

Turning the Tide

How Europe Can Rebuild Skills and Generate Growth



European Business Summit 2012: Research study

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Foreword

Now more than ever, we need to address Europe's human capital challenges. The ability to learn new skills has the capacity to transform individuals and to generate the economic growth we need. Against the backdrop of the recession, the challenges we face are manifold, including: high unemployment; skills shortages; fewer opportunities for individuals to keep their skills fresh; and significant demands on businesses to navigate today's crisis while investing for future growth. The need for action is urgent. We need fresh thinking about old challenges and practical solutions that will deliver results—and that is what you will find in this report.

Businesses must address skills issues not only for themselves but for the broader communities in which they operate. This is about investing in the future pipeline of talent. It is about connecting to local schools and universities to help shape programmes, and to advise on the skills and experiences that students need to thrive in a professional environment.

Accenture's global Skills to Succeed initiative, for example, has set the goal to equip 250,000 people around the world by 2015 with the skills to get a job or build a business. Today, Accenture is nearly two-thirds of the way toward achieving this goal, which is both a recognition of the incredible talent in our world that is just waiting to be released and the power of business to unlock that potential.

For its part, the Federation of Enterprises in Belgium is responding to the shortage of international business skills—identified as critical in this report—by supporting the creation of the International Business Institute in Brussels, which will start organising training in October 2012.

Given the complexity of the issues at hand, it is clear that no one sector can go it alone in addressing the skills challenge. As this report highlights, businesses recognise their key role in a multisector approach. Action is also required by government agencies, civil society organisations, educational institutions and individuals, themselves.

Businesses can help lead the way. We need to help ensure that all sectors of the economy are aligned. We must also be prepared to throw away the rulebook and focus on outcomes, or we will not get far on the journey. With the stakes as high as they are, we cannot afford to fail.

Pierre Nanterme

Chief Executive Officer
Accenture

Rudi Thomaes

Chief Executive Officer
Federation of Enterprises in Belgium

Executive summary

People and skills are the bedrock of the European economy. If Europe is to have any chance of managing today's crisis while positioning itself to capitalise on future growth opportunities, investing in people will be critical. Our analysis of Europe's labour market, engagement with a panel of leading academics and policy experts and survey of 500 decision makers across Europe support this. Seventy-two percent of survey respondents held that Europe needs to increase investment in education and skills development, especially during weak economic conditions.

The skills paradox: Lowest when needed most

However, it is a paradox that investment in human capital is usually lowest when needed most. Pressure on budgets from low demand and efficiency measures forces organisations throughout the economy to cut back. Indeed, 86 percent of decision makers report that they have either reduced or frozen their levels of investment in skills and training over the last 12 months.

With Europe's economic prospects continuing to be gloomy, the majority of decision makers are more pessimistic about Europe's

growth prospects in 2012 compared to 2011. Yet while investment in human capital must rise, only 18 percent of leaders report that their organisations will be increasing spending in this area. The bitter irony is that in managing current pressures, they may be compromising their future success.

Skills shortages persist

With unemployment remaining at historically high levels and training budgets being cut, it is surprising that Europe's businesses should be experiencing a shortage of skills. But that is precisely what is happening. Forty-three percent of decision makers report that they are currently facing at least a moderate shortage of required skills. For 13 percent of business

respondents, such shortages are acute. In particular, decision makers report shortages in international business skills, high-end analytics, manual working and digital literacy. At both ends of the skills spectrum, gaps are being encountered.

Three critical imperatives

Unless business leaders and policy makers take action immediately, Europe risks a downward spiral of low demand, high unemployment and skills shortages. The critical question is: how can Europe enhance its approach to developing skills among the workforce, in order to help manage the immediate crisis as well as exploit sources of longer-term economic growth?



Our research has identified three critical imperatives:

1. Raising the water level: Activating untapped labour pools

While skills shortages may be persistent, there is a large reservoir of talent in Europe that currently remains untapped. Specifically, the 25 million unemployed people and 15 million 'discouraged workers', including older people, mothers and youth. Efforts to address the unemployment problem often founder because these groups are treated as a uniform population, an approach that fails to recognise the differences between an unemployed person who is skilled but needs retraining for another career, one whose education or skill levels are underdeveloped, and one whose work-related skills have been corroded by long periods of involuntary inactivity.

Tapping into new workforces requires organisations to rethink the 'who, where and how' of recruitment. Misperceptions can often prevent organisations from making use of the talent that may be easily accessible but hidden from view. A range of actions is needed, in particular:

- **Use analytics to generate insights from labour data:** Better data and analytics are needed to profile those out of work, identify their characteristics and specific challenges, and track the impact of intervention measures over time.
- **Deploy bespoke interventions for the unemployed:** Businesses can help to reactivate skills of the unemployed by offering training, outreach or awareness programmes. Powering up the third sector and fostering greater volunteer opportunities can also help people keep their skills fresh during periods of unemployment, and help them return to permanent employment.
- **Ease barriers to discouraged workers:** Differentiated approaches are needed to bring discouraged workers back into the labour force. Reintegrating young people, women and older people requires a variety of responses. There is significant promise in apprenticeship schemes for young people (cited by 46 percent of decision makers as important), as well as harnessing technology to promote more flexible working patterns.

2. Increasing the flows: Improving mobility and transferability of skills

Europe must do better in the way it facilitates flows of talent both within its borders and from other parts of the world. Within a global talent market, Europe is simply failing to punch its weight. Forty-seven percent of decision makers claim that they are utilising (to a significant or great extent) the full range of skills available within their domestic market. However, this falls to 28 percent for skills across Europe as a whole and 23 percent for skills located globally. The hurdles to mobility often start at home, within organisations and countries. Measuring human capital at an organisational level is difficult, and progress in certification of skills—a key ingredient for mobility—is often a patchwork across industries and countries. International borders present an additional challenge, with decision makers highlighting regulatory complexity as the most significant obstacle to attracting global talent. In short, the barriers to mobility of skills into and within Europe are formidable.

As well as using analytics better to simplify job searches, freeing up the movement of talent also necessitates action at the organisational, European and global level. In particular:

- **Improve mobility within organisations:** Job rotations within organisations can equip workers with a more diverse set of skills and create latent talent pools to activate in case of restructuring. In particular, focusing on international placements can help fill a perceived gap in international business skills identified by leaders.
- **Develop a more comprehensive approach to skills recognition:** To help improve talent flows within Europe, organisations need a consistent means of certifying, accumulating and recognising skills across borders. This situation has improved somewhat recently, yet 55 percent of decision makers say that more progress is needed in the certification and recognition of qualifications.
- **Establish a more streamlined approach to inward migration:** The policy environment has an important role to play in facilitating greater movement of talent both into and within Europe. Simplifying complex regulation can help attract talent (cited by 59 percent of decision makers), while immigration policy focused on highly skilled workers could also help ensure Europe receives its share of talent from other economies.

3. Building bridges: Strengthening the skills ecosystem

Longer term, Europe needs a more managed approach to address the structural shifts in labour markets. The accelerated pace of change at both the macroeconomic and industry levels means we cannot rely on emergency measures to meet new challenges. However, given the complexity of the skills ecosystem, the panoply of players involved in education and the long timeframes over which interventions occur, getting the right degree of coordination and long-term investment is extremely difficult.

Worryingly, nearly half of both business and government decision makers believe that the targeting of public investment in education and skills to achieve maximum benefit is effective only to a limited extent or not at all. Given the stakes, and the degree of competition they are facing from increased globalisation, businesses are ready to actively lead these efforts—55 percent of businesses believe that they need to take a key leadership role in convening multisector compacts that address skills issues. They can help show the way by championing the following strategies:

- **Build partnerships between businesses and educational institutions:** Sixty-four percent of our survey respondents called for more business-university partnerships and alliances. By integrating further upstream into the education supply chain, businesses can shape the skills and expectations of students, to help them prepare for professional success.
- **Create B2B partnerships around skills:** Businesses operating within the same industry—or across different industries—can pool resources to enhance skills and develop more versatile workforces. Forty-eight percent of decision makers surveyed indicated that investment in skills and education could be more effective through joint delivery of skills by firms in the same industry.
- **Cascade higher skills standards through the supply chain:** Fostering vertical networks between smaller and larger firms can help develop a more skilled workforce in Europe, as highlighted by 34 percent of the decision makers in our survey.

A call to action

Europe is facing a number of stark choices. Weathering the storm of today while positioning for the calmer waters of tomorrow will require leadership and focus on the key ingredients of success. Sixty-three percent of decision makers surveyed indicate that skills challenges will only be solved

through systemwide collaborative solutions. Businesses are ready to lead those efforts, but the time has come to convert ambition into action by leveraging their power, reach and scale for the betterment of Europe and its people.



Current reality: Europe's mounting skills and employment challenges

Human capital—the collective skills, creativity and ingenuity of the workforce—is essential to economic growth.¹ It is the engine of social progress, enabling individuals to live longer, healthier, and more productive lives. It is essential to entrepreneurial vigour and underpins the growth of successful, internationally competitive businesses as well as the birth of new ones. It is hard to imagine a dynamic, competitive Europe that does not make full use of its human capital. Indeed, no strategy for getting Europe's economy back on its feet can neglect the skills and labour dimension.

The paradox of human capital investment

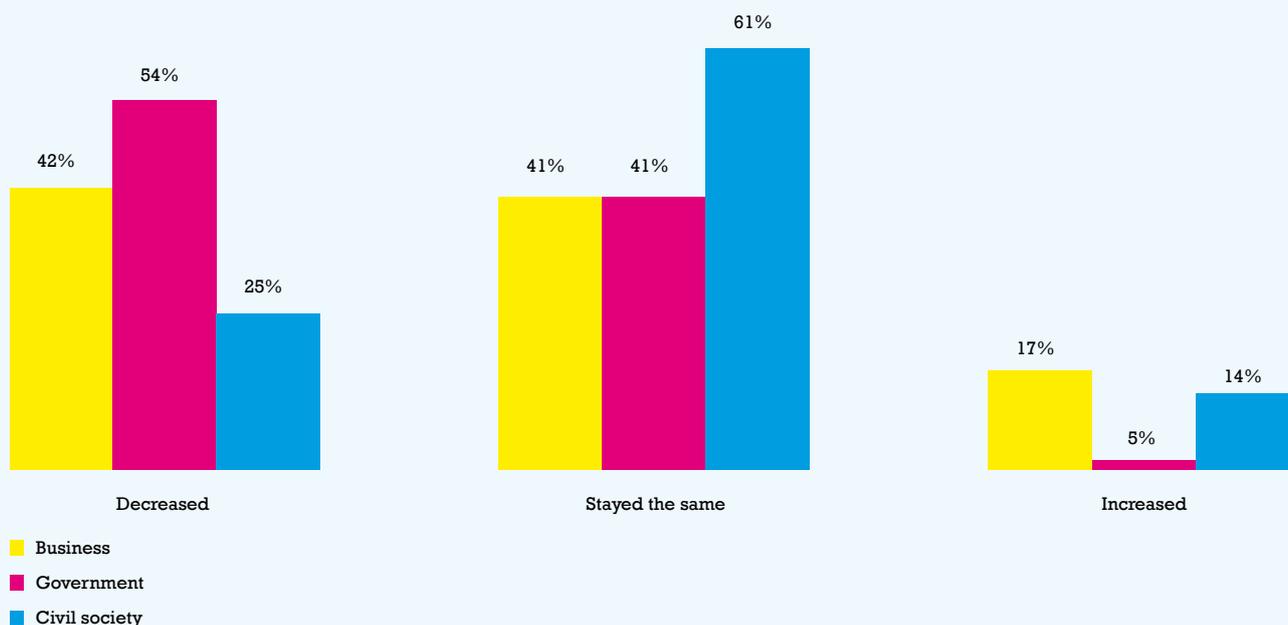
Despite the importance of human capital to economic growth, it is precisely during periods of economic stagnation that investment in skills and training is likely to be pared back. The sovereign debt storm that has engulfed European financial markets for the past two years has significantly undermined confidence in Europe's growth prospects. Consumer and business confidence has ebbed, and the fledgling economic recovery ground to a halt. Many governments have adopted significant austerity measures to rein in ballooning public-sector deficits and debt levels. Externally, growth in major export markets such as the United States and emerging economies has not been sufficient to cushion the slowdown in Europe.

In such an environment, it is not surprising that organisations across the European economy have had to reduce their

headcount. Our survey of 500 decision makers from European businesses, government agencies and civil society organisations shows that 50 percent have had to downsize their workforces in response to the current crisis (see 'Survey 2012' for an outline of methodology and sample). Furthermore, 83 percent of business leaders report that their organisations have either reduced or frozen spending on training and skills development over the last 12 months. For government leaders, that proportion rises to 95 percent (see Figure 1). The survey results also indicate disparities from one country to another, reflecting the relative degrees of suffering during the downturn. For example, 71 percent of organisations in Germany reported cutting or freezing spending, compared with more than 90 percent in both Italy and Spain.

Figure 1: Organisations have been cutting back spending on skills

'How has your organisation's spending on training and skills development for your employees changed over the last 12 months?' (percent respondents)

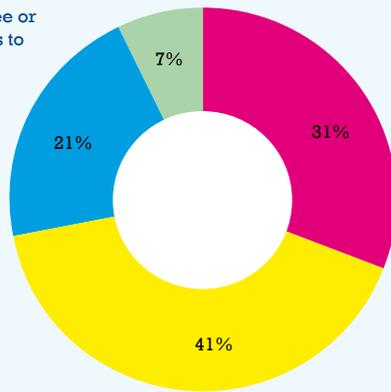


Source: Accenture European Business Summit Survey 2012.

Figure 2: European decision makers agree that Europe needs to increase investment in education and skills, especially during weak economic conditions

“To what extent do you agree or disagree that Europe needs to increase investment in education and skills development, especially during weak economic conditions?”
(percent respondents)

- A great extent
- A significant extent
- A moderate extent
- A limited extent



Source: Accenture European Business Summit Survey 2012.

The bitter irony, of course, is that it is precisely during times of economic woe that investment in people can do the most good and lay the foundations for future economic growth (see ‘Case Study: Finland’s counter-cyclical investment in skills development’). However, while 72 percent of decision makers agree that Europe needs to greatly or significantly increase investment in education and skills development, especially in weak economic conditions (see Figure 2), there is little sense that any increase will occur in the near term. Seventy-six percent of decision makers surveyed are either more pessimistic about Europe’s growth prospects in 2012 compared to 2011, or they envisage no change to an already bleak picture. As a result, just 18 percent of organisations plan to increase their spending on training and skills development over the next 12 months.

There is a real danger that this is simply not enough. As other economies around the world step up their efforts in this area, Europe risks being left behind. For example, in early 2012, President Obama proposed a 2.5 percent increase in education spending in the United States, equivalent to almost US\$70 billion, with a focus on community colleges, school-employer partnerships and grants for poor college students.² But the United States is not alone. Many more economies, both developed and emerging, are looking to increase spending on skills as a way to position for future growth. Unless Europe takes action soon, its competitiveness within the global economy may be irreparably damaged.

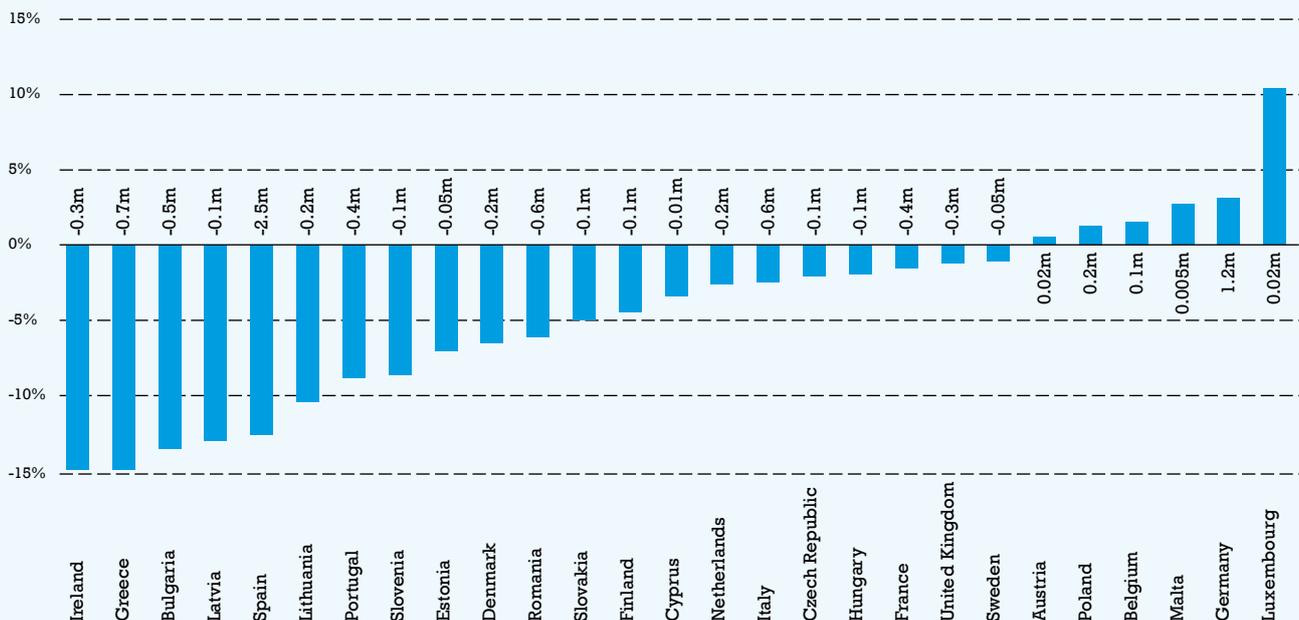
Europe’s labour markets are not working

Within this context, Europe is facing a jobs and unemployment crisis that is unprecedented in recent times:

- Since the start of the economic and financial crisis in mid-2008, Europe has lost nearly 6 million jobs (see Figure 3).
- Unemployment stands at its highest level since 1998. Since mid-2008, the number of people unemployed for longer than one year in Europe has risen by 61 percent, from 6.1 million to 9.8 million (see Figure 4). And in some European countries, such as Spain and Greece, youth unemployment is reaching 50 percent.

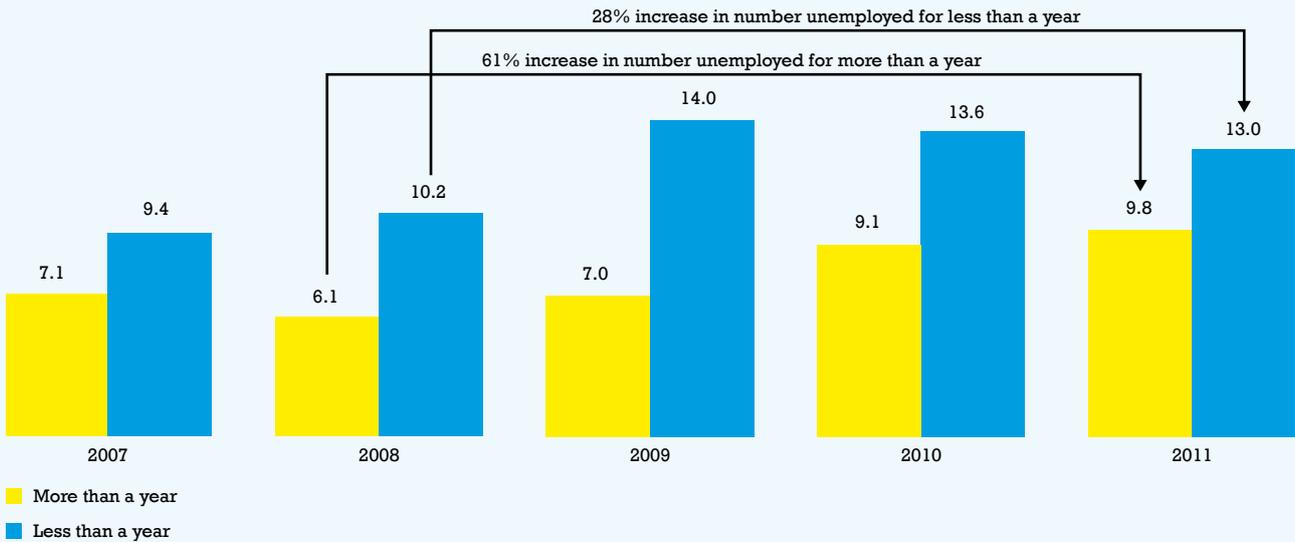
- Even if Europe were suddenly to generate growth of 2 percent, it would still not reach pre-crisis levels of employment until 2014 (see ‘In focus: Faster economic growth is critical to job creation’). At annual GDP growth of 0.5 percent, which is above the current rates, it would not happen until 2019.

Figure 3: Employment in Europe has shrunk by nearly six million jobs since mid-2008
(Percent change in employment levels between pre-crisis peak and Q4 2011)



Source: Eurostat.

Figure 4: Unemployment in Europe has risen dramatically
(Millions unemployed, by duration)



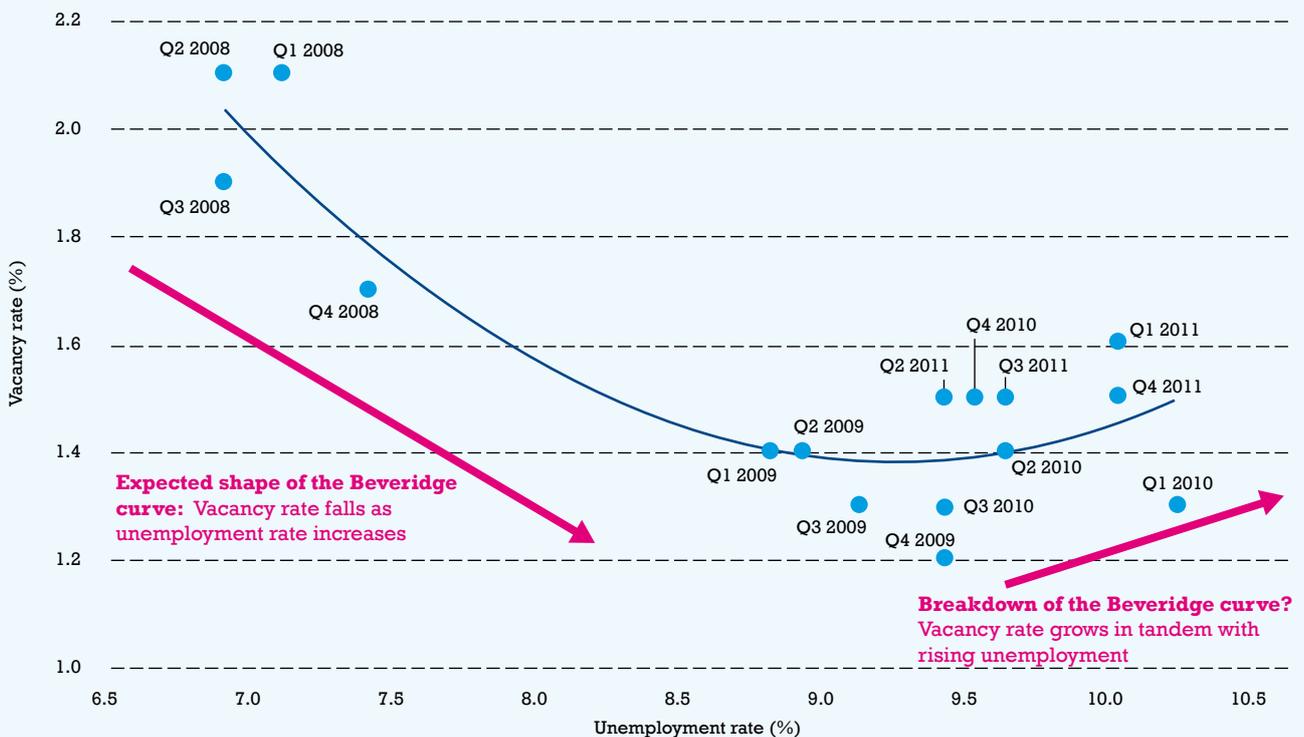
Source: Eurostat. NB: 15-74 age group.

Europe is not generating the right skills for long-term economic growth

As if today's challenges were not difficult enough, tomorrow's problems look to be no easier. Europe must not only find ways to stem the loss of human capital associated with high levels of structural unemployment, it must also stimulate the investment in new skills necessary for long-term economic growth. However, despite record high unemployment, Europe continues to experience significant skills shortages. Some 43 percent of decision makers report that they are currently facing

at least a moderate shortage of required skills. The traditional relationship between job vacancies and high unemployment (known as the 'Beveridge curve') appears to have broken down recently, with high vacancies existing alongside high unemployment (see Figure 5). This suggests a mismatch: the location or skills of unemployed workers in Europe simply do not correspond to the location or skills of the positions available.

Figure 5: Vacancies persist alongside high unemployment (EU27 Beveridge curve 2008-2011)



Source: Eurostat. NB: trend line in second order polynomial added.

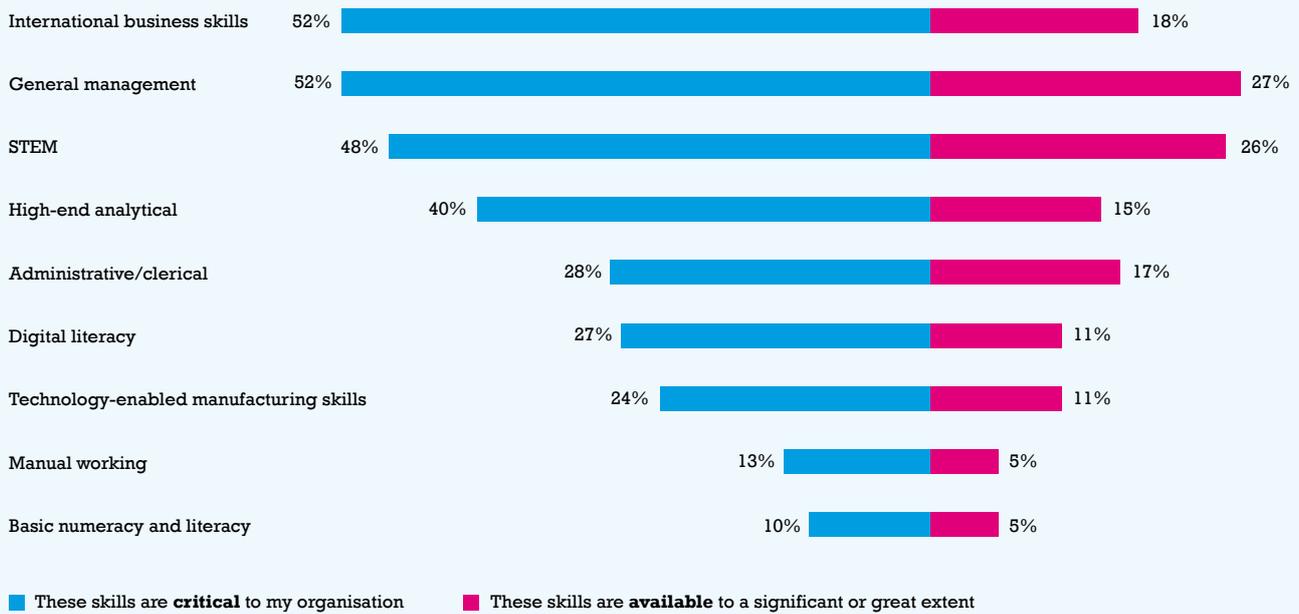
Specifically, across a number of skills deemed critical to future success, Europe is experiencing notable gaps (see Figure 6). Across Europe, international business skills (such as foreign languages, the ability to manage cross-border teams, and cultural awareness) were most commonly cited as being required for success, yet organisations are facing the greatest shortage in this area. Given that emerging economies in particular will account for the lion's share of future economic growth, Europe is potentially compromising its ability to pursue those opportunities by not aligning its skills with the needs of a more interdependent global economy.

At the country level, organisations across Europe face different skills shortages. For example:

- In France, science, technology, engineering and mathematics (STEM) skills were considered as the most critical for growth, yet more than half of organisations (57 percent) face a skills shortage in this area.
- In Spain, 70 percent of decision makers report that high-end analytical skills are in short supply.
- In the United Kingdom, 85 percent of decision makers report shortages of technology-enabled manufacturing skills.

Figure 6: Europe is facing a shortage of critical skills

'In terms of the types of skills that your organisation needs in order to be successful in the future, which are most important? To what extent are those skills already available?' (percent respondents based on top three)



Source: Accenture European Business Summit Survey 2012.



Getting Europe back on track: Three critical imperatives

Our analysis of Europe's labour market, engagement with a panel of leading academics and policy experts and survey of 500 decision makers across Europe have identified three critical imperatives to manage today's crisis better while positioning for tomorrow's growth. Arguably these share similar characteristics to the measures applied to the financial sector after the crisis of 2008: an initial focus on recapitalisation in order to shore up the foundations of success; a push to increase liquidity and get

the system moving again; and a broader, systemic review of the architecture that needs to be in place in the future. Applied to human capital and skills, our strategy for Europe's revival focuses on the stock, the flows and the system of human capital development. If Europe can get these elements right, it will be well placed to develop the skills it needs to increase employment and drive economic growth.

In focus:

Faster economic growth is critical to job creation

Another perspective on the scale of the jobs challenge is to consider how much growth Europe would need to return to pre-crisis levels of employment. Our analysis of GDP and employment levels in the EU27 over the last decade indicates an elasticity of employment with respect to GDP of 0.44 percent. In other words, a 1 percent increase in GDP typically increases employment by less than half a percent.

Based on this historically observed GDP elasticity of employment, Figure 7 depicts three scenarios indicating how long it would take Europe to return to pre-crisis employment levels based on different rates of economic growth.

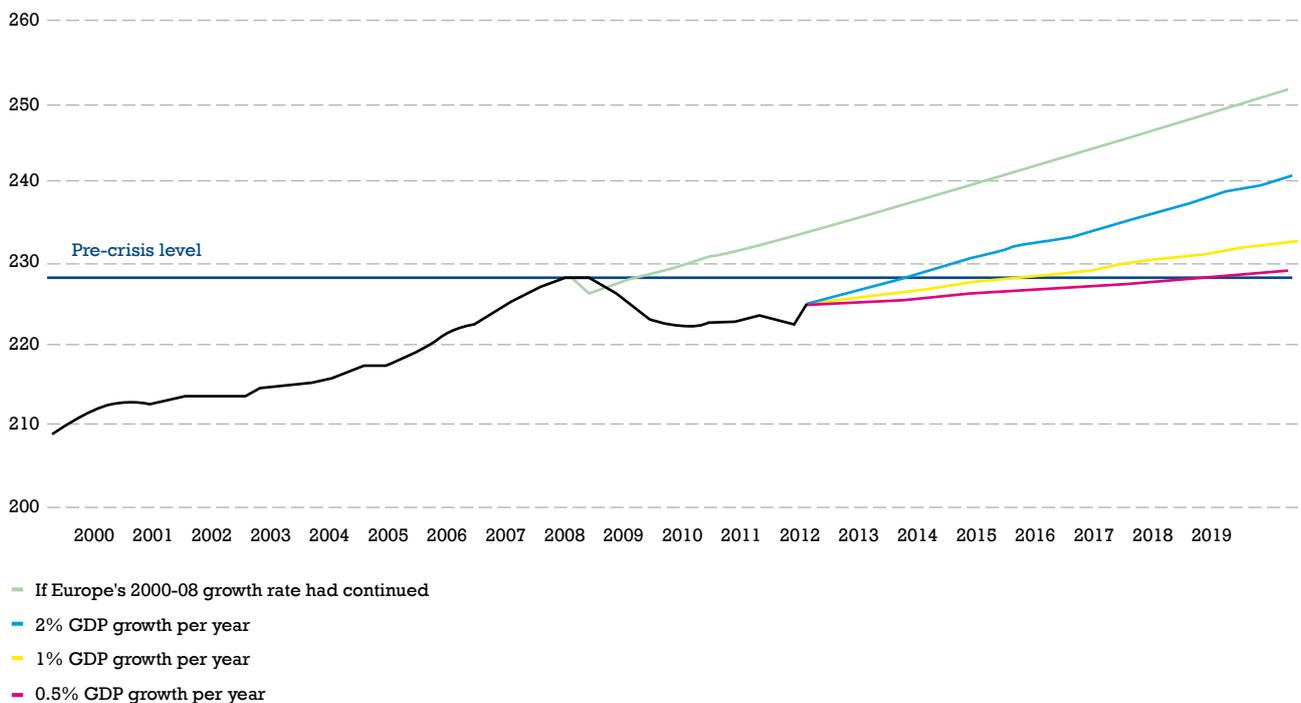
- If European GDP were to grow by **2 percent** per year, it would take until **2014** to restore pre-crisis employment levels
- If annual GDP growth were **1 percent**, it would take until **2016**

- If annual GDP growth were **0.5 percent** (which is more than than current rates), it would take until **2019**

The time taken to return to pre-crisis employment levels is only a partial illustration of the dislocation brought about by the recent recession. To get a fuller sense of job-creation opportunity forgone as a result of the crisis, we also project where employment levels would be if the 2000-08 trend of GDP growth had continued without interruption. EU27 employment would have reached 233 million in the third quarter of 2011.

Coupled with high levels of unemployment (particularly youth and long term), these trends paint a grim picture for businesses and governments alike and highlight the need for accelerated economic growth in Europe.

Figure 7: EU27 employment levels under different GDP growth scenarios (millions employed)



Source: Accenture analysis, Oxford Economics.

1. Raising the water level: Activating untapped labour pools

As a starting point, Europe needs to do more in order to increase the size of the talent pool from which it can draw. Given the shortage of critical skills within organisations and the growing mass of unemployed people and others trapped in the margins of the workforce, the obvious question is: could more of these individuals be reintegrated into Europe's workforces?

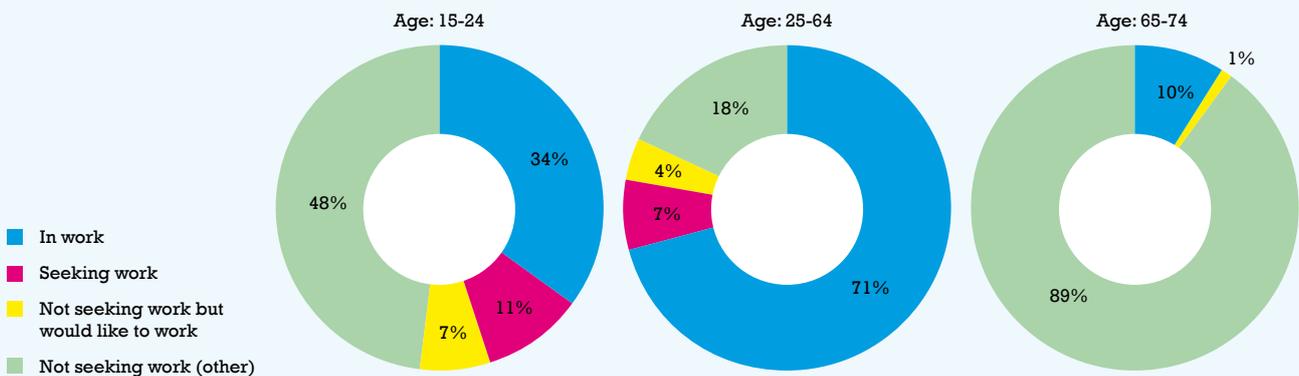
Any potential answer must start with a better analysis of the composition of the 25 million unemployed people in Europe. For example, while there is a significant cohort of long-term unemployed (the number of people out of a job for more than a year increased by 61 percent since the recession began),³ there are also many people whose skills are still fresh and in demand by employers. In this way, we may reveal often overlooked sources of potential talent.

In addition, there is significant potential in people who are not actively seeking employment but would like to work (see Figure

8), a total of more than 15 million in Europe. Key groups among these 'discouraged workers' include older people (aged 65-74), women (aged 25-64), mothers, and young people (aged 15-24) (see Figure 9). The typical reasons these people are not seeking work include family or personal responsibilities, disability or illness, temporary layoff, retirement, or a perception that no work is available. Unemployment rate statistics do not take this group of workers into account. Doing so would imply an unemployment rate of 15.7 percent, compared with the 'official' rate of 10.2 percent.⁴

While there are a number of challenges associated with bringing the unemployed and discouraged workers back into employment, nevertheless Europe has the potential to increase significantly the size of its skills pool.

Figure 8: Finding Europe's untapped potential
(EU27 population by age group and labour market status)



Source: Accenture analysis, Eurostat.

Figure 9: Europe's 15 million discouraged workers (millions people)



Source: Eurostat. NB: EU27 data for 2011.

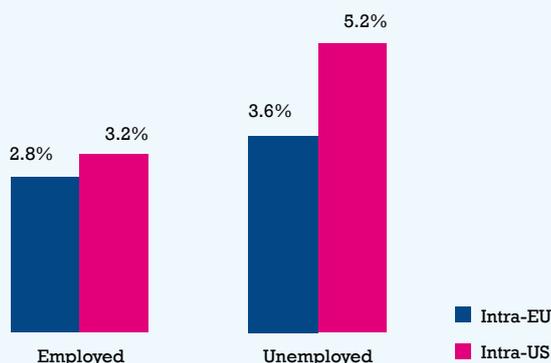
2. Increasing the flows: Improving mobility and transferability of skills

In addition to increasing the stock of human capital, Europe can also reap significant benefits by removing some of the barriers that prevent the flow of talent so that supply can more easily address demand. While European citizens enjoy the right 'to travel, work and live anywhere in the Union', as enshrined in the Maastricht Treaty, Europe's labour mobility could be better, both within the EU but also globally. At the individual level, mobility helps individuals improve their economic circumstances and fulfil their job aspirations. For a business, it means a bigger and more flexible pool of available labour that it can tap to successfully fill job vacancies.

As the industrial landscape of Europe shifts dramatically, the ability to move where the jobs are is critical. For example, employment levels of construction employees shrank by almost 50 percent during the 2008-2010 downturn, the largest among all nonagricultural sectors.⁵ Increasingly volatile industrial and economic trends suggest that high levels of labour mobility are essential. However, Europe performs poorly on this measure. The level of interstate labour mobility in the United States outstrips its equivalent in the European Union—for both the employed and unemployed population (see Figure 10).

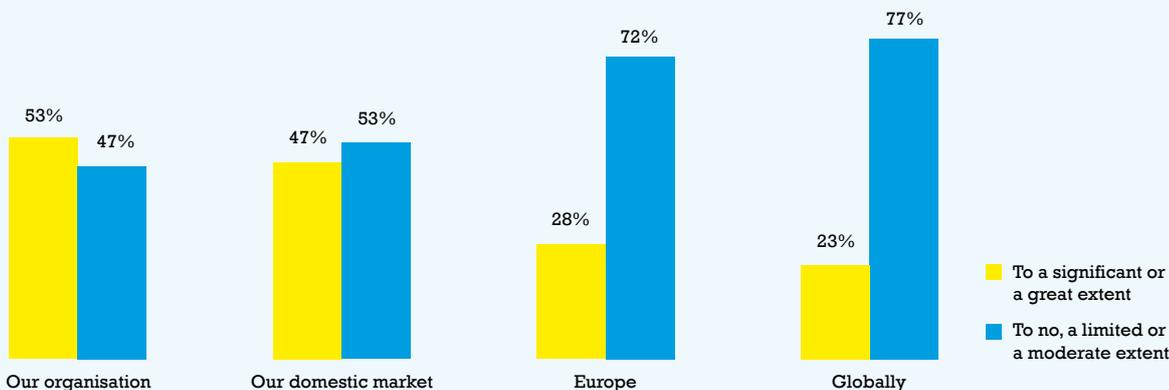
Furthermore, Europe needs to do more to attract skilled students and workers from elsewhere. Emerging markets continue to supply prodigious numbers of graduates in STEM fields. For example, more than 40 percent of all new university degrees in China are awarded in science and engineering.⁶ These new sources of talent represent a significant opportunity for Europe to meet skills shortages and drive growth in specific high-value sectors. However, European employers seem to struggle to look beyond their immediate borders when recruiting. Our survey found that 47 percent of organisations utilise to a significant or great extent the full range of skills and expertise available within their domestic markets. Asked the same question about the utilisation of skills from within Europe and the rest of the world, this falls to 28 and 23 percent respectively (see Figure 11). Smaller organisations face this challenge more acutely, with just 20 percent of small businesses reporting that they make use of the full range of skills available within Europe, versus 39 percent from large organisations.

Figure 10: Labour mobility is higher in the United States than in the European Union
(percent of domestic labour force from another state or country)



Source: Eurostat, Hernandez-Murillo et al. (2011). NB: 2010 average.

Figure 11: Organisations struggle to utilise the full range of skills available beyond their domestic market
'We are utilising the full range of skills and expertise available within...' (percent respondents)



Source: Accenture European Business Summit Survey 2012.

3. Building bridges: Strengthening the skills ecosystem

In the longer term, Europe needs a more managed approach to the structural changes taking place in labour markets. The workplace is being constantly transformed. Think of the impact that process automation, ubiquitous connectivity, and application mobility are having on our daily lives. Fifteen years ago, would an office worker have had access to email on the move 24 hours a day? Would a retail assistant on the shop floor have used tablets to check stock availability for customers?

This transformation is continuous. The number of jobs occupied by highly qualified people in the EU is expected to rise by 16 million between now and 2020, while those held by low-skilled workers will decline by around 12 million.⁷ That evolution is likely to trigger shortages in key sectors. Europe's economic future relies on a sufficient supply of STEM graduates, since they are critical to innovation. European companies in growth sectors such as digital and 'green' industries need the right people with the right skills if they are to become world leaders in their field. For example, by 2015, projections indicate a shortage of up to 700,000 information and communications technology (ICT) practitioners,⁸ particularly significant given the role that ICT plays in all other sectors of the economy. And as an ageing population increasingly puts pressure on European health systems, some estimates project a shortage of up to 2 million health care professionals and ancillary professionals by 2020.⁹

The scale of the challenge means that Europe cannot rely on emergency measures forever. Rather, it must develop a self-sustaining skills ecosystem that puts plans and programmes in place to address skills gaps before they become critical. Europe invests nearly 6 percent of its GDP in education and skills. However, given the complexity of the skills ecosystem, the breadth of players involved in education and the long timeframes over which interventions occur, ensuring this investment is effective is a huge challenge.

Doing so will require overcoming some significant hurdles, such as a lack of information relating to key skills needs and limited collaboration between stakeholders. Businesses have an opportunity to lead this effort and they are ready to do so. Fifty-five percent of businesses believe they need to take a leadership role in convening multisector compacts that address skills issues, forming new alliances and partnerships as they integrate themselves more fully into the skills ecosystem.

The way forward

The following chapters address each of the three critical opportunities we have identified, analysing the specific dimensions that business leaders and policy makers must understand if they are to succeed, as well as identifying ways in which they can get started. Together, these areas represent a coherent strategy for building a new skills-

development system in Europe: raising the water level of human capital (Chapter 1); increasing the flows of talent (Chapter 2); and building bridges to address the systemic barriers (Chapter 3). The journey will no doubt be challenging, reflecting just how critical it is for Europe's future.



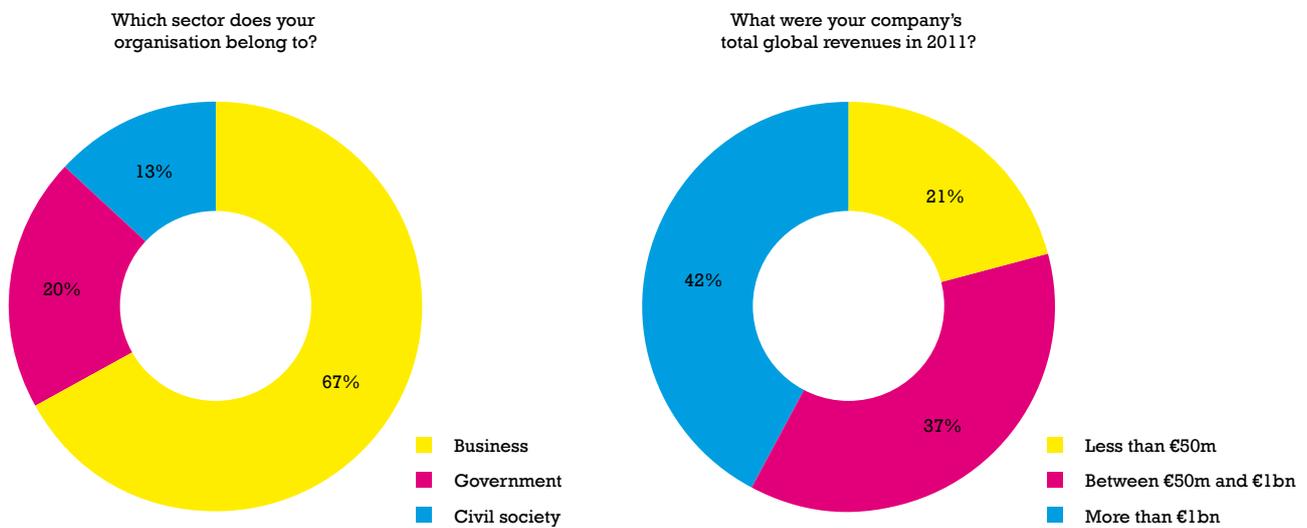
Survey 2012

To identify the skills and labour market challenges facing Europe, and the actions needed for long-term growth, Accenture commissioned a survey of 500 decision makers from across Europe.

- **Sample:** Sixty-seven percent of respondents were C-level business leaders, 20 percent were public sector leaders, and 13 percent represented civil society (see Figure 12). The multisector nature of the survey allowed us to consider the differing perspectives of the main stakeholders involved in the creation of human capital.
- **Industry coverage:** The sample included a broad mix of industries, ranging from chemicals to banking, retail, manufacturing and services.

- **Company sizes:** Small (less than €50 million)—21 percent, medium (between €50 million and €1 billion)—37 percent, and large (greater than €1 billion)—42 percent.
- **Geographic scope:** Thirteen countries across Europe, including at least a 10 percent representation from each of France, Germany, Italy, Spain and the United Kingdom.
- **Fieldwork:** The survey was conducted by Kadence International via online questionnaire in February 2012.

Figure 12: Survey sample breakdown (by sector and company revenues)



Case study

Finland's counter-cyclical investment in skills development

In 1990, Finland entered its most severe economic recession since World War II. Between 1990 and 1993, public debt soared to a record 60 percent of GDP.¹⁰ Over that same period, GDP contracted by 14 percent, and unemployment reached 18 percent.¹¹ By 2011, however, Finland was ranked the fourth most competitive nation on earth.¹² How did a country with 5 million inhabitants manage to restore its fortune and achieve such a remarkable turnaround less than 20 years later?

An important element of Finland's story is its commitment to counter-cyclical skills development. While all other public budgets were cut during the recession, the Finnish government decided to increase public investments in education, training and skills development for its unemployed workforce, because it feared that a severe depreciation of its human capital would damage the country's longer-term economic prospects. The cornerstone of this policy was investment to improve Finland's public, free and high-quality education system.¹³ For example, teachers' salaries continued rising during the slowdown, so that the state could continue recruiting the best master's-level graduates as primary school teachers.¹⁴ State support also aimed at creating a more efficient environment for entrepreneurship and innovation. For example, in 1991 the state merged existing technical and business colleges into a new higher education sector, the AMK (polytechnic or applied sciences university) sector. The goal was to foster vocational training and mandatory on-the-job training.¹⁵

This counter-cyclical support, combined with broader economic reform such as the deregulation of the telecommunications, electricity and capital markets, proved very important in reducing the depth and length of the downturn.¹⁶ It lifted business R&D, which helped lay the groundwork for a strong rebound.¹⁷ The availability of a larger pool of scientists in Finland, thanks to the higher financing of public and university labs, partly explains why R&D investment jumped from 1.75 percent of GDP in 1990 to 2.2 percent in 1993 (surpassing the EU average) and why trademarks such as Nokia, TeliaSonera and Linux took off. The focus on retraining people and linking unemployment benefits to additional education was also critical to the reorientation of the economy toward high-technology industries.¹⁸

In the current economic downturn, Finland has returned to this strategy. In 2008-2009, it implemented a stimulus package of 0.3 percent of its GDP (similar in proportion to the American and Japanese packages), which once again prioritised investments in education, training and research.¹⁹ Today, its annual rate of investment in education is 7 percent of GDP, above the EU average (and one of the highest in the world).²⁰ This commitment to education continues to pay dividends, as Finnish students perform exceptionally well on the OECD PISA rankings for reading literacy (second in the OECD) and mathematics (sixth in the OECD).²¹ Furthermore, in 2011, Finland's GDP grew by 2.9 percent²² and the country was ranked as the fifth most innovative economy in the world.²³



1. Raising the water level: Activating untapped labour pools

Europe needs to step up its efforts to reintegrate nearly 40 million of its citizens—around 10 percent of its population—into employment. The existence of skills shortages alongside a large pool of potential skills cannot be allowed to remain. However, identifying the sources of underutilised skills is one challenge. Making use of those skills and starting the process of reintegration are much more problematic. What are the challenges facing businesses and policy makers in realising this potential? And what strategies can they put in place in order to overcome them?

Understanding the challenge

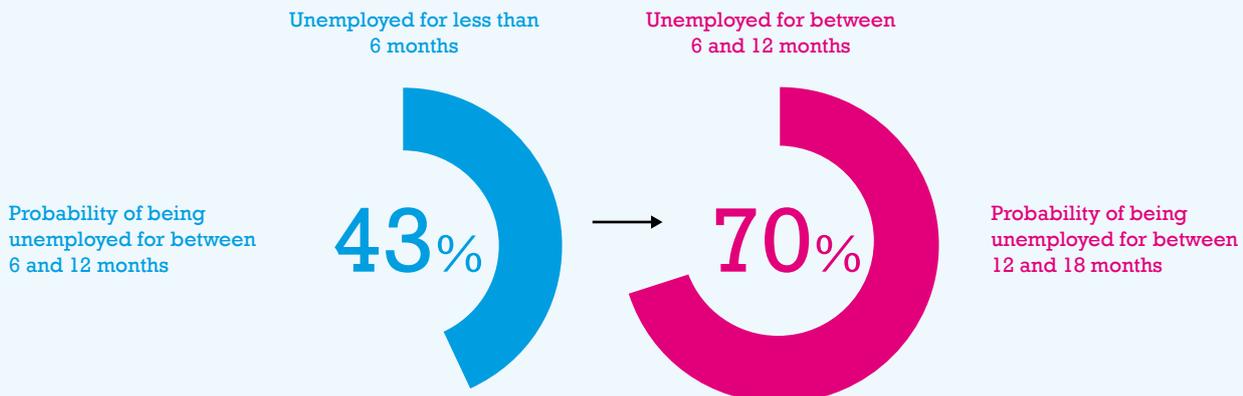
There are two key dimensions that policy makers and business leaders must bear in mind when devising solutions to tap into Europe's underutilised workforces: the time profile of the unemployed and the diverse needs of discouraged workers.

(i) The impact of unemployment intensifies over time

Time is the critical factor in understanding the impact of unemployment. People who have only recently left the workforce may still possess work-ready skills, yet workers who have endured longer periods outside the workforce may see their skills eroded by lack of practice. These 'scarring' effects vary by country and industry but have a consistent and permanent negative impact on wages and health.²⁴ In addition, rapid innovation and the rise of new sectors and job profiles mean that skills degrade more quickly now than they have in the past, with more severe consequences. For example, a study of long-term unemployed Belgian youth found that an additional year outside the workforce decreased the probability of getting a job from 60 percent to 16 percent for males and from 47 percent to 13 percent for females.²⁵

Our own analysis finds that longer periods of unemployment translate into fewer chances to return to work (see Figure 13). For example, if a person has been unemployed for six months, the probability that they will be unemployed for another six months is 43 percent. But if a person has been unemployed for nearly a year, their probability of being unemployed for another six months increases to 70 percent. This trend underlines the importance of early intervention by business and policy makers. It is crucial to seek out the skills and experience that the newly unemployed have to offer—before the cost of retraining them and reemploying them increases significantly.

Figure 13: Unemployment entrenches itself



Source: Accenture analysis, Eurostat.

(ii) Discouraged workers face very different challenges

Europe's discouraged workforce (people who are not actively seeking employment but would like to work) is diverse in terms of age, gender and other factors. Key groups within the discouraged workforce face very different barriers:

- Young people:** A lack of structured opportunities makes access to employment particularly difficult for young people, increasing the likelihood of becoming discouraged. Young jobseekers attempting to join the workforce are at risk of entering a vicious cycle, where they are unable to find a job precisely due to their lack of previous experience. While young people have always faced this obstacle, it is especially problematic for those first entering the job market during a period of prolonged unemployment. The challenge for businesses and governments is to find new, creative opportunities for young people outside of the typical model of permanent, full-time employment, such as fixed-time job placements and part-time internships.
- Women:** Women are an important segment of the underutilised and discouraged workforce, particularly mothers. Maternity represents a crucial turning point for the careers of many women. Workplace arrangements are often insufficient to allow family responsibilities to be combined with work. This view was strongly reflected in our survey: 78 percent of decision makers identified a lack of flexibility in working hours and patterns as the main barrier to reintegrating mothers into the workforce (see Figure 14).

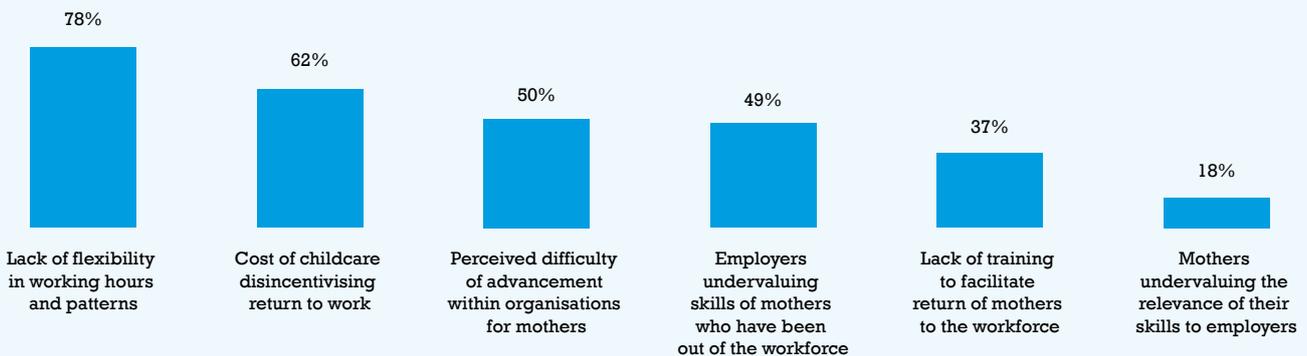
The second-largest disincentive that prevented mothers from returning to the workplace was the cost of childcare, indicated by 62 percent of survey respondents.

- Older people:** Misaligned incentives, social expectations and limited use of technology make it difficult for older people to reenter the workforce. Tax and benefits as well as pensions systems remain geared toward an abrupt exit at retirement. Similarly, perceptions of decreasing productivity and insufficient adoption of rapidly evolving technological innovations contribute to a skills gap when older workers are permanently separated from the labour pool. These views were reflected in our survey. According to respondents, the main barriers to reintegrating older age groups into employment are employers undervaluing skills among older age groups (67 percent) and lack of flexible working patterns such as part-time working (43 percent) (see Figure 15).

At a time when skills shortages are so persistent and the need for economic growth so immediate, the wasted potential of these discouraged workers is concerning. However, there is also cause for optimism. Identifying this untapped potential is a crucial first step. To go beyond that, and realise the economic potential from integrating discouraged workers and in particular youth, women and older people into the labour pool, Europe must take immediate action and apply a set of tailored solutions.

Figure 14: Lack of flexibility and high childcare costs are key obstacles in women's reintegration in the workplace

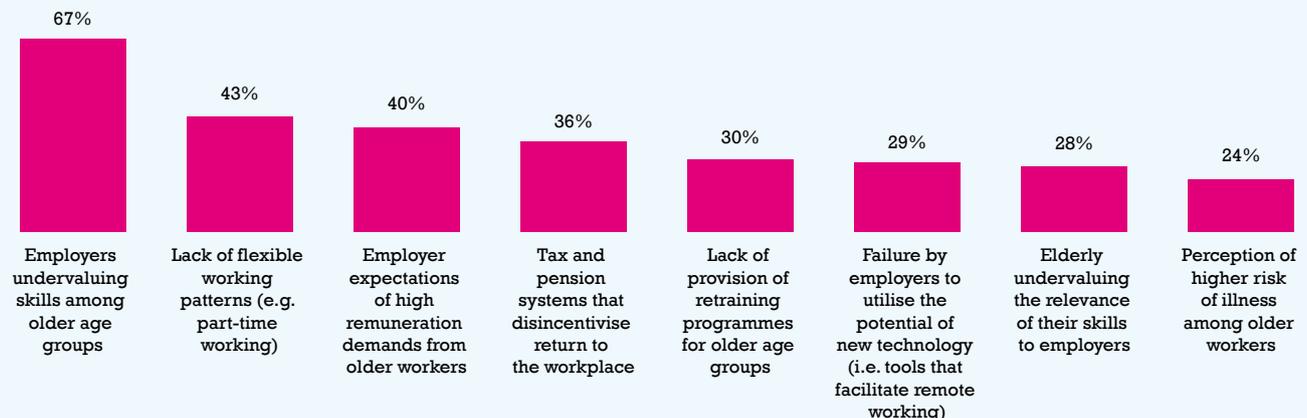
"In terms of mothers looking to reenter the workforce, what barriers do you think prevent that potential from being realised?" (percent respondents)



Source: Accenture European Business Summit Survey 2012.

Figure 15: Employers undervalue the skills of older workers

"In terms of older age groups across Europe, what barriers do you think prevent reintegration back into employment?" (percent respondents)



Source: Accenture European Business Summit Survey 2012.

How to get started

Increasing the pool of talent from which organisations draw requires a change in mindset as well as putting in place new strategies and policies. For organisations, rethinking the ‘who, where and how’ of recruitment is critical if they are to discover new sources of talent in places they may have overlooked in the past. The following actions can help them make that shift:

(i) Use analytics to generate insights from labour data

To pave the way for the development of intervention strategies that meet the specific needs of each individual, Europe must better understand the profile of unemployment, through enhanced analytics and data. Analytics can help reveal hidden skills that might otherwise fall off the radar, as well as experiences and aptitudes that could correlate with success in a specific job. The open data revolution is transforming the way that governments and public agencies conceive of policy

analysis in other areas, but these organisations must apply these lessons and approaches to employment and skills. Just as the health care sector has moved toward higher levels of data-driven insight and a focus on prevention rather than cure, Europe needs to treat unemployed people and discouraged workers with the same urgency and personalisation.

(ii) Deploy bespoke interventions for the unemployed

Intervention strategies must distinguish between the different challenges faced by the short-term unemployed versus those out of work for longer periods. In the former case, rapid intervention strategies are critical. For the long-term unemployed, however, strategies must differ. These workers will have higher levels of skills degradation and will therefore require more active training and significant employer involvement to prepare them for the workplace. New programmes to keep skills fresh during out-of-work periods represent a crucial strategy, a priority shared by 46 percent of our survey respondents (see Figure 16). Practical actions include the following:

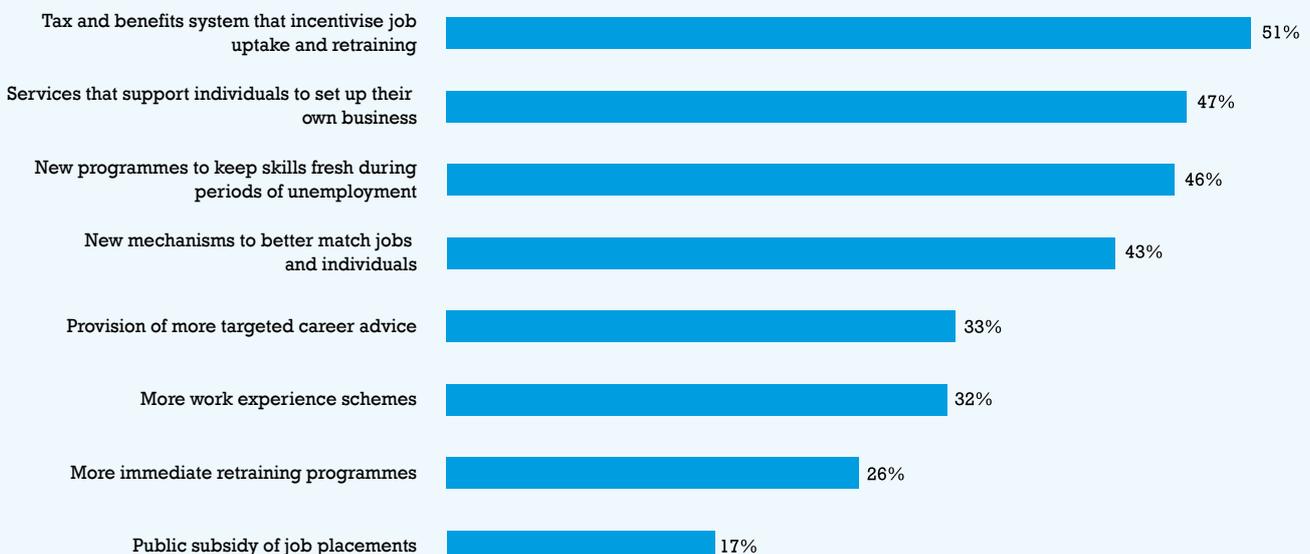
- **Incentivise business retraining:** Reactivating the skills of the unemployed widens the potential labour pool and invigorates local economies. For example, in Portugal, unemployment in the textiles and clothing industry has increased significantly over the last decade, due to intense global competition. To help address this challenge, Portugal’s Technological Centre for the Textile and Clothing

Industries launched a joint programme with Microsoft to give unemployed textile workers crucial technological skills and knowledge, giving them access to higher-skilled career opportunities in the industry and in the wider economy. The scheme has helped more than 3,000 workers gain ICT qualifications, and nearly half of the participants have either found a new job or started their own enterprise.²⁶

- **Power up the third sector:** Volunteering can be a powerful tool to help people keep their skills fresh during periods of unemployment or to foster new skills. For example, in the United Kingdom, the Prince’s Trust’s Team programme is aimed at developing employable skills, such as communication and teamwork, by giving 16 to 25 year olds the chance to work in a team environment on a community project. More than 70 percent of the scheme’s unemployed participants find employment or further training and education opportunities.²⁷

Figure 16: Strategies for the unemployed must be tailored to the period of unemployment

“Turning to broader unemployment within Europe, what steps could be taken in order to bring more unemployed people back into the workforce?” (percent respondents including among top three)



Source: Accenture European Business Summit Survey 2012.

(iii) Ease barriers to discouraged workers

Given the significant untapped potential from discouraged workers, Europe must craft strategies to better utilise these groups in the labour pool. Getting the basics right at a policy level is crucial, such as aligning the tax and benefits system to incentivise participation. As shown in Figure 16, 51 percent of decision makers considered this the most significant step in getting more unemployed workers back into jobs. Among leaders in the United Kingdom, this proportion increased to 70 percent. Organisations can also take measures to better understand the skills that underutilised workforces possess. Our survey highlights that organisations still struggle with this not only regarding older workers but with young people as well.

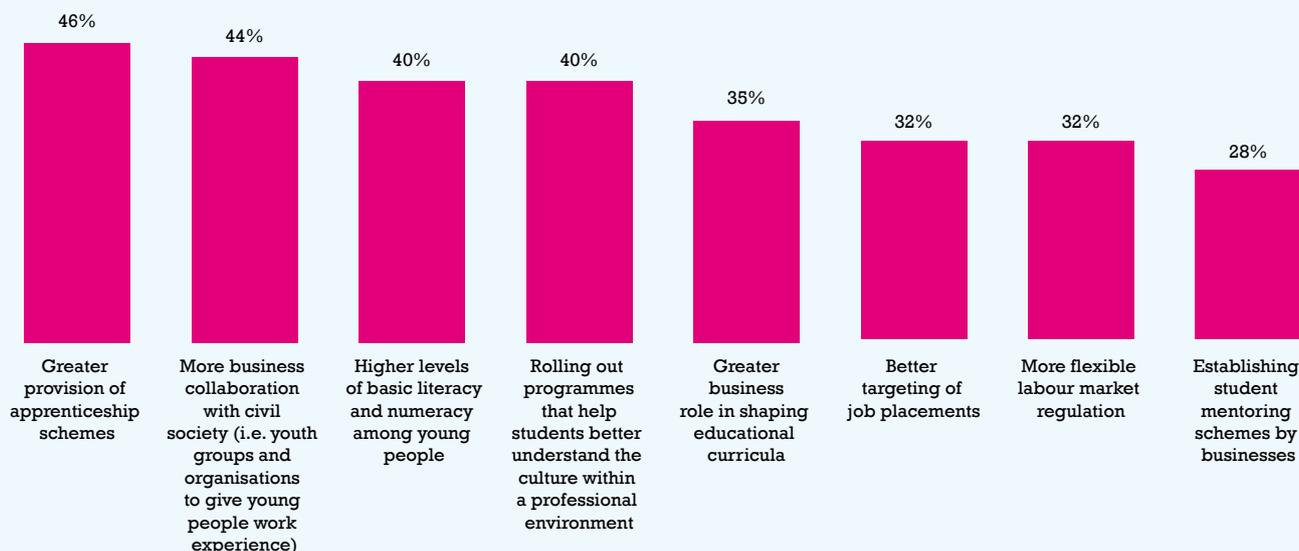
Across the board, though, the strategies needed to tap into these constituencies vary considerably—policies and approaches must be tailored around different needs. Key areas where employers can get started are as follows:

■ **Rethink apprenticeship schemes:** Models of skills development tailored to young people, such as apprenticeships, are essential in providing employment opportunities. Europe's decision makers identified a greater provision of apprenticeship schemes as the most significant answer to youth unemployment, at 46 percent (see Figure 17). However, this varied by country. Only 30 percent of German respondents cited it, reflecting the established system already in place whereby nearly all companies with more than 500 employees take apprentices, and 75 percent of school leavers enter an apprenticeship programme every year.²⁸ In the United Kingdom, where apprenticeship schemes are less extensive, 63 percent of decision makers pointed to this option. Translating successful models to different countries and sectors (e.g. services) and increasing awareness of how apprenticeships can lead to a successful career will encourage more young people to take part, and enhance labour market efficiency in the long run.

- **Harness technology to increase flexibility and skills development:** Technology-enabled solutions such as remote working will allow greater flexibility and accommodate the diverse needs of different groups, such as those of the elderly or mothers (see 'In focus: How technology can empower underutilised workforces'). Technology-enabled solutions will also play a key role in keeping workers' skills fresh and helping to develop new skills during unemployment: e-learning systems can offer cost-effective and accessible training for people out of the workforce. For example, the Selpraf project is a collaborative e-learning scheme in Slovenia and Croatia that improves communication, digital and entrepreneurial skills among the unemployed and ultimately enables them to set up their own business.²⁹
- **Explore more flexible career models:** Organisations will need to be creative in designing job structures that appeal to the segments they are trying to attract. For example, older people may want to carry on working after retirement, but with the flexibility to work reduced hours, work from home, travel or take up other personal interests. In the United States, a group of retired and veteran scientists and engineers known as YourEncore focuses on engaging retirees. It maintains a network of experts who are called on to work on specific projects in a number of companies, including P&G and Eli Lilly.³⁰ Similar approaches may appeal to younger workers. Professionals with specific skills can move toward 'portfolio working' and sell their services to enterprises on an ad hoc basis. Likewise, attracting mothers back to the workplace requires a range of mutually supporting schemes. Bosch, the German engineering and electronics multinational, offers a number of flexible work models that enhance employees' ability to manage their work-life balance. These options include flexitime, part-time and remote working, or a combination of the three, as well as a special caregivers leave programme complemented by ad hoc guidance and support.³¹

Figure 17: Apprenticeships can help young people find employment opportunities

'Looking at the specific problem of youth unemployment in Europe today, which options offer the best hope of addressing this problem?' (percent respondents including among top three)



Source: Accenture European Business Summit Survey 2012.

In focus:

How technology can empower underutilised workforces

Superfast broadband, consumerisation of IT and cloud computing can help European employers tap into underutilised workforces—such as the elderly and mothers—and close Europe's skills gaps. Increasingly, these trends taken together mean that skills do not need to be located in the same place as the job. They also increase flexibility for employers and employees by unleashing new 'virtual mobility' opportunities.

1. Superfast broadband. In March 2011, 67.3 percent of the EU population was connected to broadband Internet (against a world average of 30.2 percent).³² While the European fixed data traffic jumped from 4,000 to 20,000 petabytes per month between 2006 and 2010, the cost of a megabit per second declined from an average of US\$19 to US\$9.³³

2. Consumerisation of IT. Employees are increasingly adopting personal IT devices, tools and applications to perform their work. A recent global Accenture survey shows that as many as 20 percent of the 4,000 respondents already use their own PCs and applications on a regular basis to do their work.³⁴

3. Rise of cloud computing. The cloud offers users the ability to tap computing power, software and content from a remote network of servers, freeing users from the constraints of physical location and storage capabilities. Innovation in

virtual private networks, encryption and other online security technologies fuel the growth of the cloud. In 2011, 7.5 percent of European workloads were run in public cloud (compared to 7.2 percent in the United States), and this proportion is projected to double by 2014.³⁵

By decoupling job location from skills location, these technological breakthroughs can provide a lifeline to underutilised workforces. Currently, remote working is undertaken by 7 percent of Europe's workers;³⁶ in the United States, the figure is 20 percent.³⁷ Research shows that remote working is highly appealing to older people who seek a phased transition into retirement, seek to avoid commuting, and/or have a retired partner at home.³⁸ It is equally attractive to mothers and disabled people.³⁹

With remote working, the talent pool is no longer limited locally or to people who have the ability and desire to relocate their families. Virtual mobility could become an opportunity to make jobs travel if people with the right skills cannot relocate. Studies show that it would not only increase employees' productivity and engagement but it would also create more connected and agile organisations.⁴⁰



2. Increasing the flows:

Improving mobility and transferability of skills

With emerging economies producing significant numbers of workers with the skills that many European businesses are struggling to find, Europe must improve its ability to attract and harness this talent. At the same time, it must ensure that people within Europe are able to move freely to wherever jobs may be. Despite lofty ambitions, Europe's track record is poor on both counts.

Understanding the challenge

There is no one dominant barrier to mobility; rather, many complex and reinforcing obstacles combine to hinder transferability of individuals and their skills and culminate in a mismatch between jobs and individuals. Accordingly, Europe must develop an overlapping strategy that targets these issues at the individual, organisational, European and global levels.

(i) Information on individual skills and job vacancies is not pervasive enough

For Europe's citizens, the problems of mobility start with ensuring their skills are properly captured and visible to prospective employers. The diversity of skills and education opportunities may be a virtue, but it can also make comparative assessment challenging. Similarly, individuals often lack accurate and comprehensive data on job vacancies. Opportunities can be hidden by a complex and often disorganised web of sources,

making it difficult for applicants to find appropriate openings, particularly in another country. Furthermore, different sectors of the economy may have different perceptions regarding the relative value of specific skills. In particular, public workers may not appreciate the extent to which their skills could transfer to a private-sector position.

(ii) Functional movement within organisations is limited

The same challenge holds true within organisations. Most have a relatively poor understanding of the range of available skills within their workforce and where those skills may sit. Workers with an aptitude to perform another role within the organisation often go unnoticed, limiting the movement of employees across

functions. While a business or public agency will have a good understanding of its financial statement and physical assets, its assessment of human capital is altogether more blurry. Even those organisations that have recognised the need to account for such intangible assets are facing difficulties.⁴¹

(iii) Comparing skills levels and quality across Europe is difficult

It is also proving challenging to deliver the freedom of movement that enables European workers to move to wherever the jobs exist. Languages often prevent relocation, but more broadly, member states capture and compare skill levels in fundamentally different ways. Individuals find it difficult to practice their profession in another country, as their qualifications are not recognised. Furthermore, the inherent difference between a

skill and a qualification makes recognition programmes more challenging. The EC 2005 Services Directive, aimed at removing barriers to cross-border trade in services, took important steps to simplify regulation, yet only 70 percent of recognition requests reach a quick and successful outcome.⁴² Professionals report difficulties in identifying the competent authorities, along with bureaucratic complexity and administrative costs.⁴³

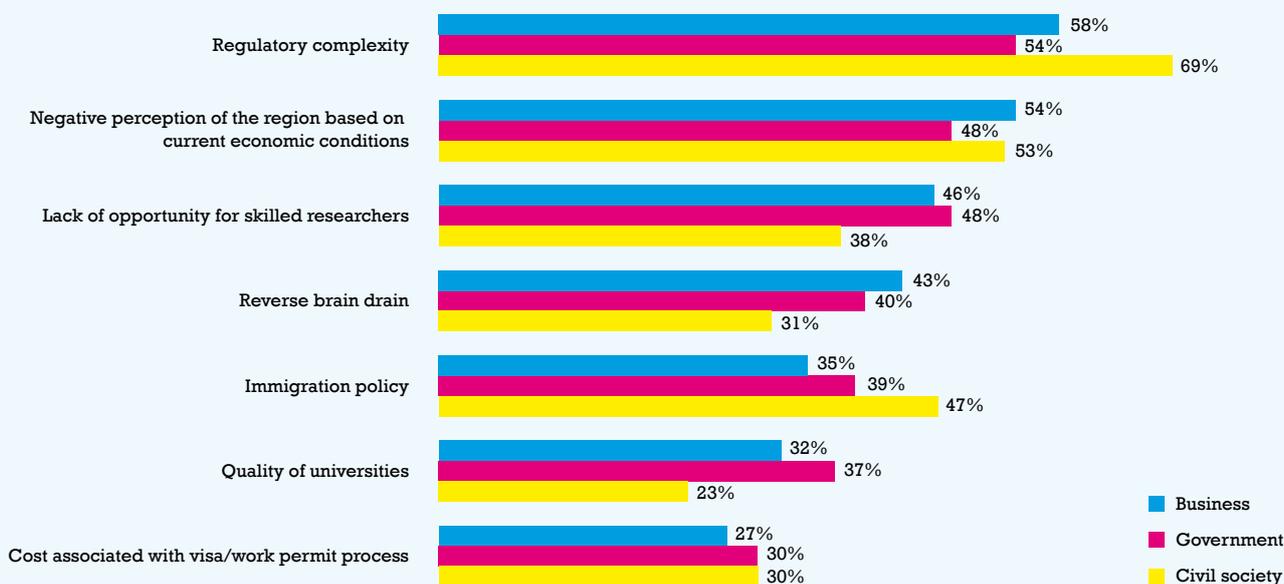
(iv) External borders are barriers

Attracting and retaining international talent in Europe requires action across a broad front. At present, it appears that bureaucratic hurdles are proving especially challenging. In our survey, the most commonly cited barrier to attracting and retaining global talent into Europe was regulatory complexity (see Figure 18). Immigration policy and the cost associated with the visa and work permit process were also identified as key difficulties, reflecting the challenges organisations face in navigating a complex tapestry of processes and policies. More broadly, there is also a need to understand how investment in physical as well as cultural infrastructure can help ensure that Europe is perceived as a more attractive place in which to settle.

The picture varies between member states. For example, negative perceptions of Europe based on current economic conditions was the most critical barrier to attracting and retaining global talent for decision makers in Spain (69 percent), but this was less of a factor for respondents in Germany, with 26 percent. Conversely, the quality of universities was considered a key barrier by 47 percent of German decision makers compared with 22 percent of leaders in the United Kingdom.

Figure 18: Regulatory complexity is the main barrier to attracting talent

'What are the main difficulties in attracting and retaining global talent into Europe?' (percent respondents including among top three)



Source: Accenture European Business Summit Survey 2012.

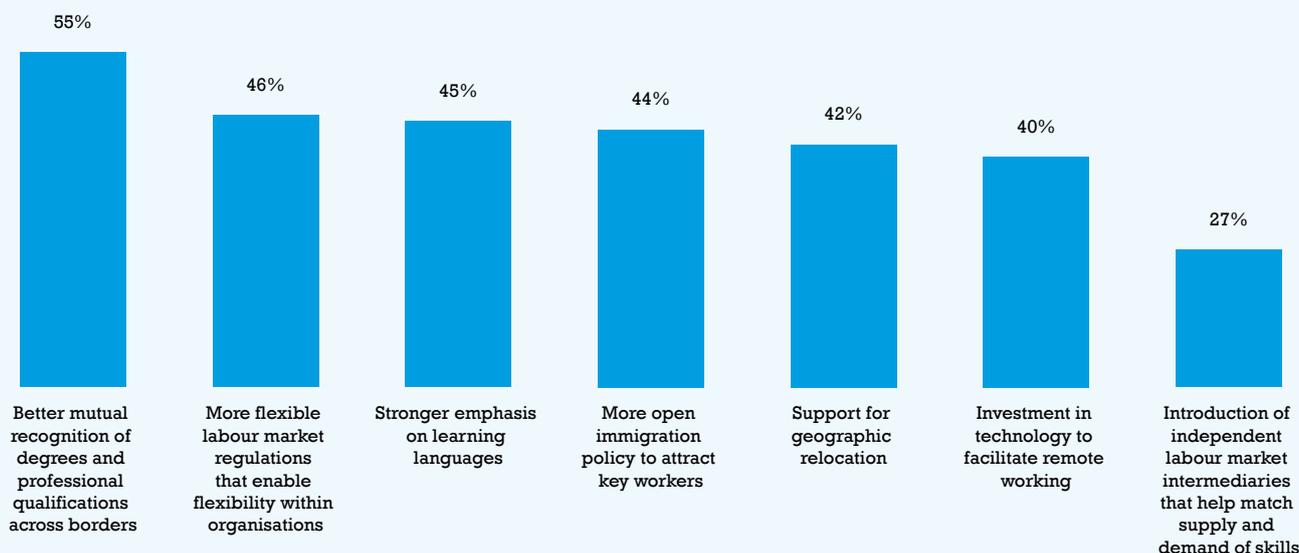
How to get started

Increasing mobility will help European organisations successfully match the supply and demand of talent, particularly in the context of skills shortages. Although a number of actions on the government side will be required, businesses have a significant opportunity to have a head start in sourcing talent. Key actions include:

- Improve the quality of information:** Better analytics can simplify job searches, automatically provide jobseekers with options, identify the capabilities they lack to qualify for certain jobs and direct them to the necessary programmes for retraining. For example, Germany's Virtual Labour Market platform encompasses an online job portal, an internal system supporting employment service and vocational counselling and an online 'job-crawler' that collects vacancies from company websites. Moreover, an algorithm presents results weighted across 40 criteria to better match candidates to potential positions. The platform contains the profiles of nearly 4 million applicants and of 1.1 million vacancies.⁴⁴ Scaling up similar models at a pan-European level will enable organisations to develop a clear map of talent, easily source workers and plan for the future.
- Promote mobility within firms:** Analytics-powered solutions can help companies develop clear maps of their employee skills. These tools can help companies source talent internally, plan career development and increase workers' mobility. Beyond that, international job rotations can ensure that employees are developing the skills needed to operate in a more globalised economy. As business becomes increasingly global, a number of successful organisations have created talent rotation schemes to ensure their employees possess both functional expertise and a global mindset. For example, Nestlé is currently relaunching its International Development Program in marketing and sales. The program introduces recent graduates to the company's headquarters and product categories, and includes a 30-month assignment to a foreign market.⁴⁵
- Develop a more comprehensive approach to skills recognition:** While mutual recognition of qualifications has improved significantly in Europe, more needs to be done in this direction:

- The first imperative is to ensure that mutual recognition of qualifications is fully extended across European countries and that bureaucracy does not act as a break on mobility. This need was clear to our survey respondents, with 55 percent of decision makers indicating that it would significantly improve geographic mobility of workers (see Figure 19). Among German respondents this idea was particularly prominent, with 76 percent of them indicating it as a key imperative. Moving forward, developing a common European framework would offer a solution to the problem, enabling professionals with certain qualifications to receive licences that are immediately valid across borders (see 'Case study: The Bologna Process').
- The second imperative is to develop systems that can successfully account for skills as well as qualifications. While qualifications are an important tool to verify that competencies essential for certain professions are in place, they can often tell only part of the story. Workers often possess a broad range of skills that go unrecognised. Developing a common means of assessing and certifying these skills could improve the understanding of a worker's capabilities and facilitate mobility across industries and countries.
- The third imperative is to enable individuals to document their skills accumulation over time. Extending the European Professional Card to include a record of individual skills could help enhance portability and foster labour mobility within Europe.
- Establish a more streamlined approach for inward migration:** Improvements in immigration policy can help attract workers from outside Europe. The EU Blue Card scheme is a good example. Designed to attract high-skilled migrants from outside the EU, the Blue Card provides a two-year single work and residence permit across member states. Supporting actions include a streamlined and centralised visa application process and a travel permit to member countries for the holder and their family. Our survey found that such measures hold clear appeal: 44 percent of respondents indicated that an immigration policy to attract key workers would improve mobility of skills into and within Europe.

Figure 19: Better mutual recognition of skills and qualifications across EU borders will be key in improving skills mobility
 'In terms of improving the mobility or transferability of skills within Europe, what measures do you think would be most effective?'
 (percent respondents including among top three)



Source: Accenture European Business Summit Survey 2012.

Case study

The Bologna Process

The key achievement of the Bologna Process is a common system of undergraduate and postgraduate studies, with easily transferable programmes and degrees. Throughout Europe, university programmes are now structured around three distinct cycles of qualification. The first entails three to four years of studies and typically yields a bachelor's degree. The second cycle, typically of two years, usually awards a master's degree. The third cycle leads to doctoral degrees. This framework emphasises clear learning outcomes for each cycle, bringing greater harmonisation of degrees across countries.

This change has fostered greater student mobility across member states, allowing students to build their language skills and cultural awareness. More than 210,000 students now spend part of their degree abroad through the Erasmus exchange scheme, and the number of academics crossing national borders to teach is increasing year on year.⁴⁶ The programme's success shows that mutually recognised degrees and common education standards across Europe are central to encouraging mobility among students and the workforce.⁴⁷

Despite this success, the European Higher Education Area (EHEA) understands that it must do more. For example, recent studies on the Erasmus scheme show that one in five students are forced to retake courses and exams after failing to receive full credit for studies abroad.⁴⁸ Even among Bologna-area members, university credits—and in some cases degrees—are still not necessarily accepted. Moreover, some argue that the Bologna Process is overly cumbersome, which could hamper Europe's ability to attract a larger share of students from China and other emerging nations. In its Bologna Process Work Plan 2009-2012, the EHEA announced escalated efforts to reach its target of 20 percent of students studying or completing a training period in another European country by 2020.⁴⁹



3. Building bridges: Strengthening the skills ecosystem

The current problems facing Europe's labour markets are acute. However, without significant changes in the way Europe develops skills in the workforce, current mismatches and labour market inefficiencies will grow more pronounced, and the region will become less competitive. The challenge is to create a skills ecosystem that is both successful today and self-sustaining for the future.

Understanding the challenge

There are three key dimensions that business leaders and policy makers must attend to in developing a more successful long-term approach to skills development: the level and effectiveness of investment; the quality of information relating to key skills; and the extent of coordination and collaboration.

(i) Investment in skills could be higher—and targeted more effectively

Total spending (both public and private) on education in Europe amounts to 5.8 percent of GDP. Compared to the United States, which invests 7.5 percent of GDP, Europe could clearly be doing better.⁵⁰ However, it is not just the level of spending that is cause for concern. It is the effectiveness of that spending that is perhaps more worrying. Nearly half of both business and government decision makers believe that the targeting of public investment in education and skills to achieve maximum benefit is effective only to a limited extent or not at all (see Figure 20). In some countries perceptions were even more negative, such as Spain (with 58 percent), which currently has one of Europe's highest unemployment rates. Yet while business respondents were more likely to believe that private-sector investment is more effectively targeted, government respondents did not agree: 42 percent of government decision makers indicated that the targeting of business investment in education and skills is effective only to a limited extent or not at all, compared to just over a quarter of those from business.

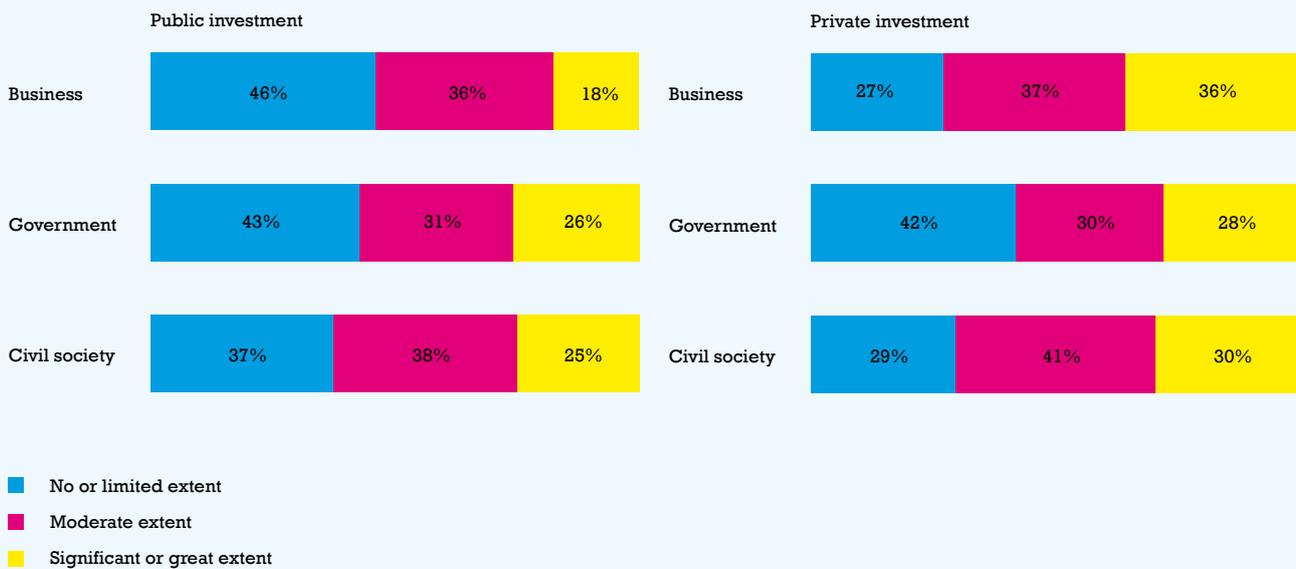
Why are perceptions so negative? One potential reason lies in the fact that investment decisions tend to focus on the private, rather than the social, rates of return. As a result, investment in education within individual organisations is often lower

than it should be. For example, most organisations tend to underestimate the wider benefits that accrue to the overall industry—and therefore their organisation—from a skilled and trained labour pool. This stems from the difficulties in measuring such benefits and in capturing the full return from their investment (i.e. if the individual moves to another organisation as soon as the training is complete).

A second potential reason lies in the stage at which education investment occurs. Numerous studies suggest that early-stage intervention (i.e. at the preprimary and primary level) provides better value for money and can lead to significantly higher attainment levels.⁵¹ However, most education investment in Europe occurs at later stages. For example, in 2008 public education spending dedicated to primary education provision represented 1.2 percent of GDP, whereas it was 3.4 percent of GDP for secondary and tertiary provision combined. In some EU countries spending on secondary and tertiary education is five times as high as on primary education.⁵² If returns on investment are indeed higher the earlier they are made, a fundamental reassessment of resources is needed.

Figure 20: Leaders do not believe that investment in education is generally well targeted

"To what extent do you think that public investment and private investment in education and skills in Europe are effectively targeted to achieve maximum benefit?" (percent respondents)



Source: Accenture European Business Summit Survey 2012.

(ii) Decision making is constrained by limited information

At the level of the individual, it appears that students often have to make decisions on the basis of incomplete information that, if provided, could prove essential in meeting skills shortages. Part of the problem lies in an inability to understand the broader relevance of technical disciplines to a professional environment, as well as the broader social impact that STEM skills have. For example, a recent survey found that teenagers were more willing to consider an engineering career once they understood the social benefits, such as building systems to distribute clean water, and the role it plays in technological change, such as the creation of companies like Facebook and Zynga.⁵³

At the pan-European level, there are few mechanisms in place to understand the skills that Europe's growth sectors will need. Some organisations may map their own internal needs, but this is not systematically aggregated at the industry level, nor is it collated with other industry assessments to produce a bottom-up understanding of the skills throughout Europe. Nearly three-quarters of our survey respondents believe that Europe's education investment needs to be aligned with a better understanding of the skills needed for future growth (see Figure 21).

(iii) Business, government and civil society are not routinely coordinating their efforts

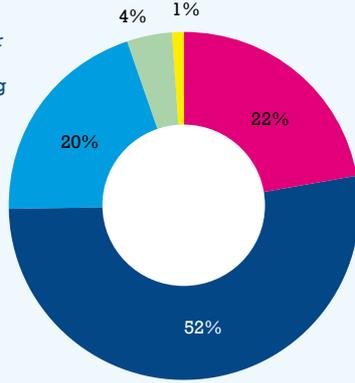
The skills and education system is massively complex, encompassing a diverse network of stakeholders and interactions over an individual's entire life cycle. In such an environment effective coordination and collaboration is challenging. Indeed, our survey points to limited cross-sectoral collaboration on skills and education issues. Across business,

government and civil society organisations, an average of 29 percent collaborate to a significant or great extent with other organisations in their sector while 17 percent collaborate with organisations in other sectors (see Figure 22 for sector breakdown).

Figure 21: A deeper understanding of the skills needed for Europe's growth will be crucial in developing appropriate solutions

"To what extent do you agree or disagree that Europe needs to develop a better understanding of the skills it needs to drive future growth and align education accordingly?" (percent respondents)

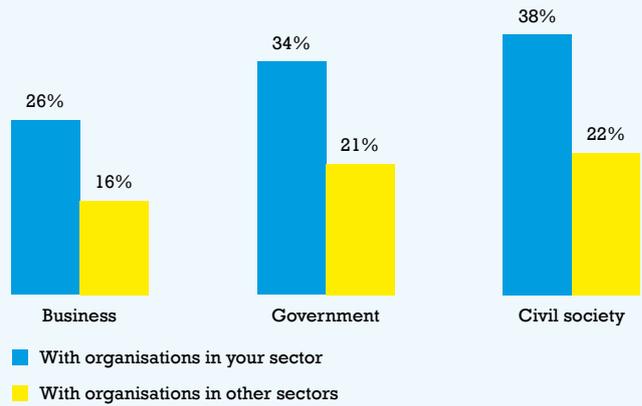
- A great extent
- A significant extent
- A moderate extent
- A limited extent
- Not at all



Source: Accenture European Business Summit Survey 2012.

Figure 22: Weak cross-sector collaboration hinders alignment of education investment

"To what extent are you collaborating on skills development...?" (percent respondents answering "to a significant or great extent")



Source: Accenture European Business Summit Survey 2012.



How to get started

It has taken many decades for leaders to understand the importance of a systemic approach to addressing the talent conundrum, and synergies across sectors on skills development have often been absent. Things are changing: 64 percent of our survey respondents indicated that Europe must recognise that it will only solve its skills challenges through systemwide collaborative solutions and partnerships (see Figure 23).

In such a complex ecosystem, networks are central to ensuring this coordination—both horizontal networks across sectors and organisations, and vertical arrangements up and down production chains. Businesses acknowledge they have a critical role to play here. Fifty-five percent of business decision makers believe that they need to take a key leadership role in convening multisector compacts that address skills issues. In particular, there are a number of areas where businesses can help kick-start this process:

- **Build partnerships between businesses and educational institutions:** Businesses will need to involve themselves in the talent pipeline early on: 64 percent of our survey respondents called for more business-university partnerships and alliances (see Figure 24). By integrating further upstream into the education supply chain, businesses can help shape the types of skills and expectations needed to succeed within a professional environment. For example, Nokia's Data Gathering University Collaboration is a joint programme between the Finnish technology company and a number of universities to share technology, expertise and training around data-gathering systems. As part of this project, the company shares technology and expertise with the university community and trains students to contribute to the development of new applications.⁵⁴
- **Create B2B partnerships around skills:** Similar players in the value chain should collaborate where appropriate to ensure understanding of skills needs as well as, potentially, undertake joint approaches to developing those skills. Nearly

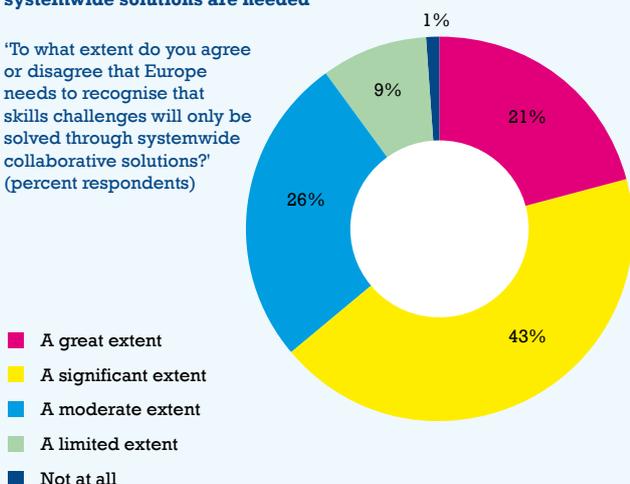
half of decision makers indicated that joint delivery of skills training by firms in the same industry would constitute more effective and efficient investment in skills and education. In the same way that open innovation sees multiple parties (even competitors) come together to exchange ideas that benefit the entire sector, the concept can also be applied to talent development. Across different industries, we are also seeing how resources can be pooled effectively to develop more versatile workforces. For example, BASF Ausbildungsverbund is a joint training scheme that the German chemical company has set up in the Rhine-Neckar metropolitan region. The programme offers training positions in partnership with around 500 other companies: BASF assists these companies to recruit and train young people, and the apprentices rotate between partner companies as part of their training.⁵⁵

- **Cascade higher skills standards through the supply chain:** A core development in improving environmental sustainability has been driving carbon efficiency across the entire supply chain, often introduced by larger companies. Similarly, creating vertical networks between smaller and larger firms can develop skills more effectively in the workforce, as highlighted by 34 percent of our survey respondents. For example, BAE Systems works with its industry peers in the SC21 programme in the United Kingdom to provide training sessions for its key suppliers. As a result, some 120 companies—many of them small and medium-size enterprises—are taking initial coordinated actions to identify and harness innovations and best practices, and helping their workers gain state-of-the-art competencies.⁵⁶



Figure 23: The majority of European decision makers agree that systemwide solutions are needed

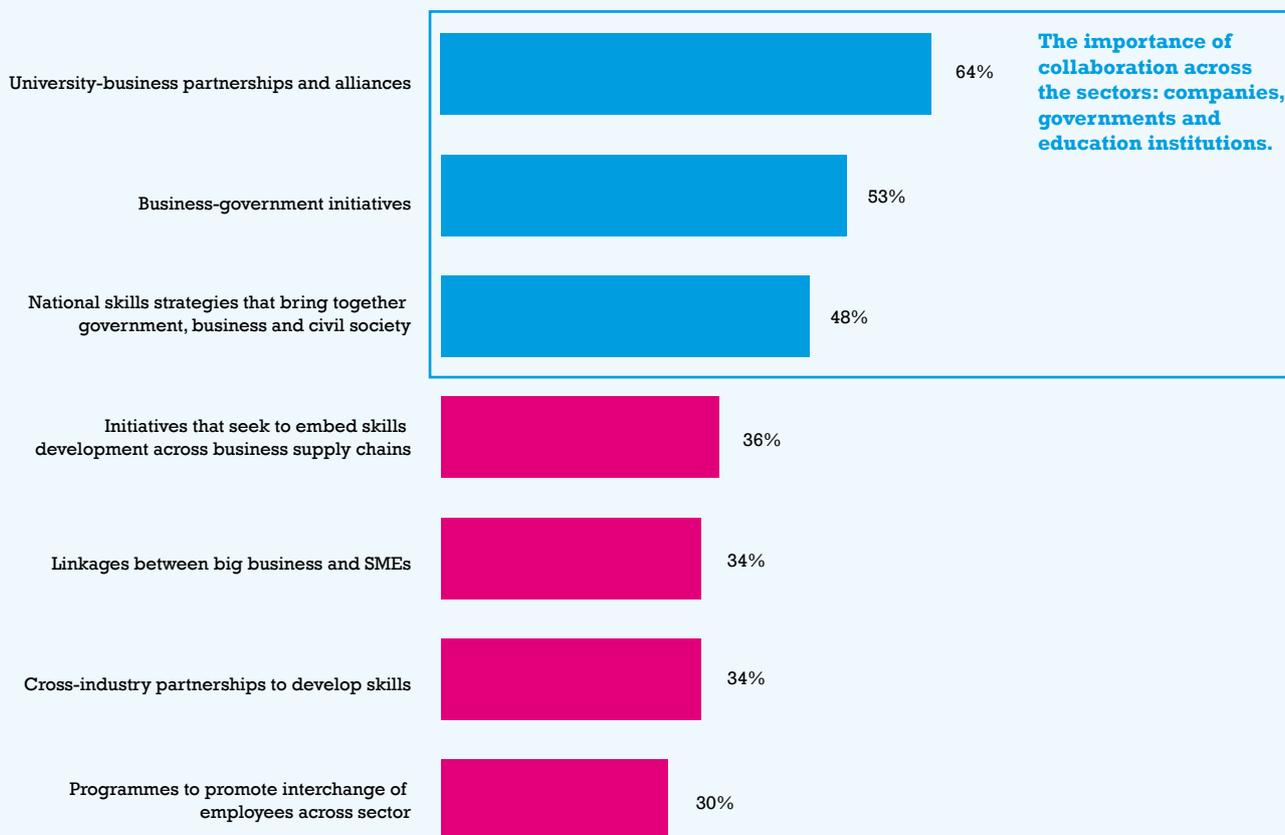
“To what extent do you agree or disagree that Europe needs to recognise that skills challenges will only be solved through systemwide collaborative solutions?” (percent respondents)



Source: Accenture European Business Summit Survey 2012.

Figure 24: There is strong consensus that cross-sector solutions will be important in delivering more effective skills development in Europe

“What types of networks and relationships could help deliver more effective skills development in Europe?” (percent respondents including among top three)



Source: Accenture European Business Summit Survey 2012.

Final word: Calling for change

Europe is at a crossroads. Many of its governments have undertaken painful measures to weather the financial storm, and many businesses have put their skills priorities on hold. As Europe searches for growth, a proactive skills agenda will be an essential driver of new waves of economic expansion.

Governments will need to put the right policies in place and ensure that regulatory complexity does not handcuff the private sector. They also must craft mobility and migration policies that allow European workers to easily move across borders, and entice foreign talent to the region.

More broadly, businesses have a significant number of tools they can use to forge their own destiny. Europe already has a significant pool of talent, yet a large part of this pool is often hidden. As a result, organisations have been slow to harness the potential of these workers. That entails developing innovative business models and a more effective use of technology, in order to allow currently disincentivised workers to join (or rejoin) the workforce. In these efforts, speed will be key, as skills erode quickly when people are not in a job.

Similarly, increasing mobility for workers and the transferability of their skills will foster more efficient labour markets and equip European companies with a more qualified, resilient and versatile workforce. The cornerstone of these efforts is collaboration, a recurring theme from our survey of European leaders. Fifty-five percent of business leaders surveyed believe that they need to take a key leadership role in convening multisector compacts that address skills issues.

The skills challenge will require courage and new ways of thinking about labour issues, many of which may challenge existing assumptions and conventional wisdom. However, the current situation also presents an extraordinary chance for Europe to develop a skilled workforce that will boost growth and secure future prosperity.



Appendix: Survey results

For survey demographics see p. 16.

Question 1: Compared with last year, how confident are you about Europe's economic growth prospects in 2012?

	Very optimistic: much better than 2011	Optimistic: better than 2011	Neutral: about the same as 2011	Pessimistic: worse than 2011	Very pessimistic: much worse than 2011
Total	4%	20%	41%	30%	6%
Business	4%	23%	40%	28%	4%
Government	4%	10%	38%	36%	12%
Civil Society	2%	17%	45%	30%	6%
Less than €50m	9%	17%	34%	31%	9%
€50m-€1bn	3%	23%	39%	30%	5%
More than €1bn	3%	27%	45%	25%	1%
France	5%	26%	42%	24%	3%
Germany	2%	27%	46%	22%	3%
Italy	8%	25%	30%	32%	6%
Spain	1%	11%	40%	39%	9%
UK	1%	8%	44%	37%	9%
Other	15%	32%	30%	21%	2%

Question 2: Has your organisation introduced any new workforce strategies in response to the economic downturn?

	Yes	No	Don't know
Total	54%	43%	3%
Business	54%	44%	2%
Government	63%	33%	4%
Civil Society	45%	50%	5%
Less than €50m	53%	47%	0%
€50m-€1bn	53%	46%	1%
More than €1bn	55%	41%	4%
France	64%	34%	2%
Germany	30%	67%	3%
Italy	77%	23%	0%
Spain	49%	47%	4%
UK	63%	32%	5%
Other	57%	43%	0%

Question 3: In responding to the economic downturn, what strategies have you found it necessary to introduce in order to manage your workforce? Select up to three.

	Introducing more flexible working hours	Moving employees into different functions within the organisation	Reducing the size of the workforce	Freezing recruitment	Recruiting from lower-cost locations	Revising existing terms and conditions
Total	30%	38%	50%	47%	10%	23%
Business	33%	36%	47%	45%	14%	19%
Government	22%	38%	62%	49%	2%	32%
Civil Society	24%	48%	41%	52%	7%	28%
Less than €50m	32%	41%	51%	43%	5%	27%
€50m-€1bn	40%	38%	42%	40%	12%	15%
More than €1bn	28%	31%	49%	50%	19%	18%
France	22%	36%	38%	51%	7%	5%
Germany	41%	28%	50%	44%	16%	9%
Italy	44%	29%	39%	39%	24%	32%
Spain	24%	51%	55%	53%	8%	31%
UK	22%	38%	74%	53%	4%	35%
Other	41%	37%	19%	26%	7%	15%

	Making greater use of temporary contracts / agency workers	Moving functions to low-cost location	Reducing provision of training	Other
Total	17%	16%	8%	5%
Business	18%	21%	8%	3%
Government	13%	5%	8%	8%
Civil Society	24%	7%	10%	10%
Less than €50m	19%	3%	3%	0%
€50m-€1bn	15%	15%	6%	3%
More than €1bn	19%	35%	12%	4%
France	20%	18%	5%	7%
Germany	31%	16%	9%	0%
Italy	17%	22%	5%	0%
Spain	12%	12%	8%	10%
UK	12%	18%	9%	6%
Other	19%	4%	15%	0%

Question 4A: How has your organisation's spending on training and skills development for your employees changed over the last 12 months?

	Decreased significantly i.e. above 5%	Decreased i.e. between 1-5%	Stayed the same	Increased i.e. between 1-5%	Increased significantly i.e. above 5%
Total	16%	27%	43%	12%	2%
Business	15%	27%	41%	15%	2%
Government	22%	32%	41%	4%	1%
Civil Society	8%	17%	61%	11%	3%
Less than €50m	23%	26%	43%	6%	3%
€50m-€1bn	17%	29%	37%	15%	1%
More than €1bn	10%	25%	43%	20%	3%
France	2%	31%	52%	10%	3%
Germany	4%	13%	54%	26%	3%
Italy	21%	42%	30%	6%	2%
Spain	32%	25%	33%	10%	0%
UK	19%	32%	39%	8%	2%
Other	19%	21%	51%	6%	2%

Question 4B : And how will your organisation's spending on training and skills development for your employees change over the next 12 months?

	Decrease significantly i.e. above 5%	Decrease i.e. between 1-5%	Stayed the same	Increase i.e. between 1-5%	Increase significantly i.e. above 5%
Total	11%	20%	51%	17%	1%
Business	10%	21%	49%	20%	1%
Government	19%	24%	51%	6%	0%
Civil Society	6%	8%	64%	19%	3%
Less than €50m	14%	17%	54%	14%	0%
€50m-€1bn	11%	19%	48%	20%	2%
More than €1bn	6%	24%	47%	22%	1%
France	2%	23%	58%	14%	2%
Germany	5%	14%	55%	25%	2%
Italy	13%	30%	38%	19%	0%
Spain	28%	20%	39%	12%	1%
UK	9%	18%	58%	13%	2%
Other	6%	17%	55%	21%	0%

Question 5: To what extent is your organisation currently facing a shortage of required skills?

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	21%	36%	30%	12%	2%
Business	22%	36%	29%	11%	2%
Government	15%	39%	31%	13%	2%
Civil Society	23%	34%	28%	14%	0%
Less than €50m	33%	37%	27%	3%	0%
€50m-€1bn	23%	37%	28%	10%	2%
More than €1bn	15%	34%	31%	15%	3%
France	16%	40%	31%	12%	1%
Germany	13%	35%	27%	21%	4%
Italy	11%	42%	26%	15%	6%
Spain	30%	24%	35%	11%	0%
UK	27%	44%	26%	4%	0%
Other	21%	38%	32%	6%	2%

Question 6A: In terms of the types of skills that your organisation needs in order to be successful in the future, which are most important? Select and rank your top three. [All selections shown.]

	Science, technology, engineering and mathematics (STEM)	High-end analytical	General management	Digital literacy	International business skills	Technology-enabled manufacturing skills
Total	48%	40%	52%	27%	52%	24%
Business	52%	41%	46%	27%	59%	29%
Government	50%	42%	64%	21%	38%	15%
Civil Society	25%	33%	61%	38%	38%	13%
Less than €50m	36%	34%	47%	27%	39%	24%
€50m-€1bn	55%	44%	43%	26%	62%	28%
More than €1bn	57%	42%	48%	28%	66%	33%
France	53%	42%	51%	24%	50%	29%
Germany	50%	19%	60%	40%	62%	30%
Italy	36%	34%	42%	34%	47%	19%
Spain	65%	56%	31%	11%	72%	24%
UK	34%	51%	70%	29%	30%	12%
Other	43%	34%	45%	28%	47%	36%

	Basic numeracy and literacy	Administrative/clerical	Manual working
Total	10%	28%	13%
Business	8%	20%	12%
Government	9%	44%	14%
Civil Society	19%	47%	20%
Less than €50m	10%	41%	27%
€50m-€1bn	7%	17%	11%
More than €1bn	8%	12%	5%
France	6%	27%	13%
Germany	9%	20%	7%
Italy	13%	45%	26%
Spain	1%	23%	12%
UK	19%	31%	15%
Other	11%	36%	15%

Question 6B: To what extent are those skills already available?

Science, technology, engineering and mathematics (STEM)

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	1%	14%	30%	43%	12%
Business	1%	13%	32%	43%	11%
Government	2%	16%	32%	38%	12%
Civil Society	0%	19%	13%	50%	19%
Less than €50m	4%	8%	36%	40%	12%
€50m-€1bn	0%	12%	35%	41%	12%
More than €1bn	1%	16%	27%	46%	10%
France	2%	15%	39%	37%	7%
Germany	0%	13%	25%	51%	11%
Italy	0%	5%	21%	53%	21%
Spain	3%	15%	28%	42%	12%
UK	0%	19%	35%	35%	11%
Other	0%	10%	35%	40%	15%

High-end analytical

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	1%	19%	42%	28%	10%
Business	1%	20%	43%	24%	11%
Government	0%	14%	33%	40%	12%
Civil Society	0%	19%	48%	33%	0%
Less than €50m	0%	33%	50%	8%	8%
€50m-€1bn	4%	11%	50%	22%	13%
More than €1bn	0%	23%	35%	32%	10%
France	0%	25%	39%	31%	6%
Germany	0%	20%	40%	30%	10%
Italy	0%	11%	17%	39%	33%
Spain	4%	13%	54%	27%	4%
UK	0%	24%	40%	29%	7%
Other	0%	19%	44%	13%	25%

General management

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	0%	12%	35%	41%	11%
Business	1%	10%	35%	43%	12%
Government	0%	16%	39%	41%	5%
Civil Society	0%	15%	26%	38%	21%
Less than €50m	0%	9%	27%	52%	12%
€50m-€1bn	0%	9%	40%	42%	9%
More than €1bn	1%	10%	36%	39%	13%
France	0%	18%	32%	45%	5%
Germany	0%	6%	27%	48%	19%
Italy	5%	14%	27%	41%	14%
Spain	0%	13%	48%	26%	13%
UK	0%	9%	43%	39%	8%
Other	0%	24%	24%	43%	10%

Digital literacy

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	1%	16%	42%	30%	10%
Business	1%	12%	42%	35%	10%
Government	5%	33%	48%	14%	0%
Civil Society	0%	17%	38%	25%	21%
Less than €50m	0%	5%	53%	37%	5%
€50m-€1bn	3%	9%	44%	34%	9%
More than €1bn	0%	18%	35%	35%	13%
France	0%	33%	48%	19%	0%
Germany	0%	14%	38%	36%	12%
Italy	0%	0%	50%	28%	22%
Spain	18%	36%	18%	27%	0%
UK	0%	16%	48%	29%	6%
Other	0%	0%	38%	38%	23%

International business skills (e.g. languages, ability to manage cross-border teams, cultural awareness)

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	3%	25%	37%	27%	8%
Business	3%	25%	41%	26%	6%
Government	3%	37%	24%	26%	11%
Civil Society	4%	13%	17%	42%	25%
Less than €50m	4%	33%	37%	22%	4%
€50m-€1bn	1%	29%	41%	26%	3%
More than €1bn	3%	19%	43%	26%	8%
France	0%	33%	42%	19%	7%
Germany	2%	12%	39%	36%	11%
Italy	4%	16%	40%	36%	4%
Spain	6%	39%	29%	19%	7%
UK	0%	31%	34%	31%	3%
Other	5%	9%	41%	27%	18%

Technology-enabled manufacturing skills

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	2%	21%	31%	36%	11%
Business	1%	19%	32%	39%	9%
Government	0%	20%	27%	33%	20%
Civil Society	13%	38%	25%	13%	13%
Less than €50m	0%	18%	47%	35%	0%
€50m-€1bn	3%	21%	38%	29%	9%
More than €1bn	0%	19%	21%	47%	13%
France	0%	24%	40%	36%	0%
Germany	0%	16%	22%	41%	22%
Italy	0%	10%	40%	30%	20%
Spain	4%	17%	29%	33%	17%
UK	8%	38%	38%	15%	0%
Other	0%	24%	24%	53%	0%

Basic numeracy and literacy

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	2%	18%	33%	24%	22%
Business	4%	14%	29%	25%	29%
Government	0%	22%	33%	22%	22%
Civil Society	0%	25%	42%	25%	8%
Less than €50m	0%	14%	0%	57%	29%
€50m-€1bn	11%	22%	22%	11%	33%
More than €1bn	0%	8%	50%	17%	25%
France	0%	20%	40%	0%	40%
Germany	0%	0%	30%	30%	40%
Italy	14%	29%	43%	0%	14%
Spain	0%	0%	100%	0%	0%
UK	0%	19%	33%	38%	10%
Other	0%	40%	0%	20%	40%

Administrative/clerical

	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	10%	30%	43%	17%
Business	6%	36%	42%	16%
Government	7%	27%	52%	14%
Civil Society	23%	20%	33%	23%
Less than €50m	7%	41%	45%	7%
€50m-€1bn	5%	29%	48%	19%
More than €1bn	6%	35%	29%	29%
France	13%	43%	30%	13%
Germany	5%	14%	52%	29%
Italy	4%	33%	50%	13%
Spain	9%	35%	35%	22%
UK	12%	27%	42%	18%
Other	18%	24%	53%	6%

Manual working

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	3%	18%	40%	28%	10%
Business	0%	15%	45%	30%	10%
Government	14%	14%	29%	29%	14%
Civil Society	0%	31%	38%	23%	8%
Less than €50m	0%	11%	53%	32%	5%
€50m-€1bn	0%	14%	43%	21%	21%
More than €1bn	0%	29%	29%	43%	0%
France	0%	27%	36%	36%	0%
Germany	0%	0%	43%	29%	29%
Italy	7%	7%	43%	36%	7%
Spain	8%	17%	50%	8%	17%
UK	0%	19%	31%	38%	13%
Other	0%	43%	43%	14%	0%

Other

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	15%	15%	41%	26%	4%
Business	16%	11%	37%	32%	5%
Government	0%	0%	100%	0%	0%
Civil Society	20%	40%	20%	20%	0%
Less than €50m	10%	10%	40%	30%	10%
€50m-€1bn	25%	13%	38%	25%	0%
More than €1bn	0%	0%	0%	100%	0%
France	50%	25%	25%	0%	0%
Germany	33%	0%	0%	67%	0%
Italy	50%	0%	50%	0%	0%
Spain	0%	0%	60%	20%	20%
UK	0%	30%	40%	30%	0%
Other	0%	0%	67%	33%	0%

Question 7: To what extent do you agree or disagree with the following statements?

We are utilising the full range of skills and expertise available within our organisation

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	2%	13%	32%	41%	13%
Business	1%	12%	35%	41%	12%
Government	5%	16%	31%	34%	14%
Civil Society	0%	13%	22%	48%	17%
Less than €50m	0%	4%	40%	36%	20%
€50m-€1bn	1%	14%	33%	45%	7%
More than €1bn	1%	14%	33%	41%	11%
France	2%	17%	31%	36%	13%
Germany	2%	7%	31%	52%	8%
Italy	4%	11%	34%	36%	15%
Spain	2%	15%	37%	33%	13%
UK	0%	16%	29%	43%	13%
Other	0%	9%	32%	40%	19%

We are utilising the full range of skills and expertise available within our domestic market

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	1%	16%	35%	38%	10%
Business	1%	15%	34%	39%	11%
Government	5%	20%	41%	28%	6%
Civil Society	0%	13%	34%	45%	8%
Less than €50m	0%	13%	34%	43%	10%
€50m-€1bn	1%	15%	33%	41%	10%
More than €1bn	1%	17%	34%	36%	13%
France	1%	23%	41%	27%	8%
Germany	2%	8%	26%	50%	14%
Italy	2%	13%	28%	53%	4%
Spain	2%	25%	37%	25%	11%
UK	0%	15%	42%	37%	6%
Other	2%	9%	34%	40%	15%

We are utilising the full range of skills and expertise available within Europe

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	10%	29%	33%	23%	4%
Business	7%	27%	35%	25%	5%
Government	19%	34%	24%	19%	4%
Civil Society	13%	30%	36%	19%	3%
Less than €50m	17%	27%	36%	17%	3%
€50m-€1bn	7%	30%	37%	20%	6%
More than €1bn	2%	25%	34%	34%	5%
France	14%	28%	30%	24%	3%
Germany	9%	19%	39%	30%	3%
Italy	8%	21%	30%	34%	8%
Spain	10%	32%	39%	15%	4%
UK	10%	39%	27%	23%	1%
Other	9%	34%	32%	11%	15%

We are utilising the full range of skills and expertise available globally

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	17%	32%	28%	18%	5%
Business	14%	29%	33%	20%	5%
Government	28%	37%	15%	15%	5%
Civil Society	19%	39%	25%	13%	5%
Less than €50m	29%	33%	21%	17%	0%
€50m-€1bn	15%	28%	37%	14%	6%
More than €1bn	6%	27%	34%	27%	6%
France	20%	35%	22%	20%	3%
Germany	15%	25%	36%	22%	3%
Italy	13%	21%	25%	28%	13%
Spain	20%	34%	25%	15%	6%
UK	18%	37%	31%	13%	2%
Other	17%	36%	28%	13%	6%

Question 8: How would you rate your current human capital strategy (i.e. your approach to recruitment, training and skills development) compared to other similar organisations?

	We are ahead of our peers	We are at the same level as our peers	We need to improve to reach the level of our peers
Total	21%	53%	26%
Business	22%	51%	26%
Government	17%	51%	32%
Civil Society	19%	63%	19%
Less than €50m	23%	57%	20%
€50m-€1bn	20%	51%	28%
More than €1bn	24%	49%	27%
France	20%	49%	31%
Germany	21%	53%	26%
Italy	32%	57%	11%
Spain	19%	50%	31%
UK	20%	53%	27%
Other	15%	62%	23%



Question 9: What are the main barriers to attracting and retaining global talent into Europe?
 Select your top three. *[All selections shown.]*

	Quality of universities	Immigration policy	Regulatory complexity	Cost associated with visa / work permit process	Reverse brain drain (i.e. global talent returning to home country)
Total	32%	37%	59%	28%	41%
Business	32%	35%	58%	27%	43%
Government	37%	39%	54%	30%	40%
Civil Society	23%	47%	69%	30%	31%
Less than €50m	29%	26%	59%	33%	36%
€50m-€1bn	35%	33%	45%	33%	40%
More than €1bn	31%	40%	69%	20%	50%
France	24%	37%	67%	29%	43%
Germany	47%	55%	65%	16%	41%
Italy	30%	36%	51%	36%	43%
Spain	35%	18%	42%	18%	56%
UK	22%	39%	59%	41%	34%
Other	30%	34%	70%	38%	21%

	Negative perceptions of the region based on current economic conditions	Lack of opportunity for skilled researchers	Other
Total	53%	46%	4%
Business	54%	46%	4%
Government	48%	48%	4%
Civil Society	53%	38%	9%
Less than €50m	64%	49%	6%
€50m-€1bn	57%	54%	3%
More than €1bn	48%	39%	3%
France	47%	49%	3%
Germany	26%	47%	3%
Italy	53%	45%	6%
Spain	69%	61%	1%
UK	65%	30%	10%
Other	64%	40%	2%



Question 10: Thinking first of older age groups across Europe, what barriers do you think prevent reintegration back into employment? Select your top three. [All selections shown.]

	Failure by employers to utilise the potential of new technology (i.e. tools that facilitate remote working)	Employers undervaluing skills among older age groups	Lack of flexible working patterns (e.g. part-time working)	Elderly undervaluing the relevance of their skills to employers	Tax and pension systems that disincentivises return to the workplace
Total	29%	67%	43%	28%	36%
Business	32%	63%	45%	28%	36%
Government	25%	74%	35%	32%	34%
Civil Society	25%	73%	48%	25%	36%
Less than €50m	31%	63%	51%	16%	31%
€50m-€1bn	32%	62%	37%	29%	43%
More than €1bn	31%	64%	48%	33%	32%
France	29%	65%	40%	35%	28%
Germany	26%	70%	56%	29%	37%
Italy	34%	53%	45%	26%	49%
Spain	32%	63%	44%	15%	38%
UK	29%	77%	31%	36%	37%
Other	28%	62%	49%	28%	23%

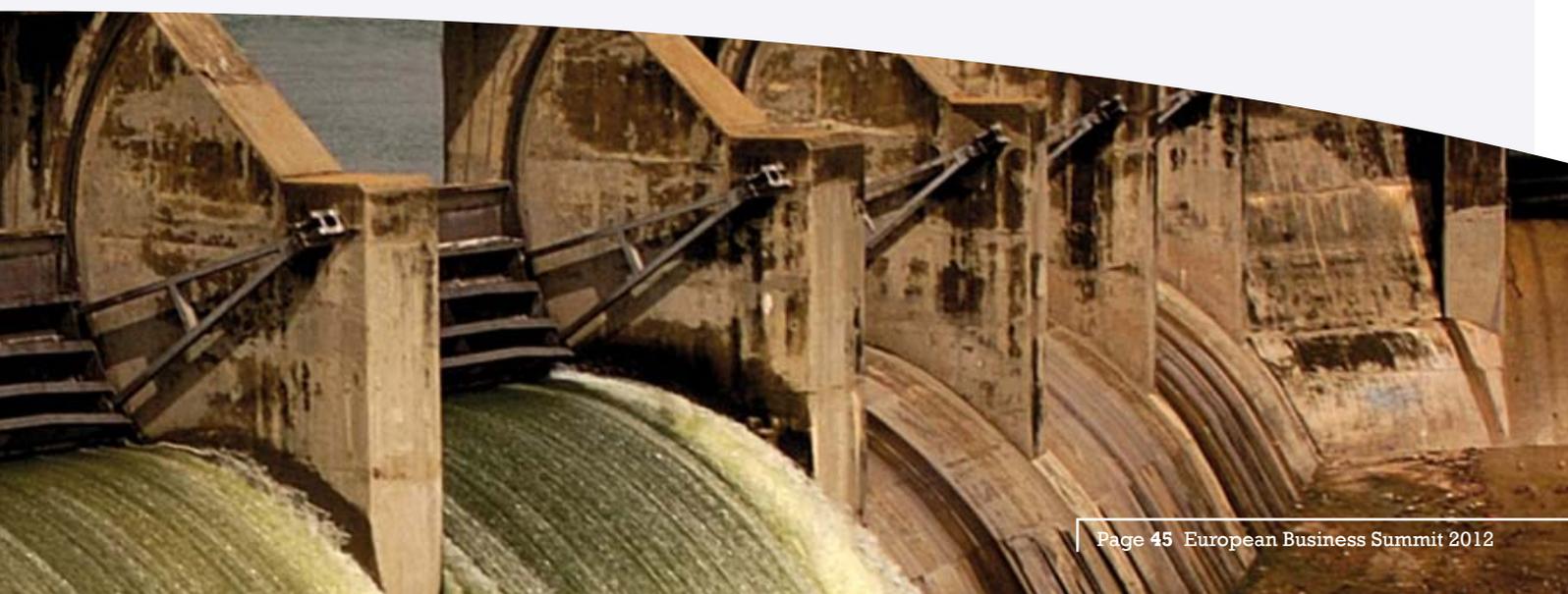
	Lack of provision of retraining programmes for older age groups	Employer expectations of high remuneration demands from older workers	Perception of higher risk of illness among older workers	Other
Total	30%	40%	24%	3%
Business	30%	40%	23%	3%
Government	32%	42%	24%	2%
Civil Society	28%	33%	30%	2%
Less than €50m	36%	40%	29%	3%
€50m-€1bn	31%	44%	20%	2%
More than €1bn	27%	38%	23%	3%
France	33%	57%	14%	0%
Germany	16%	32%	31%	3%
Italy	38%	42%	11%	2%
Spain	30%	56%	18%	4%
UK	31%	27%	30%	4%
Other	49%	19%	40%	2%



Question 11: And in terms of mothers looking to re-enter the workforce, what barriers do you think prevent that potential from being realised? Select your top three. [All selections shown.]

	Employers undervaluing skills of mothers who have been out of the workforce	Mothers undervaluing the relevance of their skills to employers	Lack of training to facilitate return of mothers to the workforce	Lack of flexibility in working hours and patterns	Cost of childcare disincentivising return to work
Total	49%	18%	37%	78%	62%
Business	46%	17%	37%	80%	60%
Government	51%	25%	38%	73%	63%
Civil Society	58%	13%	36%	72%	69%
Less than €50m	46%	13%	44%	84%	63%
€50m-€1bn	49%	15%	33%	81%	60%
More than €1bn	44%	21%	36%	78%	59%
France	50%	17%	45%	74%	53%
Germany	46%	16%	37%	81%	61%
Italy	45%	23%	43%	68%	66%
Spain	55%	14%	32%	90%	40%
UK	45%	18%	33%	69%	86%
Other	49%	28%	32%	81%	64%

	Perceived difficulty of advancement within organisations for mothers	Other
Total	50%	4%
Business	52%	4%
Government	45%	1%
Civil Society	44%	5%
Less than €50m	44%	3%
€50m-€1bn	51%	6%
More than €1bn	57%	3%
France	52%	3%
Germany	45%	4%
Italy	53%	2%
Spain	65%	4%
UK	40%	6%
Other	43%	0%



Question 12: To what extent do you think that (a) public investment and (b) private investment in education and skills in Europe is effectively targeted to achieve maximum benefit?

(a) Public investment

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	12%	33%	35%	16%	4%
Business	13%	33%	36%	14%	3%
Government	11%	32%	31%	19%	7%
Civil Society	5%	33%	38%	20%	5%
Less than €50m	13%	30%	37%	19%	1%
€50m-€1bn	17%	34%	35%	11%	2%
More than €1bn	10%	34%	37%	15%	5%
France	7%	38%	34%	16%	5%
Germany	9%	30%	40%	16%	5%
Italy	8%	26%	32%	19%	15%
Spain	25%	33%	33%	8%	1%
UK	11%	35%	36%	17%	1%
Other	2%	30%	36%	28%	4%

(b) Private investment

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	5%	25%	36%	28%	5%
Business	5%	22%	37%	32%	4%
Government	7%	35%	30%	21%	7%
Civil Society	5%	25%	41%	22%	8%
Less than €50m	6%	24%	43%	26%	1%
€50m-€1bn	7%	22%	38%	29%	3%
More than €1bn	3%	21%	34%	37%	6%
France	2%	27%	38%	29%	3%
Germany	4%	11%	37%	40%	8%
Italy	4%	19%	26%	38%	13%
Spain	12%	34%	36%	16%	2%
UK	6%	35%	37%	20%	2%
Other	2%	17%	40%	36%	4%

Question 13: In terms of investment in skills and education, which sector of the economy do you think is primarily responsible?

	Business	Government	Civil society (i.e. universities, charities and NGOs)	Other
Total	25%	58%	16%	1%
Business	29%	53%	17%	1%
Government	21%	67%	11%	1%
Civil Society	11%	69%	20%	0%
Less than €50m	20%	63%	17%	0%
€50m-€1bn	30%	51%	17%	2%
More than €1bn	32%	50%	16%	2%
France	23%	67%	7%	2%
Germany	38%	44%	18%	0%
Italy	25%	49%	25%	2%
Spain	24%	56%	20%	0%
UK	19%	64%	15%	2%
Other	15%	70%	13%	2%

Question 14: To what extent are you collaborating on skills development:

With other organisations in your sector of the economy?

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	15%	25%	30%	24%	5%
Business	17%	26%	30%	24%	3%
Government	11%	24%	31%	23%	11%
Civil Society	11%	23%	28%	30%	8%
Less than €50m	24%	26%	31%	19%	0%
€50m-€1bn	19%	24%	29%	25%	3%
More than €1bn	12%	29%	31%	24%	4%
France	16%	22%	29%	28%	5%
Germany	6%	22%	32%	35%	6%
Italy	21%	17%	32%	17%	13%
Spain	18%	30%	34%	16%	2%
UK	20%	31%	25%	19%	4%
Other	9%	26%	30%	30%	6%

With organisations in other sectors of the economy?

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	17%	30%	35%	15%	2%
Business	18%	28%	38%	14%	2%
Government	17%	37%	25%	17%	4%
Civil Society	14%	27%	38%	19%	3%
Less than €50m	26%	27%	41%	6%	0%
€50m-€1bn	19%	29%	34%	16%	2%
More than €1bn	13%	28%	39%	17%	3%
France	22%	31%	30%	15%	1%
Germany	7%	28%	46%	18%	1%
Italy	19%	9%	40%	23%	9%
Spain	21%	29%	35%	14%	1%
UK	25%	39%	24%	10%	2%
Other	4%	34%	40%	17%	4%

Question 15: Looking at the specific problem of youth unemployment in Europe today, which options offer the best hope of addressing this problem? Select your top three. [All selections shown.]

	Greater provision of apprenticeship schemes	Better targeting of job placements	More flexible labour market regulation	Higher levels of basic literacy and numeracy among young people	Establishing student mentoring schemes by businesses
Total	46%	32%	32%	40%	28%
Business	42%	32%	36%	36%	28%
Government	51%	33%	23%	47%	34%
Civil Society	59%	31%	27%	53%	17%
Less than €50m	54%	24%	46%	24%	29%
€50m-€1bn	37%	35%	37%	35%	23%
More than €1bn	39%	33%	30%	43%	31%
France	58%	29%	22%	24%	48%
Germany	30%	43%	20%	60%	16%
Italy	49%	34%	42%	30%	28%
Spain	36%	38%	56%	13%	20%
UK	63%	16%	19%	70%	30%
Other	36%	34%	47%	26%	28%

	Greater business role in shaping educational curricula	Rolling out programmes that help students better understand the culture within a professional environment (e.g. personal conduct, team working, communications)	More business collaboration with civil society (i.e. youth groups and organisations) to give young people work experience	Other
Total	35%	40%	44%	4%
Business	38%	42%	45%	3%
Government	28%	33%	44%	7%
Civil Society	31%	42%	39%	0%
Less than €50m	36%	34%	51%	1%
€50m-€1bn	40%	42%	48%	3%
More than €1bn	36%	45%	38%	4%
France	30%	40%	49%	0%
Germany	34%	50%	42%	5%
Italy	43%	32%	36%	6%
Spain	45%	30%	55%	7%
UK	23%	47%	30%	3%
Other	40%	32%	57%	0%

Question 16: Turning to broader unemployment within Europe, what steps could be taken in order to bring more unemployed people back into the workforce? Select your top three.

[All selections shown.]

	Public subsidy of job placements	New mechanisms to better match jobs and individuals	More work experience schemes	Provision of more targeted career advice	New programmes to keep skills fresh during periods of unemployment (e.g. by coordinating volunteering or work-shadowing opportunities)
Total	17%	43%	32%	33%	46%
Business	18%	42%	33%	34%	46%
Government	17%	48%	28%	32%	49%
Civil Society	13%	36%	31%	28%	45%
Less than €50m	34%	31%	40%	19%	33%
€50m-€1bn	19%	37%	26%	37%	50%
More than €1bn	10%	52%	36%	38%	49%
France	8%	57%	30%	36%	45%
Germany	13%	53%	26%	37%	56%
Italy	28%	26%	28%	43%	40%
Spain	9%	47%	23%	32%	44%
UK	20%	29%	41%	28%	53%
Other	40%	34%	51%	17%	26%



	Services that support to individuals to set up their own business	More immediate retraining programmes	Tax and benefits system that incentivises job uptake and retraining	Other
Total	47%	26%	51%	4%
Business	50%	24%	49%	4%
Government	43%	27%	50%	6%
Civil Society	41%	38%	67%	2%
Less than €50m	63%	20%	57%	3%
€50m-€1bn	54%	24%	48%	7%
More than €1bn	40%	27%	45%	3%
France	43%	40%	41%	0%
Germany	28%	28%	52%	7%
Italy	55%	36%	40%	4%
Spain	80%	10%	46%	9%
UK	33%	23%	70%	3%
Other	51%	30%	49%	2%

Question 17: In terms of improving the mobility or transferability of skills within Europe, what measures do you think would be most effective? Select your top three. [All selections shown.]

	Introduction of independent labour market intermediaries that help match supply and demand of skills	Better mutual recognition of degrees and professional qualifications across borders	Support for geographic relocation	Investment in technology to facilitate remote working	More open immigration policy to attract key workers
Total	27%	55%	42%	40%	44%
Business	29%	50%	45%	41%	41%
Government	27%	60%	42%	36%	50%
Civil Society	16%	70%	27%	41%	53%
Less than €50m	30%	36%	54%	44%	39%
€50m-€1bn	28%	53%	45%	41%	38%
More than €1bn	28%	55%	40%	40%	45%
France	20%	59%	28%	43%	53%
Germany	28%	76%	29%	25%	43%
Italy	36%	45%	57%	36%	49%
Spain	26%	52%	56%	45%	29%
UK	20%	45%	44%	43%	51%
Other	40%	36%	43%	55%	43%

	More flexible labour market regulations that enable flexibility within organisations	Stronger emphasis on learning languages	Other
Total	46%	45%	2%
Business	50%	43%	2%
Government	33%	50%	2%
Civil Society	45%	48%	0%
Less than €50m	49%	49%	0%
€50m-€1bn	48%	44%	3%
More than €1bn	52%	39%	1%
France	43%	52%	1%
Germany	51%	45%	1%
Italy	45%	32%	0%
Spain	50%	39%	3%
UK	43%	52%	2%
Other	38%	43%	2%

Question 18: What changes do you think could lead to more effective and efficient investment in skills and education? Select and rank your top three. [All selections shown.]

	Joint delivery of skills training by firms in the same industry	Increased incentives for individuals to update their skills over their working life	Higher levels of business investment in vocational training	Lower university fees for subjects that deliver a high social return (e.g. science and engineering)	Increasing the level of competition in the education sector by opening up provision to more private and non-profit providers	Focusing investment on early-stage intervention (e.g. pre-primary and primary education)	Other
Total	48%	66%	60%	42%	38%	42%	3%
Business	46%	67%	60%	39%	46%	39%	3%
Government	57%	60%	62%	44%	27%	46%	4%
Civil Society	44%	73%	59%	55%	17%	50%	2%
Less than €50m	43%	61%	60%	46%	51%	36%	3%
€50m-€1bn	44%	67%	63%	34%	46%	41%	4%
More than €1bn	50%	70%	57%	41%	42%	39%	2%
France	74%	52%	71%	34%	31%	36%	1%
Germany	31%	85%	60%	36%	39%	47%	2%
Italy	53%	68%	58%	53%	28%	38%	2%
Spain	42%	64%	60%	26%	64%	37%	7%
UK	43%	62%	56%	60%	25%	51%	4%
Other	57%	64%	53%	53%	36%	36%	0%

Question 19: What types of networks and relationships could help deliver more effective skills development in Europe? Select your top three. [All selections shown.]

	Business-government initiatives	Linkages between big business and SMEs	University-business partnerships and alliances	Cross-industry partnerships to develop skills	Programmes to promote interchange of employees across sectors
Total	53%	34%	64%	34%	30%
Business	54%	36%	68%	32%	29%
Government	52%	32%	57%	31%	28%
Civil Society	50%	27%	52%	47%	38%
Less than €50m	70%	30%	71%	21%	29%
€50m-€1bn	52%	41%	67%	32%	30%
More than €1bn	48%	36%	69%	38%	28%
France	47%	37%	64%	35%	34%
Germany	55%	23%	65%	43%	22%
Italy	70%	34%	58%	30%	30%
Spain	46%	38%	73%	31%	33%
UK	48%	40%	60%	31%	31%
Other	68%	34%	57%	30%	32%



	National skills strategies that bring together government, business and civil society	Initiatives that seek to embed skills development across business supply chains	Other
Total	48%	36%	1%
Business	43%	37%	1%
Government	66%	33%	1%
Civil Society	48%	39%	0%
Less than €50m	43%	34%	1%
€50m-€1bn	40%	38%	1%
More than €1bn	45%	37%	0%
France	45%	38%	0%
Germany	49%	43%	0%
Italy	60%	17%	0%
Spain	40%	38%	1%
UK	56%	34%	1%
Other	36%	40%	2%

Question 20: In terms of aligning Europe's pipeline of human capital with long-term growth opportunities, to what extent do you agree or disagree with the following statements?

Europe needs to develop a better understanding of the skills it needs to drive future growth and align education accordingly

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	1%	4%	20%	52%	22%
Business	2%	4%	22%	51%	21%
Government	1%	3%	14%	57%	25%
Civil Society	0%	6%	22%	52%	20%
Less than €50m	1%	4%	23%	50%	21%
€50m-€1bn	2%	2%	26%	50%	20%
More than €1bn	1%	6%	17%	52%	23%
France	0%	3%	19%	59%	19%
Germany	0%	2%	17%	53%	28%
Italy	6%	2%	25%	36%	32%
Spain	1%	6%	23%	52%	18%
UK	2%	4%	19%	56%	19%
Other	2%	11%	21%	47%	19%

Europe needs to recognise that skills challenges will only be solved through systemwide collaborative solutions

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	1%	9%	26%	43%	21%
Business	1%	11%	26%	40%	22%
Government	2%	3%	25%	53%	17%
Civil Society	0%	13%	31%	38%	19%
Less than €50m	0%	7%	30%	39%	24%
€50m-€1bn	2%	7%	28%	42%	20%
More than €1bn	1%	15%	22%	40%	22%
France	0%	3%	24%	48%	24%
Germany	2%	11%	25%	43%	18%
Italy	2%	13%	19%	36%	30%
Spain	0%	8%	28%	40%	24%
UK	2%	13%	24%	46%	15%
Other	2%	6%	40%	36%	15%

Europe needs to increase investment in education and skills development, especially during weak economic conditions

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	0%	7%	21%	41%	31%
Business	0%	7%	20%	40%	32%
Government	0%	6%	25%	42%	27%
Civil Society	0%	9%	17%	42%	31%
Less than €50m	1%	6%	7%	53%	33%
€50m-€1bn	0%	7%	25%	36%	33%
More than €1bn	0%	8%	22%	38%	31%
France	0%	8%	26%	38%	28%
Germany	0%	5%	16%	45%	34%
Italy	0%	4%	25%	40%	32%
Spain	1%	7%	22%	37%	33%
UK	0%	8%	23%	40%	29%
Other	0%	13%	11%	47%	30%

European citizens need to take greater responsibility for their own skills development

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	1%	7%	24%	38%	29%
Business	1%	7%	22%	37%	33%
Government	4%	9%	26%	39%	22%
Civil Society	0%	9%	28%	42%	20%
Less than €50m	1%	4%	14%	46%	34%
€50m-€1bn	2%	6%	21%	37%	34%
More than €1bn	0%	8%	27%	33%	31%
France	2%	6%	35%	40%	17%
Germany	1%	8%	19%	35%	37%
Italy	4%	8%	36%	34%	19%
Spain	0%	5%	19%	41%	35%
UK	2%	8%	19%	40%	31%
Other	0%	11%	23%	38%	28%

European businesses need to take a leadership role in convening multisector compacts that address skills issues

	1 - Not at all	2 - To a limited extent	3 - To a moderate extent	4 - To a significant extent	5 - To a great extent
Total	1%	8%	35%	38%	18%
Business	1%	7%	37%	37%	18%
Government	0%	6%	30%	44%	20%
Civil Society	0%	13%	36%	38%	14%
Less than €50m	1%	9%	43%	31%	16%
€50m-€1bn	2%	7%	43%	31%	17%
More than €1bn	1%	6%	28%	45%	20%
France	1%	9%	30%	45%	14%
Germany	2%	4%	31%	42%	22%
Italy	2%	9%	28%	40%	21%
Spain	0%	8%	39%	36%	17%
UK	1%	7%	44%	31%	17%
Other	0%	11%	32%	40%	17%

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Queries relating to this report should be directed to forward.thinking@accenture.com.

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References

- 1 Rob A. Wilson and Geoff Briscoe, 2004, 'The Impact of human capital on economic growth: A Review', in Descy P. and Tessaring, M. (eds.) *Impact of Education and Training*, Third Report on Vocational Training Research in Europe: background report. Luxembourg: Office for Official Publications of the European Communities, Cedefop Reference series 54. Robert J. Barro, 'Human Capital and Economic Growth', 1992, *Federal Reserve Bank of Kansas Economic Review*.
- 2 Bloomberg, 'Obama requests increase in US education spending to almost \$70 billion', 13 February 2012.
- 3 Eurostat.
- 4 NB: Unemployment rate for the 15+ year olds in 2010.
- 5 European Foundation for the Improvement of Living and Working Conditions, 'Shifts in the job structure in Europe during the Great Recession', 2011.
- 6 Accenture, 'No Shortage of Talent: How the Global Market is Producing the STEM Skills Needed for Growth', 2011.
- 7 Cedefop.
- 8 European Commission.
- 9 European Commission.
- 10 The International Bank for Reconstruction and Development, 'Finland as a Knowledge Economy: Elements of Success and Lessons Learned,' white paper edited by C. Dahlman, J. Routti & P. Ylä-Antilla, 2005.
- 11 P. Oinas, 'Finland: A Success Story?' *European Planning Studies*, vol. 13/8: 1227-1244, December 2005. S Honkapohja & E. Koskela, 'The Economic Crisis of the 1990s in Finland,' *Economic Policy*, vol. 14/49: 399-436, October 1999.
- 12 World Economic Forum, 'The Global Competitiveness Report 2011-2012', September 2011.
- 13 P. Himanen and M. Castells, 'Institutional Models of the Network Society: Silicon Valley and Finland,' in 'The Network Society' edited by M. Castells, Edward Elgar, 2004.
- 14 P. Sahlberg, 'A Short History of Educational Reform in Finland,' white paper, April 2009.
- 15 S. Hólttä & P. Malkki, 'Response of Finnish Higher Education Institutions to the National Information Society Programme,' *Higher Education Policy*, vol.13: 231-243, 2000.
- 16 SEV, 'Competitiveness Bulletin: Greece-Finland', November 2009.
- 17 OECD, 'Policy Responses to Economic Crisis: Investing in Innovation for Long-Term Growth', June 2009.
- 18 The International Bank for Reconstruction and Development, 2005. Ibid.
- 19 OECD, 2009. Ibid.
- 20 The Irish Times, 'How Finland Emerged from Recession with the Best Education System in Europe,' 1 March 2011.
- 21 OECD PISA Rankings 2009.
- 22 IHS Global Insight.
- 23 Insead Global Innovation Index.
- 24 Bambra C. and Eikemo TA. 'Welfare state regimes, unemployment and health: a comparative study of the relationship between unemployment and self-reported health in 23 European countries', *J Epidemiol Community Health* 2009;63:92-98
- 25 NB: Long-term unemployed were those out of a job for nine months and 'youth' were 18-25 year olds school-leavers. Source: Cockx B. and Picchio M. 'Scarring effects of remaining unemployed for long-term unemployed school-leavers', CESifo Working Paper 3565, August 2011.
- 26 Microsoft Europe press release, 'Technology Skills Training Provides Key Route To New Jobs In Portugal', 30 September 2009.
- 27 The Prince's Trust, Team Programme website.
- 28 Institute for Public Policy Research, 'Rethinking apprenticeships', November 2011.
- 29 Selpraf website.
- 30 Accenture, 2011. Ibid.
- 31 Bosch corporate website.
- 32 Internet World Stats (31 March 2011). NB: Another study shows that, to close the gap with North America, where Internet penetration stood at 78.3 percent in 2011, the European Union is promoting universal broadband access with a target of at least 50 percent of households equipped with 100Mb/second high-speed Internet by 2013. See Budde.com.au, 'Europe – Broadband Market Insights and Statistics,' 2011.
- 33 J.S. Marcus, BEREC/OECD Expert Workshop on IP Interconnection, 'IP Interconnection, Traffic Trends, and Wholesale and Retail Prices,' 2 November 2011.
- 34 Accenture, 'The Genie Is Out of the Bottle: Managing the Infiltration of Consumer IT Into the Workforce', October 2011.
- 35 Morgan Stanley, 'Cloud Computing Takes Off', 23 May 2011.
- 36 Eurofound, 'Flexibility in the Place of Work', 9 May 2011.
- 37 AT&T, 'The Remote Working Revolution', Point of View, 24 November 2004.
- 38 The Economist, 'Age Shall Not Wither Them', 7 April 2011.
- 39 The Economist, 'Women in Business: Still Lonely at the Top,' 21 July 2011.
- 40 Computing Technology Industry Association, 'Telecommuting Improves Productivity, Lowers Costs', 10 October 2008.
- 41 Blaug R. and Lekhi R. 'Accounting for Intangibles: Financial reporting and value creation in the knowledge economy', The Work Foundation, 2009.
- 42 European Commission, 'Internal market scoreboard', no. 21, 2010.

- 43** European Commission, The EU Single Market website.
- 44** GHK, 'Case study: A "Virtual Labour Market Platform" for the Public Employment Service in Germany', 19 December 2011.
- 45** Nestlé corporate website.
- 46** Martin Paul, 'Moving Beyond the Bologna Process: Europe as One Higher-Education Space,' The Guardian, 9 November 2011.
- 47** German Federal Ministry of Education and Research.
- 48** Martin Paul, 2011. Ibid.
- 49** European Higher Education Area, Bologna Follow-up Group Work Plan 2009-2012.
- 50** Eurostat, 2008.
- 51** EU Commission, 'Early Childhood Education and Care: Providing all our children with the best start for the world of tomorrow', 17 February 2011.
- 52** Eurostat.
- 53** OregonLive.com, 'Intel survey of teenagers shows they don't know what engineers do, limiting them from choosing those careers', 6 December 2011.
- 54** Nokia corporate website.
- 55** BASF corporate website.
- 56** BAE Systems, 'Supply chain 21 initiative is a win-win', 28 April 2009.

About the Federation of Enterprises in Belgium

The Federation of Enterprises in Belgium (FEB) is the only multisector employers' organisation representing companies in all three regions of Belgium. Its members, Belgium's leading sectoral federations, represent companies in key industrial and service sectors. FEB has 35 full members, all of which are professional sectoral federations, as well as a number of applicant and corresponding members. All in all, it represents more than 48,000 businesses, of which 41,000 are small or medium-sized enterprises. FEB represents more than 75 percent of the workforce in the private sector. FEB represents companies in nearly 150 national, European and international bodies.

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