



editorial

THE IMPORTANCE OF

anticipating skill needs and matching them to jobs became more pronounced in 2011 as the European economy attempted to return to job-creating growth. While some European countries saw robust employment growth, others suffered from anaemic demand in the face of tough austerity measures. In this latter group, individuals (particularly

the young and disadvantaged) are unable to find jobs, particularly ones that match their skills. At the same time, the accelerated restructuring (following the 2008 recession) has been accompanied by reports of skill gaps and shortages within particular sectors and occupations.

Forecasting of skill trends by Cedefop helps identify potential imbalances in economic sectors and inform decisions on future skill needs in Europe. As well as providing estimated figures on anticipated skill patterns, it also steers and concentrates the debate on employer needs and the effectiveness of education and vocational training (VET) in meeting them. The new pilot employer survey from Cedefop, to be launched in 2012, is expected to offer an initial view of changing needs from the point of view of employers. It also ventures along a number of new paths, such as launching the first cross-national survey specifically targeted on skills obsolescence, while continuing efforts to identify VET strategies appropriate to developing green skills.

The Skillsnet members and partners have proved an invaluable resource of expertise and scrutiny in these efforts. We hope that this useful exchange of experiences and of new ideas will continue in the coming year.

Cedefop skills analysis team

FORECASTING SKILLS SUPPLY AND DEMAND: NEW RESULTS AND INNOVATIONS

Forecasting skills supply and demand in Europe is a regular and high-importance activity within Cedefop. Work in 2011 focused on producing a new set of forecasts using more refined methods and up-to-date data. Preliminary findings were discussed and considered plausible at the Skillsnet technical workshop in October 2011 in Athens.

The new forecasting results will be released at the end of March 2012. A new online tool for better access to forecasting data and results will be launched at the same time.

These new 2012 forecasts are coherent with the trends published at the beginning of 2011. The shift towards a more service-oriented economy and a reduction in the primary sector have accelerated after the current recession. Future jobs will require more highly qualified people who will be able to react dynamically to the changing needs of the labour market. However, there will still be demand for medium-qualified people, who will be required for more than half the jobs in the market. Though the current macroeconomic results provide grounds for slight optimism about the European economic situation, a second recession, or at least a lengthy recovery, is to be expected. The latest projections confirm that, even if GDP growth recovers fast, employment will need more time to recover its position before the recession.

The set of countries (EU-27 plus Norway and Switzerland) was extended to include an additional four. Iceland was added to the general modelling framework (EU+EEA), along with three candidate countries (Croatia, FYROM and Turkey). This extension has been successful, even though some data



problems did not allow full incorporation of these countries into the final outcome. Pilot results will, therefore, be provided separately.

The Cedefop forecast has been criticised for having a rather weak qualitative dimension. During the last two years several techniques (e.g. classification matrices, shift share analysis) have been developed and used to deepen understanding of the baseline scenario. These tools help to integrate quantitative and qualitative scenarios and provide sensitivity analysis in the forecast.

As in the previous edition, the new forecast will cover both sides of the labour market. However, simple comparison of supply and demand does not consider interaction and matching. Many people are in jobs requiring a different qualification level (higher or lower) than they actually have. These adjustments are mirrored in a new set of imbalance indicators produced within the forecast. Two such indicators consider the adjustment from job holder qualifications to those typically required for the job. Another measures the 'difficulties' in hiring workers of a specific type in the future.



2012 events on skill needs

- OECD-Cedefop green forum 'Skills for a low carbon economy: what next?' (27 February 2012)
- Workshop 'Skill mismatch and firm dynamics' (27 April 2012)
- Expert validation workshop on forecasting (10-11 May 2012)
- Expert validation workshop on employer survey (May 2012)
- Expert validation workshop on sustainable energy policy scenarios (July 2012)



NEW CEDEFOP ON-LINE PLATFORM FOR EASY ACCESS TO SKILLS FORECAST DATA AND RESULTS WILL BE LAUNCHED IN MARCH 2012

INTERNATIONAL COOPERATION ON SKILLS: ANTICIPATION AND MATCHING



On 14 and 15 November 2011, Cedefop organised an international seminar focusing on developing common and/or complementary research strategies for skills anticipation and matching between international and key national organisations involved in skill needs analysis.

The seminar was attended by experts from various (inter)national organisations, including the European Commission, OECD, ILO, World Bank, NCVET in Australia, BLS

in the US and Statistics Canada. It prompted active participation and exchange of ideas through various panel presentations and open discussions. The seminar mainly addressed the importance of skills for the future world of work, how to link skill needs to education and training provision and employment changes, the future research strategies for skills, and whether there is any scope for cooperation among major international partners?

MATCHING WORKFORCE POTENTIAL WITH LABOUR MARKET NEEDS

Understanding skill mismatch is a crucial pillar of Cedefop's analyses of the link between the skills supply and demand in the European labour market.

Following a general overview of skill mismatch literature, Cedefop embarked on empirical analyses of the impact of skill mismatch on vulnerable groups. The Cedefop report *The right skills for silver workers* (2010) showed that mitigating skill mismatch and skills obsolescence via suitable training and challenging jobs is found to be a key strategy for encouraging longer working lives among ageing workers. Migrants are another disadvantaged group, particularly susceptible to overskilling because of discrimination, inappropriate recognition of foreign qualifications, inadequate social networks and insufficient training opportunities. Mismatch among migrants calls for targeted action

by policy-makers to remove barriers to the effective use of their skills and avoid significant waste of potential. In contrast, ethnic minorities are more prone to undereducation than the indigenous population due to inadequate access to education opportunities and the predominance of informal social networks in job finding.

A challenge for future research is to explore the dynamic nature of skill mismatch (e.g. does mismatch encountered in the early stages of a career dissipate with more training and/or work experience over time?) and the cause-and-effect relationship with various productivity indicators. A new Cedefop report, expected in 2012, will look closely into the dynamic nature of skill mismatch and its relationship with labour market transitions, using data that trace individuals over time.

Cedefop is broadening its research agenda

by exploring the role of enterprises in mitigating skill mismatch. A new Cedefop report, planned for release in spring 2012, investigates the role of human resource practices (e.g. recruitment, training, monitoring, pay, career development) in influencing skill mismatch. In collaboration with the Centre for research in employment, skills and society (CRESS) of Kingston University, Cedefop is organising an international expert workshop on Skill mismatch and firm dynamics: integrating skills with the world of work to take place in Westminster, London on 27 April 2012.

We invite relevant experts to submit an expression of interest at the following link: <http://www.cedefop.europa.eu/EN/events/19151.aspx>. Due to limited availability, participation in this workshop will be on a 'first come, first served' basis.

VENTURING INTO UNEXPLORED TERRAIN: THE NEW CEDEFOP SKILLS OBSOLESCENCE SURVEY

Despite widespread concern over the impact of rapid technological and organisational developments on an individual's skills over time, international empirical evidence on skills obsolescence has been limited. In recent years, different types of skills obsolescence have been identified: technical, associated with the diminishing physical capacity of ageing workers; economic, related to the deteriorating labour market value placed on specific skills; perspectivist, linked to outdated perceptions of workplace practices. However, much less is known about the drivers and outcomes of the different forms of skills obsolescence and how these vary across different work settings. As a response to this deficiency in knowledge about the impact of ageing on skills deterioration, Cedefop carried out a pilot online survey in summer 2011 in four EU Member States: Germany, Hungary, the Netherlands and Finland.

The skills obsolescence survey contains information on the employment situation of respondents, their characteristics and the development of their skills and knowledge over time. A set of previously unexplored questions can now be addressed. How does skills obsolescence differ between various work contexts? What is the impact of technological and organisational changes on skills obsolescence? What are the consequences of skills obsolescence for individuals?

The survey allows exploration of policy measures mitigating the capability of individuals to remain up to date in an ever-changing workplace. Preliminary findings from the survey highlight that a significant share of European workers are affected by skills obsolescence. About three quarters of the respondents (employed individuals aged 30-55 years who work more than 30 hours per week) believe that at least some of their skills and knowledge

acquired through education, training and on-the-job is now outdated. On average, 21% of people's overall set of skills have deteriorated over time. The evidence highlights the role of continuous skills development as a means of countering skills obsolescence, and the importance of fostering a learning culture within high performance workplaces. The survey also highlights that career interruptions (e.g. due to unemployment or prolonged periods of inactivity) accelerate skills obsolescence, as some skills are not, or insufficiently, used (atrophy).

A Cedefop briefing note summarising the main messages and conclusions from the new skills obsolescence survey will be published in early 2012. We are looking forward to further discussions with experts on the results. We are ready to take on board critical views and helpful proposals as we plan to expand this line of work to include more EU countries in follow-up surveys.

EMPLOYER SURVEY ON SKILL NEEDS: TESTS AND PILOT PREPARATION

For several years Cedefop has been working on adding a further piece to the European skills analysis jigsaw: an employer survey on skill needs. Developed in collaboration with experts, this new survey has an innovative focus on the importance of both specific working tasks and generic skill requirements in defined occupations. Information about drivers of change, such as innovation, and their impact on skill requirements at the workplace will broaden the perspective on future needs. The survey is also expected to shed light on the preparedness of staff to meet new requirements, and the policy of firms addressing this issue.

To improve the survey methodology and the questionnaire, 50 test exercises were carried out in five countries in summer 2011. These were split into two variants of 25 interviews: conventional testing of the full questionnaire

in standardised CATI interviews, to test the real fieldwork situation; and modified conventional tests with cognitive elements to measure the understanding and interpretation of the measurement concept. The test results were positive about the validity of the measurement concept and the survey feasibility methodology developed. Final modifications to the master questionnaire were based on the results of both sets of tests and on the discussion held during the workshop organised by Cedefop with Skillsnet experts on 20 and 21 October 2011 in Bratislava.

This approach, if pilot testing confirms its feasibility and validity, could serve as a model for future research. It is innovative for an internationally harmonised survey to ask respondents about changing detailed skill requirements and whether there are skill gaps

associated with them. It also breaks new ground in a large-scale survey by adapting questions typically asked of individuals (job holders) to employers. Several new generic tasks, in particular those associated with green technologies, are being tested for the first time in a large scale survey. Finally, task-based research on skills has hitherto been largely based on generic tasks and skills, but this pilot will also gather information on occupation-specific tasks.

The full pilot survey in nine countries will be carried out at the beginning of 2012. Results will be analysed in 2012 and will provide first flash findings on changing skill needs as perceived by employers. The analysis will also provide a basis for recommendations on the format of a European large-scale employer survey and on potential surveys at national, sectoral or regional level.

SKILL NEEDS IN SECTORS AND OCCUPATIONS

The current economic and financial crisis has accelerated restructuring within many sectors of the European economy. In light of the strong policy commitments at European level to developing a sustainable and resource-efficient economy, Cedefop has been focusing in recent years on 'green' sectors and implications for skills and VET policies. However, the importance of an overarching sectoral framework for skills analysis has also become increasingly evident.

TOWARDS A SECTOR-BASED MODEL FOR LABOUR MARKET AND SKILLS ANALYSIS

Sector-based analysis of future skill requirements is necessary in considering the differences in production between economic activities and of different VET policies. A new Cedefop project A short-term sectoral-based anticipatory system for labour market trends and skill needs (SBAS) is expected to start in 2012. The project aims to identify emerging competences and short-term skill needs by occupation and qualification at sectoral level. Contribution and insight from Skillsnet experts will be sought to support and validate project development and outcomes.

GREEN SKILLS AND ENVIRONMENTAL AWARENESS IN VET

Success in the transition of Europe to a resource-efficient, low carbon and competitive economy is dependent on the availability and quick redeployment of the necessary skills. Cedefop's Green skills in vocational education and training (VET) project investigates environmental awareness in VET.

In October 2011, skills and labour market experts, learning providers and representa-

tives of employers, workers' organisations and European institutions from eight Member States, were invited to a half-day workshop in London. The purpose was to validate the findings of a Cedefop study which is investigating the skill needs of employers for a selected group of key occupations affected by environmental challenges. During the workshop, experts and practitioners discussed the current and future occupational changes and skill gaps arising due to greening, the implications of these changes for national VET systems, and the role of, and complementarities between, EU and national policies.

A briefing note summarising the main outcomes of the study Green skills and environmental awareness in VET will be published early 2012, with the final report publicly available in spring.

SKILLS FOR A LOW CARBON EUROPE: THE ROLE OF VET IN A SUSTAINABLE ENERGY SCENARIO

The green economy challenge requires that Europe achieves a drastic reduction in carbon emissions, with improvement in energy efficiency and increase in renewable energy production. To understand the implications of a low-carbon Europe for European labour markets, Cedefop is undertaking a new research project specifically aimed at investigating the impact of sustainable energy policies on future skills demand within and across sectors. It is also seeking to provide insights into effective policies for initial and continuous VET activities.

An international validation workshop will be organised in Thessaloniki in summer 2012 to discuss and make recommendations for the draft final report.



Cedefop forthcoming PUBLICATIONS

on skill needs

- **Green skills and environmental awareness in VET: briefing note** (February 2012)
- **Skills at risk – Explorative analysis of skills obsolescence: briefing note** (February 2012)
- **Skills and jobs in 2020: briefing note** (March 2012)
- **Skill mismatch: the role of the enterprise** (spring 2012)
- **Improving understanding of skill mismatch dynamics and its relation to labour market transitions** (autumn 2012)
- **2012 skills demand and supply forecast: synthesis report** (October 2012)
- **First results of a pilot employer survey on skill needs in Europe** (October 2012)
- **Skills for all – enabling job-rich growth in Europe: first European skills report** (October 2012)

OECD LEED PROGRAMME

The OECD LEED programme jointly organised the 4th Employment and skills strategies in South-East Asia (ESSSA) expert meeting in Shanghai, with the partnership of ADBI, ILO and AFDC on 27 and 29 September 2011. Delegates were able to learn from best practice experiences of the city in the design and implementation of an integrated skills strategy. A field visit was also carried out to learn the lessons of the Shanghai experience on building financial talent. Presentations from the meeting and further information on the OECD ESSSA initiative are available at the OECD ESSSA Initiative. Meetings are held annually at selected locations in Asia. For further announcements on this programme please register on the ESSSA interactive web space <https://community.oecd.org/community/esssa>

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IMPROVING ENTREPRENEURIAL SKILLS OF TEACHERS AND TRAINERS: STUDY VISIT REPORT

In the study visit (28 March to 2 April 2011) focusing on 'Improving entrepreneurial competences of teachers and trainers' the host, the DBO, explained that in Belgium there is apathy surrounding enterprise and self-employment. The Flemish Ministry of Education (DBO) recognises that this attitude must change and, as a result, many projects have been developed to promote entrepreneurship, starting from primary school. The group of participants, composed of 12 European professionals, agreed that they have a role to play in communicating the information gained to their respective education and economy authorities, showing the benefits of entrepreneurship and good practices developed in the Flanders.

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FUTURE SKILL NEEDS IN NANOTECHNOLOGIES, MATERIALS AND NEW PRODUCTION TECHNOLOGIES (NMP)

The final results of the study 'Assessment of impacts of NMP technologies and changing industrial patterns on skills and human resources', a skill needs analysis in industrial technologies, were made available at the end of 2011. This study is funded by Directorate G on Industrial Technologies, of DG Research and Innovation of the European Commission; it is undertaken by a consortium between SEOR (Netherlands) and Technopolis (UK).

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REGIONAL LABOUR MARKET MONITORING IN HEALTH AND ELDERLY CARE (GERMANY)

In this recently finished project, regional and local skill shortages in different health and elderly care settings in the German state Rhineland-

Palatinate were analysed. Regional and local labour markets for health professions were forecast until 2025 and strategies to prevent skill shortages were explored. The demand for education and training and skill needs in 18 health professions were identified. The project was conducted by the Institute for Economics, Labour and Culture (IWAK), a centre for applied research at the Goethe University in Frankfurt am Main.

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AMS ENTERPRISE SURVEY ON SKILLS AND OCCUPATIONAL DEMAND IN AUSTRIA (2011)

The Austrian Public Employment Service (Arbeitsmarktservice, AMS) surveys all Austrian enterprises with at least 20 employees (more than 20 000 companies) every two years. The questionnaire seeks to gain insight into the development of national and regional demand for labour and skills/competences for specific occupations. The results are used for the counselling work of AMS agencies and are integrated into the AMS skills barometer (<http://www.ams.at/bis/qualibarometer/berufsbereiche.php>). Information is being collected within this AMS Großbetriebs-Monitoring (AMS enterprise survey) for the fourth time at the moment; it will be statistically analysed and processed in 2012.

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STUDY OF HUMAN CAPITAL IN POLAND

Study of human capital in Poland (BKL) is a labour market monitoring project from the Polish Agency for Enterprise Development (PARP) and Jagiellonian University. It covers several key areas: the demand side and the supply sides of the labour market, and the system of education and the training market. The analysis of employer needs and competence resources available on the labour market uses the professions listed in ISCO-08 and the established classification of competences. The use of the same key for each study module allows compatible data to be acquired, which makes it possible to diagnose matching or mismatching of supply to demand. All information about the project (reports, databases) is available on the website www.bkl.parp.gov.pl.

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GREEN SKILL NEEDS IN THE CYPRUS ECONOMY

The Human Resource Development Authority of Cyprus (HRDA) has undertaken a research study entitled 'Identification of green skill needs in the Cyprus economy 2010-13'. The study maps out the green economy in Cyprus, provides employment forecasts for sectors of economic activity and occupations in the green economy; it also identifies green skill needs for the period

2010-13. The results of the study confirm that enterprises need human resources with the necessary green skills and competences to tackle upcoming challenges and compete in a new economic environment. The HRDA, in cooperation with the Ministry of Labour and Social Insurance, has put forward a special action plan for promoting green skills in the Cyprus economy; this includes various targeted measures directed towards enterprises, employees and the unemployed. Also, the HRDA declared 2011 the 'Year of green skills', promoting and publicising the importance of acquiring such skills.

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SKILLS FOR GREEN JOBS: A GLOBAL VIEW (ILO IN COOPERATION WITH CEDEFOP)

The ILO and Cedefop have jointly conducted policy applied research into skill needs for greener economies. The report shows that economies moving towards greener production can seize the potential for job creation if they deal effectively with structural change and transformation of existing jobs. Skills for green jobs: a global view, examines the experiences of selected developed and developing countries in shifting to a low-carbon economy, as well as the broad range of approaches used in the transition to greener, sustainable workplaces. The research aims to reveal whether the potential for new and better jobs in greener industries is being realised, and, if so, how countries have succeeded in adjusting their training provision to meet new demand. The ILO has recently released several reports, research and policy briefs on greening the economy and related skills challenges, a comparative analysis of methods of identifying skill needs on the labour market in transition to the low carbon economy, on skills and occupational needs in green building, and on skills and occupational needs in renewable energy. All publications are available from ILO: <http://www.ilo.org/skills/pubs/lang--en/index.htm>.

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