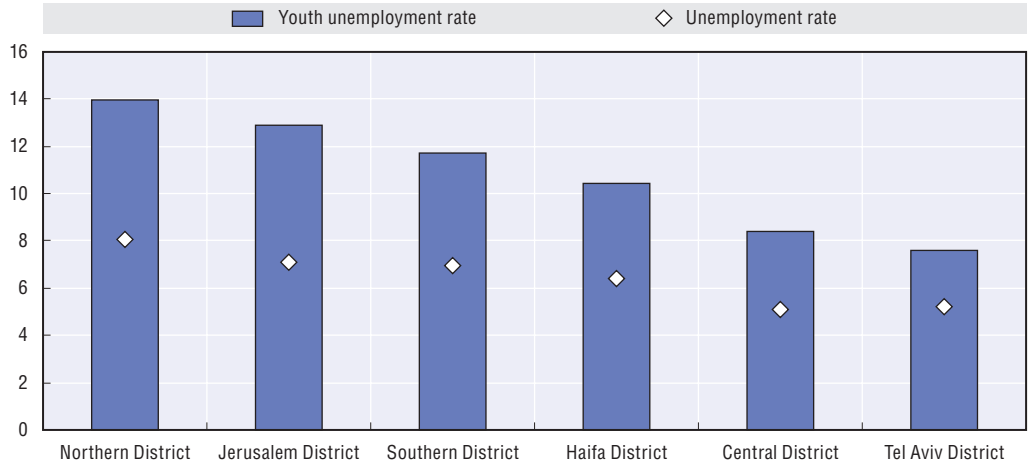
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.14. **Places to watch: Greatest increases in skills supply and/or demand, Israeli sub-regions, 2005-2010**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Ashkelon	Golan	Hadera
Akko		Yizreel

Figure 12.67. **Youth unemployment rate and unemployment rate, Israeli regions, 2013**

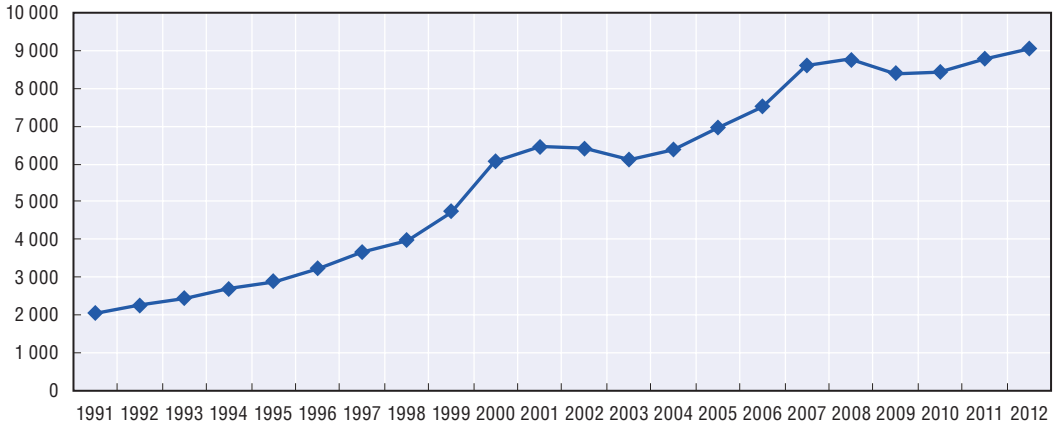


Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933137884

Figure 12.68. **Gross domestic expenditure on Research and Development, Israel, 1991-2012**

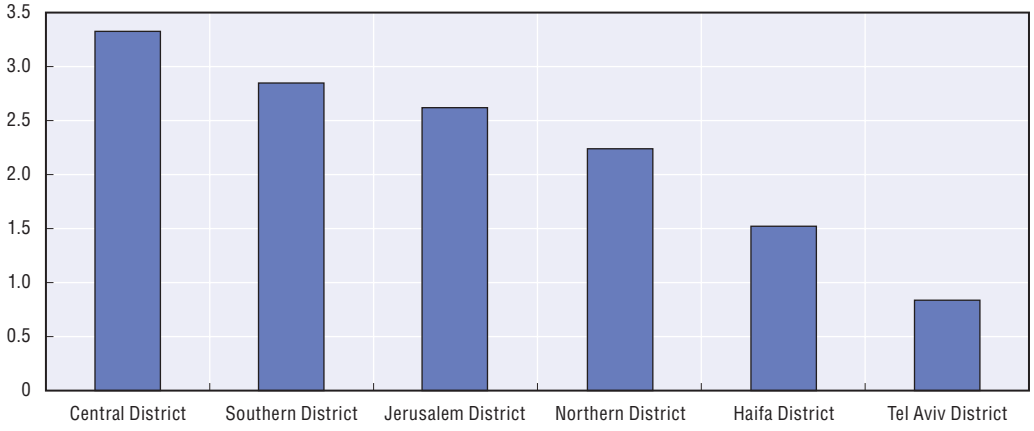
Million Dollars, 2005 constant prices



Source: OECD (2012), "Research and Development Statistics: Gross domestic expenditure on R-D by sector of performance and source of funds", *OECD Science, Technology and R&D Statistics* (database), *http://dx.doi.org/10.1787/data-00189-en*.

StatLink http://dx.doi.org/10.1787/888933137903

Figure 12.69. **Average annual population change (%), Israeli regions, 1996-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933137922

Italy

Skills supply and demand

Figure 12.70 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand across provinces in Italy in 2009. The north is characterised by "high skills equilibrium", where a high supply of skills (the percentage of people with post-secondary education) is matched by a high skills demand (the percentage of medium and high skills occupations and GVA per worker), and skills deficits. The south is characterised by "low skills equilibrium", where a low skills supply is matched by a low skills demand, and skills surplus, where skills supply exceeds demand.

Data on trends has also been collected. Table 12.15 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2001 and 2009. As a result of these changes La Spezia, Forlí-Cesena and Ancona moved into a high skills equilibrium.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Viterbo and Ferrara, also show relatively high unemployment rates.

Unemployment and youth unemployment

In 2012, the unemployment rate among sub-regions varied between 4.1% in the Province of Bolzano and 26.1% in Crotone (see Figure 12.71). National unemployment was 10.7% in 2012 and 12.2% in 2013, which is higher than the OECD average. The gap between the north and south of Italy is clearly visible: most southern provinces are experiencing unemployment rates over 10% while the central and northern provinces remain mainly below 10%.

Regional disparities are even more pronounced when considering youth unemployment, which ranged between 12% in the Province of Bolzano and 53% in Calabria in 2012 (see Figure 12.73). The national youth unemployment rate was 40% in 2013, which is a significant increase compared to 2007 and one of the highest ratio among OECD countries.

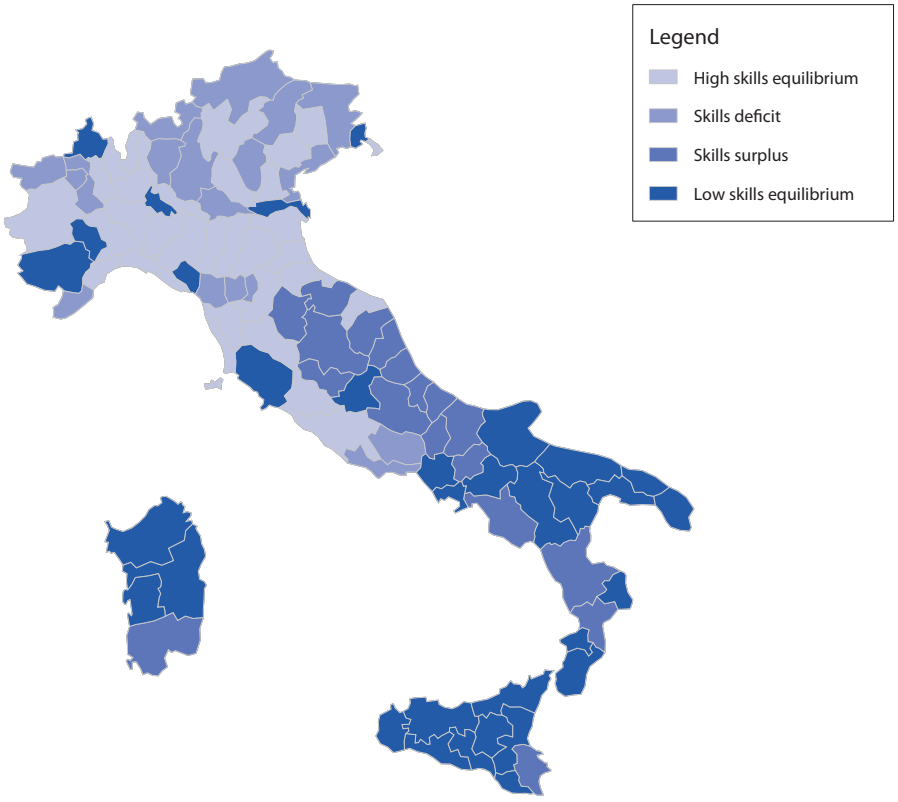
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. Figure 12.72 shows the share of employment in the knowledge intensive services and high and medium-high tech manufacturing in 2008. Regions with the highest employment share in these sectors are located in the northern part of the country and in Lazio, the capital region.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.74 shows average annual population change between 1991-2012. The size of the population is decreasing in four regions: Liguria, Basilicata, Molise and Calabria. The other regions have been increasing at difference paces. The provinces of Trento and Bolzano are the fastest growing regions.

Figure 12.70. **Skills supply and demand, Italian sub-regions, 2009**



Source: Labour Force Survey and Regional Accounts, ISTAT.

StatLink http://dx.doi.org/10.1787/888933137941

Definitions and methodology

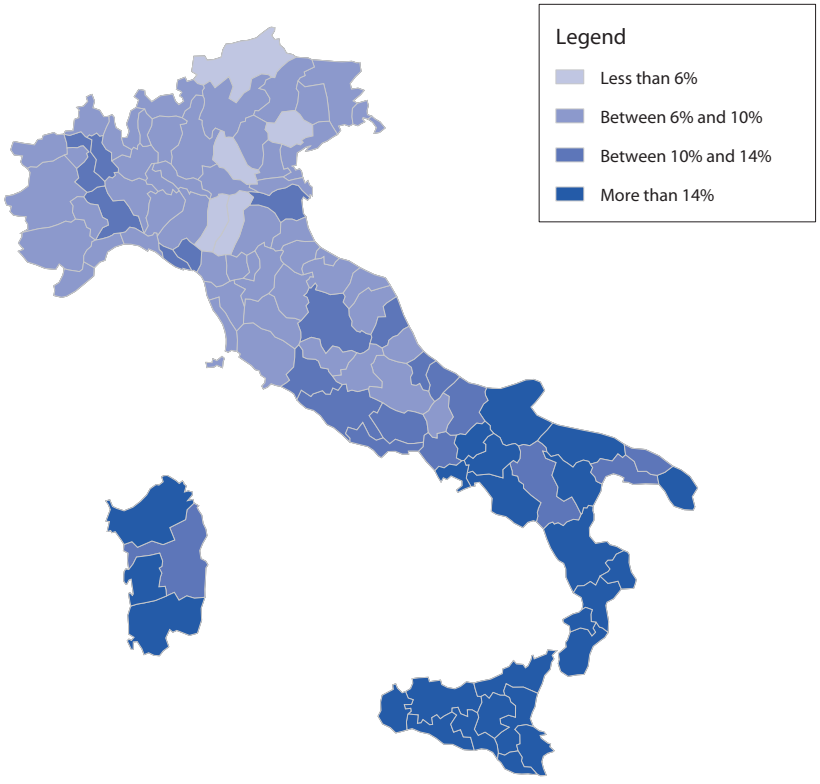
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.15. **Places to watch: Greatest increases in skills supply and/or demand, Italian sub-regions, 2001-2009**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Asti; Cagliari; Isernia; Latina; Lecco; Livorno; Matera; Padova; Pescara; Prato; Ravenna; Reggio nell'Emilia; Rieti; Teramo; Verbano-Cusio-Ossola	Benevento; Bergamo; La Spezia; Pistoia; Potenza; Viterbo	Ancona; Bolzano-Bozen; Caltanissetta; Caserta; Firenze; Forlí-Cesena; Imperia; Lucca; Modena; Pesaro e Urbino; Rimini; Salerno; Trieste; Udine; Vercelli

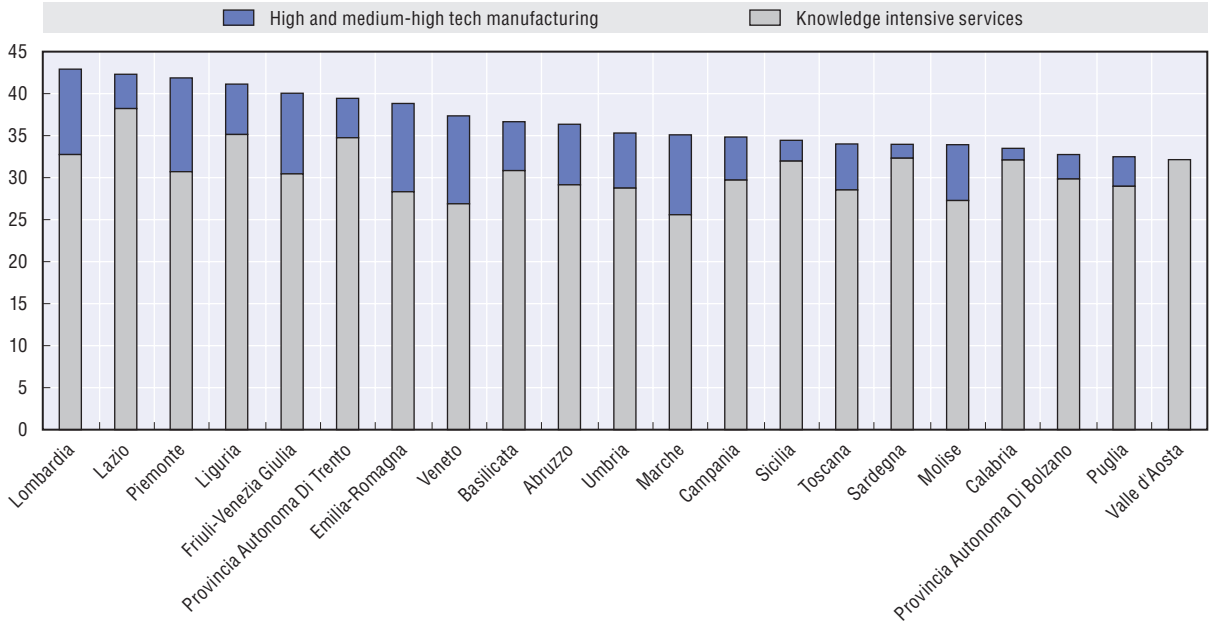
Figure 12.71. **Unemployment rate, Italian sub-regions, 2012**



Source: Labour Force Survey, ISTAT.

StatLink http://dx.doi.org/10.1787/888933137960

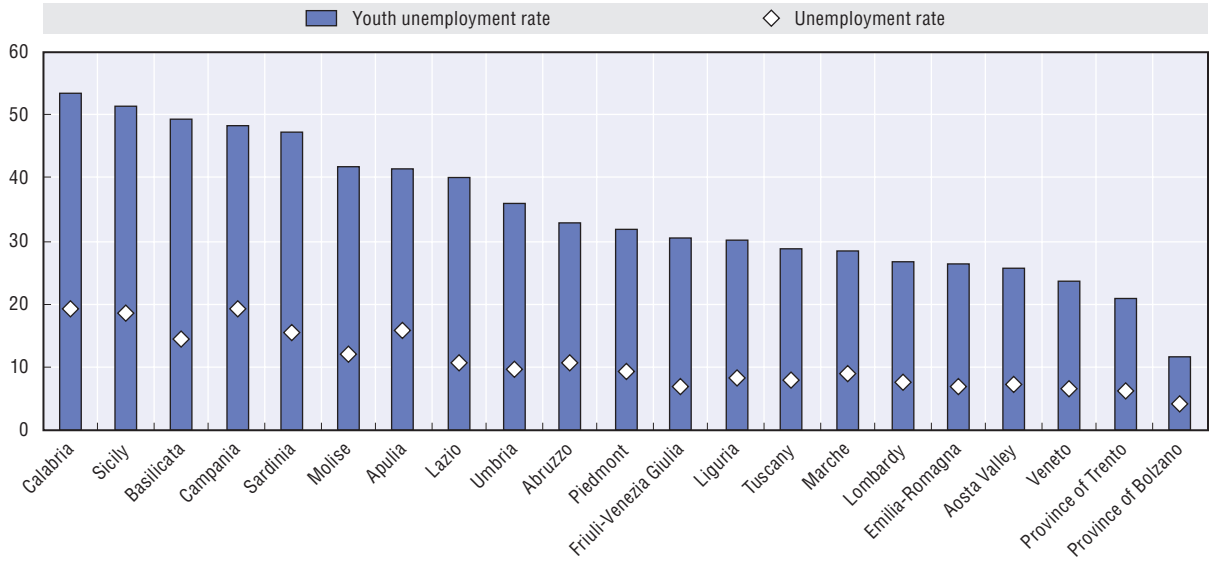
Figure 12.72. **Share of employment in the knowledge intensive services and high and medium-high tech manufacturing, Italian regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en.*

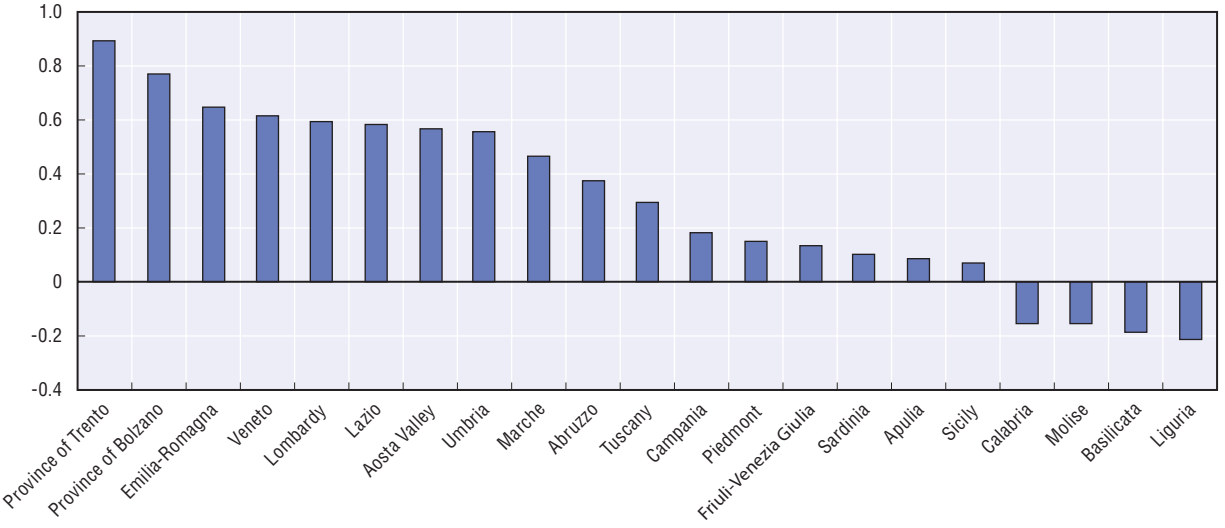
StatLink http://dx.doi.org/10.1787/888933137979

Figure 12.73. **Youth unemployment rate and unemployment rate, Italian regions, 2012**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en.*
StatLink *http://dx.doi.org/10.1787/888933137998*

Figure 12.74. **Average annual population change (%), Italian regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en.*
StatLink *http://dx.doi.org/10.1787/888933138017*

Japan

Skills supply and demand

Figure 12.75 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand across 47 prefectures in Japan. In 2010, 15 prefectures were in a "high skills equilibrium", where a high supply of skills (the percentage of people with post-secondary education) is matched by a high skills demand (the percentage of medium and high skills occupations and GVA per worker). These places include the most populated prefectures of Tokyo, Kanagawa, Osaka and Aichi. Seventeen prefectures, including Hokkaido, Aomori and Okinawa can be found in a "low skills equilibrium" where low skills supply is matched by low skills demand. Seven prefectures showed skills deficit where skills demand exceeds supply, and nine prefectures showed skills surplus.

Due to lack of comparable data, information on trends over time could not be included.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some places in high skills equilibrium can show relatively high unemployment rates. However, because unemployment rate is not available at the sub-regional level, comparisons cannot be done between the skills analysis and unemployment rates.

Unemployment and youth unemployment

Figures 12.76 and 12.78 show the unemployment and youth unemployment rate of the ten large regions of Japan. The national unemployment rate in 2013 was 4% – one of lowest among OECD countries. There are some regional disparities in unemployment across Japan. The lowest rate was 3.2% in Hokuriku and the highest was 4.6% in Kyushu-Okinawa region.

In 2013, youth unemployment was below 10% in all regions. It was highest in the Hokkaido region (9.5%) and lowest in Toukai (4.5%). On average it remains relatively low at 6.7% which is half of the OECD average.

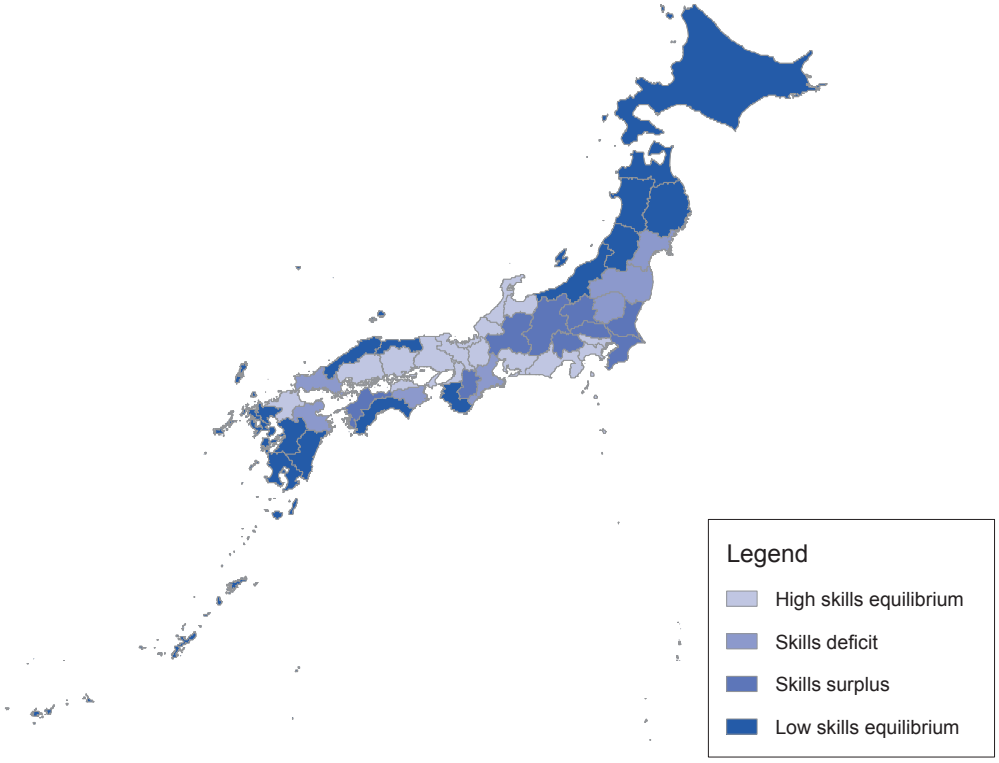
Research and Development

Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.77 shows R&D expenditure as % of GDP and R&D personnel as % of total employment between 2002-2009. Since 2002 expenditure has increased steadily reaching 3.4% of the national GDP in 2008. There was a small decrease following 2008; however employment in R&D as a percentage of total employment has remained stable over time.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.79 shows average annual population change between 1990-2012. During this period, five regions experienced population growth while five regions saw overall population decreases. The population growth in Southern-Kanto is the highest among the regions. This area includes the capital city of Tokyo, Yokohama and Chiba. Decreasing population was experienced in the northern (Tohoku) and western (Chugoku) parts of the main island as well as on the islands of Hokkaido and Shikoku.

Figure 12.75. **Skills supply and demand, Japanese sub-regions, 2010**



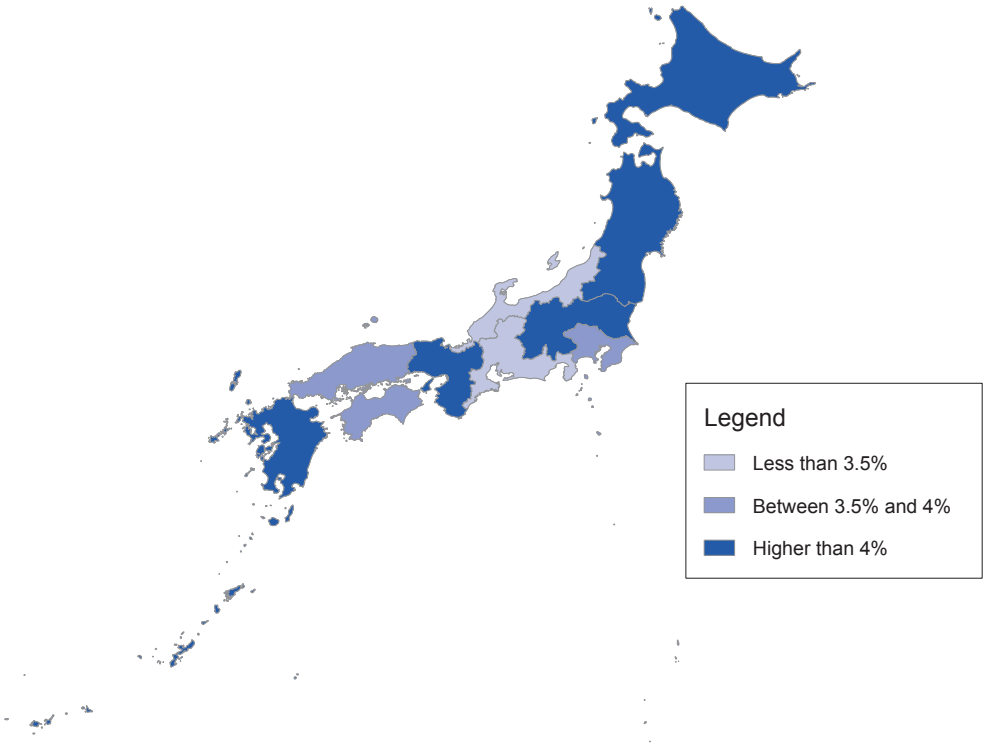
Source: Census and regional accounts, Statistics Bureau of Japan.

StatLink http://dx.doi.org/10.1787/888933138036

Definitions and methodology

Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

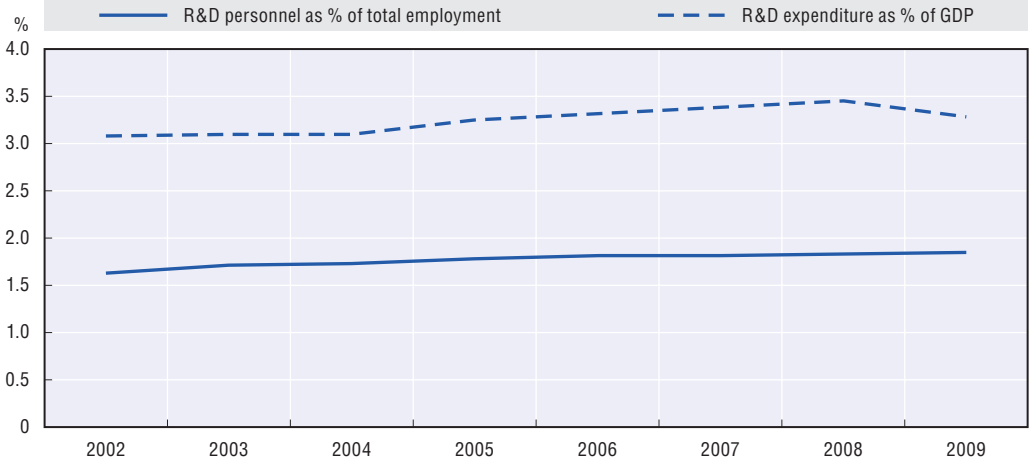
Figure 12.76. **Unemployment rate, Japanese regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933138055

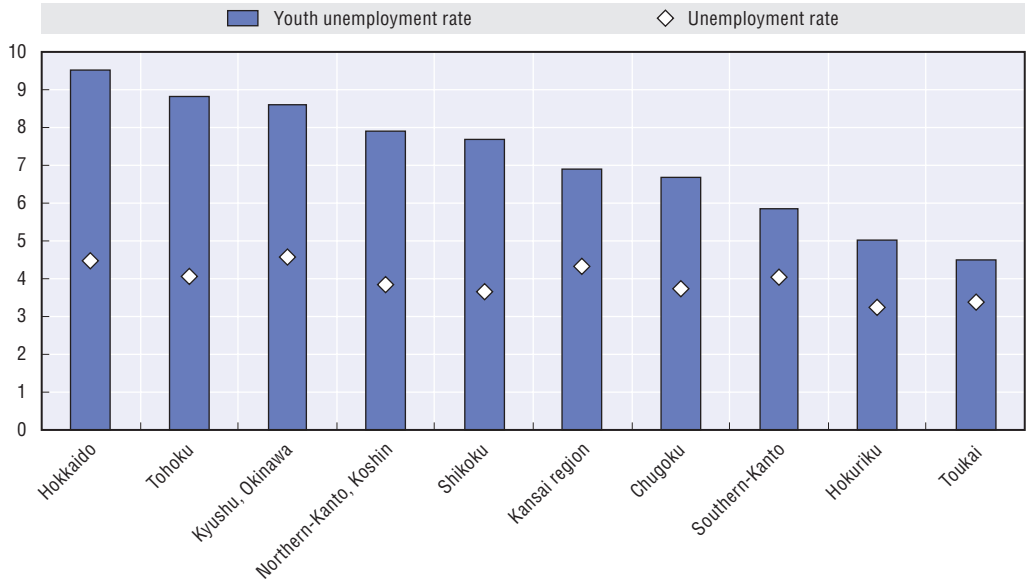
Figure 12.77. **Research and Development expenditure as % of GDP and personnel as % of total employment, Japan, 2002-2009**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933138074

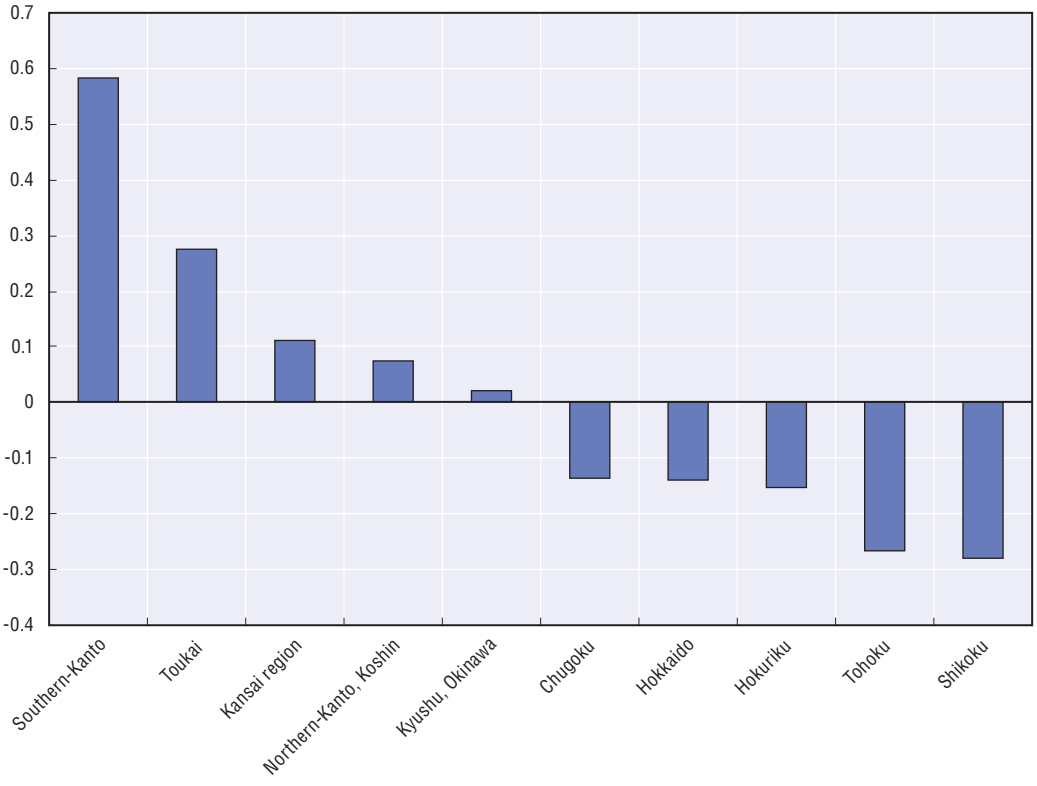
Figure 12.78. **Youth unemployment rate and unemployment rate, Japanese regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933138093

Figure 12.79. **Average annual population change (%), Japanese regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933138112

Korea

Skills supply and demand

Figure 12.80 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand across 16 sub-regions. In 2010, five sub-regions – Seoul, Gwangju, Daejeon, Ulsan and Gyeonggi-do – were in "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and GVA per worker). Six sub-regions were in a "low skills equilibrium" where a low supply of skills is matched by a low skills demand.

Data on trends has also been collected. Table 12.16 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2000 and 2010. Chungcheongbuk-do and Chungcheongnam-do showed the greatest increase in skills supply, while Incheon showed high increases in both skills supply and demand. The level of skills demand increased most in Ulsan and Daejeon. Daejeon moved towards a high skills equilibrium while Ulsan strengthened its position in high skills equilibrium.

It should be noted that the above tool does not provide an indicator of labour market inclusion. For example, Seoul is in high skills equilibrium, but also has the second highest unemployment rate in the country.

Unemployment and youth unemployment

Figure 12.81 shows unemployment for the Korean sub-regions in 2012. There is some regional variation across Korea – the highest rate was registered in Incheon (4.5%) while the lowest rate was in Jeju (1.6%). National unemployment was 3.2% in 2012 and 3.1% in 2013. These figures are much lower than the OECD average.

Youth unemployment rate has slightly decreased since 2000 but stood at around 10% in 2013. Data at the regional level is not available. Even though the figures are lower than the OECD average, youth unemployment is almost three times as high as the total unemployment rate.

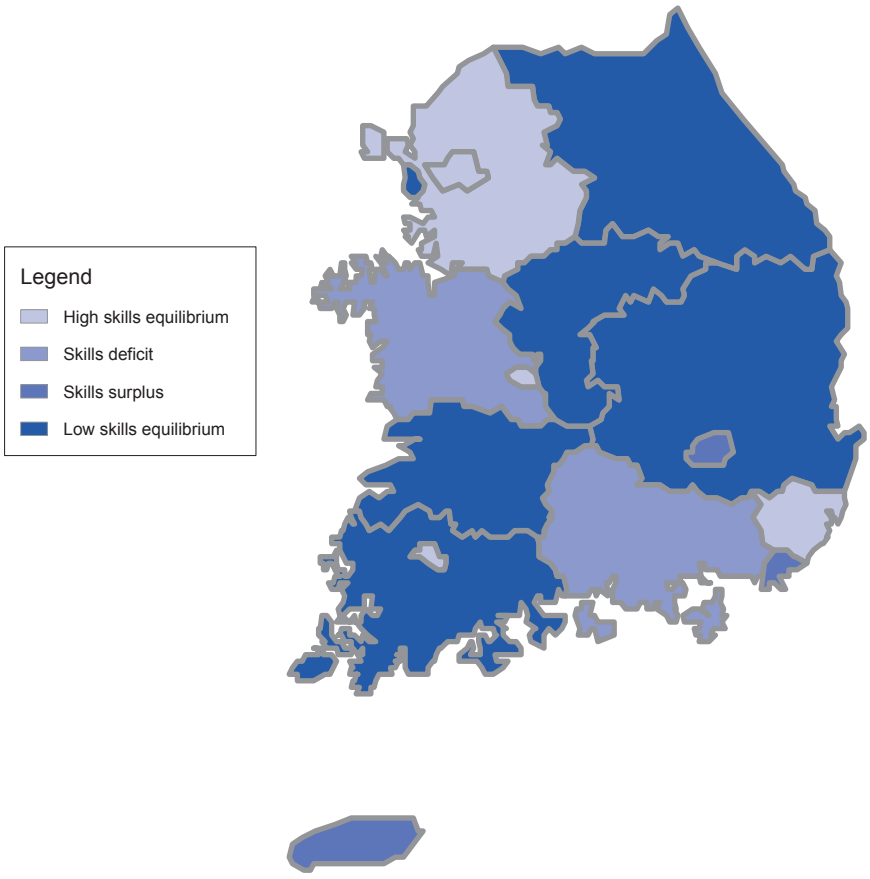
Research and Development

Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of regional data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.82 shows research and development activity between 2002-2010. Over this period it increased significantly in all the large regions of Korea. In 2010 personnel in R&D as of percentage of total employment was highest in Chungcheong (3.1%) and in the Capital Region (2.5%). The region of Jeju showed the largest increase in R&D during the analysed period, and it stood at 1.4% in 2010.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.84 shows trends in annual population growth between 1990-2012, which was on average 0.75%. The population increased in five of the regions in Korea, while it decreased in Gangwon and Jeolla. The Capital Region had the highest growth with an annual rate of 1.6%.

Figure 12.80. **Skills supply and demand, Korean sub-regions, 2010**



Source: Economically active population survey; Regional income database, Statistics Korea.

StatLink http://dx.doi.org/10.1787/888933138131

Definitions and methodology

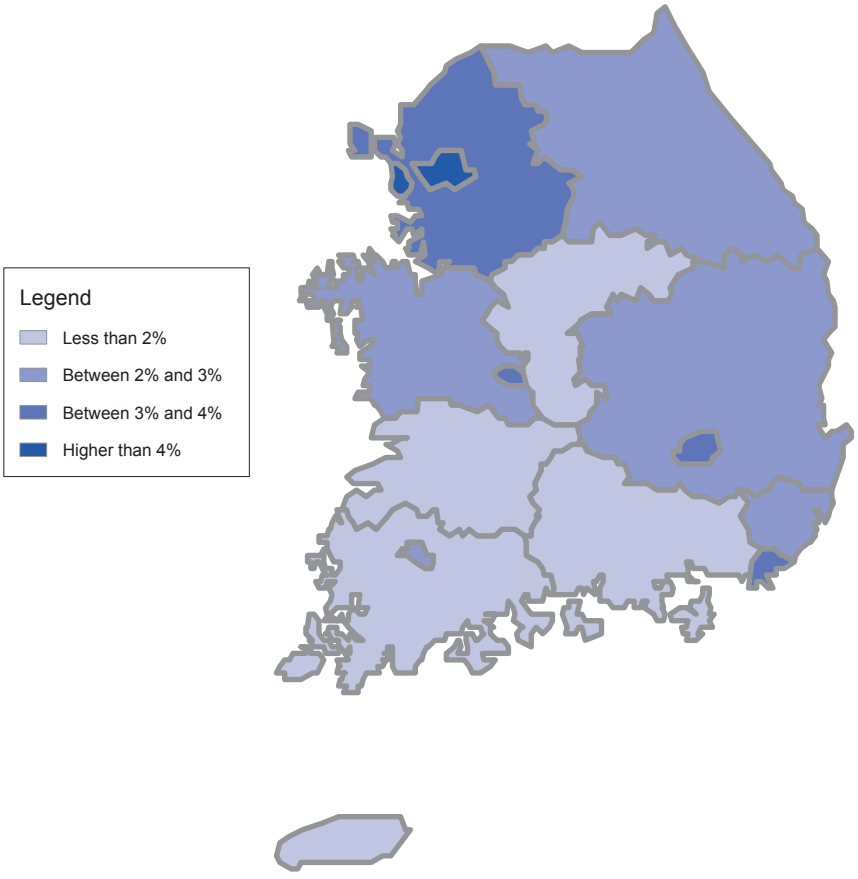
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.16. **Places to watch: Greatest increases in skills supply and/or demand, Korean sub-regions, 2000-2010**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Chungcheongbuk-do	Incheon	Daejeon
Chungcheongnam-do		Ulsan

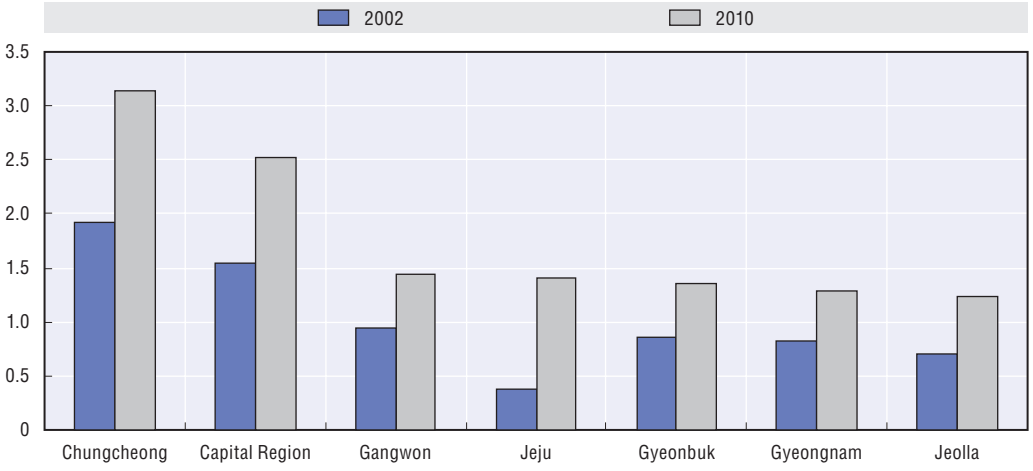
Figure 12.81. **Unemployment rate, Korean sub-regions, 2012**



Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en*.

StatLink http://dx.doi.org/10.1787/888933138150

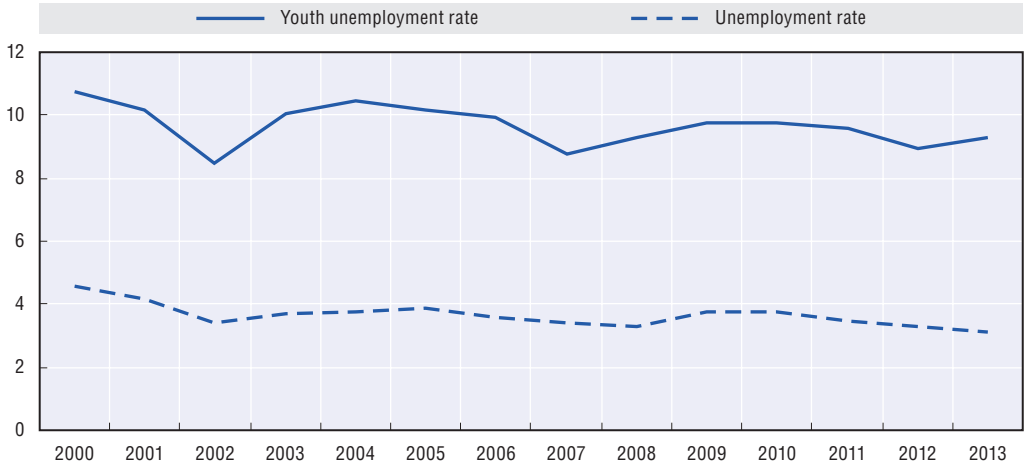
Figure 12.82. **Research and Development personnel as % of total employment, Korean regions, 2002 and 2010**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933138169

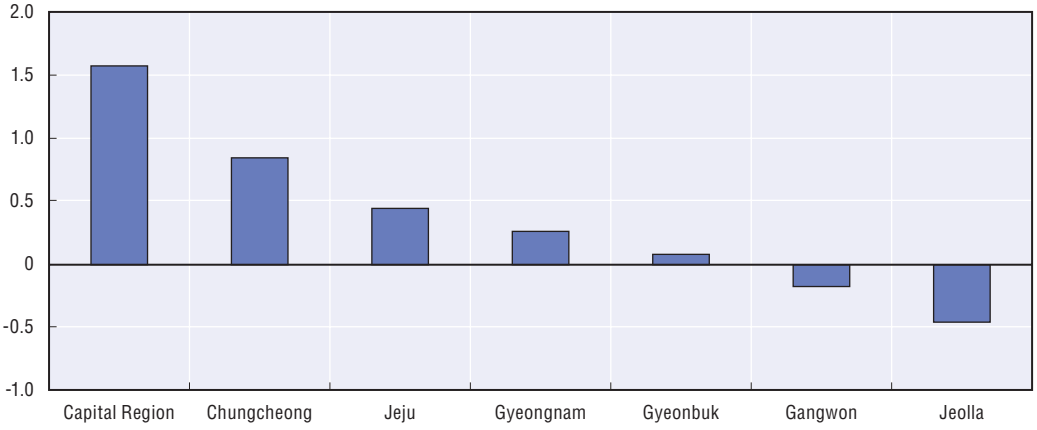
Figure 12.83. **Youth unemployment rate and unemployment rate, Korea, 2000-2013**



Source: OECD (2014), "Labour Market Statistics: Labour force statistics by sex and age: indicators", *OECD Employment and Labour Market Statistics* (database), *http://dx.doi.org/10.1787/data-00310-en*.

StatLink http://dx.doi.org/10.1787/888933138188

Figure 12.84. **Average annual population change (%), Korean regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933138207

Latvia

Skills supply and demand

Figure 12.85 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand in the six Latvian regions. In 2011, the three regions situated in the western part of the country were found to be in a "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and GVA per worker). The three regions in the East, are in a "low skills equilibrium", where a low skills demand is matched by low skills supply. Interestingly none of the regions was found in a situation of either skills deficit or skills surpluses.

Data on trends has also been collected. Table 12.17 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2007-2011. The Vidzeme region showed a significant increase in skills supply, while the Kurzeme region showed significant increase in skills demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion, although in the case of Latvia, no high skills equilibrium regions also showed relatively high unemployment rates.

Unemployment and youth unemployment

The unemployment rate varied between 8.8% in the Pieriga region and 17.3% in the Latgale region for 2013 (see Figure 12.86). The 2013 national unemployment rate was 12.1% which is higher than the OECD average. Although this rate has shown improvement since 2010, it is still almost double the rate (6.2%) registered in 2007.

In 2013, the youth unemployment rate in Latvia was around double the total unemployment (23% vs. 12%) – see Figure 12.88. Youth unemployment was relatively high (19.6%) in 2003, but was decreasing until 2007 (10.6%). During the crisis it increased, reaching a peak of 36.2% in 2010. Since then, it has decreased relatively quickly.

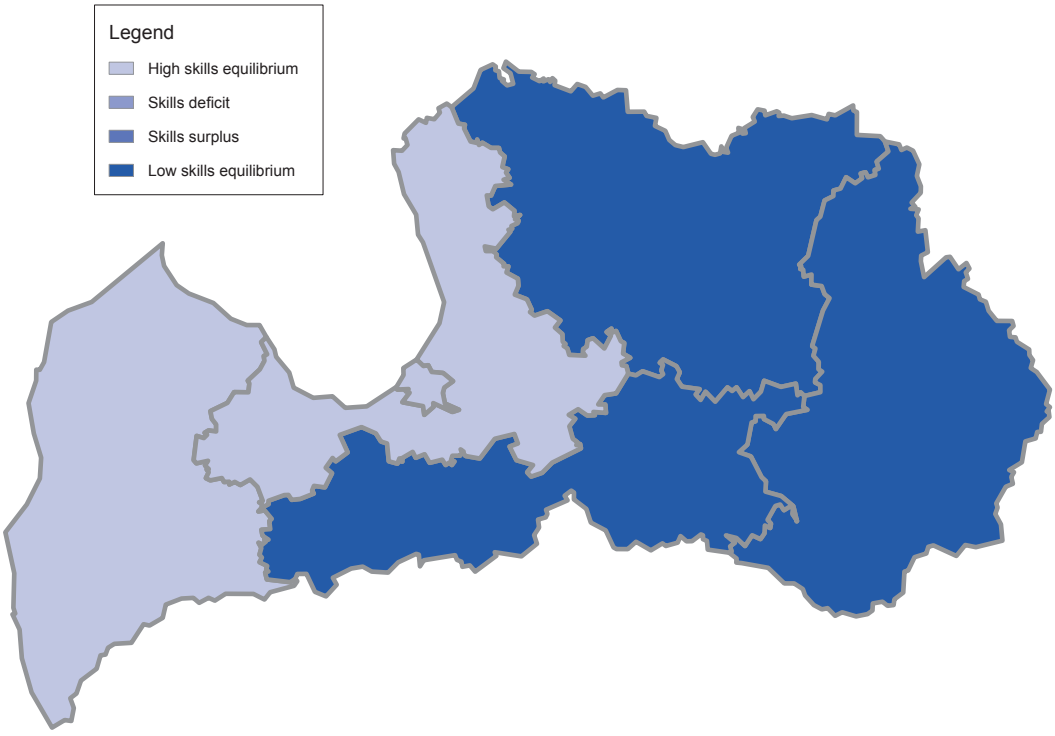
Research and Development

Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.87 shows the share personnel in R&D as share of total employment and R&D expenditure as percentage of GDP. Data was not available at the regional level for this indicator. Employment in R&D activities expanded between 2003-2012, increasing from 0.8% to 1.2%. R&D expenditure as percentage of GDP expanded from 0.4% to 0.8% between 2003 and 2006. It fluctuated between 2007 and 2009 and slightly increased in the following two years.

Demographic change

Demographic change can impact the local supply of skills. Between 2000 and 2014 the population in Latvia decreased from 2.4 million to 2 million. The greatest average annual change was in Latgale (-1.8%), followed by Vidzeme (-1.5%). The Pieriga region, the area around Riga, is the only region showing a positive average change, at 0.2% (see Figure 12.89).

Figure 12.85. **Skills supply and demand, Latvian sub-regions, 2011**



Source: Labour Force Survey and Regional Accounts, Central Statistical Bureau of Latvia.

StatLink http://dx.doi.org/10.1787/888933138226

Definitions and methodology

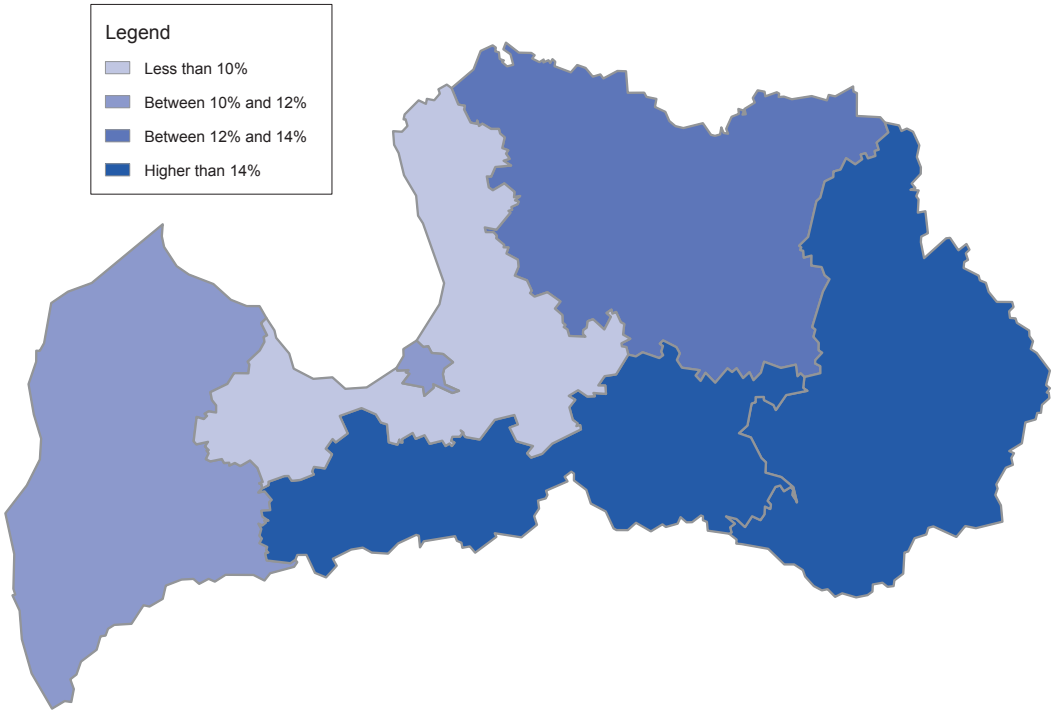
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.17. **Places to watch: Greatest increases in skills supply and/or demand, Latvian sub-regions, 2007-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Vidzeme region		Kurzeme region

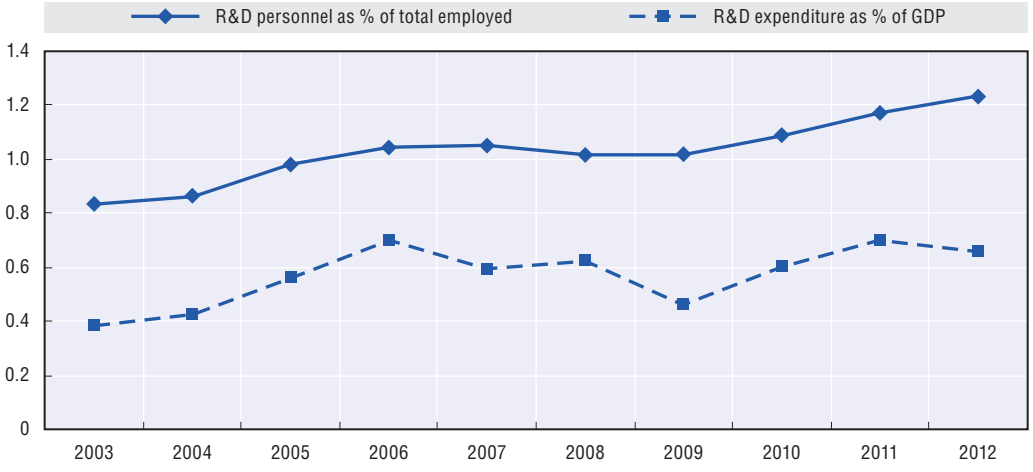
Figure 12.86. **Unemployment rate, Latvian sub-regions, 2013**



Source: Employment statistics, Central Statistical Bureau of Latvia.

StatLink http://dx.doi.org/10.1787/888933138245

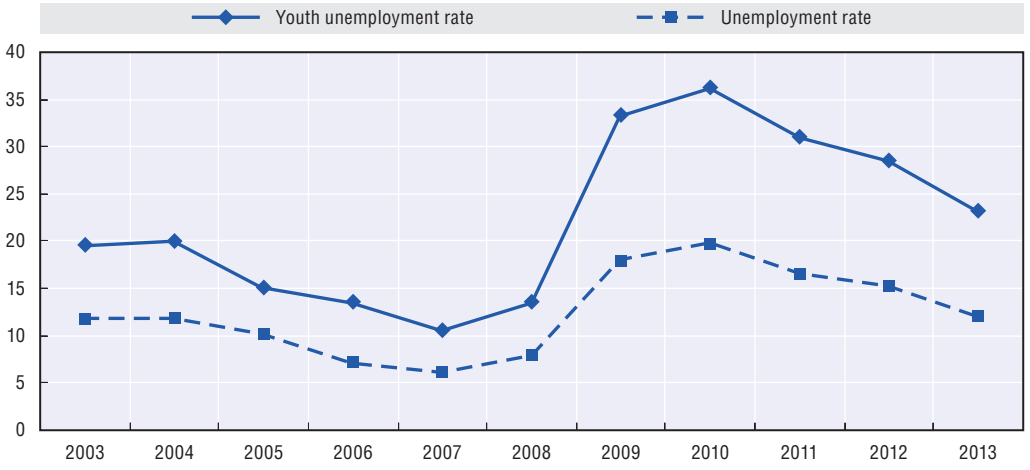
Figure 12.87. **Research and Development expenditure as % of GDP and personnel as % of total employment, Latvia, 2003-2013**



Source: Central Statistical Bureau of Latvia.

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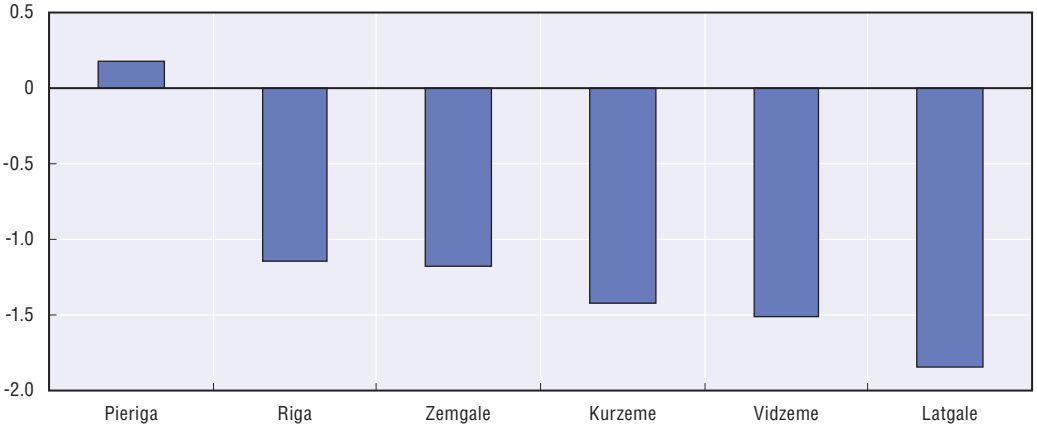
Figure 12.88. **Youth unemployment rate and unemployment rate, Latvia, 2003-2013**



Source: Employment statistics, Central Statistical Bureau of Latvia.

StatLink http://dx.doi.org/10.1787/888933138283

Figure 12.89. **Average annual population change (%), Latvian sub-regions, 2000-2014**



Source: Central Statistical Bureau of Latvia.

StatLink http://dx.doi.org/10.1787/888933138302

Lithuania

Skills supply and demand

Figure 12.90 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand in the 10 counties of Lithuania. In the 2011, three counties were found in a situation of "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high demand for skills (percentage of medium and high skills occupations and GVA per worker). High skills equilibrium could be found in Vilnius, Kaunas and Klaipeda counties. Another four counties – Alytus, Marijampole, Panevezys and Taurage – were in a "low skills equilibrium", where a low supply of skills is matched by a low demand for skills.

Due to lack of comparable data, information on trends over time could not be included.

It should be noted that the above tool does not provide an indicator of labour market inclusion, although in the case of Lithuania, no high skills equilibrium regions also showed relatively high unemployment rates.

Unemployment and youth unemployment

Figure 12.91 shows the unemployment rate in the ten counties of Lithuania. Overall the unemployment rate has been decreasing since 2010 by around 2 percentage points annually and the national rate was 11.8% in 2013. This figure is higher than the OECD average. Regional disparities can be noted, with the unemployment rate varying between 7.4% in Klaipeda county and 19.8% in Utena county.

Youth unemployment similarly shows a slow improvement since 2010 and was at 21.9% in 2013 (see Figure 12.93). Overall the youth unemployment rate is around double the total unemployment rate with strong variations among counties. The lowest rate was again registered in Klaipeda county at 13%, while it was highest in Utena county at 38.5%.

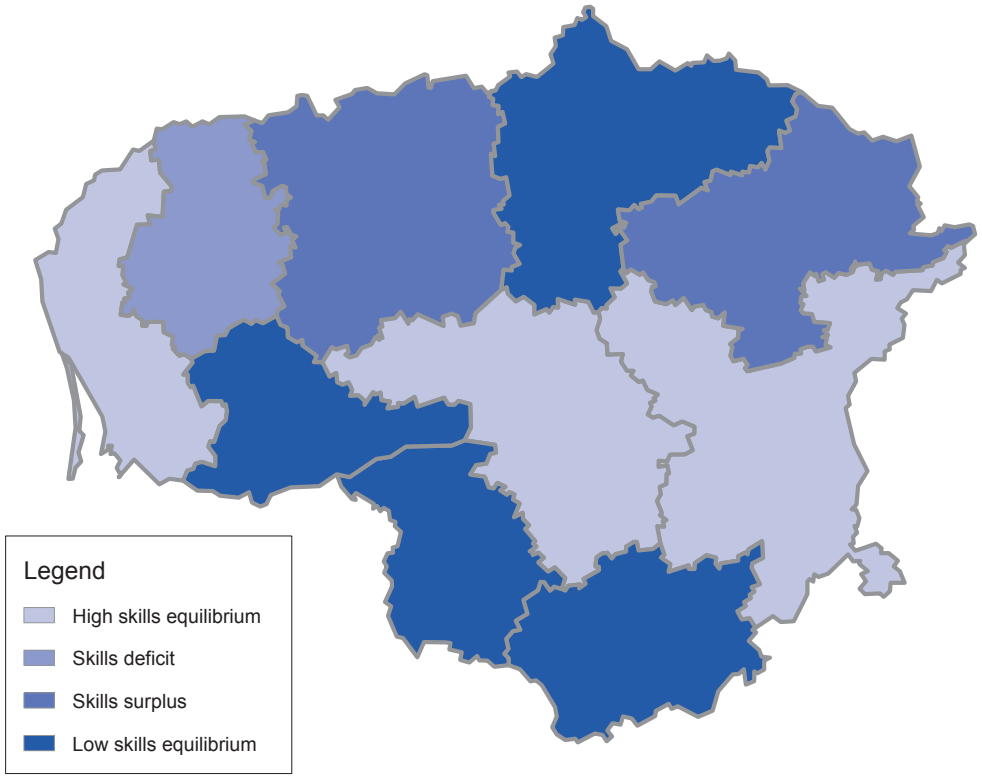
Research and Development

Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.92 shows the prevalence of R&D activities in the labour market and within GDP expenditures. Between 2006-2012, personnel in R&D as percentage of total employment increased overall, despite some years of stagnation between 2007-2010. At the end of 2012, 1.5% of the total workforce worked in this sector, which is a 0.5 percentage point improvement since 2006. R&D expenditure as percentage of GDP remained relatively constant in the same period.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.94 shows average annual population change between 2002 and 2013. None of Lithuania's ten counties registered a population increase within the analysed period, with a national annual change of -1.3%. The demographic decline was slowest in the capital county of Vilnius at an average of 0.4% annually, while it was fastest in Utena county at 1.9% annually.

Figure 12.90. **Skills supply and demand, Lithuanian sub-regions, 2011**



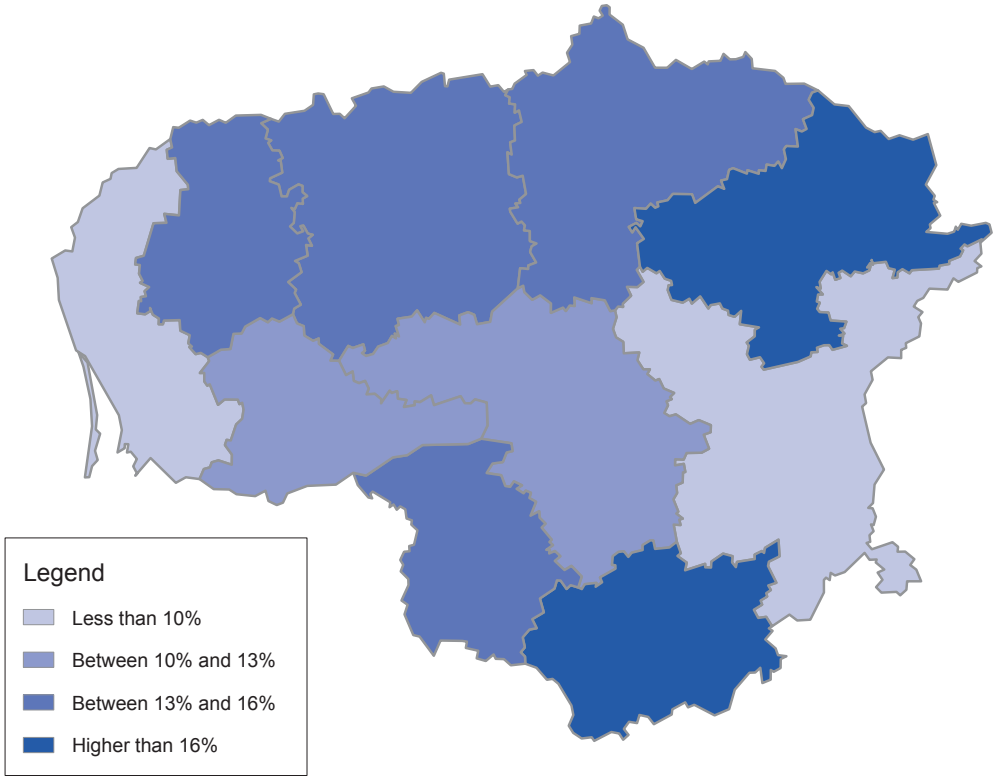
Source: Labour Force Survey and Regional Accounts, Statistics Lithuania.

StatLink http://dx.doi.org/10.1787/888933138321

Definitions and methodology

Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

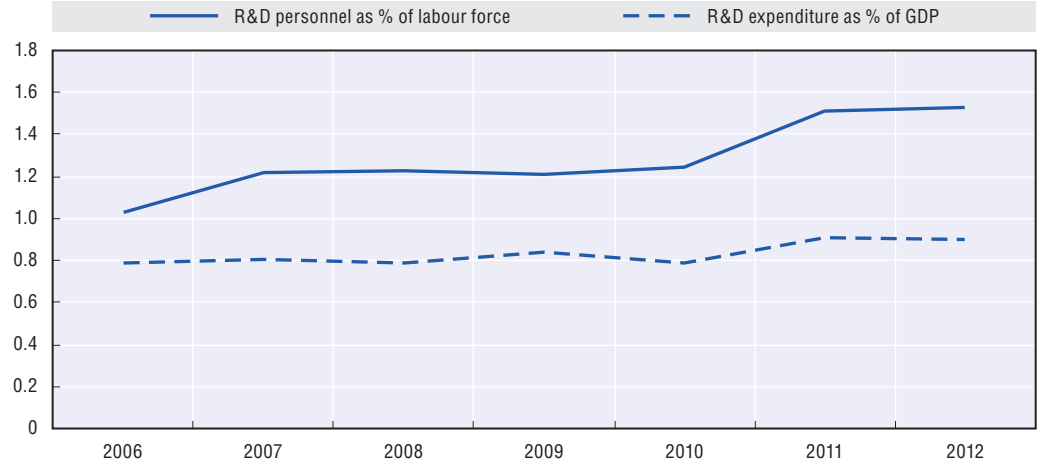
Figure 12.91. **Unemployment rate, Lithuanian sub-regions, 2013**



Source: Labour Force Survey, Statistics Lithuania.

StatLink http://dx.doi.org/10.1787/888933138340

Figure 12.92. **Research and Development expenditure as % of GDP and personnel as % of total employment, Lithuania, 2006-2012**



Source: Statistics Lithuania.

StatLink http://dx.doi.org/10.1787/888933138359

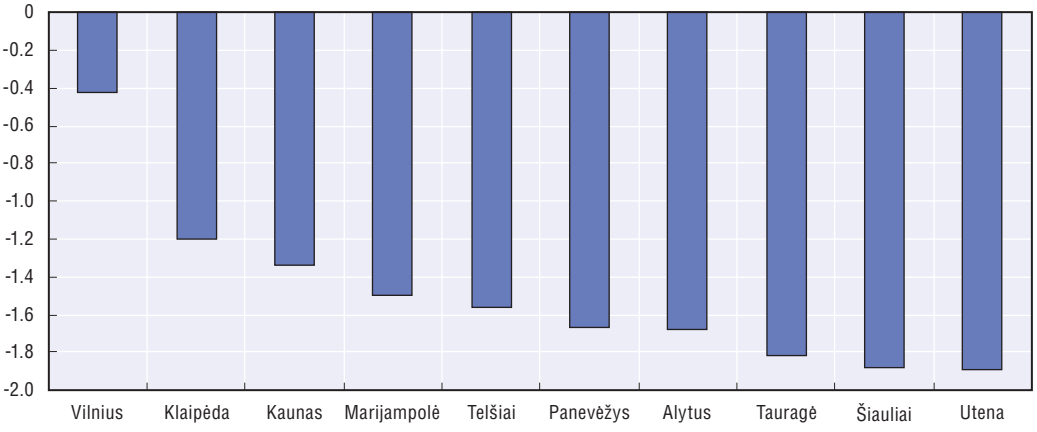
Figure 12.93. **Youth unemployment rate and unemployment rate, Lithuanian sub-regions, 2013**



Source: Labour Force Survey, Statistics Lithuania.

StatLink http://dx.doi.org/10.1787/888933138378

Figure 12.94. **Average annual population change (%), Lithuanian sub-regions, 2002-2013**



Source: Statistics Lithuania.

StatLink http://dx.doi.org/10.1787/888933138397

Mexico

Skills supply and demand

Figure 12.95 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2010 fourteen federal entities were in "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and wages). The same number of regions could be found in "low skills equilibrium", where a low supply of skills is matched by a low demand.

Data on trends has also been collected. Table 12.18 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2005 and 2010. Five federal entities have increased their skills supply and five their skills demand. Only Campeche has increased both.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Tamaulipas and Querétaro, also show relatively high unemployment rates.

Unemployment and youth unemployment

In 2013, high unemployment is experienced mainly in the northern and central regions (Figure 12.96), particularly in the Federal District (6.9%) and in Tamaulipas (6.3%). The only region with a relatively high unemployment rate in the south-eastern part of the country is Tabasco (6.9%). The national unemployment rate in 2013 was 5% which is 3 percentage points lower than the OECD average.

Youth unemployment rates (Figure 12.98) are on average twice as high as total unemployment rates, with Federal District and Tamaulipas having the highest rates at around 14%. Oaxaca, Chiapas and Guerrero – all located in the south east – show the lowest rates of youth unemployment (between 3-5%).

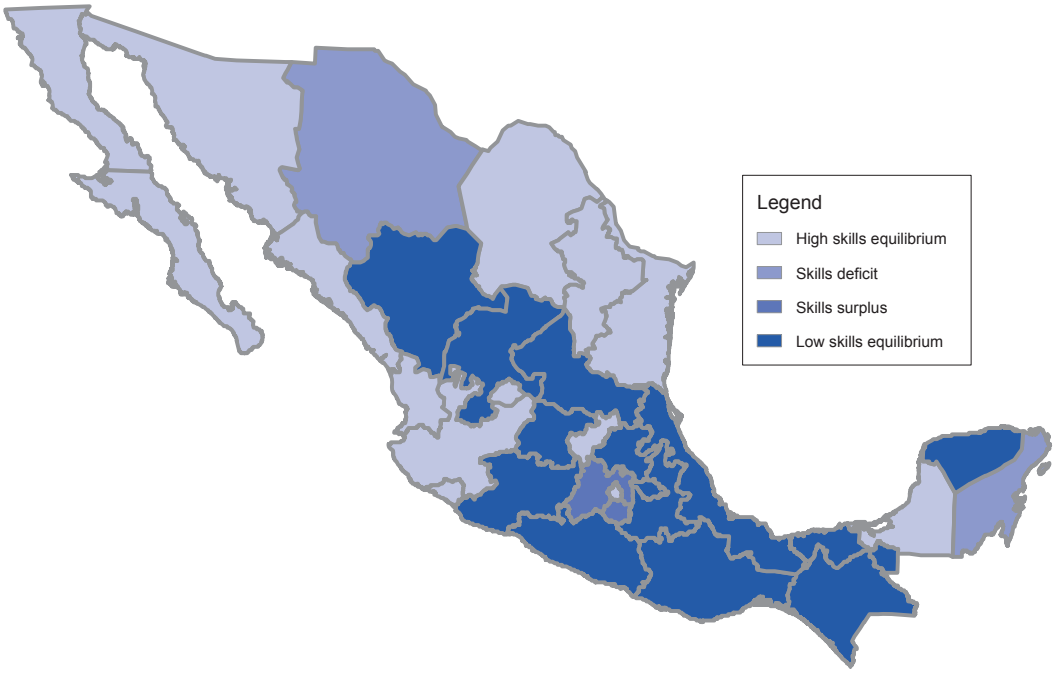
Research and Development

Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.97 shows gross domestic expenditure on R&D between 1993-2011 (data was not available at the regional level). Although there have been some fluctuations, gross expenditures on R&D have been steadily increasing since 1993.

Demographic change

Demographic change can impact the local supply of skills. Looking at long-term population trends (Figure 12.99), 27 out of 32 federal entities have increased their population by at least 1% annually in the last twenty years. Quintana Roo has grown at an extraordinary pace in recent years, and its population expanded by 7.8% annually.

Figure 12.95. **Skills supply and demand, Mexican regions, 2010**



Source: Labour Force Survey, Instituto Nacional de Estadística y Geografía (INEGI).

StatLink http://dx.doi.org/10.1787/888933138416

Definitions and methodology

Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.18. **Places to watch: Greatest increases in skills supply and/or demand, Mexican regions, 2005-2010**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Colima	Campeche	Baja California Sur
Querétaro		Chiapas
Quintana Roo		Oaxaca
Tabasco		Tlaxcala
Yucatán		Veracruz de Ignacio de la Llave

Figure 12.96. **Unemployment rate, Mexican regions, 2013**

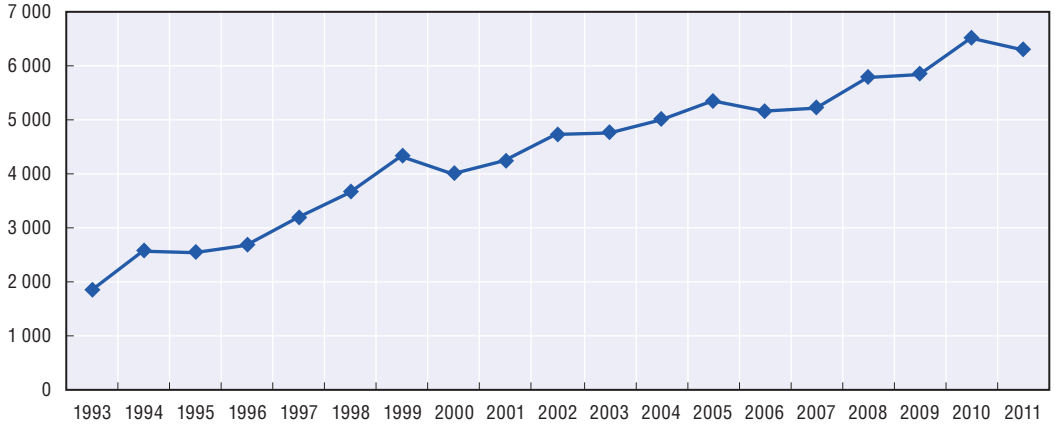


Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933138435

Figure 12.97. **Gross domestic expenditure on Research and Development, Mexico, 1993-2011**

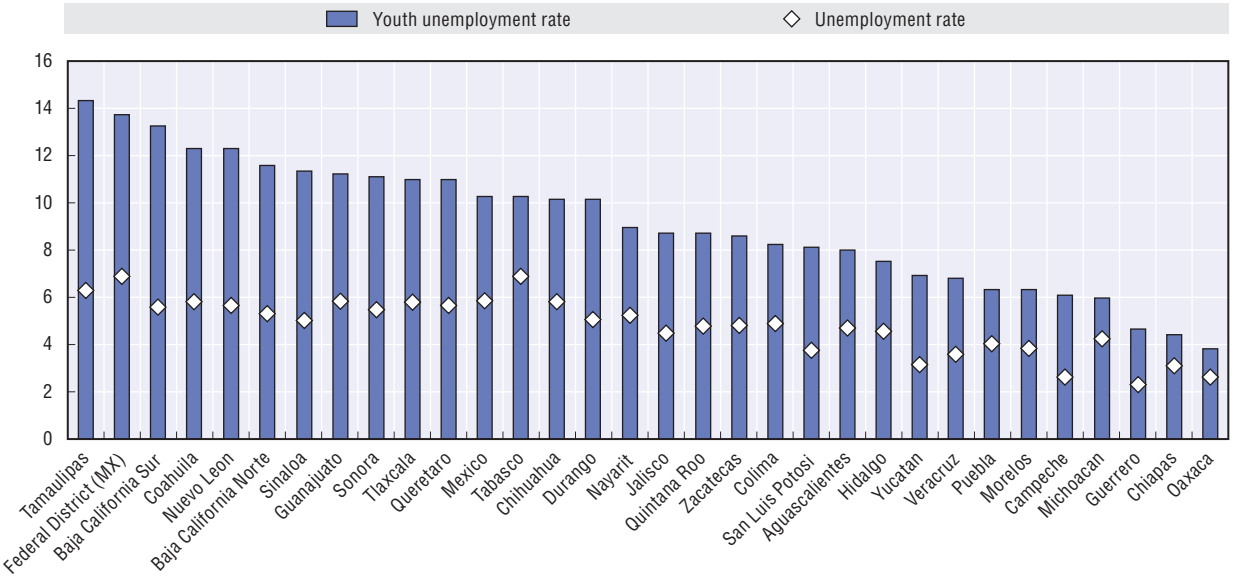
Million dollars, 2005 constant prices



Source: OECD (2012), "Research and Development Statistics: Gross domestic expenditure on R-D by sector of performance and source of funds", *OECD Science, Technology and R&D Statistics* (database), *http://dx.doi.org/10.1787/data-00189-en*.

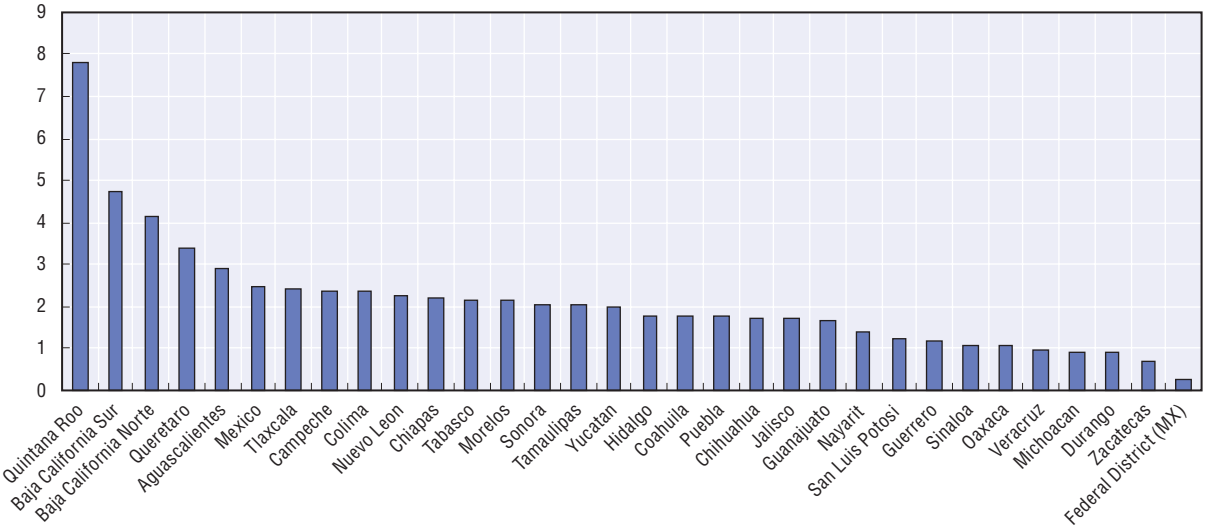
StatLink http://dx.doi.org/10.1787/888933138454

Figure 12.98. **Youth unemployment rate and unemployment rate, Mexican regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.
StatLink *http://dx.doi.org/10.1787/888933138473*

Figure 12.99. **Annual average population change (%), Mexican regions 1990-2010**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.
StatLink *http://dx.doi.org/10.1787/888933138492*

Netherlands

Skills supply and demand

Figure 12.100 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2010 five sub-regions fell into a "high skills equilibrium" where high skills supply (percentage of people with post-secondary education) is matched by high skills demand (percentage of medium and high skills occupations and GVA per worker). These regions are Utrecht, Noord-Holland, Zuid-Holland (the area of Rotterdam), Groningen and Noord-Braabant. Six regions fell into a "low skills equilibrium", where a low skills supply is matched by low skills demand.

Data on trends has also been collected. Table 12.19 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2000-2010. Over this period, Flevoland increased its skills supply, Zeeland its skills demand and Groningen increased both skills supply and demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Groningen and Zuid-Holland, also show relatively high unemployment rates.

Unemployment and youth unemployment

Figure 12.101 shows the unemployment rate for Dutch sub-regions in 2012. The national rate was 5.3% and it was highest in Flevoland (6.6%) and lowest in Zeeland (3.1%). In 2013, the national unemployment rate was 6.7% which is lower than the OECD average.

The national youth unemployment rate was 11% in 2013 and it has increased significantly since 2008. Among the regions, the Northern Netherlands has the highest youth unemployment rate, at 11.8%. The other regions have slightly lower rates, but all above 10%. The difference across regions is not very significant in the Netherlands (see Figure 12.103).

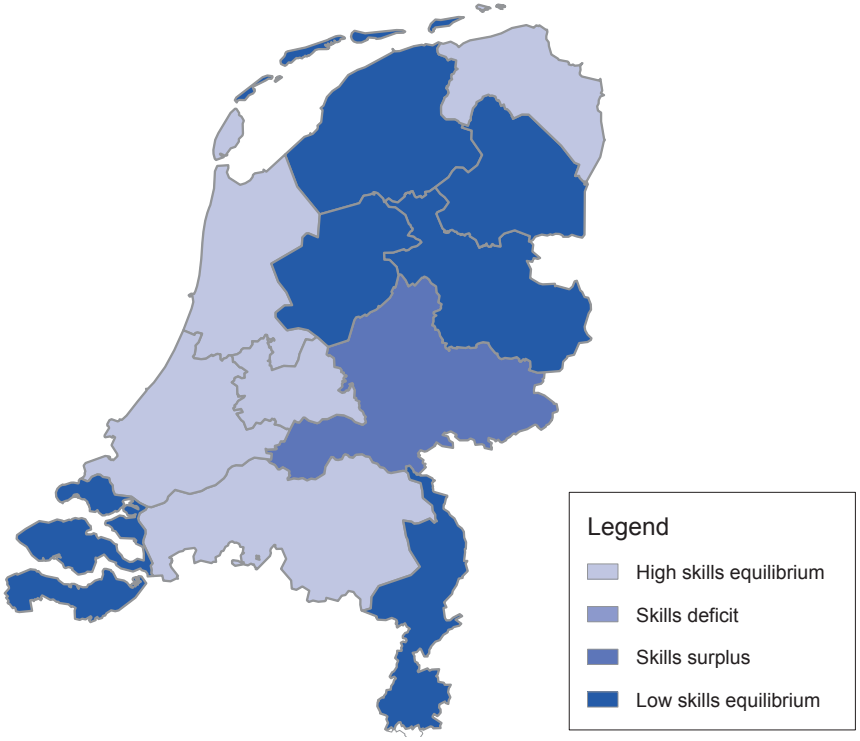
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. In Western Netherlands, which comprises the four largest Dutch cities, 46% of the total workforce works in knowledge intensive services. The Northern and Eastern regions are at 40%. Employment in high and medium-high tech manufacturing is relatively low in all regions and varies between 2.4% in Western Netherlands and 5.7% in Southern Netherlands.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.104 shows trends in annual population growth between 1990-2012, which averaged 0.6% across all regions. All the regions in the Netherlands experienced a population increase. Northern Netherlands had the lowest annual growth rate (0.35%) while the Eastern Netherlands had the fastest rate (0.8%).

Figure 12.100. **Skills supply and demand, Dutch sub-regions, 2010**



Source: Labour Force Survey and regional accounts, Statistics Netherlands.

StatLink http://dx.doi.org/10.1787/888933138511

Definitions and methodology

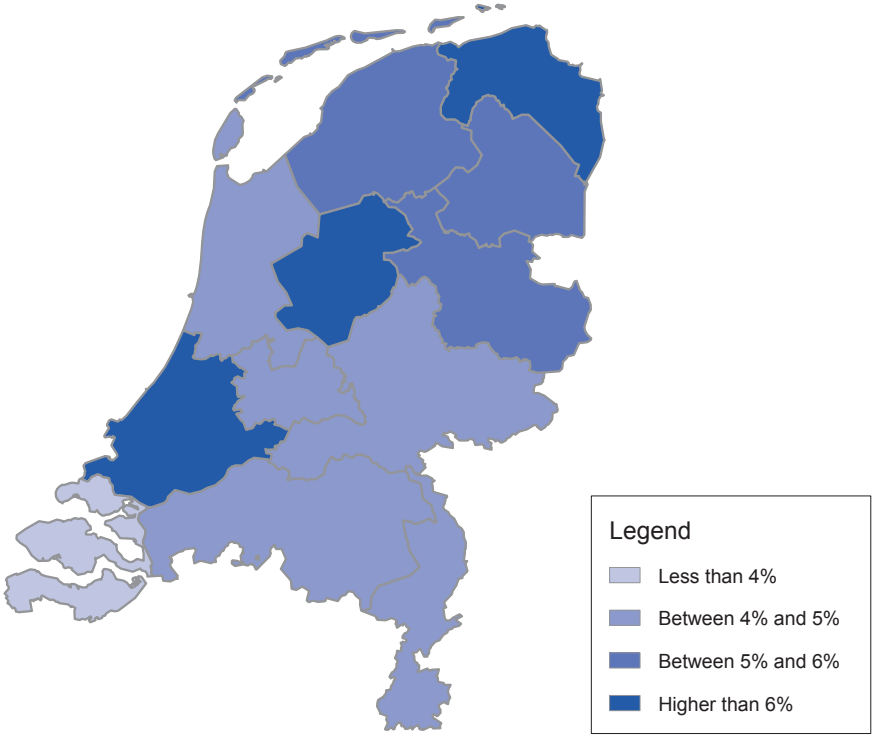
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.19. **Places to watch: Greatest increases in skills supply and/or demand, Dutch sub-regions, 2000-2010**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Flevoland	Groningen	Zeeland

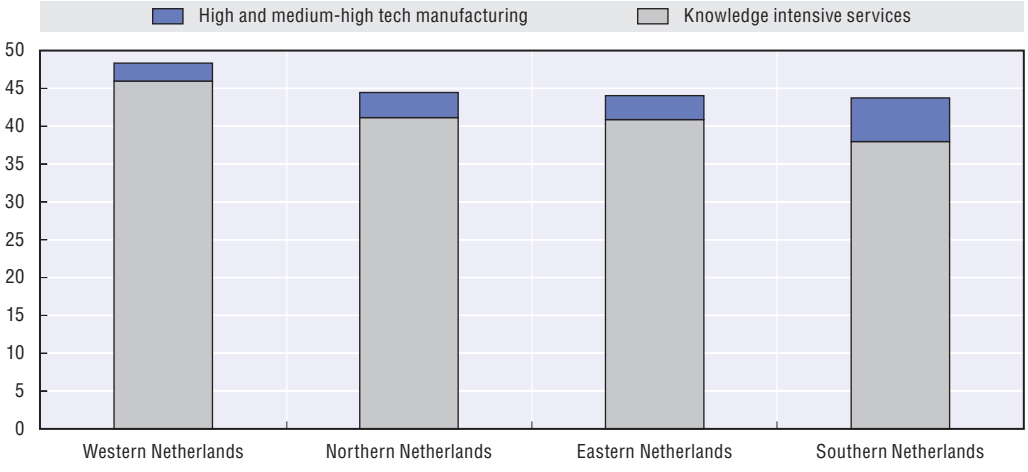
Figure 12.101. **Unemployment rate, Dutch sub-regions, 2012**



Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en*.

StatLink http://dx.doi.org/10.1787/888933138530

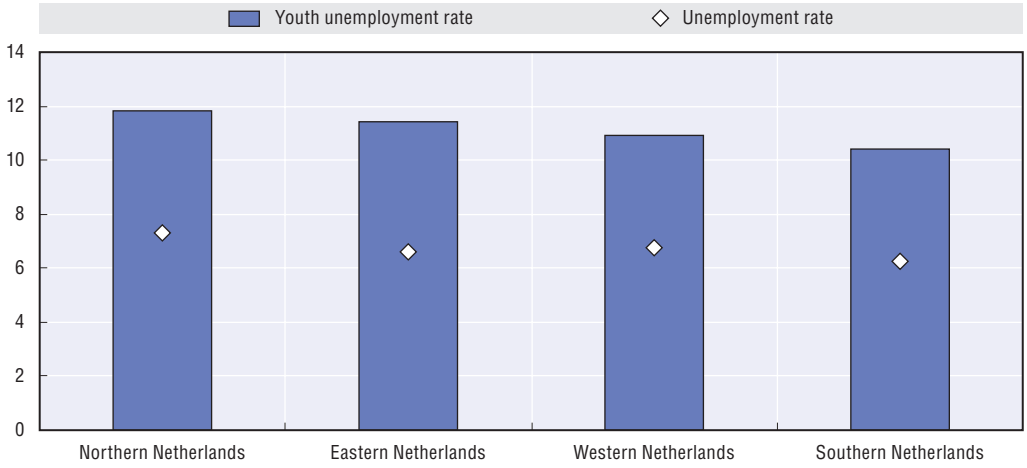
Figure 12.102. **Share of employment in knowledge intensive services and high and medium-high tech manufacturing, Dutch regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933138549

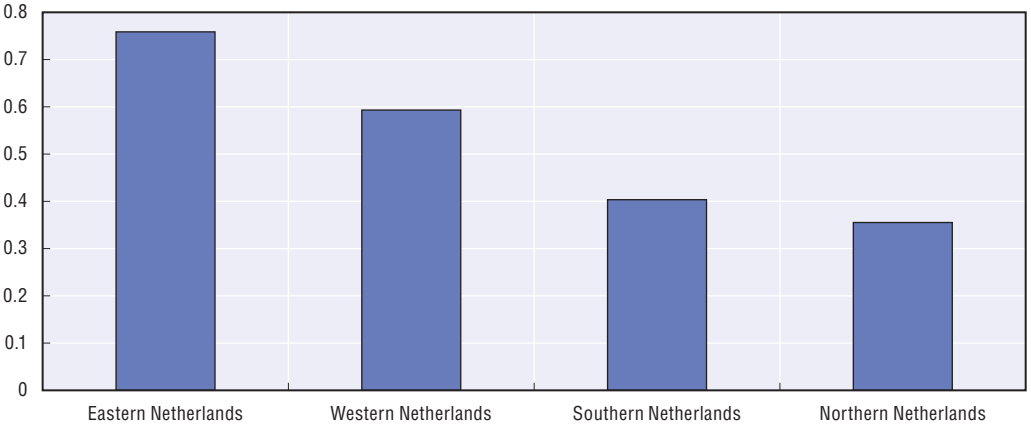
Figure 12.103. **Youth unemployment rate and unemployment rate, Dutch regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933138568

Figure 12.104. **Average annual population change (%), Dutch regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933138587

New Zealand

Skills supply and demand

Figure 12.105 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2013 five sub-regions – Wellington, Auckland, Waikato, Canterbury and Otago – were in "high skills equilibrium" where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and average weekly income). Taranaki was in a skills deficit, while Manawatu-Wanganui was in a skills surplus. Northland, Gisborne, Hawke's Bay, the West Coast and Southland were in "low skills equilibrium", where low skills supply is matched by low skills demand.

Data on trends has also been collected. Table 12.20 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2006-2013. Bay of Plenty and Northland had an increase in both skills supply and demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion, although in the case of New Zealand, no high skills equilibrium regions also showed relatively high unemployment rates.

Unemployment and youth unemployment

Figures 12.106 and 12.107 show trends in unemployment and youth unemployment. Unemployment has almost doubled since 2007, reaching 6.2% in 2013 which is still lower than the OECD average. On the regional level the highest unemployment rate in 2012 was registered in Northland sub-region (8.9%) while the lowest was in Taranaki (4.4%).[1]

Youth unemployment has sharply increased between 2008-2010 reaching a peak of 17.6%. Since then it is showing some improvement. By the end of 2013, it was 15.8% which is around the OECD average (16%). Regional youth unemployment in 2012 was higher on the North Island (17.8%) compared to the South Island (13.7%).

Research and Development

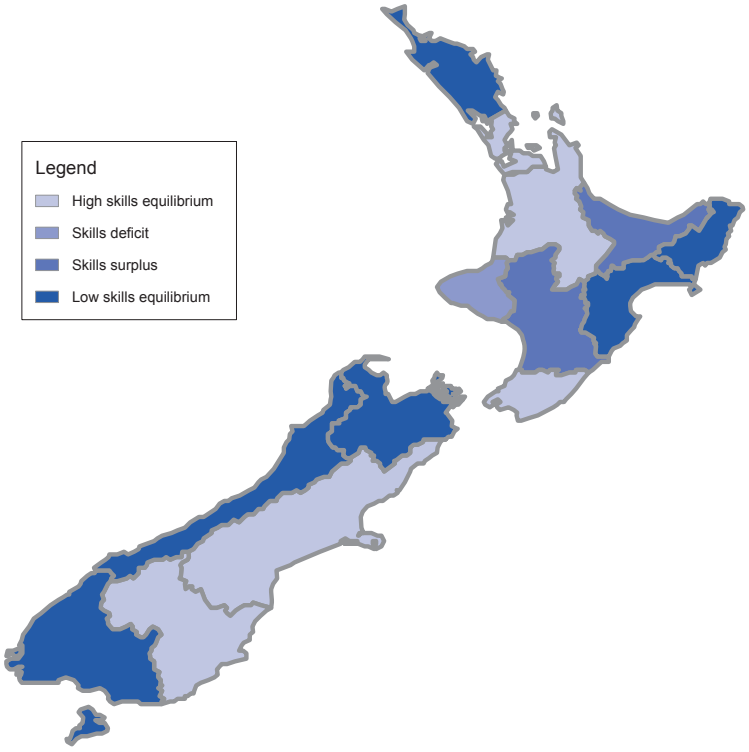
Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.108 shows gross domestic expenditure on R&D between 1990-2011 (data was not available at the regional level). After a period of relative stagnation at the beginning of the years 1990s, R&D expenditures have steadily increased. It has more than doubled over the analysed period.

Demographic change

Demographic change can impact the local supply of skills. The population of New Zealand has increased by approximately one million people, which represents an overall 30% growth rate between 1991-2012. The sub-region of Auckland increased fastest (by 2.8% annually), followed by Bay of Plenty with an average annual rate of 1.6%. The West Coast and Southland experienced a decrease (-0.2% and -0.4% respectively) (see Figure 12.109).

1. Data on regional unemployment rate could not be included for West Coast and Hawke's Bay sub-regions.

Figure 12.105. **Skills supply and demand, New Zealand sub-regions, 2013**



Source: Census and regional accounts, Statistics New Zealand.

StatLink http://dx.doi.org/10.1787/888933138606

Definitions and methodology

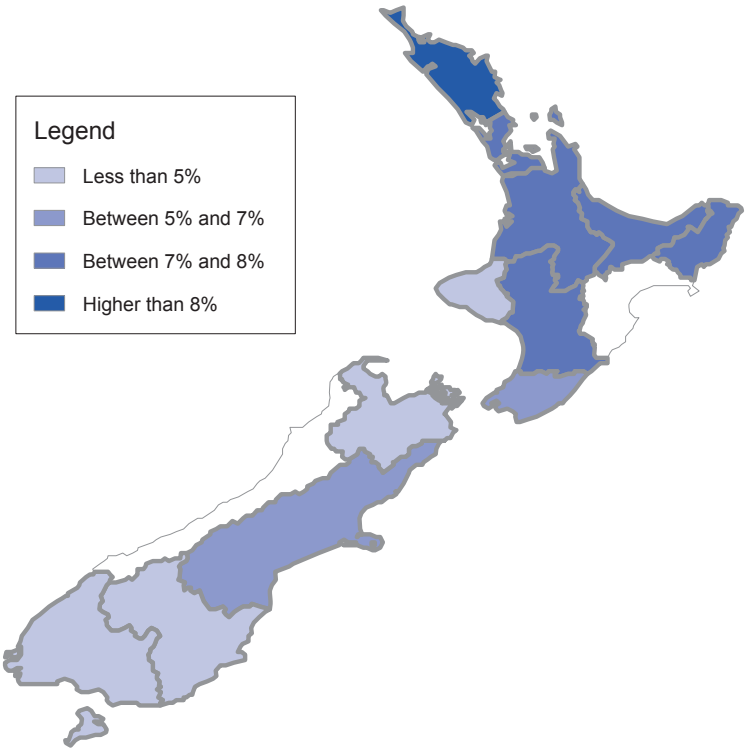
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.20. **Places to watch: Greatest increases in skills supply and/or demand, New Zealand sub-regions, 2006-2013**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Gisborne	Bay of Plenty	Wellington
	Northland	

Figure 12.106. **Unemployment rate, New Zealand sub-regions, 2012**

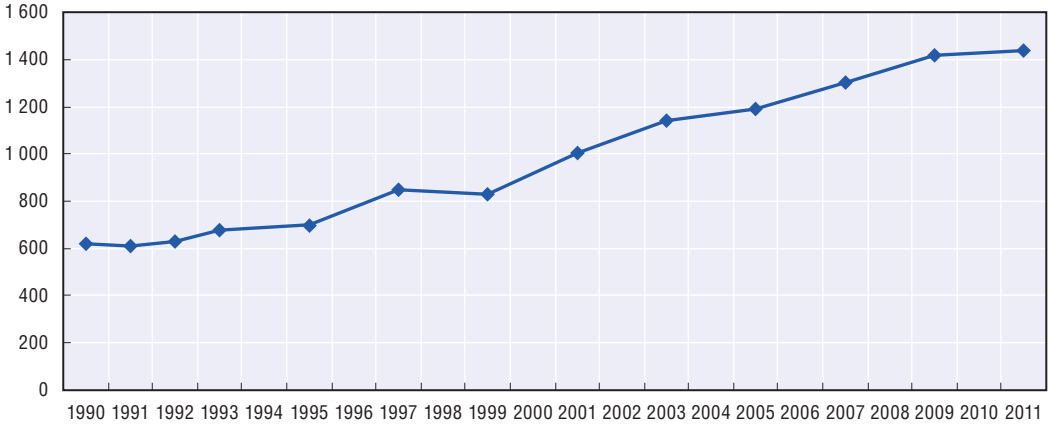


Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en*.

StatLink http://dx.doi.org/10.1787/888933138625

Figure 12.107. **Gross domestic expenditure on Research and Development, New Zealand, 1990-2011**

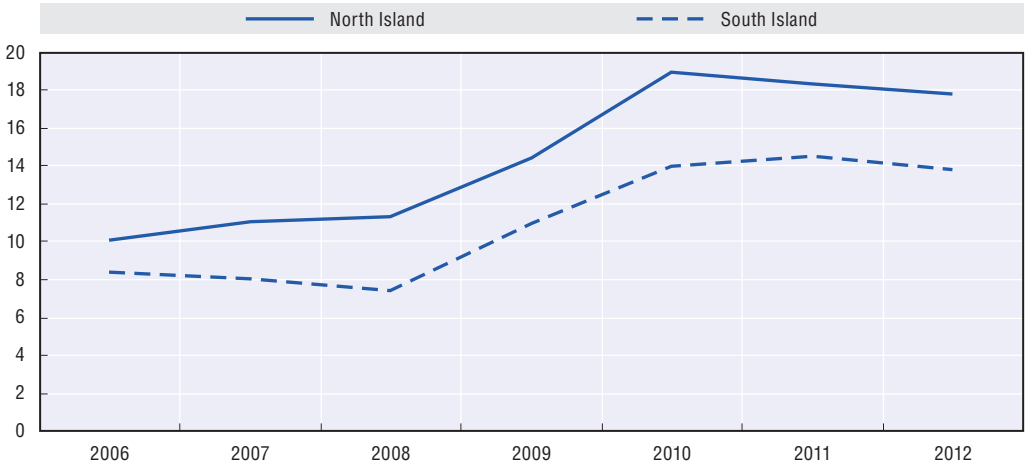
Million dollars, 2005 constant prices



Source: OECD (2012), "Research and Development Statistics: Gross domestic expenditure on R-D by sector of performance and source of funds", *OECD Science, Technology and R&D Statistics* (database), *http://dx.doi.org/10.1787/data-00189-en*.

StatLink http://dx.doi.org/10.1787/888933138644

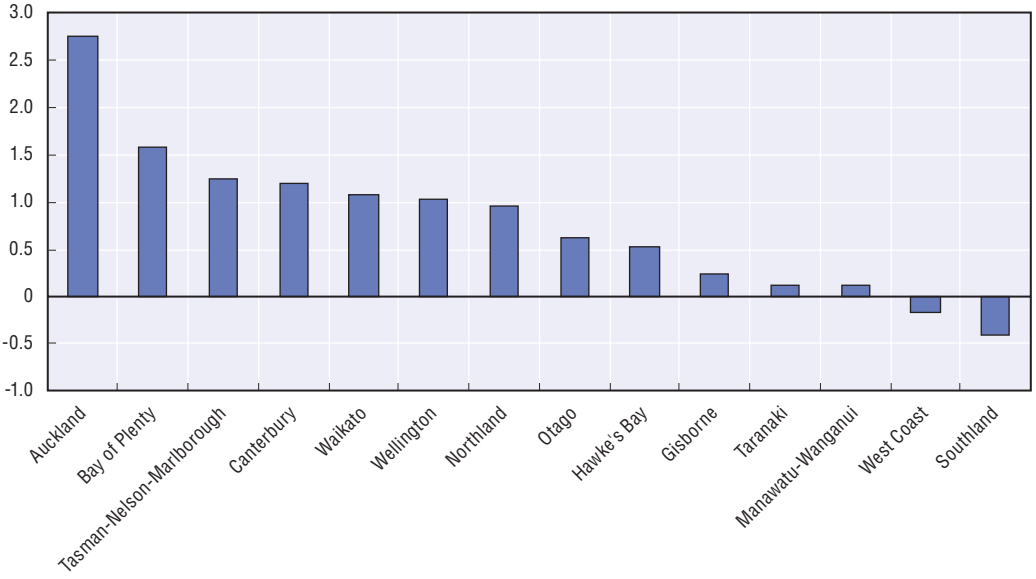
Figure 12.108. **Youth unemployment rate, New Zealand, regions, 2006-2012**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933138663

Figure 12.109. **Average annual population change (%), New Zealand sub-regions, 1991-2012**



Source: OECD (2012), "Small regions, TL3: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00525-en*.

StatLink http://dx.doi.org/10.1787/888933138682

Norway

Skills supply and demand

Figure 12.110 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. Seven sub-regions are in "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and GVA per worker). Møre og Romsdal is the only sub-region experiencing skills deficit. Three sub-regions are in a skills surplus, where skills supply appears to exceed demand.

Data on trends has also been collected. Table 12.21 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2005-2012. Three sub regions showed an increase in skills supply and three in skills demand. Møre og Romsdal showed an increase in both skills supply and demand over the analysed period.

It should be noted that the above tool does not provide an indicator of labour market inclusion. However, because unemployment rates are not collected at the sub-regional level, comparisons cannot be made between the skills analysis and unemployment rates.

Unemployment and youth unemployment

Figure 12.111 and 12.113 show trends in unemployment and youth unemployment. In 2013, the national unemployment rate was 3.4%. This is less than half of the OECD average. There are not large disparities among regions: the lowest rate was 2.6% in Trøndelag and the highest was 3.9% in South-Eastern Norway.

Nationally, the youth unemployment rate was 9.1% in 2013. It varied between 7.1% in Trøndelag and 10.3% in Oslo and Akershus.

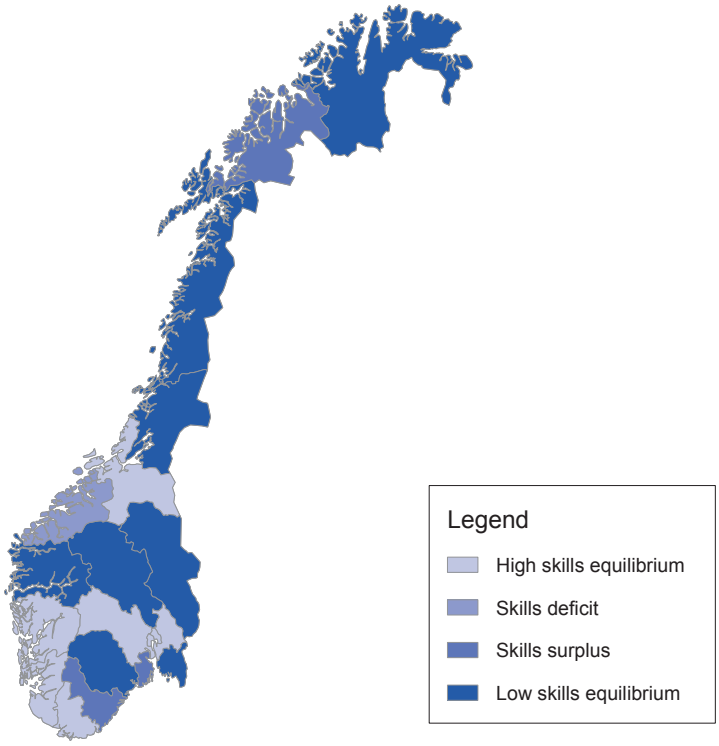
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. Figure 12.112 shows the share of employment in high and medium-high tech manufacturing and knowledge intensive services. Across Norway, more than 40% of the labour force is in knowledge intensive services. The region of Oslo and Akershus has the highest rate at 52% followed by Northern Norway with 48%. High and medium-tech manufacturing on the other hand does not have a strong base in the country. This sector is mainly concentrated in the Agder and Rogaland where it constitutes about 7% of the total labour force.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.114 shows average annual population growth between 1990-2012. For Norway overall, the rate was 0.8%. The rate was highest in the region of Oslo and Akershus at 1.5% and lowest in Northern Norway at 0.1%.

Figure 12.110. **Skills supply and demand, Norwegian sub-regions, 2012**



Source: Labour Force Survey, Statistics Norway.

StatLink http://dx.doi.org/10.1787/888933138701

Definitions and methodology

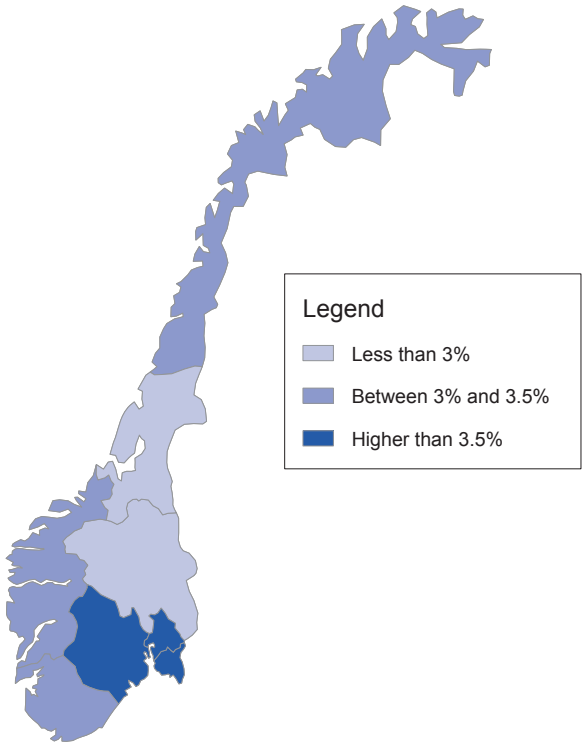
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period..

Table 12.21. **Places to watch: Greatest increases in skills supply and/or demand, Norwegian sub-regions, 2005-2012**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Buskerud	Møre og Romsdal	Finnmark Finnmárku
Hedmark		Troms Romsa
Rogaland		Vest-Agder

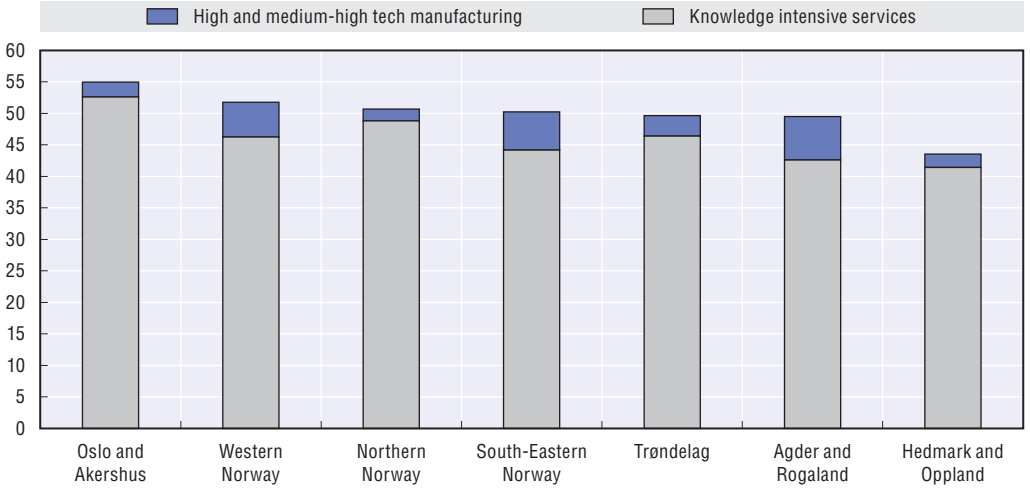
Figure 12.111. **Unemployment rate, Norwegian regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933138720

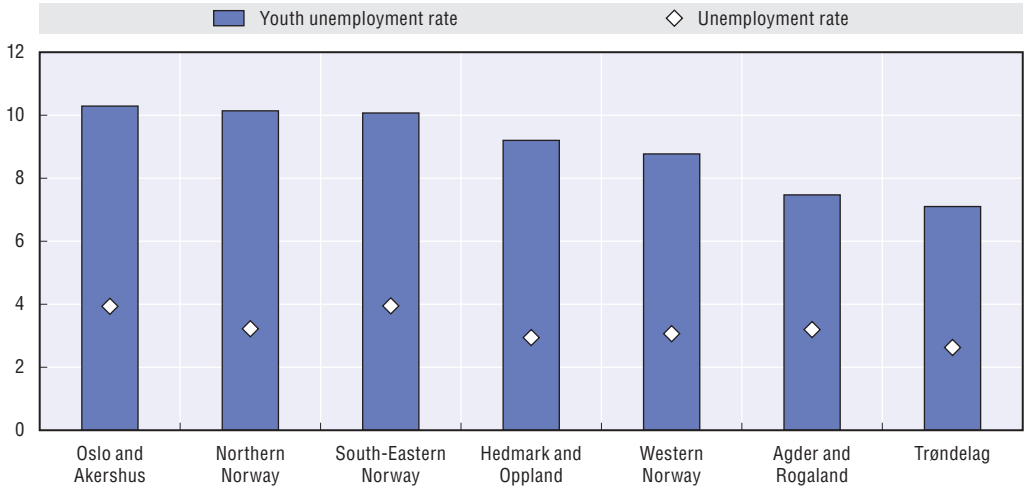
Figure 12.112. **Share of employment in knowledge intensive services and high and medium-high tech manufacturing, Norwegian regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933138739

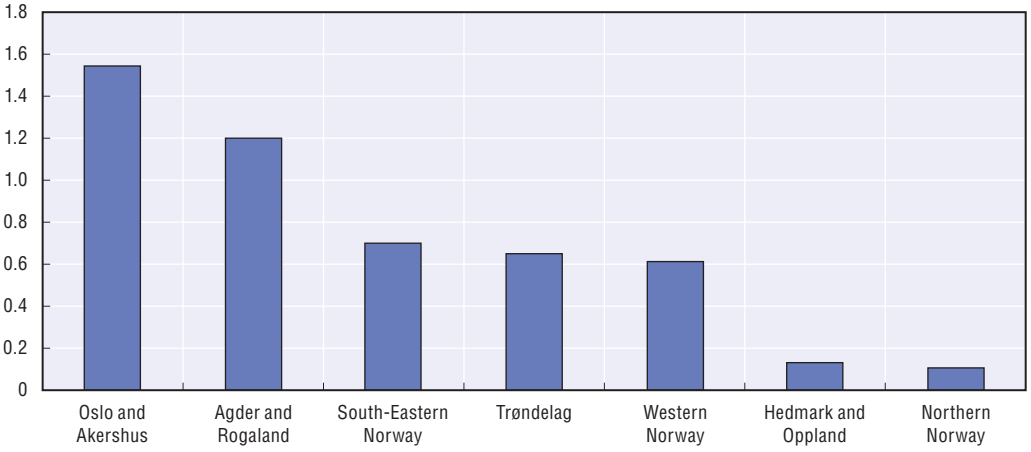
Figure 12.113. **Youth unemployment rate and unemployment rate, Norwegian regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933138758

Figure 12.114. **Average annual population change (%), Norwegian regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933138777

Poland

Skills supply and demand

Figure 12.115 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2011, 23 sub-regions were in "high skills equilibrium" where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and GVA per worker). Among these, the highest level of skills supply and demand could be observed in the cities of Warsaw, Poznan, as well as in Trojmiejski. A total of 25 sub-regions were in "low skills equilibrium", where a low skills supply is matched by a low skills demand.

Data on trends has also been collected. Table 12.22 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2002 and 2011. Due to lack of data at the local level for 2002, this analysis compared the performance of 16 regions (i.e. administrative provinces) as opposed to sub-regions.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as West Pomerania and Lower Silesia, also show relatively high unemployment rates.

Unemployment and youth unemployment

The unemployment rate in Poland has been slowly increasing since 2008. It stood at 10.3% in 2013, higher than the OECD average. Figure 12.116 shows the unemployment rate for Polish regions. In 2013, Mazovia had the lowest unemployment rate at 8% and Podkarpacia had the highest at 14.4%.

Youth unemployment rate follows similar patterns, but with overall higher rates (see Figure 12.118). The national average in 2013 was 27.3%, and it varied between 19.3% in Mazovia and 43.5% in Podkarpacia. The second highest rate is in Kuyavian-Pomerania at 32.3%.

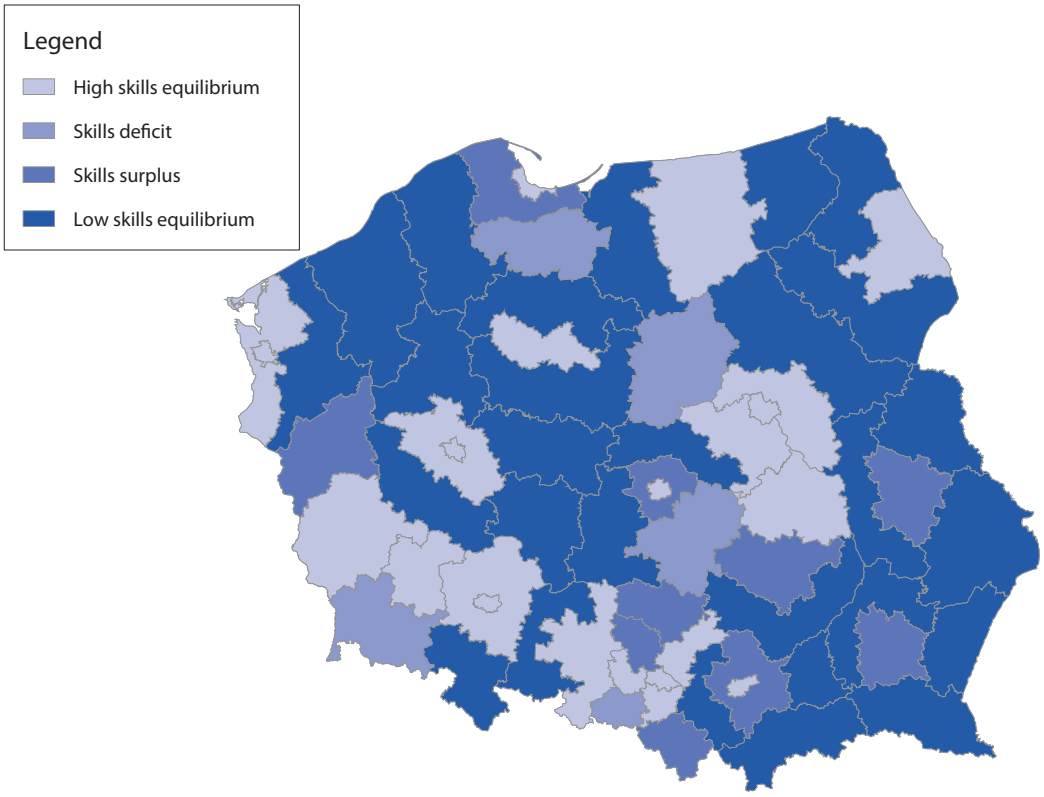
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. In 2007, the share of employment in high and medium-high tech manufacturing and knowledge intensive services was highest in Pomerania at 37% and in Lower Silesia at 36% (see Figure 12.117). In both of these regions, employment in high tech manufacturing accounts for around 9% of total employment, the highest rates of any region. The share of employment in knowledge intensive services, on the other hand, was highest in Mazovia at 32%, followed by Pomerania and West Pomerania at 28% each.

Demographic change

Demographic change can impact the local supply of skills. Between 1990 and 2012 the country showed slow population growth: an annual average of 0.1%. Figure 12.119 shows that seven regions – mainly in the east of the country – showed a population decrease while the remaining nine regions showed an increase. Regions impacted the most by population shrinkage are Lodzkie and Opole, and the fastest growing regions are Pomerania and Lesser Poland.

Figure 12.115. **Skills supply and demand, Polish sub-regions, 2011**



Source: Census and regional accounts, Central Statistical Office of Poland.

StatLink http://dx.doi.org/10.1787/888933138796

Definitions and methodology

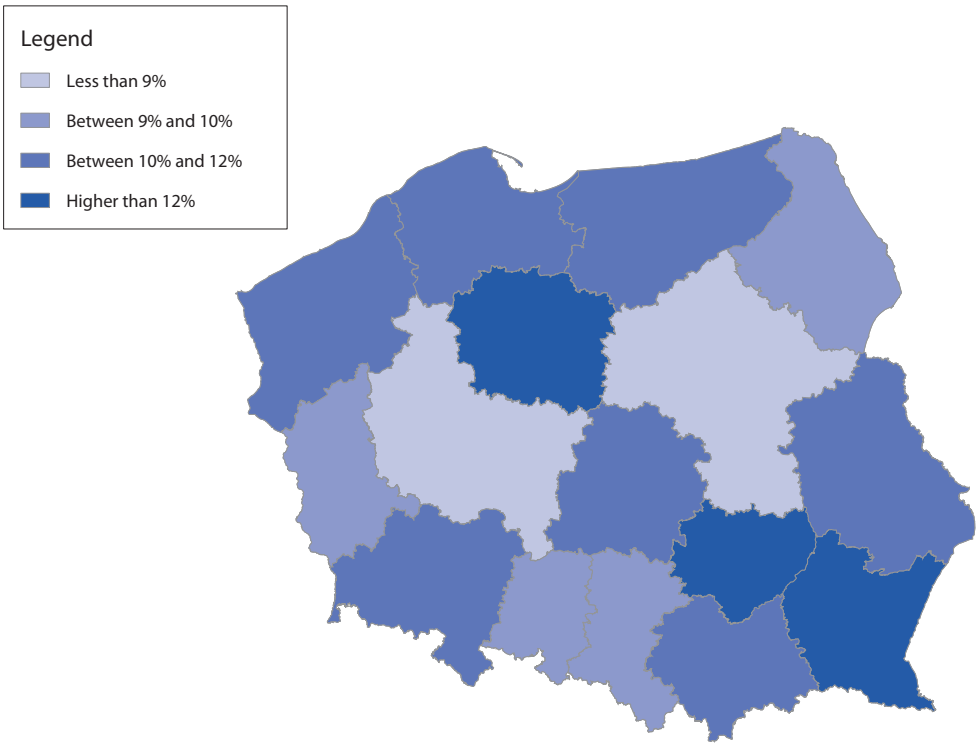
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.22. **Places to watch: Greatest increases in skills supply and/or demand, Polish regions, 2002-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Greater Poland Region		Dolnosklaskie
Lubuskie		Lódzki
Swietokrzyskie		Mazowieckie

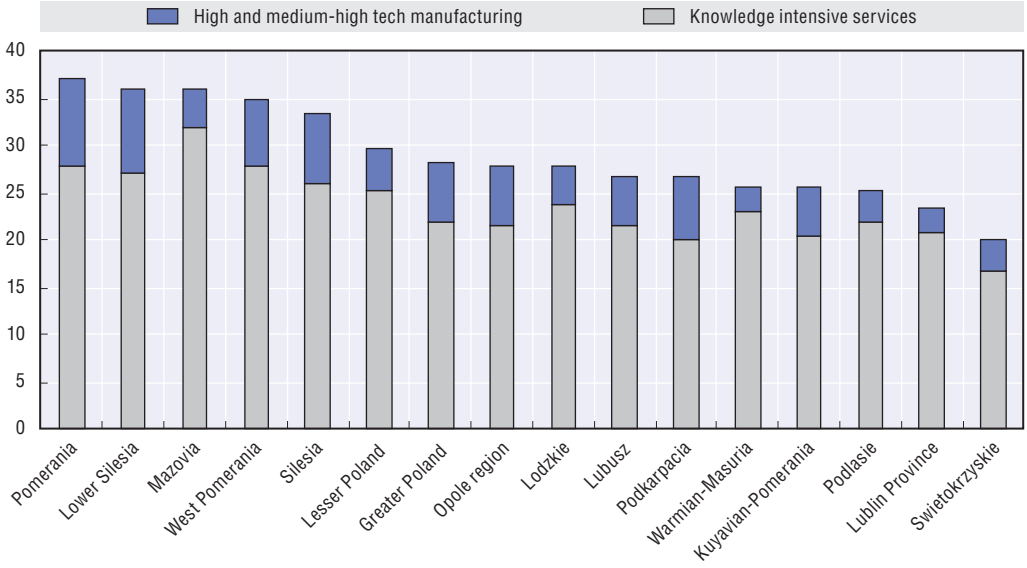
Figure 12.116. **Unemployment rate, Polish regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933138815

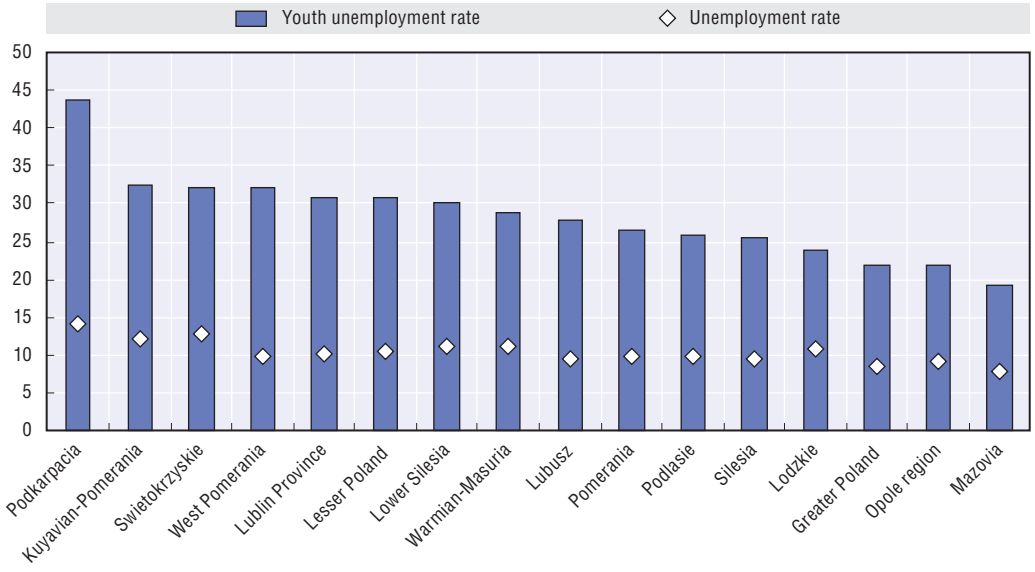
Figure 12.117. **Share of employment in knowledge intensive services and high and medium-high tech manufacturing, Polish regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933138834

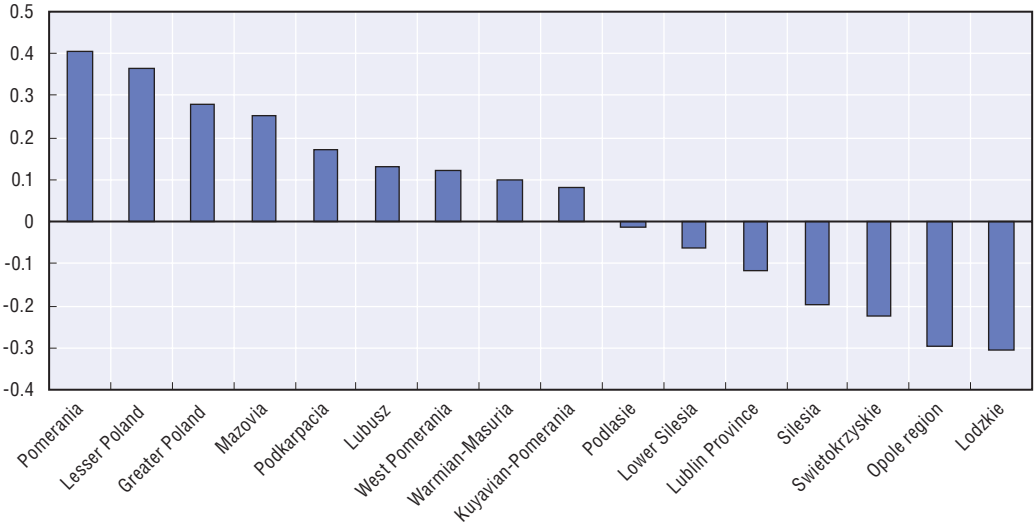
Figure 12.118. **Youth unemployment rate and unemployment rate, Polish regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink *http://dx.doi.org/10.1787/888933138853*

Figure 12.119. **Average annual population change (%), Polish regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink *http://dx.doi.org/10.1787/888933138872*

Portugal

Skills supply and demand

Figure 12.120 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2010, Lisbon and Alentejo are in "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and GVA per worker). Central Portugal and the Islands of Azores are in "low skills equilibrium", where a low supply of skills is matched by a low demand for skills. The Islands of Madeira have a skills deficit, meaning that the demand for skills outstrips the supply, while North Portugal and Algarve are in skills surplus (the supply of skills exceeds demand).

Data on trends has also been collected. Table 12.23 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2001 and 2010. Algarve showed a significant increase in skills supply while Madeira showed a significant increase in skills demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Lisbon, also show relatively high unemployment rates.

Unemployment and youth unemployment

In 2013, the national unemployment rate stood at 16.3%, higher than the OECD average. Regional unemployment varied between 11.7% in Central Portugal and 18.5% Lisbon (see Figure 12.121).

The national youth unemployment rate was 38% in 2013. Central Portugal has the lowest youth unemployment rate at 31%, while Azores, Lisbon and Madeira are above the average (see Figure 12.123). The level of youth unemployment has been rapidly increasing in the recent years, from 16% in 2008 to 38% in 2013.

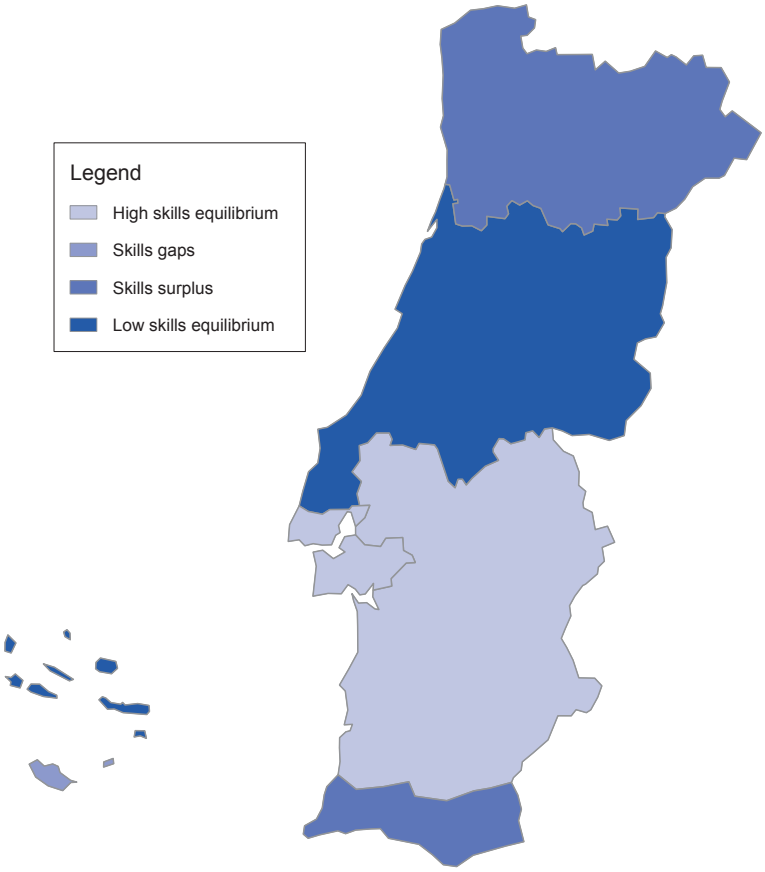
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. High and medium-high tech manufacturing is not widespread in any region in Portugal. Central Portugal has the highest rate of employment in this sector, at 4% of its workforce. Employment in knowledge intensive services is more widespread. On average, about 20% of each region's workforce is employed in this sector. In Lisbon, the figure is 34%.

Demographic change

Demographic change can impact the local supply of skills. The average annual population growth rate between 1991 and 2012 was 0.3%, with significant regional variations. As shown in Figure 12.124, Algarve stands out as the fastest growing region with a rate of 1.5%. Lisbon is the second fastest at 0.5%. The North, Madeira and Azores follow with rates of around 0.2%. Alentejo and Central Portugal have the lowest figures, with the former being the only region with a shrinking population.

Figure 12.120. **Skills supply and demand, Portuguese regions, 2010**



Source: Labour Force Survey and regional accounts, Instituto Nacional de Estatística.

StatLink http://dx.doi.org/10.1787/888933138891

Definitions and methodology

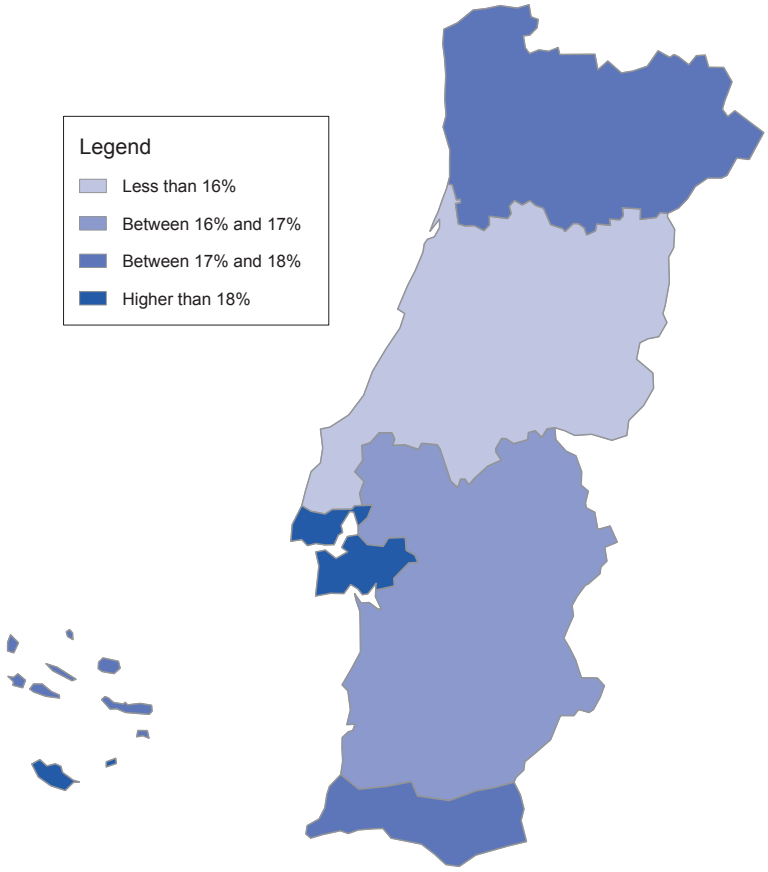
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.23. **Places to watch: Greatest increases in skills supply and/or demand, Portuguese regions, 2001-2010**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Algarve		R. A. da Madeira

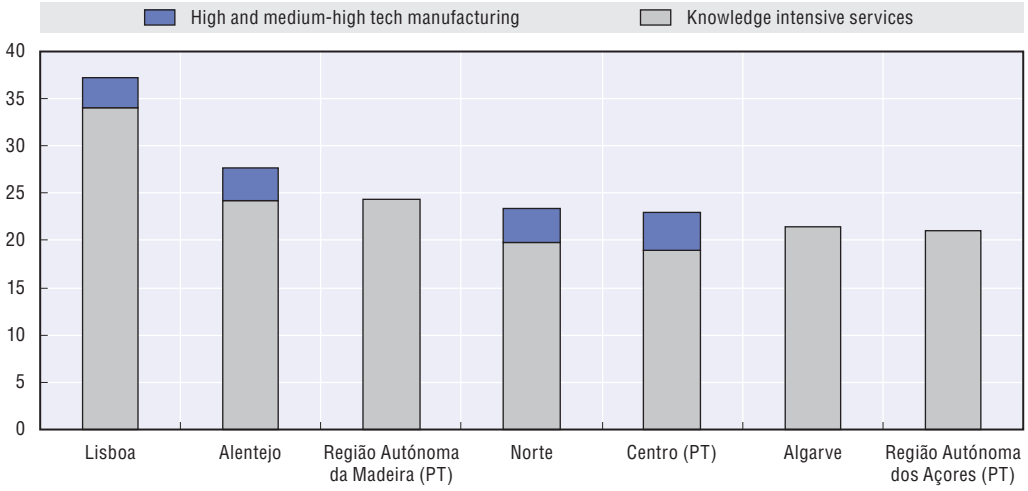
Figure 12.121. **Unemployment rate, Portuguese regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", OECD Regional Statistics (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933138910

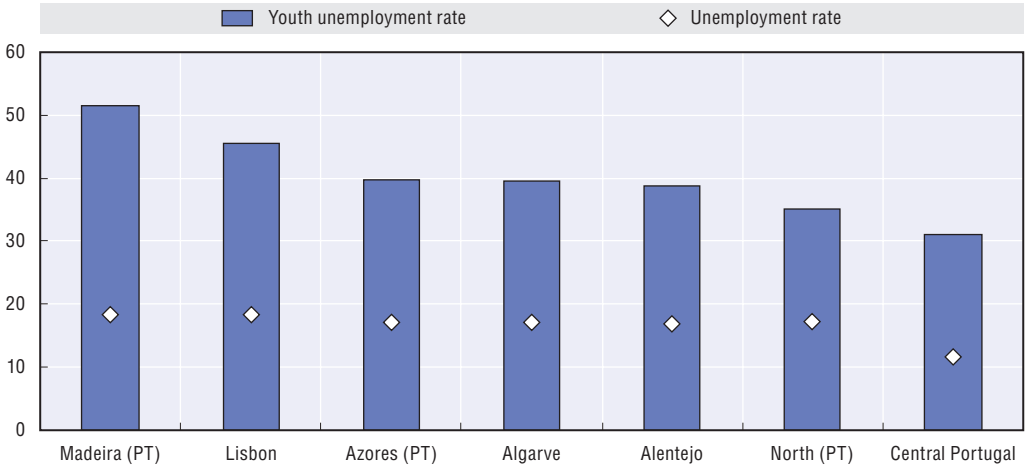
Figure 12.122. **Share of employment in knowledge intensive services and high and medium-high tech manufacturing, Portuguese regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933138929

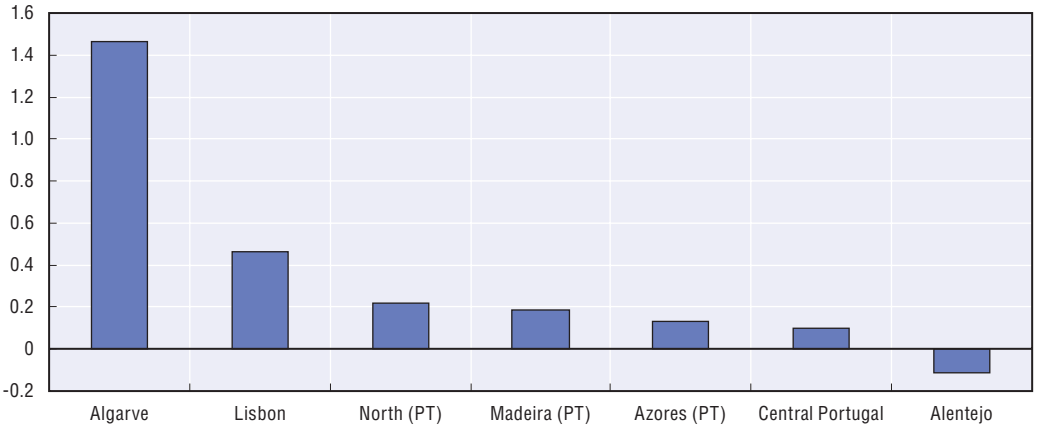
Figure 12.123. **Youth unemployment rate and unemployment rate, Portuguese regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink *http://dx.doi.org/10.1787/888933138948*

Figure 12.124. **Average annual population change (%), Portuguese regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink *http://dx.doi.org/10.1787/888933138967*

Romania

Skills supply and demand

Figure 12.125 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2011, 15 sub-regions were in "high skills equilibrium" where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and GVA per worker). Among these sub-regions, the highest level of skills supply and demand could be observed in the sub-regions of Bucharest, Timis, Cluj and Brasov. Sixteen sub-regions were in "low skills equilibrium" (where a low skills supply is matched by a low demand) and 11 were in skills mismatches.

Data was not available to analyse trends over time.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Arad, Galati and Dolj, also show relatively high unemployment rates.

Unemployment and youth unemployment

The unemployment rate in Romania has remained stable in recent years. At the end of 2013, it was 7.3%, which is lower than the unemployment rate for the EU27.[1] As shown in Figure 12.126, there are regional variations in unemployment. Ilfov has the lowest unemployment rate at 1.8% and Vaslui has the highest at 10.1%.

The youth unemployment rate shows similar patterns, but it is three times higher than total unemployment (see Figure 12.128). The national average in 2012 was 22.7%, with youth unemployment varying between 12.3% in the North-East region and 31.7% in the Centre region. Rates are similarly high in South-East and South-Muntinea regions at 31% and 30% respectively.

Research and Development

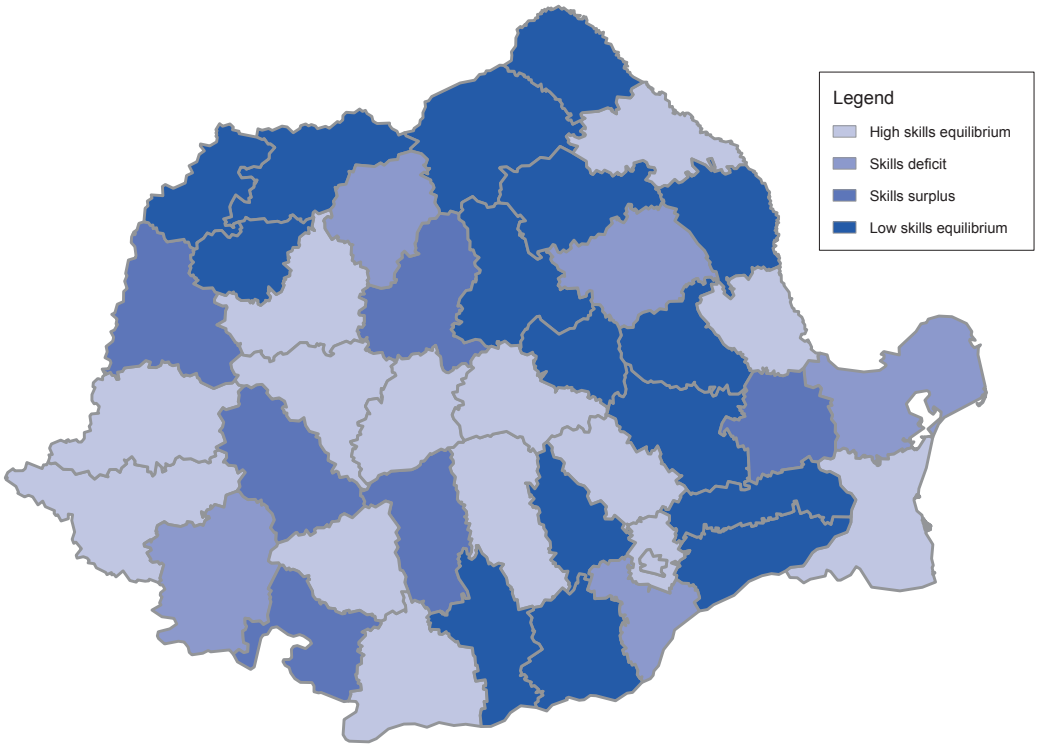
Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of regional data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.127 shows the share of employment in research and development. In 2011, this indicator was 1.6% in the Bucharest-Ilfov region, while in all other regions it was below 0.3%.

Demographic change

Demographic change can impact the local supply of skills. Between 1990 and 2013 the population of the country decreased by nearly 2 million people which corresponds to an annual average rate of -0.4%. Figure 12.129 shows that all the sub-regions – with the exception of Iasi and Suceava – showed negative change. Regions impacted the most by population shrinkage are Teleorman, Caras-Severin and Huneodara, with an average annual decrease between 0.9% and 1%.

1. *Source:* Eurostat. Unemployment rate in the EU27 zone was 10.6% at the end of 2013.

Figure 12.125. **Skills supply and demand, Romanian sub-regions, 2011**



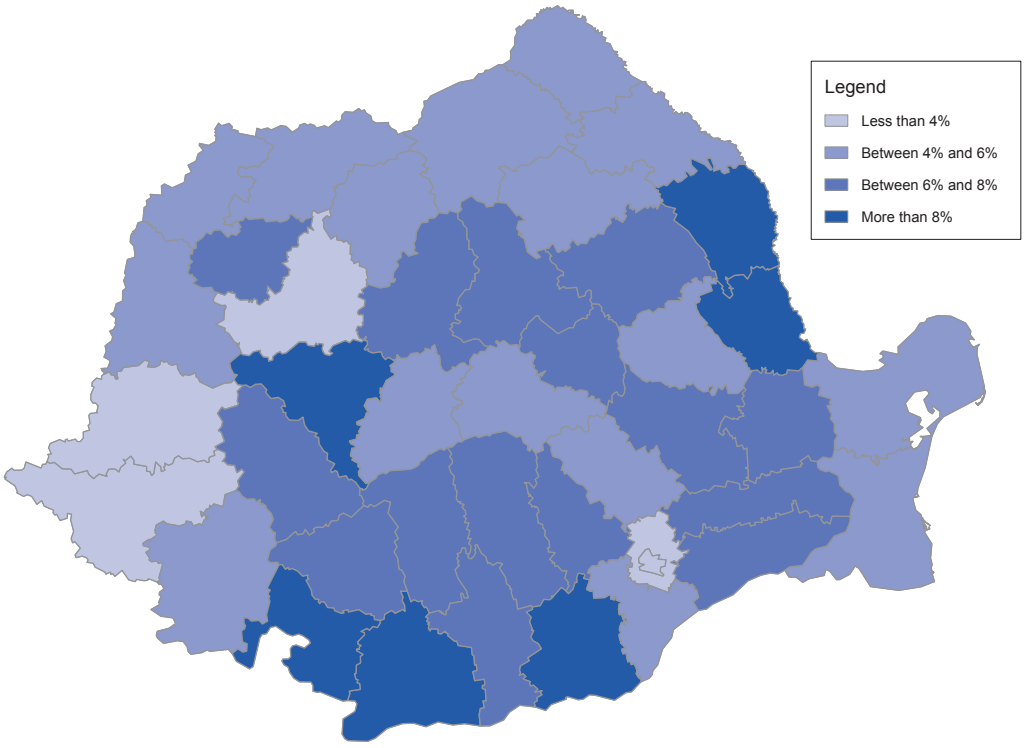
Source: Labour Force Survey and regional accounts, National Institute of Statistics.

StatLink http://dx.doi.org/10.1787/888933138986

Definitions and methodology

Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

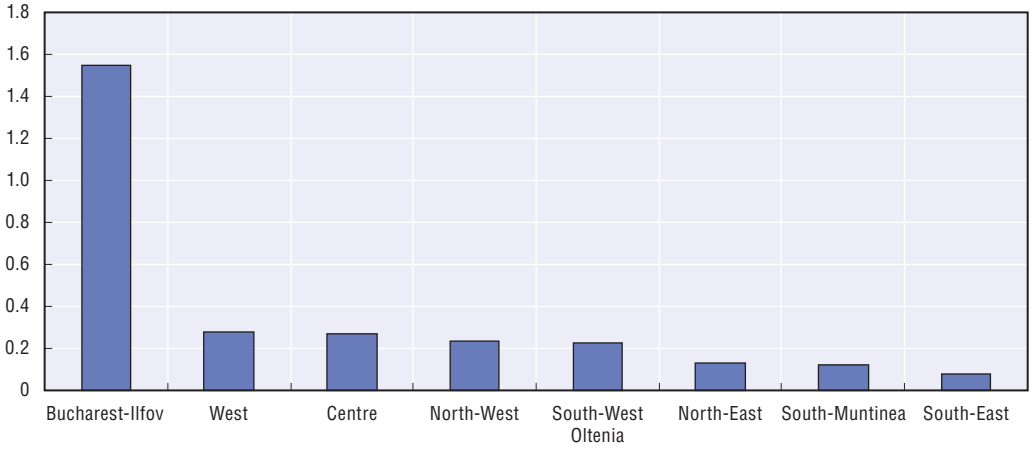
Figure 12.126. **Unemployment rate, Romanian sub-regions, 2012**



Source: National Institute of Statistics, Romania.

StatLink http://dx.doi.org/10.1787/888933139005

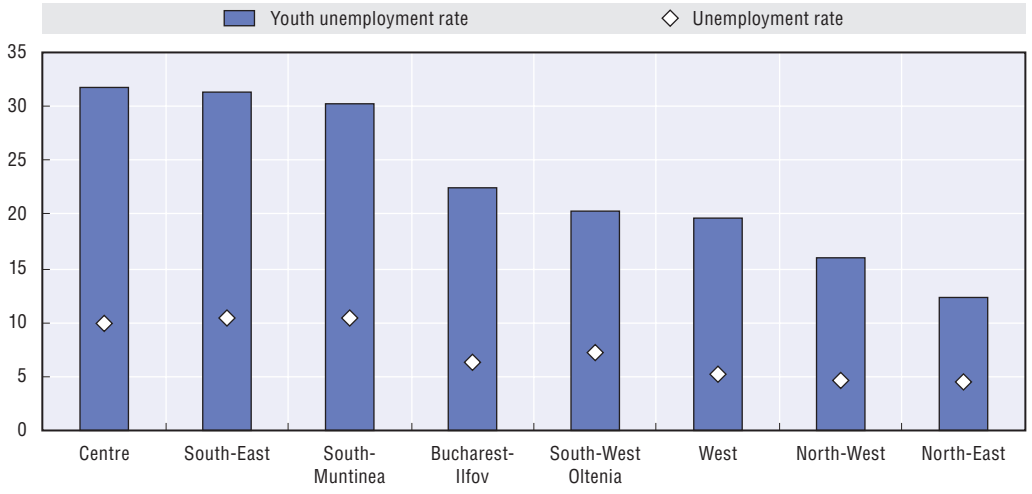
Figure 12.127. **Research and Development personnel as % of total employment Romanian regions, 2011**



Source: National Institute of Statistics, Romania.

StatLink http://dx.doi.org/10.1787/888933139024

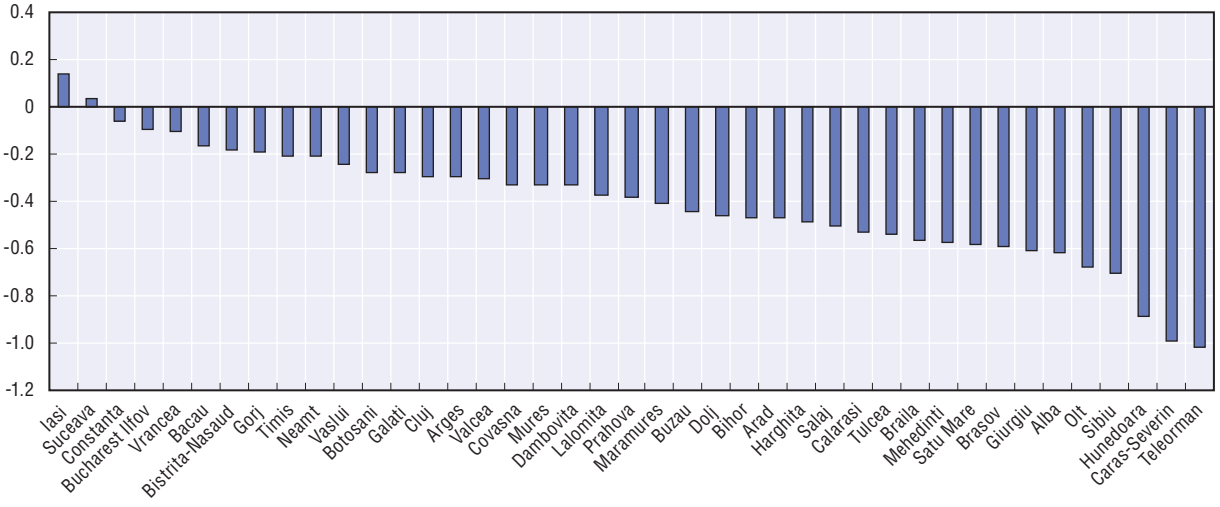
Figure 12.128. **Youth unemployment rate and unemployment rate, Romanian regions, 2012**



Source: National Institute of Statistics, Romania.

StatLink http://dx.doi.org/10.1787/888933139043

Figure 12.129. **Average annual population change (%), Romanian sub-regions, 1990-2013**



Source: National Institute of Statistics, Romania.

StatLink http://dx.doi.org/10.1787/888933139062

Slovak Republic

Skills supply and demand

Figure 12.130 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand. In 2011, two sub-regions – Bratislava, the capital region, and Trnava, the sub-region bordering Bratislava – were in "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and GVA per worker). Both demand-side indicators in these regions are significantly higher compared to other regions. The sub-regions of Trenčín and Žilina suffer skills deficit (where skills demand exceeds supply). The regions of Banská Bystrica and Prešov are in skills surplus (where skills supply exceeds demand). Nitra and Košice were in "low skills equilibrium", where a low supply of skills is matched by low demand for skills.

Data on trends has also been collected. Table 12.24 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2000 and 2011. Over the analysed period Košice and Trnava increased their supply of skills, while Bratislava and Žilina increased their demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion, although in the case of Slovak Republic, no high skills equilibrium regions also showed relatively high unemployment rates.

Unemployment and youth unemployment

Figure 12.131 shows the unemployment rate by region. In 2011, the national unemployment rate was 13.7%. The lowest rate was 5% in Bratislava and it varied between 10% and 20% in the other sub-regions. Košice sub-region showed the highest rate (19.6%). In 2013, the unemployment rate was 14.2%, which is higher than the OECD average.

The national youth unemployment rate was 33.7% in 2013, twice as high as the OECD average. Figure 12.133 shows significant regional disparities. The rate varies from 19.8% in Bratislava to 39.8% in East Slovak Republic.

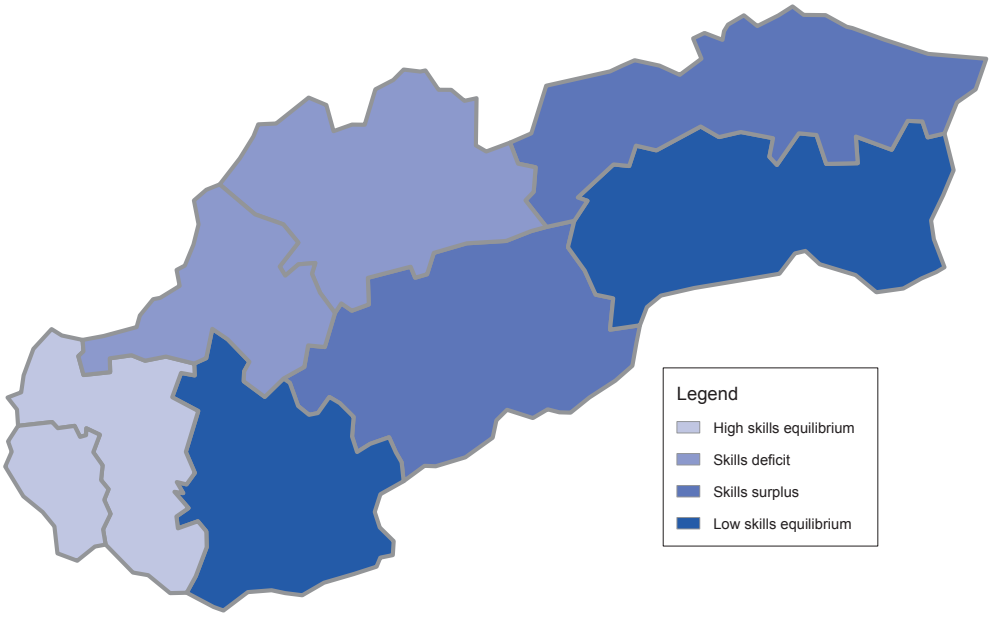
Research and Development

Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of regional data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.132 shows the relative share of employment in R&D activities in each region. A significant share of R&D takes place in Bratislava region, where around 4.3% of employment was in this sector in 2011. This is an increase of one percentage point compared to 2008. In all the other regions of the Slovak Republic, R&D personnel makes up less than 1% of total employment.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.134 shows the average annual population change for 1996-2012. During this time period, the country's population has grown slowly and the size of the population increased by less than 40 000 people. The population of Bratislava region and West Slovak Republic shrank by an average annual rate of 0.1%, while East Slovak Republic grew at an annual rate of 0.35%.

Figure 12.130. **Skills supply and demand, Slovak Republic sub-regions, 2011**



Source: Labour Force Survey and regional accounts, Statistical Office of the Slovak Republic.

StatLink http://dx.doi.org/10.1787/888933139081

Definitions and methodology

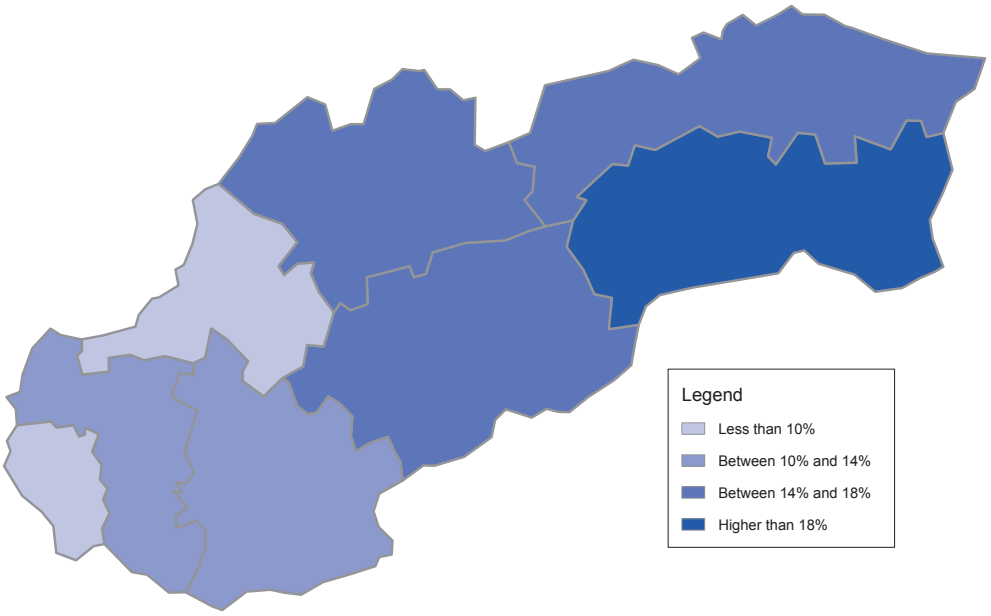
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.24. **Places to watch: Greatest increases in skills supply and/or demand, Slovak Republic sub-regions, 2000-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Košice		Bratislava
Trnava		Žilina

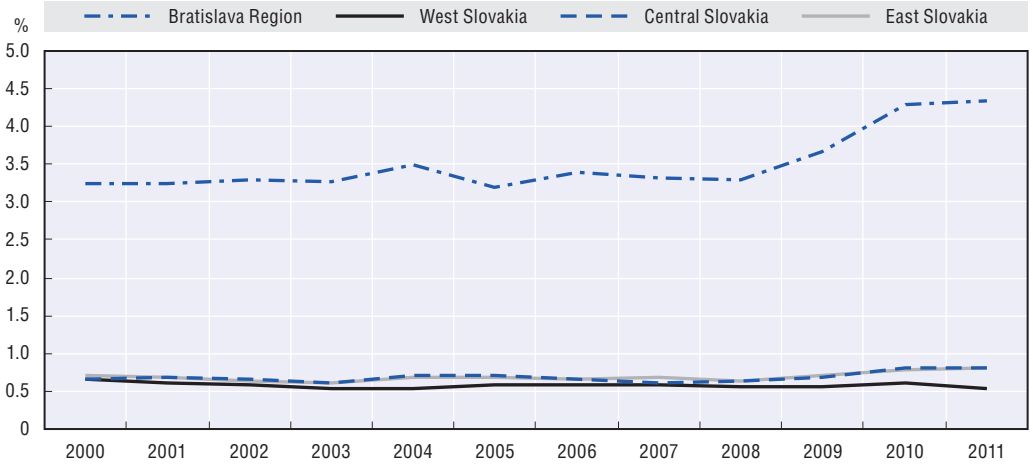
Figure 12.131. **Unemployment rate, Slovak Republic sub-regions, 2011**



Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en*.

StatLink http://dx.doi.org/10.1787/888933139100

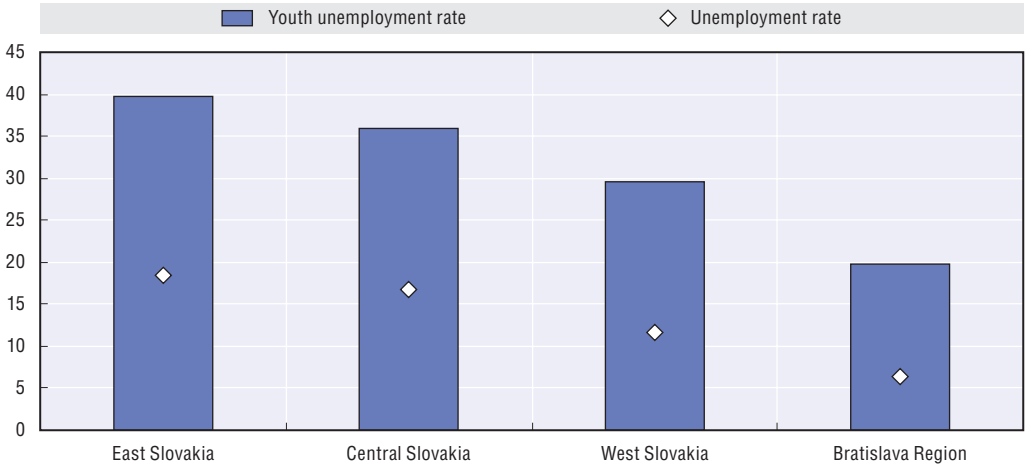
Figure 12.132. **Research and Development personnel as % of total employment, Slovak Republic region, 2000-2011**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

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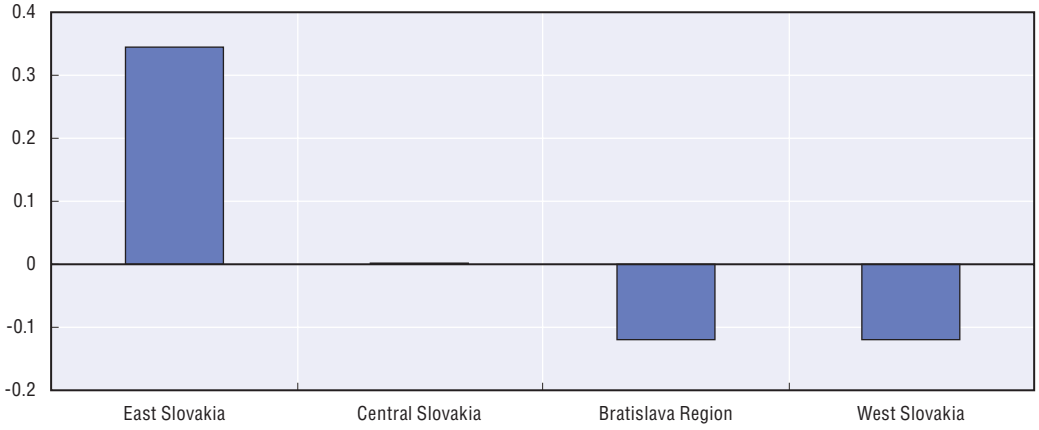
Figure 12.133. **Youth unemployment rate and unemployment rate, Slovak Republic regions, 2013**



Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en*.

StatLink *http://dx.doi.org/10.1787/888933139138*

Figure 12.134. **Average annual population change (%), Slovak Republic region, 1996-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink *http://dx.doi.org/10.1787/888933139157*

Slovenia

Skills supply and demand

Figure 12.135 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand among the 12 Slovenian sub-regions. In 2011 five sub-regions were in "high skills equilibrium" where a high skills supply (percentage of people with post-secondary education) is matched by a high skills demand (percentage of people with medium and high skills occupations and GVA per worker). One of them is Central Slovenia, the region of the capital city. Inner Carniola-Karst sub-region is in skills surplus (where supply of skills exceeds demand) while Savinja, Lower Sava and Southeast Slovenia sub-regions are in skills deficit. Mura, Carinthia and Central Sava sub-regions are in "low skills equilibrium", where low skills supply is matched by low demand.

Data on trends has also been collected. Table 12.25 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2002-2011. The greatest increase in both skills supply and demand was in the Lower Sava and Mura regions.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Drava, also show relatively high unemployment rates.

Unemployment and youth unemployment

Unemployment at the national level was 10.1% in 2013, which is higher than the OECD average. Figure 12.136 shows that in 2011 at the sub-regional level, the unemployment rate varied between 5.8% in Central Sava and 15.7% in Mura sub-region.

Figure 12.138 shows youth unemployment rates. Nationally, youth unemployment was 21.6% in 2013 which is higher than the OECD average. This figure has doubled since 2007. In 2013 there was a significant disparity between the rates of Eastern Slovenia (26.6%) and Western Slovenia (16.3%). Recent trends show that youth unemployment has started decreasing in Western Slovenia.

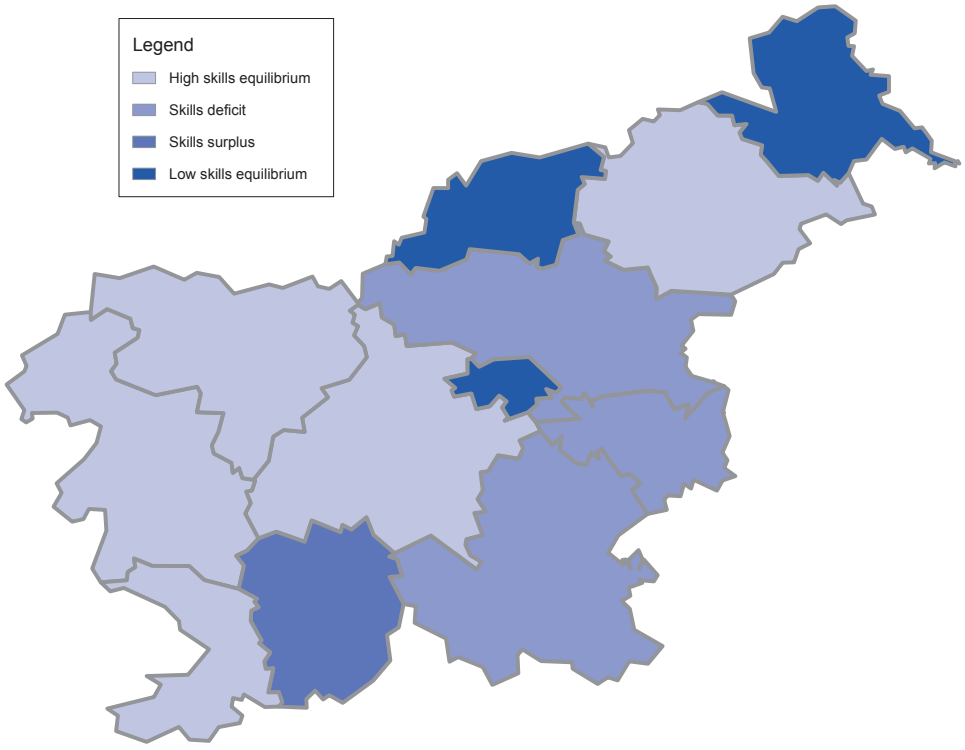
Research and Development

Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.138 shows the share of employment in Research and Development. Although this share is quite low, it has shown a continuous growth in the previous decade reaching almost 3% in Western Slovenia in 2010. However this share remained under 1% in the eastern part of the country.

Demographic change

Demographic change can impact the local supply of skills. Between 1990 and 2012 the population of Slovenia has increased by 0.1% annually, which corresponds to a total growth of 60 000 people. However, population growth rates show significant inter-regional disparities, with half the sub-regions showing positive rates and half showing negative rates. As shown in Figure 12.139, these rates vary between an annual growth of 0.5% in Central Slovenia to an annual decrease of 0.4% in Mura sub-region. All three regions showing low skills equilibrium have been losing population in the analysed period.

Figure 12.135. **Skills supply and demand, Slovenian sub-regions, 2011**



Source: Census, Labour Force Survey and regional accounts, Statistical Office of the Republic of Slovenia.

StatLink http://dx.doi.org/10.1787/888933139176

Definitions and methodology

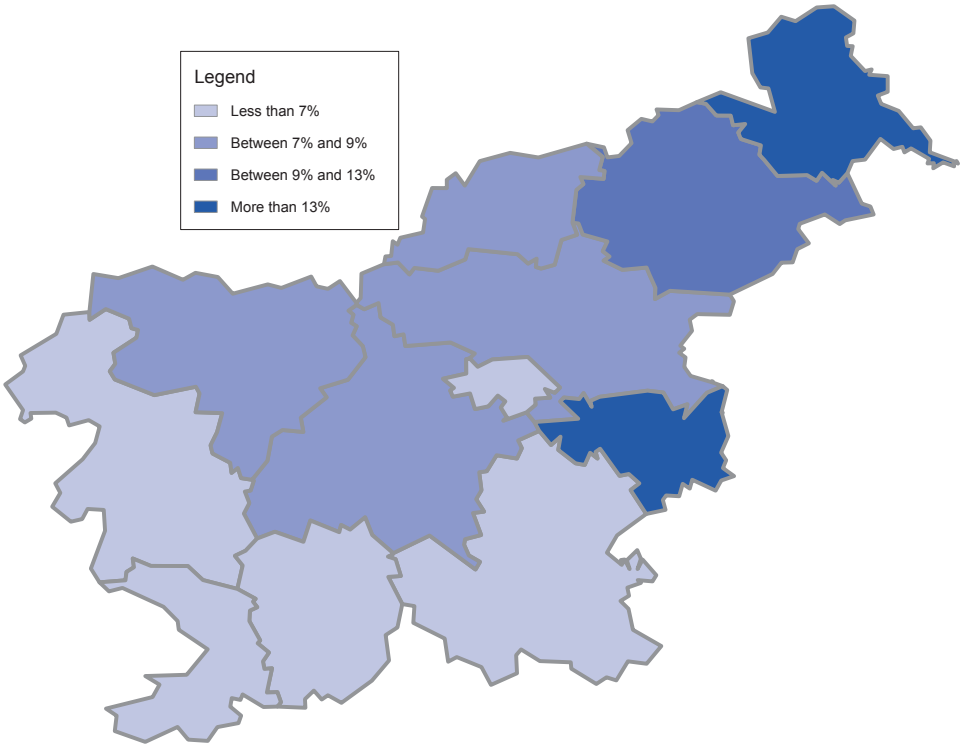
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.25. **Places to watch: Greatest increases in skills supply and/or demand, Slovenian sub-regions, 2002-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
	Lower Sava Region	
	Mura Region	

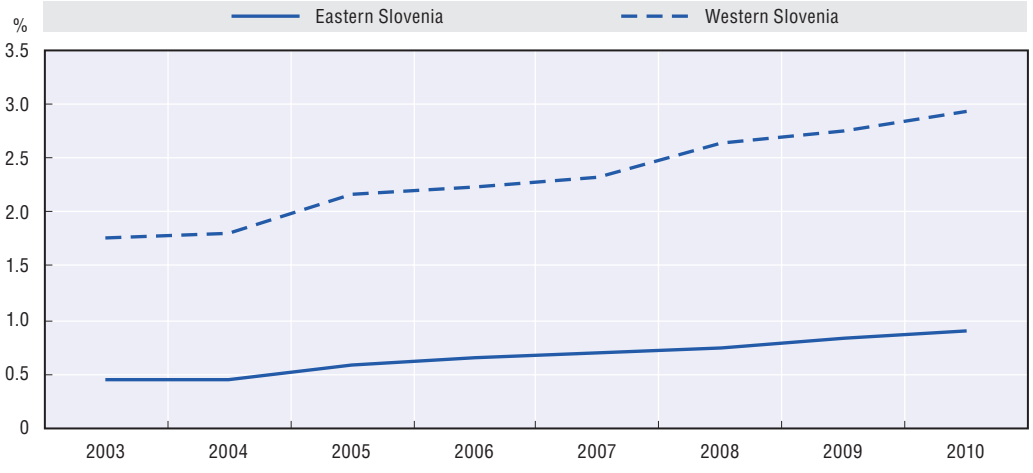
Figure 12.136. **Unemployment rate, Slovenian sub-regions, 2011**



Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en.*

StatLink http://dx.doi.org/10.1787/888933139195

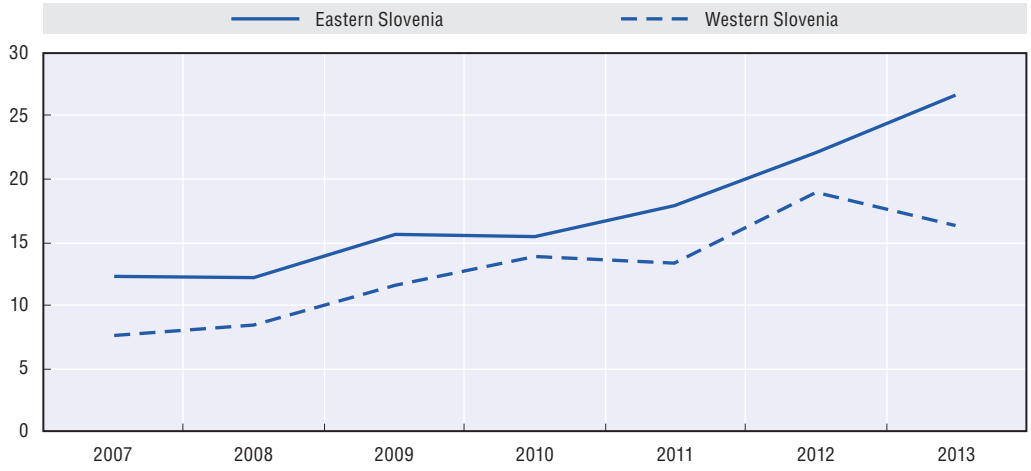
Figure 12.137. **Research and Development personnel as % of total employment, Slovenian regions, 2003-2010**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en.*

StatLink http://dx.doi.org/10.1787/888933139214

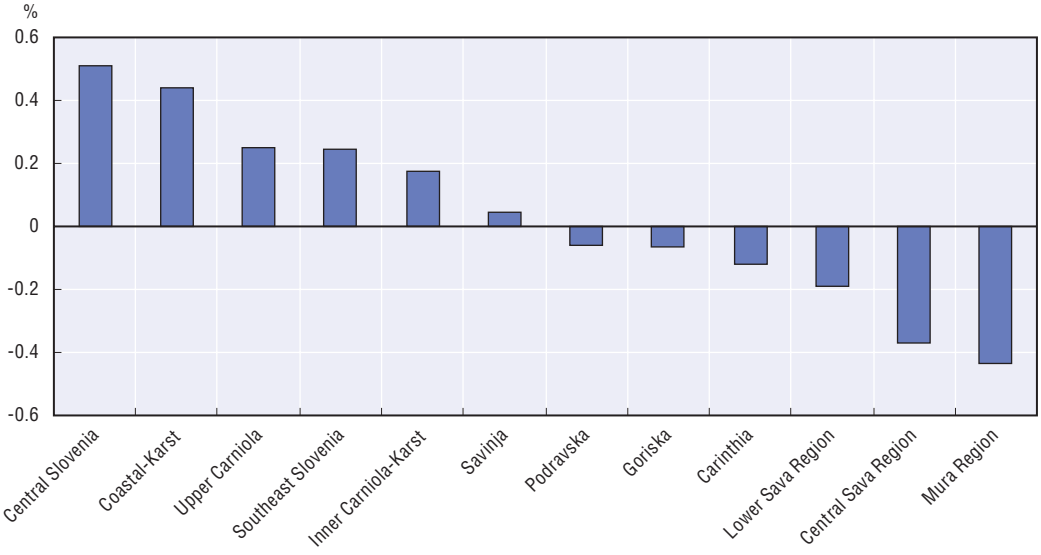
Figure 12.138. **Youth unemployment rate, Slovenian regions 2007-2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933139233

Figure 12.139. **Average annual population change (%), Slovenian sub-regions, 1990-2012**



Source: OECD (2012), "Small regions, TL3: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00525-en*.

StatLink http://dx.doi.org/10.1787/888933139252

South Africa

Skills supply and demand

Figure 12.140 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand across the nine regions of South Africa. In 2012 three regions were in "high skills equilibrium" where a high skills supply (percentage of people with post-secondary education) is matched by a high skills demand (percentage of people with medium and high skills occupations and GVA per worker). Among these, Gauteng and Western Cape have a particularly high skills supply, while Free State is slightly above the national average in terms of both skills supply and demand. Eastern Cape and KwaZulu-Natal were in "low skills equilibrium" (where low skills supply is matched by low demand). Among the four regions in skills mismatch, Limpopo and Mpumalanga were in skills surplus, where supply exceeds demand. Northern Cape and North West showed skills deficits.

Data on trends has also been collected. Table 12.26 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2008-2012. The North West region registered a significant increase in both skills supply and demand. Northern Cape showed a significant increase in skills supply, while Free State increased its skills demand the most. Thanks to this improvement, the Free State region moved from skills surplus to a high skills equilibrium.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Free State, also show relatively high unemployment rates.

Unemployment and youth unemployment

Figure 12.141 shows the unemployment rate in 2012 for the nine regions of South Africa. In 2012, Free State had the highest unemployment rate at 32.7%. Unemployment was the lowest in Limpopo at 19.1%. At the end of 2013, the national unemployment rate was 24.1%. This is almost three times higher than the OECD average.

During the analysed period, the youth unemployment rate (see Figure 12.143) varied between 45.6% in 2008 and 52% in 2012. These figures are considerably higher than the OECD average.

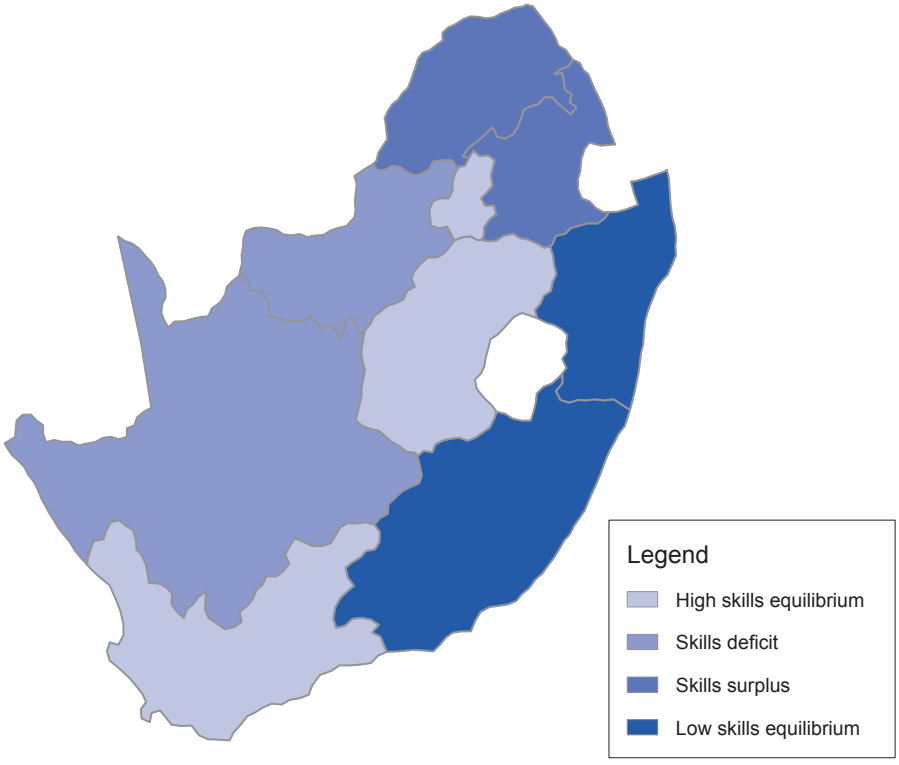
Research and Development

Innovation is an important driver of productivity and job creation and can generate high skills demand. In the absence of data on knowledge intensive services and high and medium-high tech manufacturing, Figure 12.142 shows gross domestic expenditure on R&D between 1990-2010 (data was not available at the regional level). After a period of relatively fast growth between 2001 and 2008, gross expenditures on R&D registered a decrease in 2009 and 2010.

Demographic change

Demographic change can impact the local supply of skills. Figure 12.144 shows trends in annual population change between 1996-2011, with an average growth of 1.8% across all regions. This corresponds to an increase of 11 million people in 15 years. All the regions in South Africa saw population increases. Free State had the lowest annual growth rate (0.3%) while Gauteng had the fastest rate (3.8%).

Figure 12.140. **Skills supply and demand, South Africa regions, 2012**



Source: Labour Force Survey and regional accounts, Statistics South Africa.

StatLink http://dx.doi.org/10.1787/888933139271

Definitions and methodology

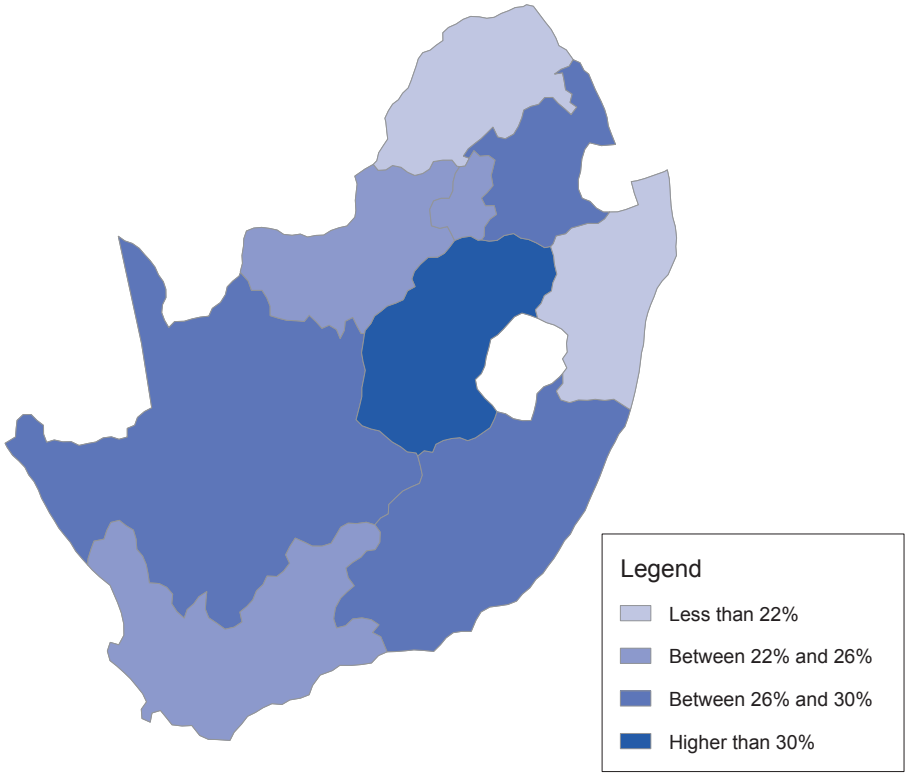
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.26. **Places to watch: Greatest increases in skills supply and/or demand, South Africa regions, 2008-2012**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Northern Cape	North West	Free State

Figure 12.141. **Unemployment rate, South Africa regions, 2012**

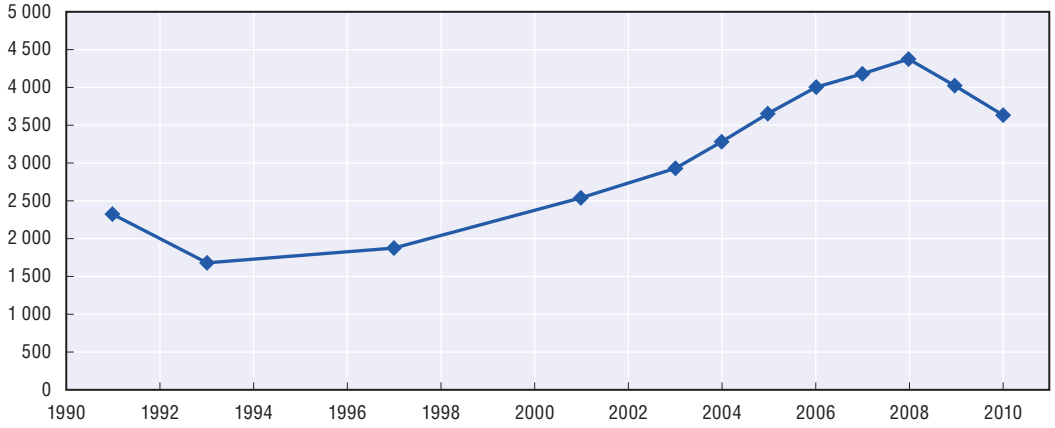


Source: Statistics South Africa.

StatLink http://dx.doi.org/10.1787/888933139290

Figure 12.142. **Gross domestic expenditure on Research and Development, South Africa, 1990-2010**

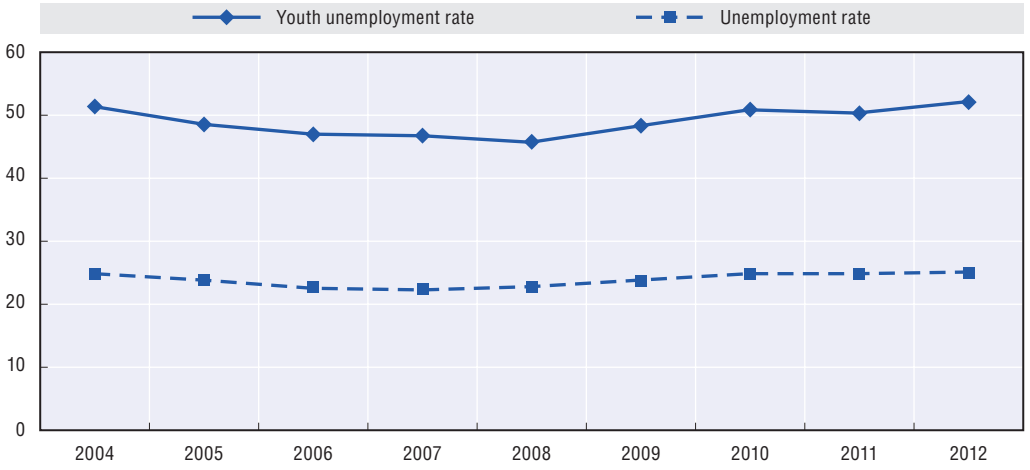
Million dollars, 2005 constant prices



Source: OECD (2012), "Research and Development Statistics: Gross domestic expenditure on R-D by sector of performance and source of funds", *OECD Science, Technology and R&D Statistics* (database), *http://dx.doi.org/10.1787/data-00189-en*.

StatLink http://dx.doi.org/10.1787/888933139309

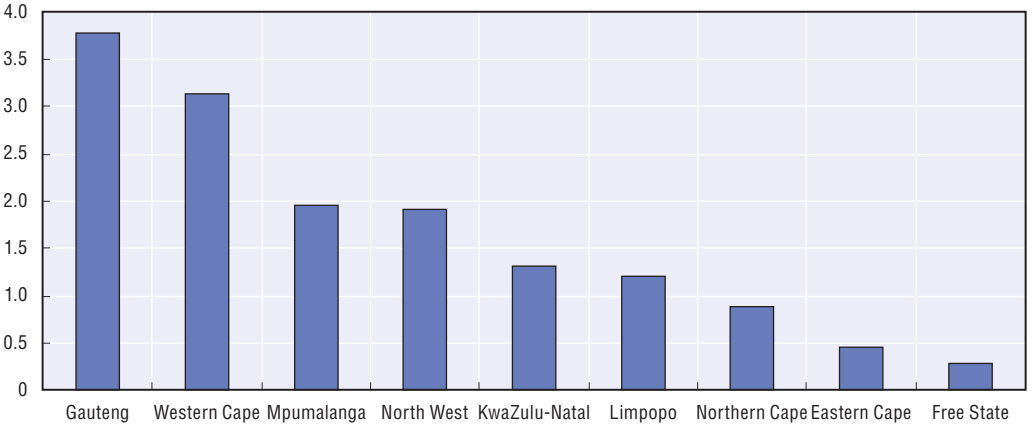
Figure 12.143. **Youth unemployment rate and unemployment rate, South Africa, 2004-2012**



Source: World Bank, *World Development Indicators*.

StatLink http://dx.doi.org/10.1787/888933139328

Figure 12.144. **Average annual population change (%), South Africa regions, 1996-2011**



Source: Population Census, Statistics of South Africa.

StatLink http://dx.doi.org/10.1787/888933139347

Spain

Skills supply and demand

Figure 12.145 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand in the 19 regions of Spain. In 2010, nine regions in the northern part of the country were in "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and GVA per worker). Southern regions and Galicia are in "low skills equilibrium", where low skills supply is matched by low demand. The Valencian Community is the only region presenting a skills surplus, where supply exceeds demand.

Data on trends has also been collected. Table 12.27 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2005-2010. Cantabria, Extremadura and La Rioja showed a significant increase in both skills supply and demand. Castilla - La Mancha improved its skills supply but remained in low skills equilibrium. Comunidad Foral de Navarra showed the greatest increase in skills demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Catalonia, also show relatively high unemployment rates.

Unemployment and youth unemployment

Spain's unemployment rate is one of the highest among the OECD countries: in 2013 the national rate was 26.4%. As for the skills analysis, the regional comparison (Figure 12.146) shows that the northern sub-regions are better positioned than the southern ones. Regional unemployment rates in 2012 vary between 12.2% in Guipúzcoa to 36.9% in Cádiz sub-region.

Youth unemployment is on average twice as severe as total unemployment in all the regions of Spain. The national youth unemployment rate is 55.7% in 2013 with regional variations between 45.3% in the Balearic Islands and 73.3% in Ceuta (see Figure 12.148).

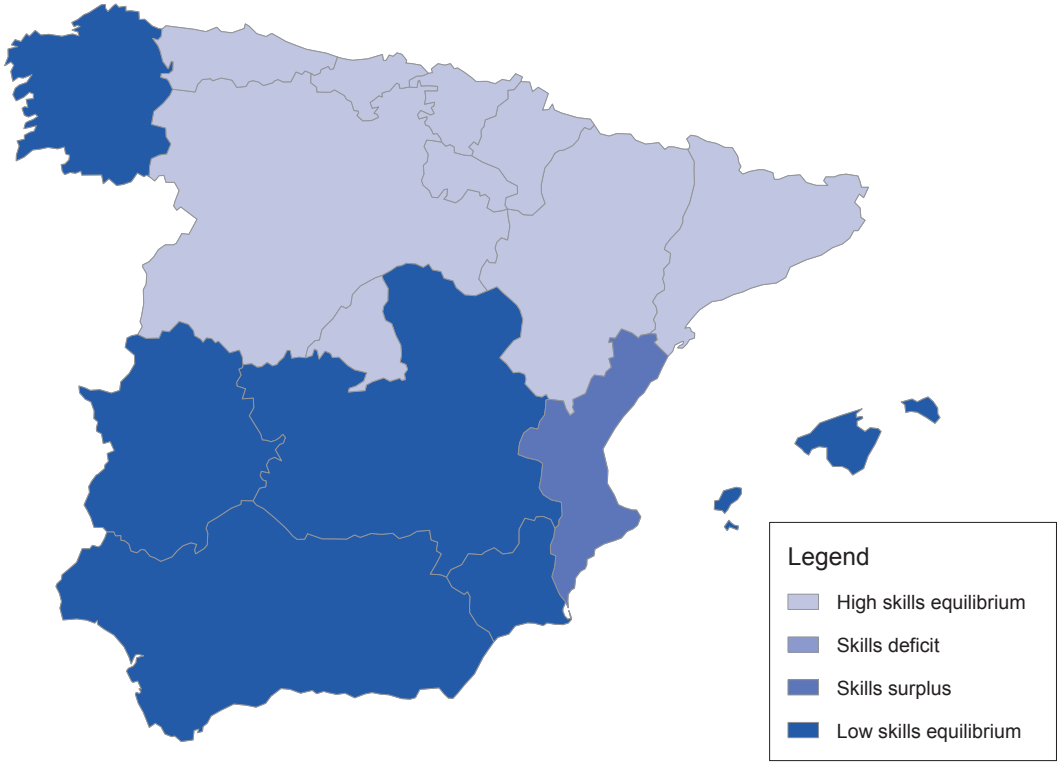
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. Figure 12.147 shows that Madrid, the capital city, has the highest share (45%) of employment in these sectors. Share of employment in knowledge intensive services specifically was highest in Madrid (40%) followed by 31% in the Basque Country and 30% in Catalonia. High and medium-high tech manufacturing is most common in the Basque Country with 9.7%, Navarra with 9.4% and Catalonia with 8.9% of total employment.

Demographic change

Demographic change can impact the local supply of skills. The population of Spain increased on average by 0.9% annually between 1992 and 2012. This corresponds to a population increase of seven million people. Figure 12.149 shows regional variations. The population of the Balearic Islands expanded at the fastest pace by 2.6% annually, followed by the Canary Islands and Murcia both around 2%. Three regions lost population over the years: Galicia, Castile and Leon, and Asturias.

Figure 12.145. **Skills supply and demand, Spanish regions, 2010**



Source: Labour Force Survey and regional accounts, Instituto Nacional de Estadistica.

StatLink http://dx.doi.org/10.1787/888933139366

Definitions and methodology

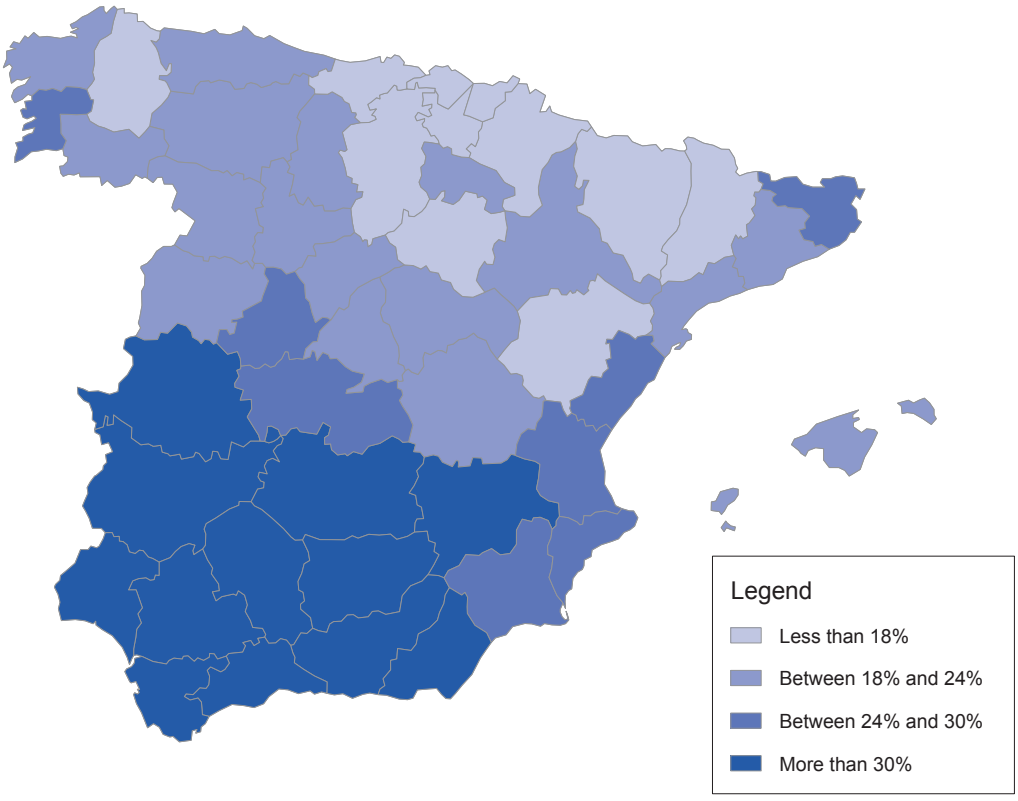
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.27. **Places to watch: Greatest increases in skills supply and/or demand, Spanish regions, 2005-2010**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Castilla - La Mancha	Cantabria	Comunidad Foral de Navarra
	Extremadura	
	La Rioja	

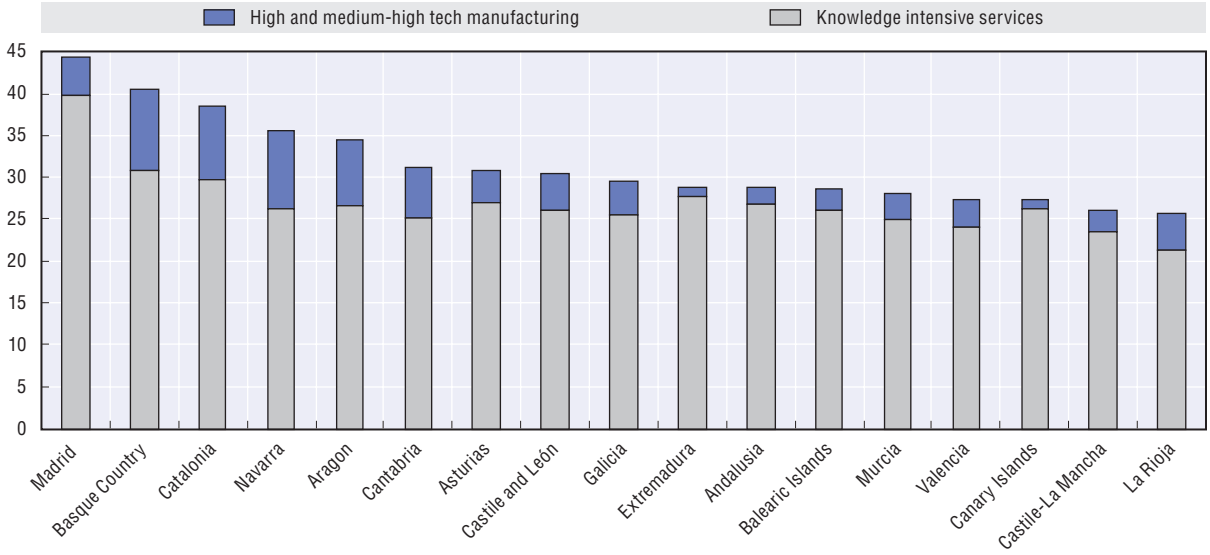
Figure 12.146. **Unemployment rate, Spanish sub-regions, 2012**



Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en*.

StatLink http://dx.doi.org/10.1787/888933139385

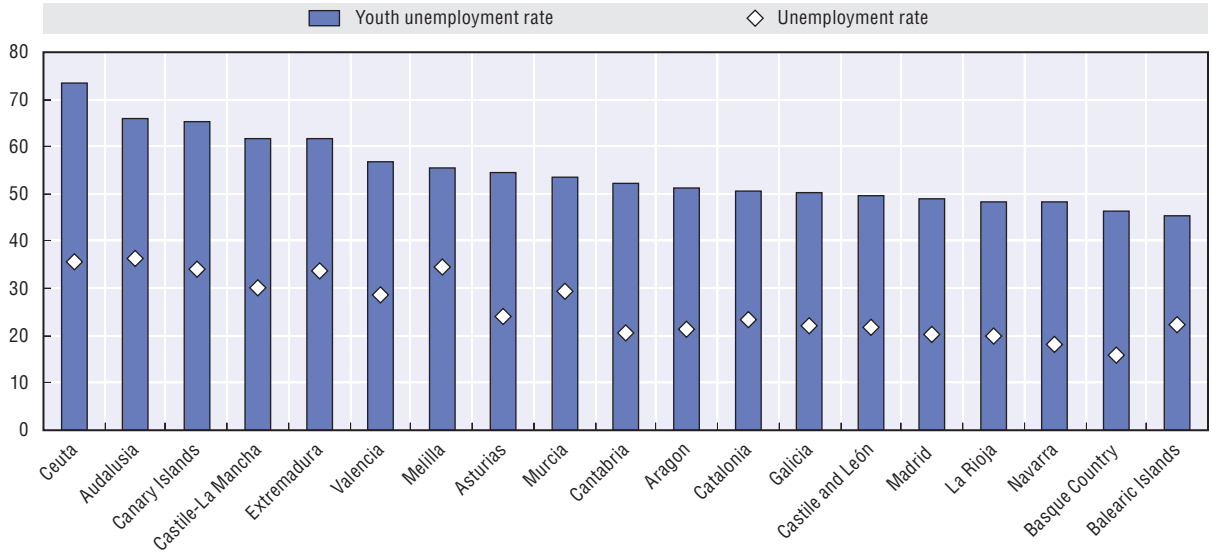
Figure 12.147. **Share of employment in knowledge intensive services and high and medium-high tech manufacturing, Spanish regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

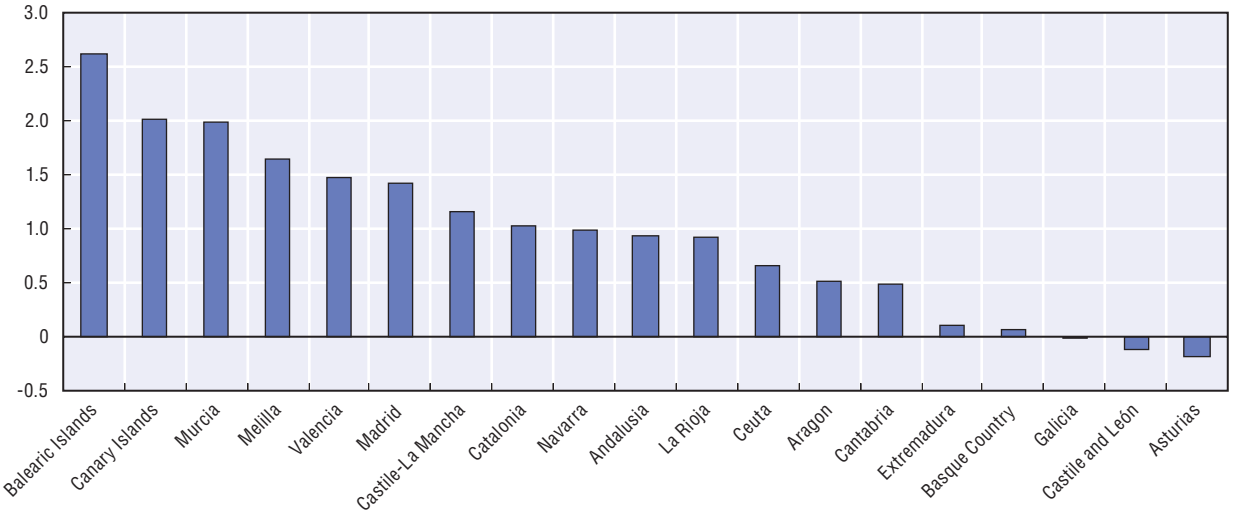
StatLink http://dx.doi.org/10.1787/888933139404

Figure 12.148. **Youth unemployment rate and unemployment rate, Spanish regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en.*
StatLink *http://dx.doi.org/10.1787/888933139423*

Figure 12.149. **Average annual population change (%), Spanish regions, 1992-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en.*
StatLink *http://dx.doi.org/10.1787/888933139442*

Sweden

Skills supply and demand

Figure 12.150 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand in twenty-one sub-regions in Sweden. In 2011, Stockholm, Uppsala, Örebro, Västmanlands, Skåne and Västra Götalands were in "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and regional GDP). Six sub-regions were in "low skills equilibrium", where low skills supply is matched by low skills demand.

Data on trends has also been collected. Table 12.28 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2001 and 2011. For example the highest increase in supply was shown in four southern counties – Bekinge, Gotland, Jönköping and Kalmar.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Örebro and Skåne, also show relatively high unemployment rates.

Unemployment and youth unemployment

In 2012 the unemployment rate was 8% in Sweden, which is very close to the OECD average of 7.9%. It ranged from 6.8% in Stockholm to 9.4% in Southern Sweden (see Figure 12.151). The counties Örebro, Skane, Blekinge, Södermanlands and Östergötlands have an unemployment rate over the national average. The lowest rates are found in Hallands, Jönköping, Gotland, Uppsala and Stockholm.

As shown in Figure 12.153, youth unemployment in 2013 varied between 20% in Stockholm and 27.5% in South Sweden. Inter-regional differences appear to be low. However the national youth unemployment rate of 23.6% in 2013 is almost three times higher than the total unemployment rate.

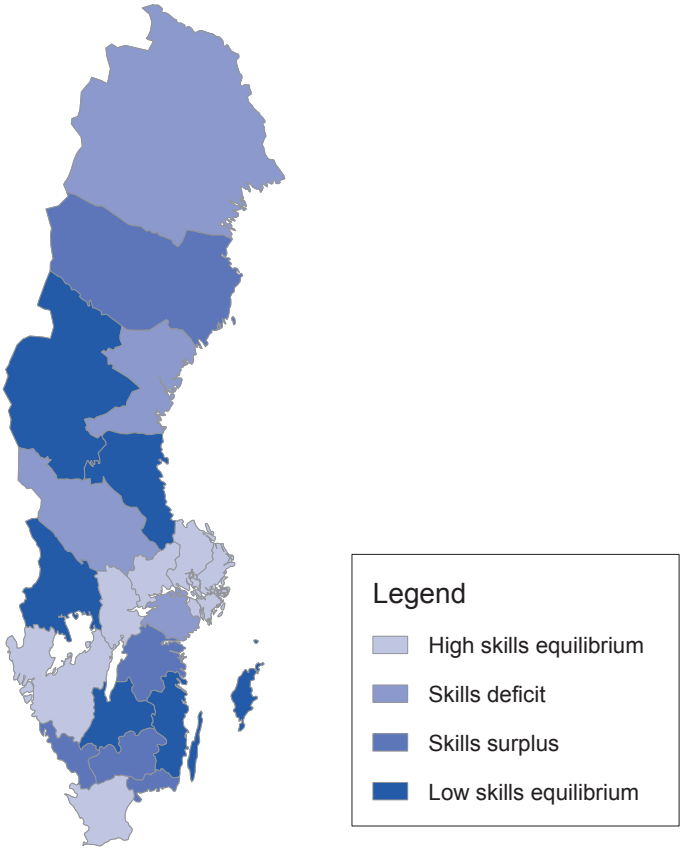
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. Figure 12.152 shows share of employment in high and medium-high tech manufacturing and knowledge intensive services by region. Employment in high and medium-high tech manufacturing is relatively low in the country and is present mainly in West Sweden and in Smaland with Islands regions. However Sweden has a strong base of knowledge intensive services, concentrated mainly in the Stockholm region, with 56% of those employed working in this sector. In the rest of the country, share of employment in this sector is on average 45%.

Demographic change

Demographic change can impact the local supply of skills. From 1990 to 2012 the population of Sweden grew with an average annual rate of 0.5%. Figure 12.154 shows that the northern regions have shown a decrease in population. Stockholm was the fastest growing region, with an increase of almost half a million inhabitants and an annual growth rate of 1.3% during the analysed two decades.

Figure 12.150. **Skills supply and demand, Swedish sub-regions, 2011**



Source: Labour Force Survey and regional accounts, Statistics Sweden.

StatLink http://dx.doi.org/10.1787/888933139461

Definitions and methodology

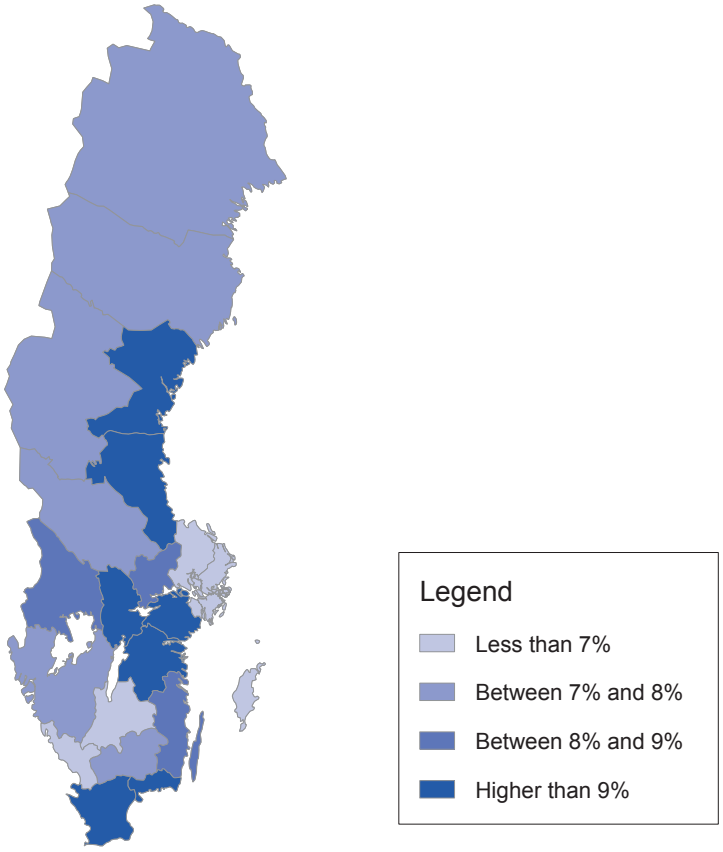
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.28. **Places to watch: Greatest increases in skills supply and/or demand, Swedish sub-regions, 2001-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Blekinge county		Norrbotten county
Gotland county		Örebro county
Jönköping county		Stockholm county
Kalmar county		Södermanland county

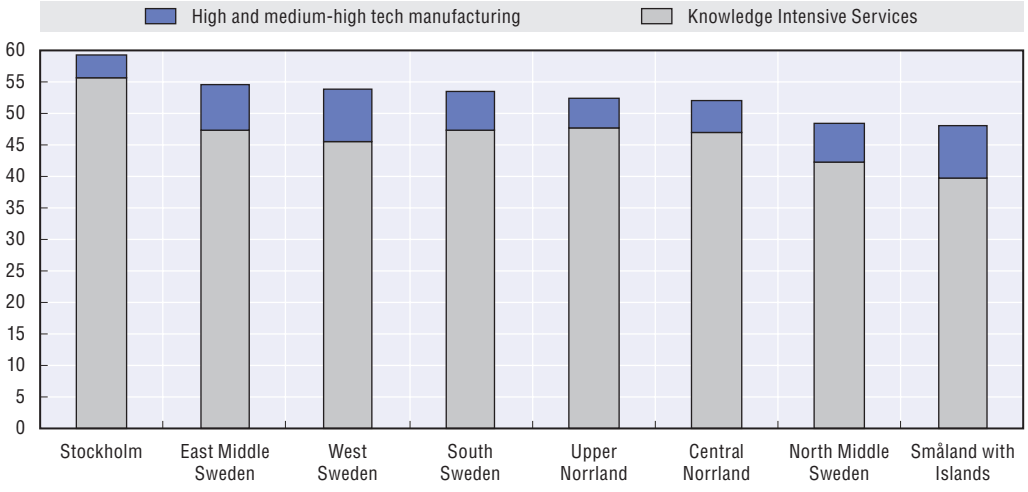
Figure 12.151. **Unemployment rate, Swedish sub-regions, 2012**



Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en.*

StatLink http://dx.doi.org/10.1787/888933139480

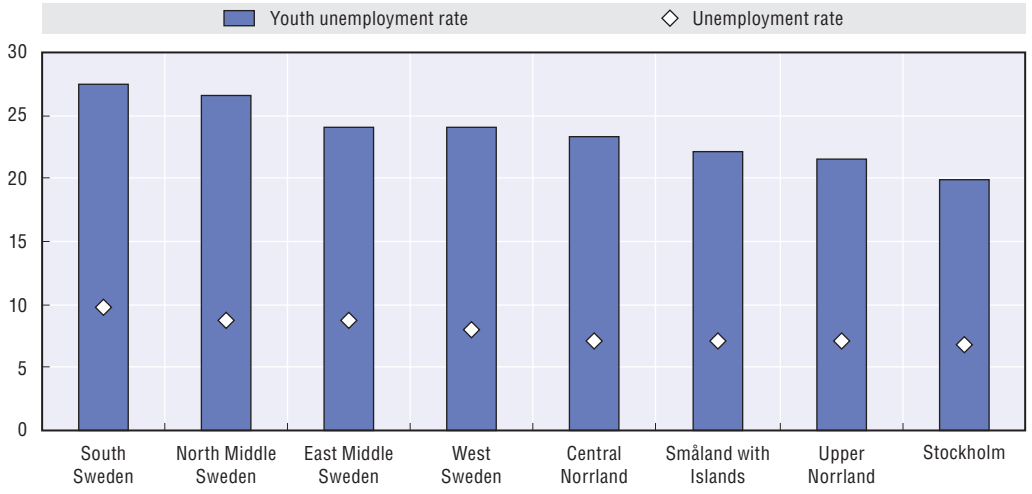
Figure 12.152. **Share of employment in knowledge intensive services and high and medium-high tech manufacturing, Swedish regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en.*

StatLink http://dx.doi.org/10.1787/888933139499

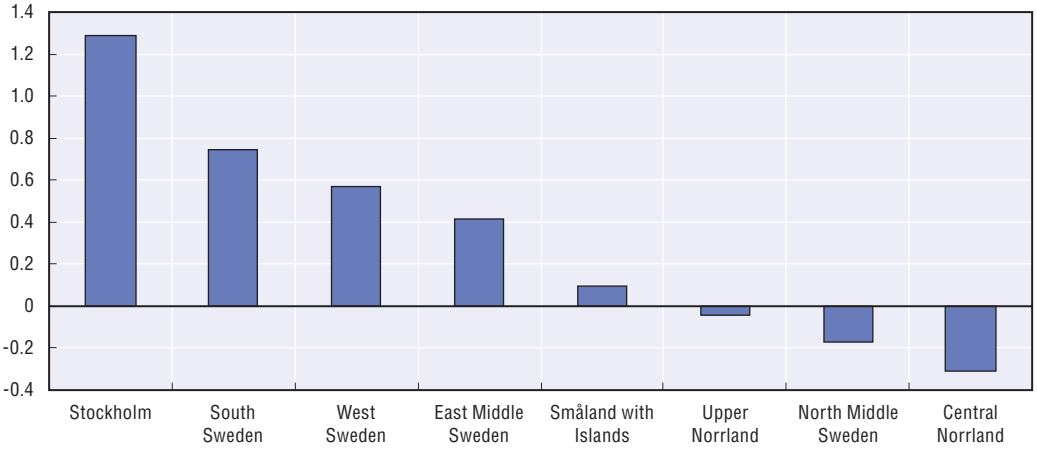
Figure 12.153. **Youth unemployment rate and unemployment rate, Swedish regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933139518

Figure 12.154. **Average annual population change (%), Swedish regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933139537

Switzerland

Skills supply and demand

Figure 12.155 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand in the 26 cantons of Switzerland. In 2010 eleven cantons were in "high skills equilibrium" including Bern, Geneva, Zurich, Basel and Neuchâtel, where a high skills supply (percentage of people with post-secondary education) is matched by high skills demand (percentage of medium and high skills occupations and GVA per worker). Eight cantons were in "low skills equilibrium", such as Freiburg, Glarus and Thurgau, where a low skills supply is matched by a low of skills demand.

Data was not available to analyse trends over time.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Geneva and Neuchâtel, also show relatively high unemployment rates.

Unemployment and youth unemployment

The unemployment rate in Switzerland has remained low in recent years. It was 4.4% at the end of 2013, which is lower than the OECD average. As shown in Figure 12.156, in 2010 there were some regional variations. Appenzell Innerrhoden had the lowest unemployment rate at 1.2%. Four other cantons also had a rate lower than 2%. Geneva had the highest unemployment rate at 7%.

For youth unemployment, the national average in 2013 was 8.5% with variations between 4.3% in the Central Switzerland region and 16.4% in Ticino region (see Figure 12.158). There is a sharp distinction in the rates in the Ticino and Lake Geneva regions (both around 16%) and the other five regions of the country (all under 8%).

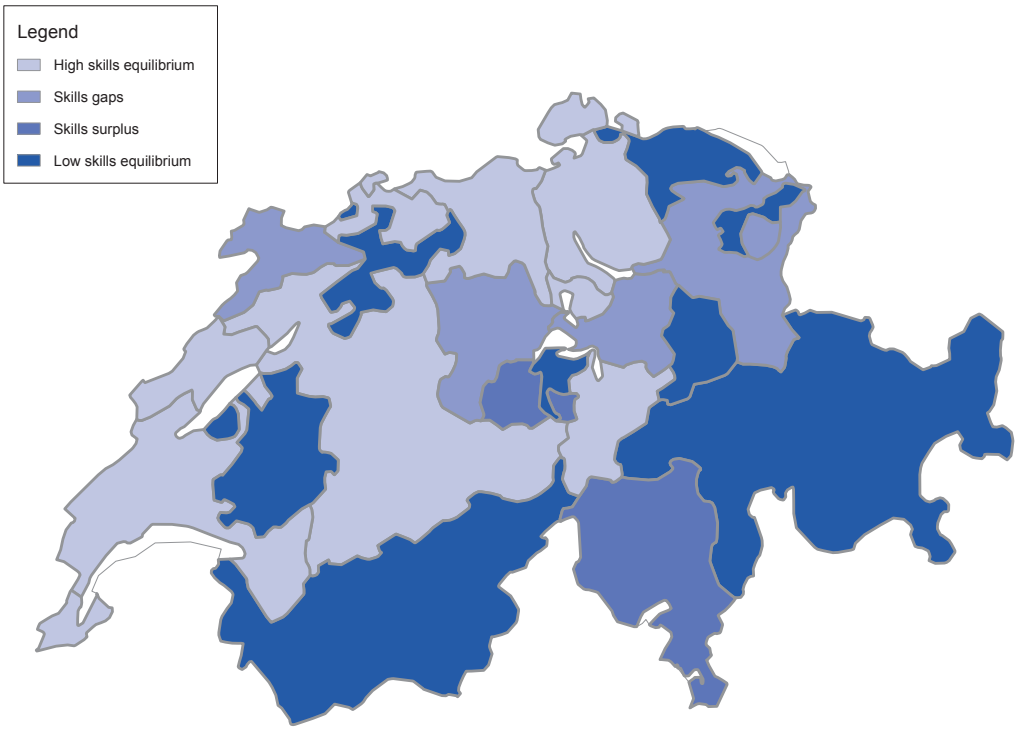
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. Figure 12.157 shows the share of employment in the knowledge intensive services and high and medium-high tech manufacturing in 2008. High and medium-high tech manufacturing is present mainly in Northwestern Switzerland, Espace Mittelland and Eastern Switzerland while knowledge intensive services are mainly present in Zurich, Lake Geneva and Ticino regions.

Demographic change

Demographic change can impact the local supply of skills. Between 1990 and 2012 the population of the country increased by nearly 1.3 million people, which corresponds to an annual average growth rate of 0.9%. Figure 12.159 shows that all sub-regions – with the exception of Basel-Stadt – experienced population growth. Sub-regions where the population increased the most are Freiburg, Zug and Schwyz with an average annual increase between 1.6% and 1.8%.

Figure 12.155. **Skills supply and demand, Swiss sub-regions, 2010**



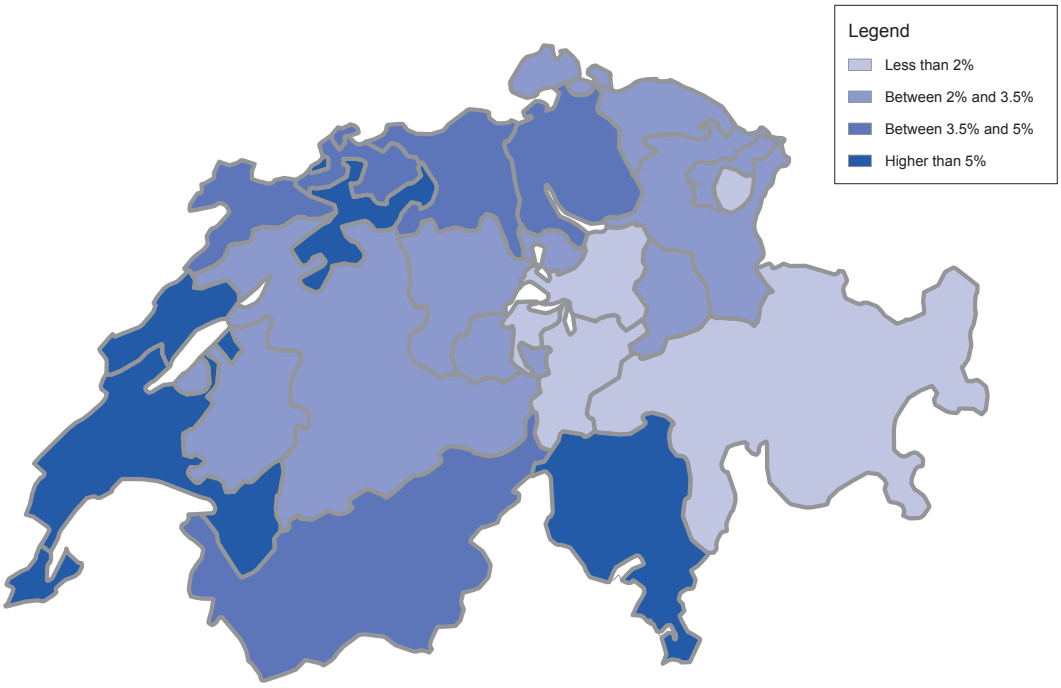
Source: Structural Survey and regional accounts, Swiss Federal Statistical Office.

StatLink http://dx.doi.org/10.1787/888933139556

Definitions and methodology

Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

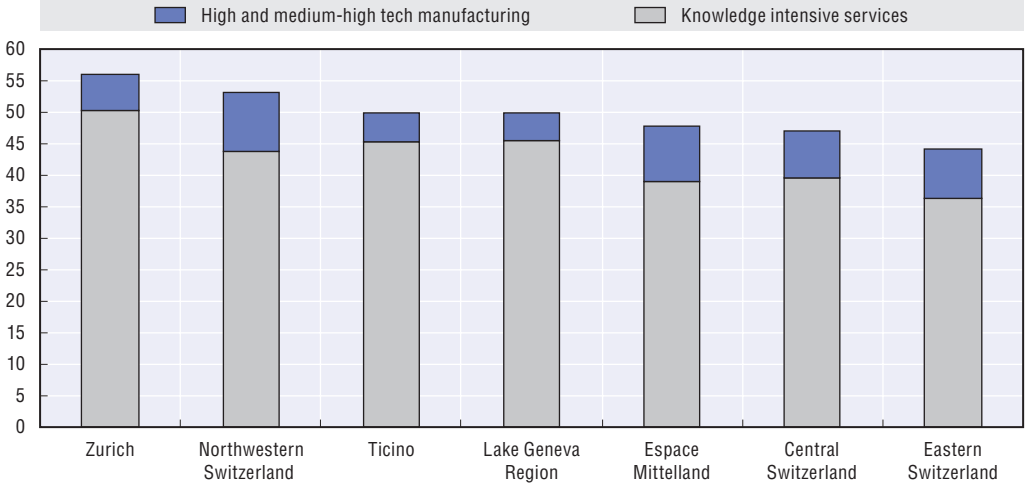
Figure 12.156. **Unemployment rate, Swiss sub-regions, 2010**



Source: Labour Force Survey, Swiss Statistics.

StatLink http://dx.doi.org/10.1787/888933139575

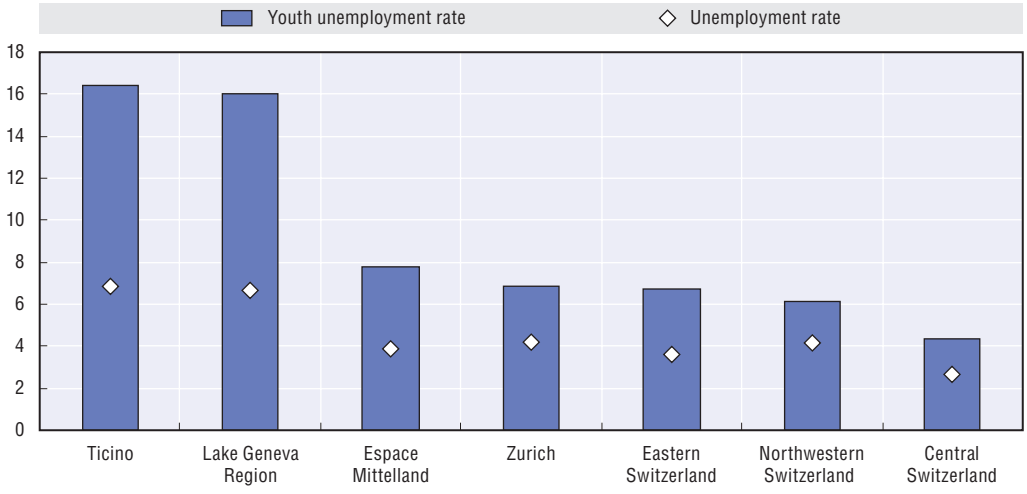
Figure 12.157. **Share of employment in knowledge intensive services and high and medium-high tech manufacturing, Swiss regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933139594

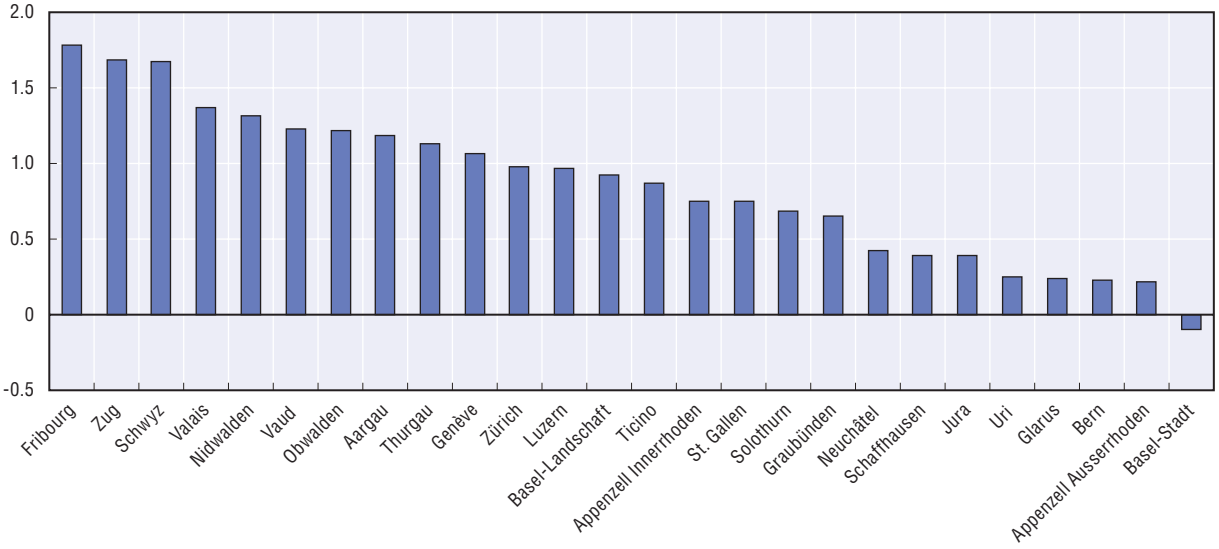
Figure 12.158. **Youth unemployment rate and unemployment rate, Swiss regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933139613

Figure 12.159. **Average annual population change (%), Swiss sub-regions, 1990-2012**



Source: OECD (2012), "Small regions, TL3: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00525-en*.

StatLink http://dx.doi.org/10.1787/888933139632

Turkey

Skills supply and demand

Figure 12.160 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand in Turkey's 26 regions. Nine out of eleven regions in "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (the percentage of medium and high skills occupations and GVA per worker) are in the western part of the country. Two regions were in skills surplus (where skills supply exceeds demand) and three regions were in skills deficit (where skills demand exceeds supply). The remaining regions are in "low skills equilibrium", where a low supply of skills is matched by low skills demand.

Data on trends has also been collected. Table 12.29 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2008 and 2011. Four regions showed a significant increase in skills supply and four in skills demand. One region increased in both skills supply and demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Izmir and Istanbul, also show relatively high unemployment rates.

Unemployment and youth unemployment

In 2013, the national unemployment rate was 8.7% which is higher than the OECD average. As shown in Figure 12.161, there are significant inter-regional variations. Nine regions including Izmir, Istanbul, Ankara are over the national average, with Mardin, Batman, Sirnak, Siirt region having the highest rate (19.4%). The lowest unemployment rate was 3.8%, in the region of Konya, Karaman.

Figure 12.163 shows youth unemployment rates. National youth unemployment in 2013 was 16.9%, and it ranged from 7.7% in the region of Konya, Karaman to 27.6% in Mardin-Batman, Sirnak, Siirt. The regional disparities generally follow the overall unemployment trends. A few exceptions exist, such as Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane, where despite the relatively lower rate of total unemployment (6%), the youth unemployment rate (20.4%) is among the highest.

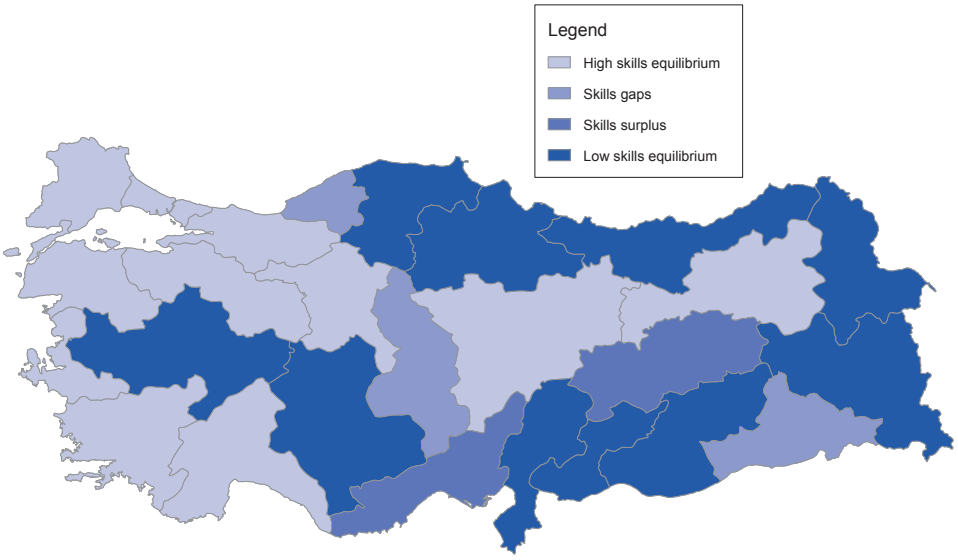
Employment in knowledge intensive services and high and medium-high tech manufacturing

Both services and manufacturing can generate high skills demand. Figure 12.162 shows the share of employment in each region in the knowledge intensive services and high and medium-high tech manufacturing. The region of Bursa, Eskisehir, Bilecik shows the highest rates of employment in high and medium-high tech manufacturing (12%). In terms of knowledge intensive services, over 20% of employment in Ankara and Istanbul are in this sector, followed by Izmir (17%).

Demographic change

Demographic change can impact the local supply of skills. The Turkish population grew at an average annual rate of 1.6% in the period of 1990-2012. Istanbul was the fastest growing region with a rate of 4% (see Figure 12.164). Among the six regions experiencing a decrease in population, Kastamonu-Çankiri-Sinop has the fastest rate of decrease (a negative rate of 1%).

Figure 12.160. **Skills supply and demand, Turkish regions, 2011**



Source: Census, Labour Force Survey and regional accounts, Turkish Statistical Institute (TurkStat).

StatLink http://dx.doi.org/10.1787/888933139651

Definitions and methodology

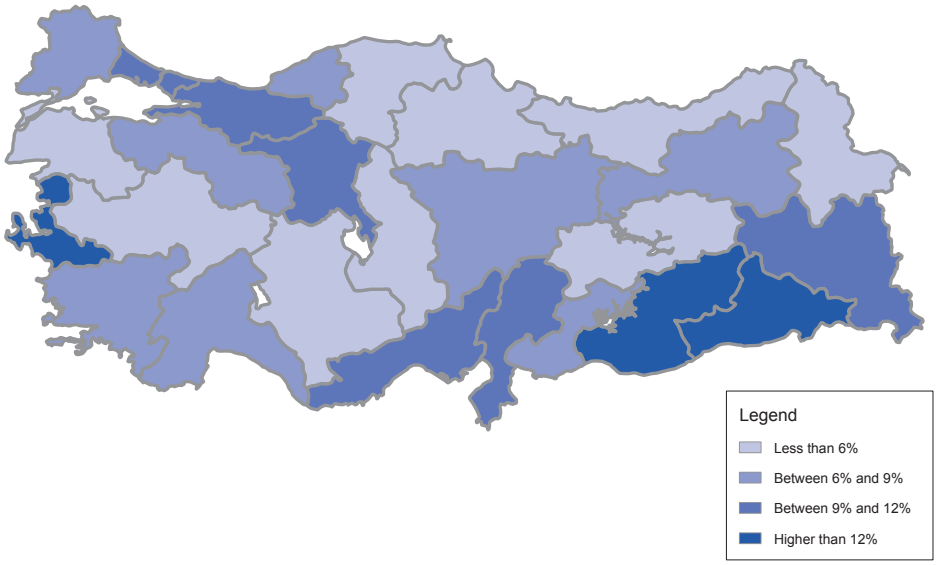
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.29. **Places to watch: Greatest increases in skills supply and/or demand, Turkish regions, 2008-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Malatya, Elazığ, Bingöl, Tunceli;	Ağrı, Kars, Iğdır, Ardahan	Erzurum, Erzincan, Bayburt;
Mardin, Batman, Şırnak, Siirt;		Gaziantep, Adıyaman, Kilis;
Şanlıurfa, Diyarbakır;		Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane;
Van, Muş, Bitlis, Hakkari;		Konya, Karaman;

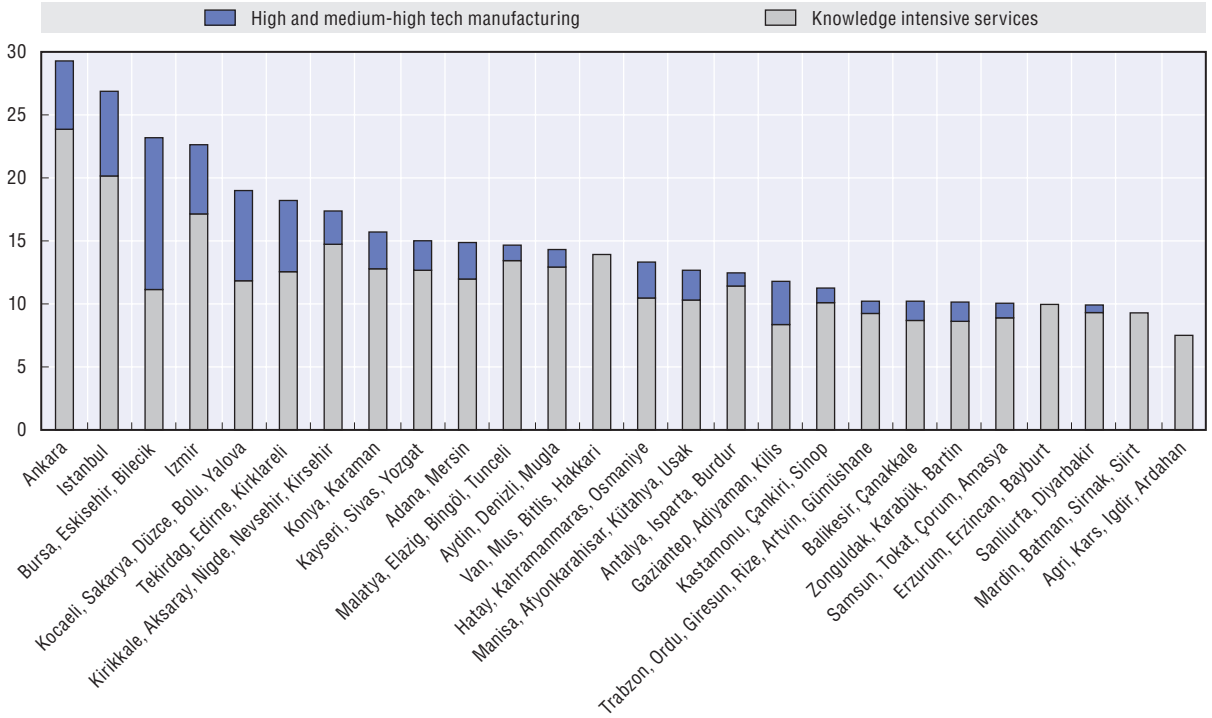
Figure 12.161. **Unemployment rate, Turkish regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933139670

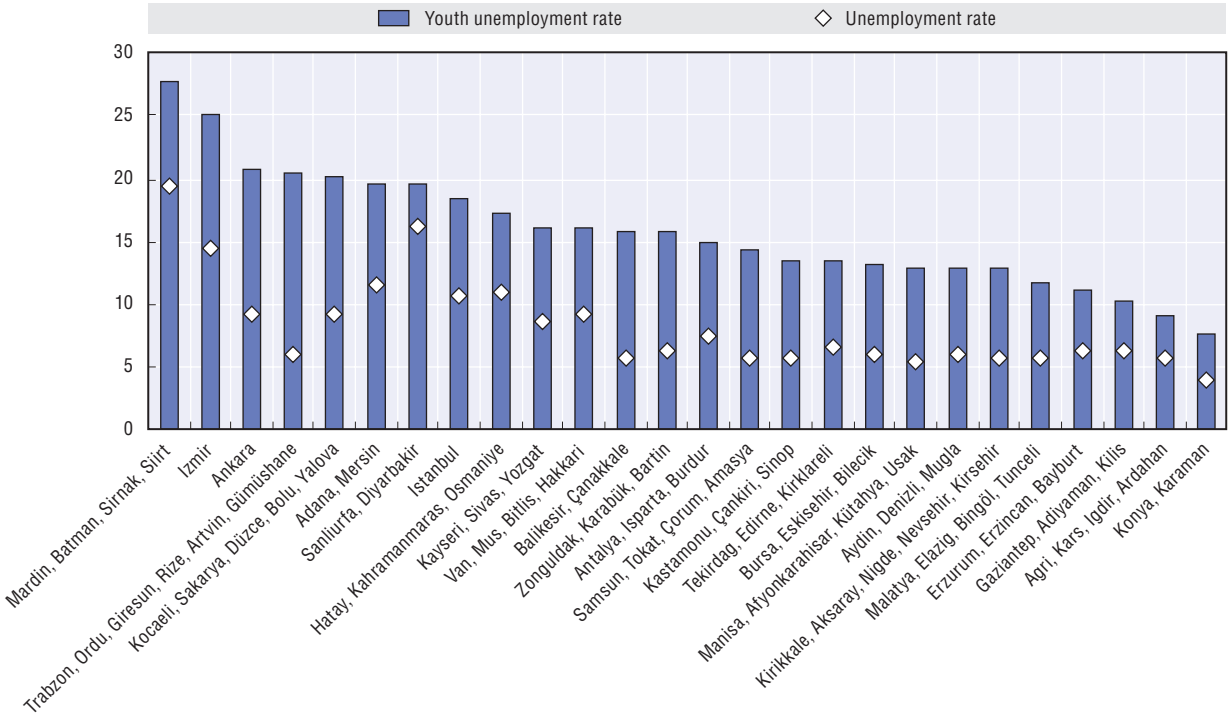
Figure 12.162. **Share of employment in knowledge intensive services and high and medium-high tech manufacturing, Turkish regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

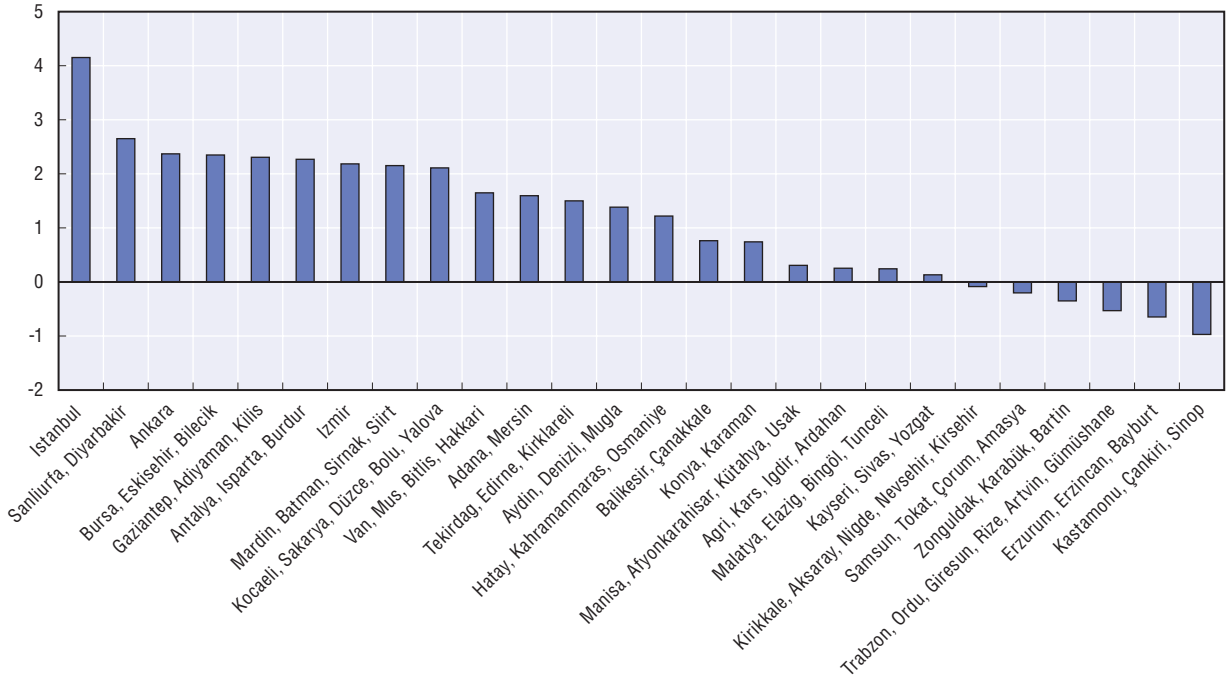
StatLink http://dx.doi.org/10.1787/888933139689

Figure 12.163. **Youth unemployment rate and unemployment rate, Turkish regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en.*
StatLink *http://dx.doi.org/10.1787/888933139708*

Figure 12.164. **Average annual population change (%), Turkish regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en.*
StatLink *http://dx.doi.org/10.1787/888933139727*

United Kingdom

Skills supply and demand

Figure 12.165 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand in the sub-regions of the United Kingdom in 2011.[1] Much of the South was in "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by high skills demand (percentage of medium and high skills occupations and GVA per worker). In contrast, areas of South West Scotland, Northern England, the Midlands, and Wales were in "low skills equilibrium", where a low supply of skills is matched by low demand. Western Scotland was in skills surplus, where the skills supply exceeds demand.

Data on trends has also been collected. Table 12.30 lists the places that showed the greatest percentage increase in skills supply and/or demand between 2001-2011. Twenty sub-regions have significantly increased their supply of skills and twenty their demand for skills. Four sub-regions had an increase in both skills supply and demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some regions in high skills equilibrium, such as Glasgow City and Inner London - East, also show relatively high unemployment rates.

Unemployment and youth unemployment

Figure 12.166 shows unemployment rates at the sub-regional level in the United Kingdom. The average unemployment rate was 8% in 2011 and improved to 7.5% by 2013. This figure is slightly lower than the OECD average. Sub-regions in Northern England, Northern Ireland, South Wales and the South West of Scotland have higher unemployment rates. In some urban areas such as London, Manchester, Liverpool, Birmingham and Glasgow unemployment is over 10%.

In 2013, the youth unemployment rate was 26.3%. Youth unemployment appears to be highest in North East England at 26.3% (see Figure 12.168). The East of England and the South-West England show the lowest youth unemployment rates both at 17.5%. However, this is three times as high as the total unemployment rate of these regions.

Employment in knowledge intensive services and high and medium-high tech manufacturing

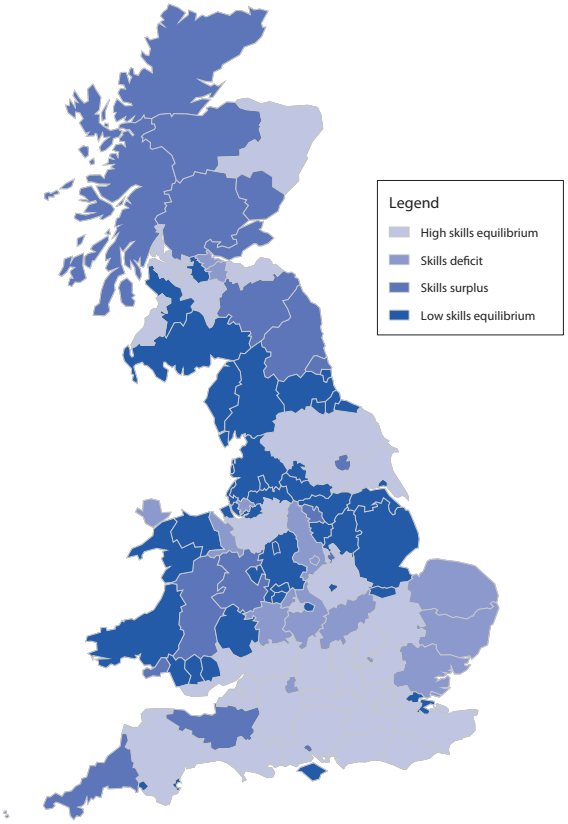
Both services and manufacturing can generate high skills demand. The regions with the highest employment in knowledge intensive services and high and medium-high tech manufacturing include London, South East and East of England (see Figure 12.167).

Demographic change

Demographic change can impact the local supply of skills. When looking at long-term population trends (see Figure 12.169), all regions showed a positive annual growth rate between 1990 and 2012. London is the fastest growing region (0.9% annually), followed by the East of England and Northern Ireland (both at 0.7%).

1. Northern Ireland could not be included in the skills analysis of the United Kingdom due to differences in data collection methods. Due to lack of data Eilean Siar, Orkney Islands and Shetland Islands are not included in the skills analysis.

Figure 12.165. **Skills supply and demand, United Kingdom sub-regions, 2011**



Source: Annual population survey and regional accounts, Office for National Statistics (ONS).

StatLink http://dx.doi.org/10.1787/888933139746

Definitions and methodology

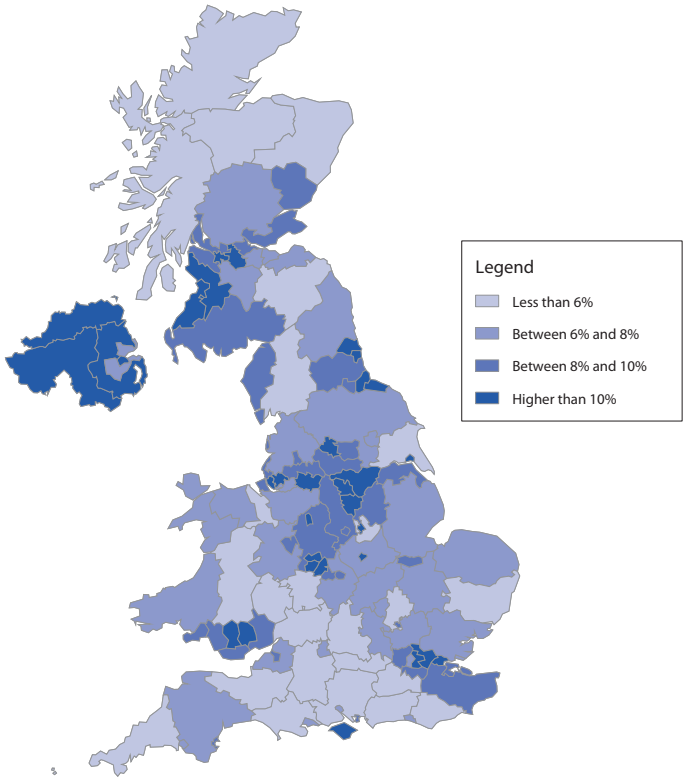
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period.

Table 12.30. **Places to watch: Greatest increases in skills supply and/or demand, United Kingdom sub-regions, 2001-2011**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Barnsley, Doncaster & Rotherham	Buckinghamshire CC	Aberdeen City, Aberdeenshire
Bridgend and Neath Port Talbot	Inner London - East	Berkshire
Central Valleys	Kent CC	Caithness & Sutherland and Ross & Cromarty
East Derbyshire	Plymouth	Cambridgeshire CC
Flintshire and Wrexham		Dumfries and Galloway
Gwent Valleys		Durham CC
Hartlepool and Stockton-on-Tees		East & West Dunbartonshire and Helensburgh
Leicester		Edinburgh, City of
Lincolnshire		Falkirk
Norfolk		Glasgow City
North Lanarkshire		Hampshire CC
North Nottinghamshire		Inner London - West
Northamptonshire		Isle of Anglesey
Northumberland		Lochaber, Skye & Lochalsh and Argyll
Outer London - East and North East		Monmouthshire and Newport
Powys		Outer London -West and North West
South Lanarkshire		Scottish Borders
Stoke-on-Trent		South Ayrshire
Tyneside		Suffolk
West Cumbria		Surrey

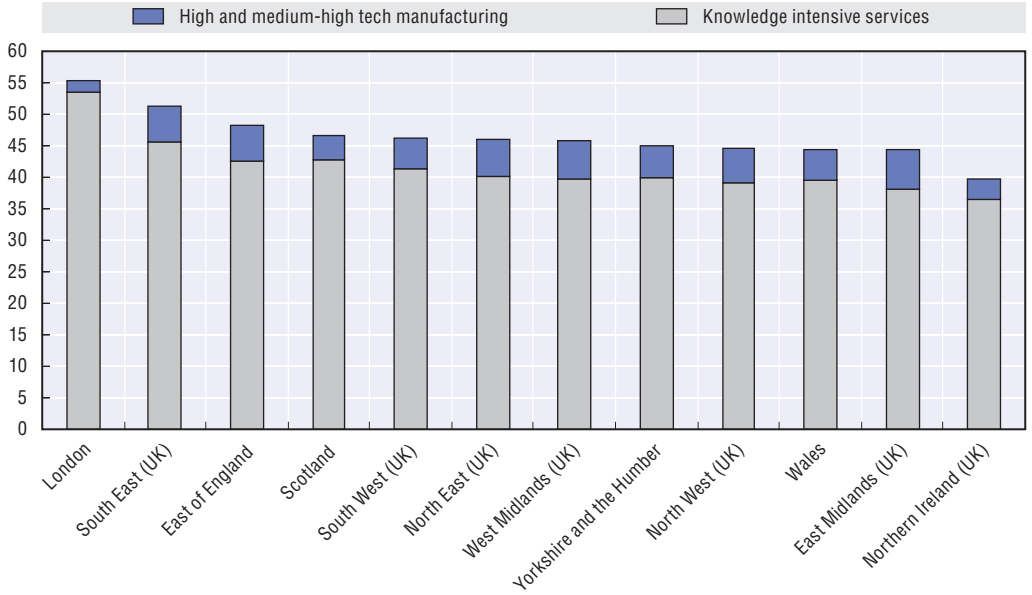
Figure 12.166. **Unemployment rate, United Kingdom sub-regions, 2011**



Source: Annual population survey, Office for National Statistics (ONS).

StatLink http://dx.doi.org/10.1787/888933139765

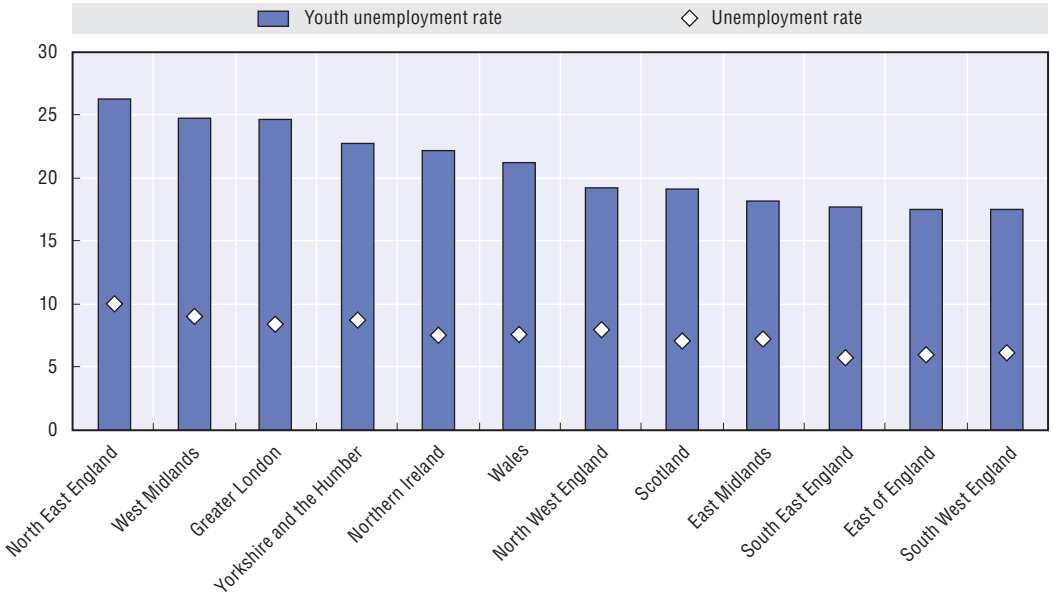
Figure 12.167. **Share of employment in knowledge intensive services and high-tech manufacturing, United Kingdom regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

StatLink http://dx.doi.org/10.1787/888933139784

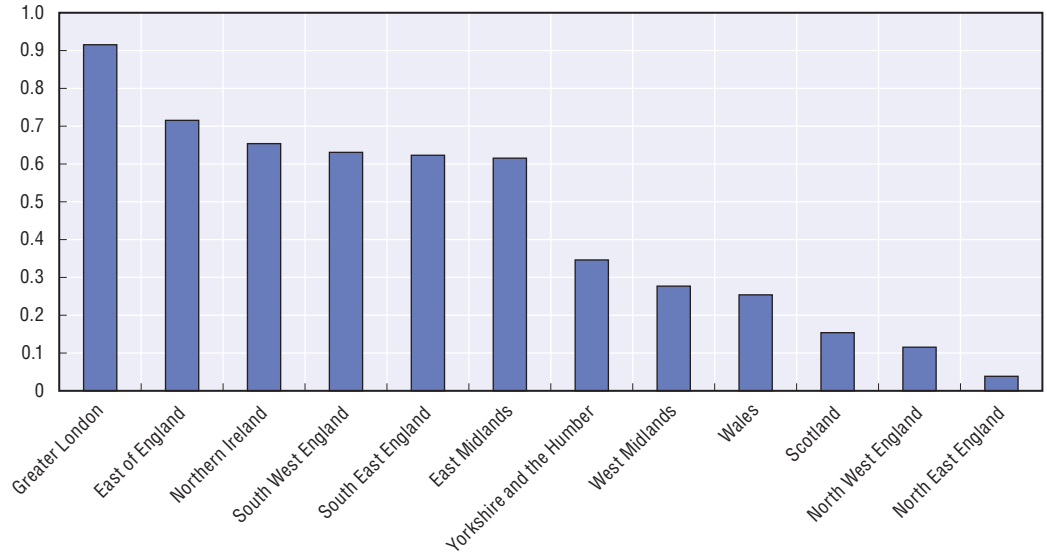
Figure 12.168. **Youth unemployment rate and unemployment rate, United Kingdom regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en*.

StatLink http://dx.doi.org/10.1787/888933139803

Figure 12.169. **Average annual population change (%), United Kingdom regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en*.

StatLink http://dx.doi.org/10.1787/888933139822

United States

Skills supply and demand

Figure 12.170 shows where conditions are ripe for quality job creation due to high skills supply and high skills demand in the 50 states and Washington, DC.* In 2012, fourteen states plus Washington D.C. were found to be in "high skills equilibrium", where a high supply of skills (percentage of people with post-secondary education) is matched by a high skills demand (percentage of medium and high skills occupations and income). Nineteen states, were in "low skills equilibrium", where a low supply of skills is matched by low skills demand.

Data on trends has also been collected. Table 12.31 lists the states that showed the greatest percentage increase in skills supply and/or demand between 2006-2012. West Virginia and Arkansas showed the highest increase in both skills supply and in demand.

It should be noted that the above tool does not provide an indicator of labour market inclusion. Some states in high skills equilibrium, such as Rhode Island and California, also show relatively high unemployment rates.

Unemployment and youth unemployment

In 2012, the unemployment rate in the 179 sub-regions of the United States showed large variations, between 2.4% in Minot (ND) and 15.2% in Fresno-Madera (CA) (see Figure 12.171). The 2013 national unemployment rate was 7.4%, which is below the OECD average. Unemployment rate is below 6% mostly in the northern central regions, while it is highest in the west. Nevada and Rhode Island showed the highest total unemployment (9.8% and 9.2% respectively).

As shown in Figure 12.173, in 2013, North Dakota shows the lowest total unemployment rate (3%) and the lowest youth unemployment rate (4.5%). Mississippi, Arkansas and Arizona had the highest youth unemployment rates, at 24.4%, 20% and 19.7% respectively.

Employment in knowledge intensive services and high and medium-high tech manufacturing

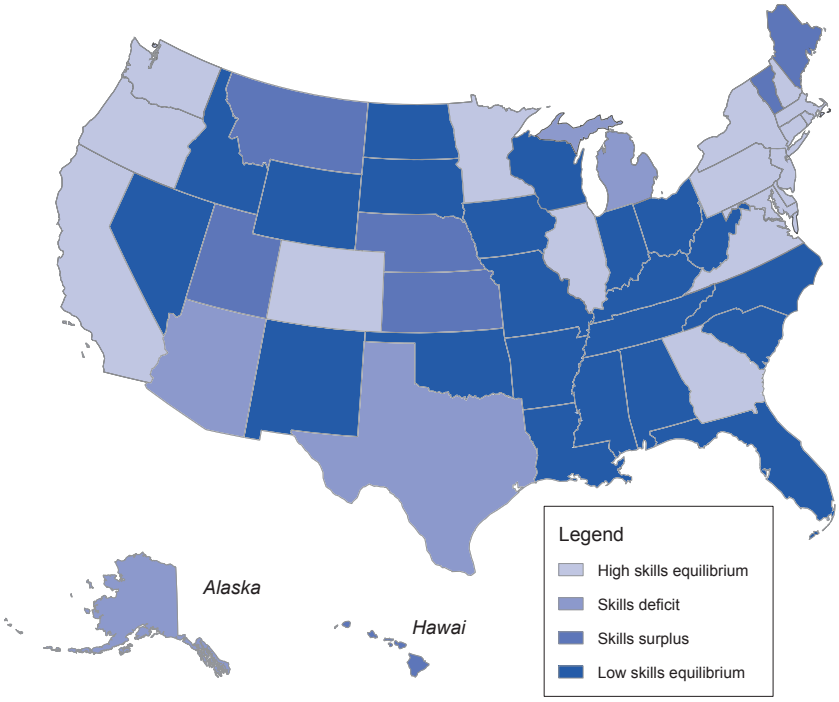
Both services and manufacturing can generate high skills demand. Figure 12.172 shows share of employment in high and medium-high tech manufacturing and knowledge intensive services by state. This rate was highest in Connecticut and Massachusetts, where respectively 59% and 56% of the employed population worked in these sectors. While these two states had the highest rate of employment in the knowledge intensive services, Indiana and Michigan had the highest rates of employment in high and medium-high tech manufacturing (8.9% and 8% respectively).

Demographic change

Demographic change can impact the local supply of skills. During the analysed period of 1990-2012, population increased by an average annual rate of 1.2%. Figure 12.174 shows the average annual population growth rate by state. The highest average annual change was registered in Nevada (5.7%), followed by Arizona (3.6%) and Utah (3%). Generally, western states increased their population faster than the eastern states, with the slowest increase observed in West Virginia, Rhode Island and District of Columbia at around 0.2% each.

* The format of this publication prohibited the inclusion of county level analysis, but it is available upon request.

Figure 12.170. **Skills supply and demand, United States regions, 2012**



Source: Census, American Community Survey and Regional Economic Accounts, US Census Bureau and Bureau of Economic Analysis.

StatLink http://dx.doi.org/10.1787/888933139841

Definitions and methodology

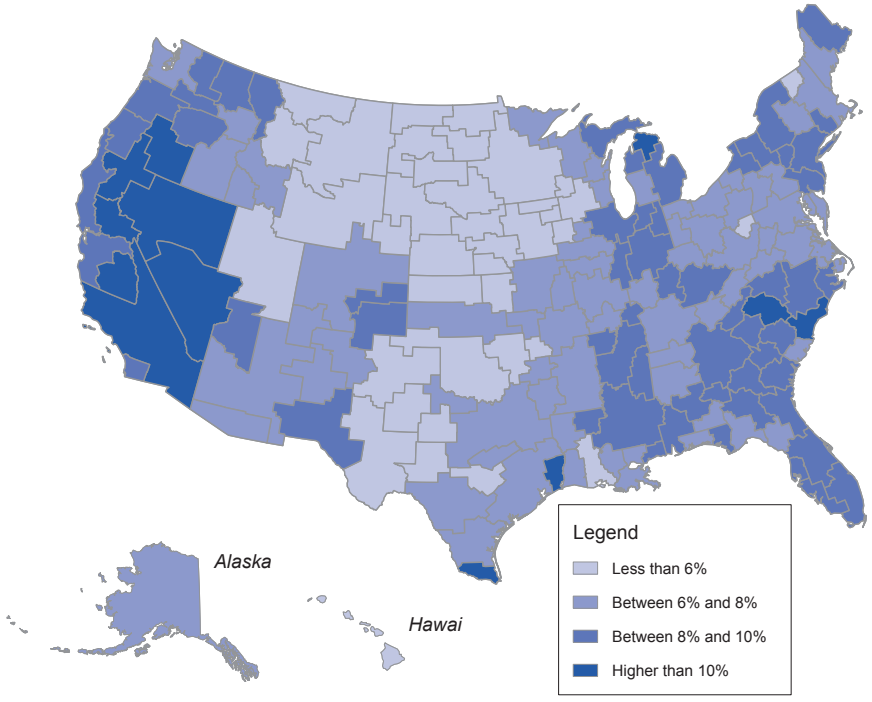
Skills supply and demand: The balance between skills supply and demand is assessed in each local area relative to the national median, leading to an identification of regions facing skills deficit and surpluses, and those in high or low skills equilibrium (see Chapter 4 for more information).

Places to watch: Local areas have been identified as "Places to watch" if they were in the top 20% of all local areas in the country in terms of percentage increase in skills supply and/or demand over the reference period..

Table 12.31. **Places to watch: Greatest increases in skills supply and/or demand, United States regions, 2006-2012**

Increase in skills supply	Increase in both skills supply and demand	Increase in skills demand
Alabama	Arkansas	Alaska
District of Columbia	West Virginia	Montana
Idaho		North Dakota
Illinois		Oklahoma
Minnesota		Texas
South Carolina		Utah
Tennessee		Washington
Vermont		Wyoming

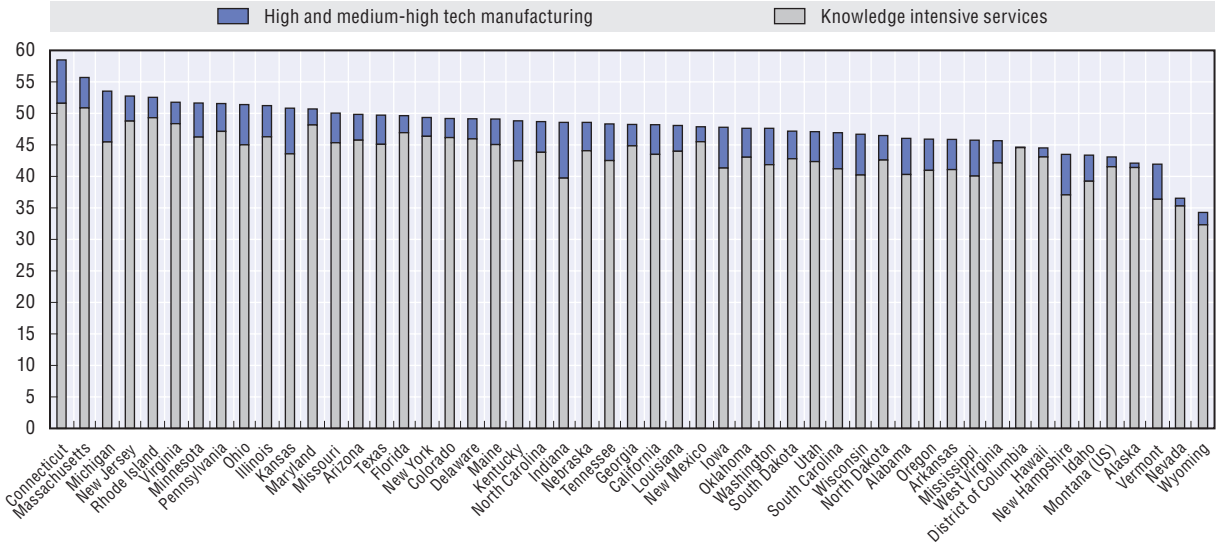
Figure 12.171. **Unemployment rate, United States sub-regions, 2012**



Source: OECD (2011), "Small regions, TL3: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00528-en*.

StatLink http://dx.doi.org/10.1787/888933139860

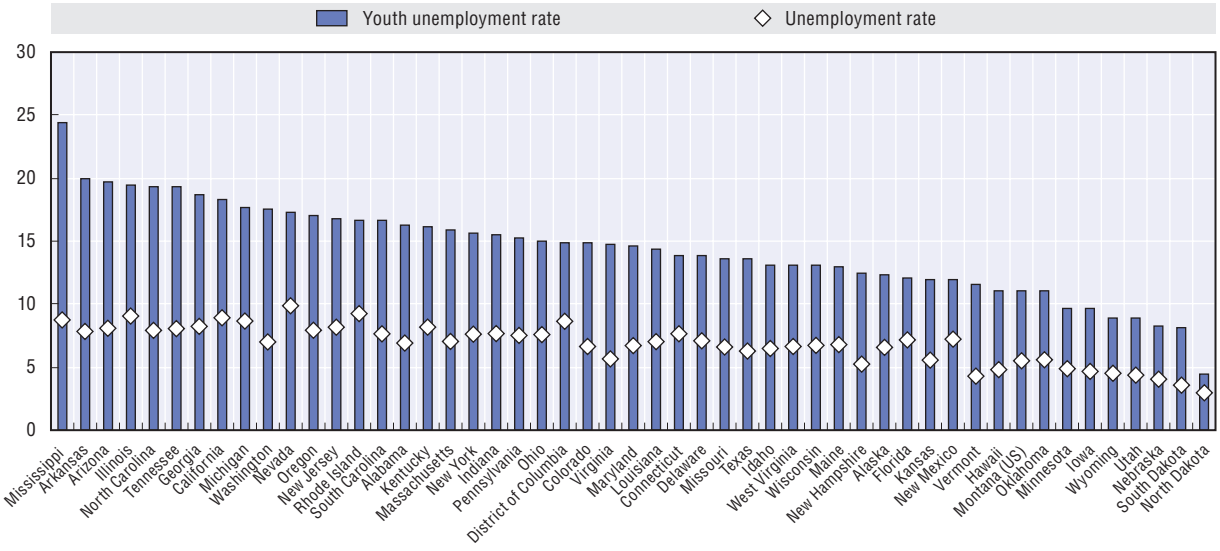
Figure 12.172. **Share of employment in knowledge intensive services and high and medium-high tech manufacturing, United States regions, 2008**



Source: OECD (2010), "Large regions, TL2: Innovation indicators", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00521-en*.

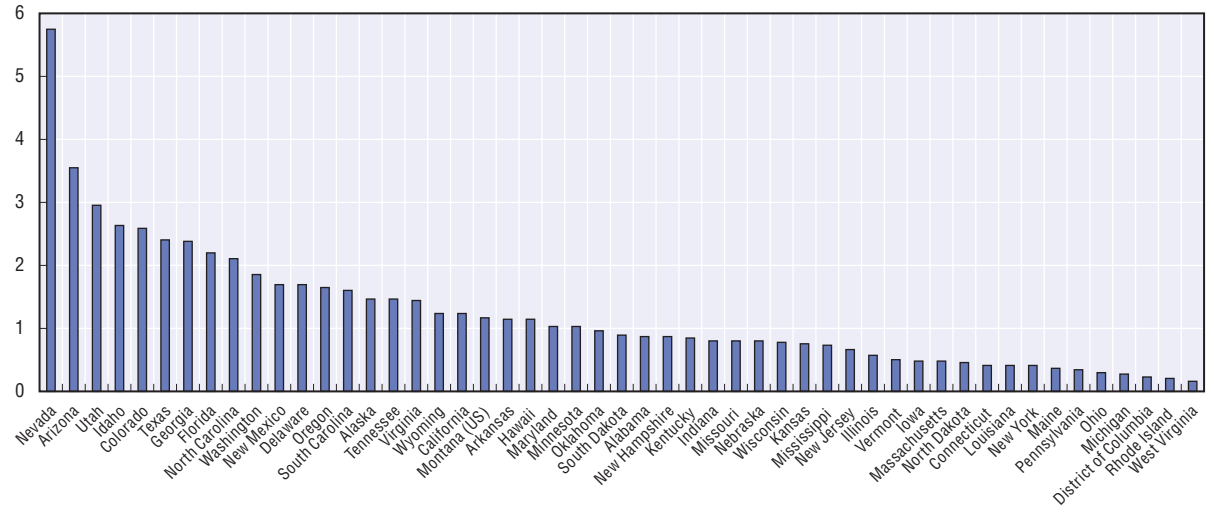
StatLink http://dx.doi.org/10.1787/888933139879

Figure 12.173. **Youth unemployment rate and unemployment rate, United States regions, 2013**



Source: OECD (2011), "Large regions, TL2: Regional labour market", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00523-en.*
StatLink *http://dx.doi.org/10.1787/888933139898*

Figure 12.174. **Average annual population change (%), United States regions, 1990-2012**



Source: OECD (2012), "Large regions, TL2: Demographic statistics", *OECD Regional Statistics* (database), *http://dx.doi.org/10.1787/data-00520-en.*
StatLink *http://dx.doi.org/10.1787/888933139917*

ANNEX A

Country profile methodology

This section provides guidance for the interpretation of the country profiles. It presents the methodology used to build indicators of skills supply and demand and defines the other indicators used in the analysis including innovation, unemployment, youth unemployment and long-term population change. Limitations in terms of cross-country comparability and data availability are also discussed.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Part IV presents data for a number of core indicators including trends in skills supply and demand, innovation, total and youth unemployment, and long-term population change. Skills data analysis was carried out over time in order to compare evidence between the pre- and post-financial crisis period. Data on each country is accompanied by a page of introductory text.

Defining regional and local areas

The analysis presented focuses primarily on the local and/or regional level. For each country the lowest geographical level for which the data was available was used for the analysis.

Local areas or sub-regions correspond to the Territorial Level 3 (TL3) regions as defined by the OECD. For most European countries, TL3 regions correspond to the third level of administrative divisions used in the Nomenclature of Territorial Units for Statistics (NUTS 3 regions).

When this level of disaggregation was not available, the analysis was conducted at the level of larger regions (Territorial Level 2 - TL2). For most European countries this corresponds to the second level of administrative divisions (NUTS 2 regions).

For Australia and Canada the OECD territorial classification could not be used, as national data was collected using a different level of geographical aggregation.

For Australia, the data was collected at the level of Labour Force Region (LFR), defined by their 2006 boundaries. LFRs are contiguous regions composed of geographical areas defined in the Australian Standard Geographical Classification (ASGC) at the time of a Census of Population and Housing. In 2006 there were 69 LFRs. A high proportion of these were in the larger metropolitan areas (Sydney, Melbourne, Brisbane, Perth and Adelaide). Each of the two territories (the Northern Territory and the Australian Capital Territory) had only one LFR each.

For Canada the analysis was conducted at the level of Economic Regions (ER) for which data was available. An Economic Region is a grouping of complete census divisions (CDs) created as a standard geographic unit for analysis of regional economic activity.[1]

Data collection

Data used in the country profiles chapter was provided by national statistical offices or sourced from the OECD Statistical Database. Only official data has been used as specified in the country profiles pages. The choice of the years used for the analysis was mainly based on data availability at the time of drafting of this report. When possible, the analysis was updated in 2014 in order to include the most recent data available.

Comparability over time and across countries is a key element of the analysis. Where there has been a change in the national definitions or national data collection methodology used by a country, the analysis was conducted only using the years for which comparable data was available.

Indicators

Based on relevance and availability, labour market dynamics at the local and/or regional level are monitored through 4 core types of indicator:

1. Skills supply and demand

The OECD LEED programme has developed a statistical tool to help understand the balance between skills supply and demand within local labour markets. According to this methodology, local economies can fall into four different categories: low skills equilibrium, skills deficit, skills surplus and high skills equilibrium. The results of this exercise for the most recent year available are displayed on maps (the first map in each country profile).

For each country the years of the analysis, the level of geographical breakdown and the data used is summarised in Table A.1 below.

Table A.1. **Summary of the data used for the skills analysis**

Country	Years	Level of analysis	Sources
Australia	2006-2011	69 Labour Force Regions	Labour Force Survey and Census, Australian Bureau of Statistics
Austria	2004-2011	9 regions (TL2)	Labour Force Survey and regional accounts, Statistik Austria
Belgium	2001-2010	11 sub-regions (TL3)	Labour Force survey, Statistics Belgium
Canada	2006-2011	73 Economic Regions	Labour Force Survey, Statistics Canada
Chile	2010-2012	15 regions (TL2)	Labour Force Survey, Instituto Nacional de Estadísticas (INE)
Czech Republic	2000-2010	14 sub-regions(TL3)	Labour Force Survey and regional accounts, Czech Statistical Office
Denmark	2006-2011	5 regions (TL3)	Labour Force Survey and regional accounts, Statistics Denmark
Estonia	2007-2011	5 sub-regions (TL3)	Labour Force Survey and regional accounts, Statistics Estonia
Finland	2000-2008	19 sub-regions (TL2)	Labour Force Survey and regional accounts, Statistics Finland
France	2006-2009	96 sub-regions (TL3)	Census, INSEE and OECD
Greece	2002-2011	13 sub-regions (TL3)	Labour Force Survey, Hellenic Statistical Authority and OECD
Hungary	2003-2011	20 sub-regions (TL3)	Labour Force Survey and regional accounts, Hungarian Central Statistical Office
Ireland	2010-2012	8 sub-regions (TL3)	Quarterly National Household Survey (QNHS), Central Statistical Office (CSO)
Israel	2005-2010	15 sub-districts (TL3)	Labour Force Survey, Central Bureau of statistics
Italy	2001-2009	103 sub-regions (TL3)	Labour Force Survey and regional accounts, ISTAT
Japan	2010	47 prefectures (TL3)	Census and regional accounts, Statistics Bureau of Japan
Korea	2000-2010	16 sub-regions (TL3)	Economically active population survey, regional income database, Statistics Korea
Latvia	2007-2011	6 sub-regions (TL3)	Labour Force Survey and regional accounts, Latvian Central Statistical Bureau
Lithuania	2011	10 sub-regions (TL3)	Labour Force Survey and regional accounts, Statistics Lithuania
Mexico	2005-2010	32 federal entities (TL2)	Labour Force Survey, Instituto Nacional de Estadística y Geografía (INEGI)
Netherlands	2000-2010	12 sub-regions (TL3)	Labour Force Survey and regional accounts, Statistics Netherlands
New Zealand	2006-2013	14 sub-regions (TL3)	Census and regional accounts, Statistics New Zealand
Norway	2005-2012	19 sub-regions (TL3)	Labour Force Survey, Statistics Norway
Poland	2002-2011	66 sub-regions (TL3)	Census and regional accounts, Central Statistical Office of Poland
Portugal	2001-2010	7 regions (TL2)	Labour Force Survey and regional accounts, Instituto Nacional de Estatística
Romania	2011	42 sub-regions (TL3)	Labour Force Survey and regional accounts, National Institute of Statistics
Slovak Republic	2000-2011	8 sub-regions (TL3)	Labour Force Survey and regional accounts, Statistical Office of the Slovak Republic
Slovenia	2002-2011	12 sub-regions (TL3)	Census, Labour Force Survey and regional accounts, Statistical Office of the Republic of Slovenia
South Africa	2008-2012	9 regions (TL2)	Labour Force Survey and regional accounts, Statistics South Africa
Spain	2005-2008	19 regions (TL2)	Labour Force Survey and regional accounts, Instituto Nacional de Estadistica
Sweden	2001-2011	21 sub-regions (TL3)	Labour Force Survey and regional accounts, Statistics Sweden
Switzerland	2010	26 sub-regions (TL3)	Structural Survey and regional accounts, Swiss Federal Statistical Office
Turkey	2008-2011	26 regions (TL2)	Census, Labour Force Survey and regional accounts, Turkish Statistical Institute (TurkStat)
United Kingdom	2001-2011	128 sub-regions (TL3)	Annual population survey and regional accounts, Office for National Statistics (ONS), for GB. Labour Force Survey and regional accounts, detini and delni for NI.
United States	2006-2012	50 states plus one capital district	Census, American Community Survey and Regional Economic Accounts, US Census Bureau and Bureau of Economic Analysis

Identifying the right variables

In order to approximate the *supply* for skills at sub-regional – or occasionally larger regional – level, the study has used the percentage of the working age population having post-secondary education as an indicator. This was the only indicator available at sub-regional level and comparable across countries. Data on non-formal skills acquisition or skills acquired through training was not consistently collected.

In order to approximate the *demand* for skills the following two variables have been combined into a composite index:

- Percentage of population having medium and high skills occupations
- Gross Value Added (GVA) per worker, or income from employment according to data availability.[2]

Medium and high skills occupations are identified for the purpose of this study as those professions requiring at least a post-compulsory education and managerial positions which require a relevant period of work experience. Where possible the classification used the first level of the International Classification of Occupations (ISCO), of which categories 1 (Managers), 2 (Professionals), 3 (Technicians and associate professionals), 6 (Skilled agricultural, forestry and fishery workers) and 7 (Crafts and related trade workers) were considered as medium and high skilled occupations.

GVA per worker is a useful proxy for productivity, and it can vary significantly across regions. It complements information on medium and high skilled occupations by directly reflecting both the increasing use of technology and the intensity with which higher levels of skills are used at the workplace, which is normally mirrored by higher output and/or remuneration.

In combining the two demand variables into a composite index a weight equal to 0.25 has been allocated to the first variable and 0.75 to the second. GVA per worker is given a higher weight as it is a workplace-based variable which precisely refers to the area where the person actually works. In contrast, data on employment in medium and high skills occupations is residence-based.

Computing the supply and demand indices

For building indices it is necessary to bring the variables in a common unit (scale) of measurement using a standardisation method. It was decided to use the inter-decile range method which is not influenced to a great extent by outliers. See the formula below:

$$(X_i - X_{med}) / (X_{9th} - X_{1st})$$

Where: X_i = value for $TL3_i$ or $TL2_i$

X_{med} = national median

X_{9th} = 9th decile

X_{1st} = 1st decile

Limitations of comparability

The results of the skills analysis have to be interpreted in relative terms and within a country. The categories of low and high skills equilibrium, skills deficit and skills surplus are always a result of comparison to the national median.

In addition, in the computation of the indicators of skills supply and demand no reference is made to unmet demand and unfilled vacancies as the analysis is conducted using data collected through population surveys or the Census and not by using firm-level data.

Places to watch: where the most progress has been made

OECD analysis has shown that there is not only variation in the classification of sub-regions according to the supply and demand for skills but also in their trajectories over time. Local areas or larger regions have been identified as "places to watch" if they were in the top 20% of local areas in the country in terms of percent change in skills supply and/or demand over the analysed period. All places regardless of their population size and their level of skills supply and demand at the beginning of the period are considered.

These changes are included in the "places to watch" table in each country profile.

2. Total and youth unemployment rate

According to the ILO definition the unemployment rate is defined as the unemployed persons as a percentage of the labour force (the total number of people employed plus unemployed). In the country profiles, the unemployment rate is presented for the latest available year by TL3 region and displayed on a map. Where data for the TL3 level was not available, data for TL2 regions is presented.

As defined by the OECD, youth unemployment refers to unemployed persons aged 15 to 24. In countries where the age of the reference groups was different from the standard one, footnotes were inserted in the country profile. Due to limited data availability, youth unemployment on the TL2 regional level is used.

3. Innovation

Regions and local areas that invest in innovation can acquire an advantage compared to other regions in attracting and retaining a high-skilled labour force and generating higher levels of productivity. In this report innovation is measured using one of two sets of indicators.

High and medium-high tech manufacturing and knowledge intensive services

As defined by the OECD, employment in high and medium-high technology sectors corresponds to the following ISIC Divisions/Groups/Classes: 24 Manufacture of chemicals and chemical product; 29 Manufacture of machinery and equipment n.e.c.; 31 Manufacture of electrical machinery and apparatus n.e.c.; 32 Manufacture of radio, television and communication equipment and apparatus; 33 Manufacture of medical, precision and optical instruments, watches and clocks; 34 Manufacture of motor vehicles, trailers and semi-trailers; 35 Manufacture of other transport equipment, excluding group 351 Building and repairing of ships and boats.

Employment in the knowledge intensive services corresponds to the following ISIC divisions: 61 Water transport; 62 Air transport; 64 Post and Telecommunications; 65 Financial intermediation, except insurance and pension funding, 66 Insurance and pension funding except compulsory social security; 67 Activities auxiliary to financial intermediation; 70 Real estate activities; 71 Renting of machinary and equipment without operator and of personal and household goods; 72 Computer and related activities; 73 Research and

development; 74 Other business activities; 80 Education; 85 Health and social work; and 92 Recreational, cultural and sporting activities.

R&D expenditures and employment

When the indicators on high and medium-high technology manufacturing and knowledge intensive services were not available, data on innovation has been used, with charts showing the Research and Development (R&D) expenditure as percentage of gross domestic product (GDP) and the share of employment in R&D as percentage of total employment.

The total R&D expenditures is the sum of expenditures in the four performing sectors (business, government, higher education and private non-profit).

Employment in R&D includes all persons employed directly on R&D, as well as those providing direct services such as R&D managers, administrators, and clerical staff.

As both these sets of indicators are rarely collected at the local level, regional data (TL2 level) was chosen for the analysis. The choice of the year was limited as data on high-technology manufacturing and knowledge intensive services in the OECD regional database has not been updated since 2008.

4. Demographic change

Finally, long-term population change is analysed, by looking at the average annual percentage change of population over a particular time period at the local or regional level. This indicator can give an indication of places that are gaining or losing population as a consequence of ageing and/or migration.

For most countries data covers approximately two decades (from 1990 until the most recent year available). A shorter time period is used when longer-term data was not available.

Notes

1. More information can be found at the following URL: *www.statcan.gc.ca/pub/92-195-x/2011001/geo/er-re/er-re-eng.htm*.
2. For Australia, Chile and Ireland none of these indicators was available at the sub-regional level. In these cases the percentage of employed in medium and high skilled occupations was taken as the sole indicator of skills demand.

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