

## **New Skills for New Jobs**

Policy initiatives in the field of education:

Short overview of the current situation in  
Europe

November 2010





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Education, Audiovisual and Culture Executive Agency  
P9 Eurydice  
Avenue du Bourget 1 (BOU2)  
B-1140 Brussels  
Tel. +32 2 299 50 58  
Fax +32 2 292 19 71  
E-mail: [eacea-eurydice@ec.europa.eu](mailto:eacea-eurydice@ec.europa.eu)  
Website: <http://www.eurydice.org>

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## INTRODUCTION

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In recent years, several EU initiatives have been launched with the aim of supporting the development of citizens' skills as well as improving education and training systems so that they are better able to respond to the needs of the economy and society. These initiatives include the Key Competences Framework, the European Qualifications Framework, the general policy framework for European cooperation in education and training and the initiative 'New Skills for New Jobs'. This latest initiative is intended to promote an improvement in skills forecasting and matching the supply of skills to the needs of the labour market through better cooperation between the worlds of work and education. An independent expert group report on *New Skills for New Jobs: Action Now* (European Commission, 2010) was released in February 2010 to highlight the main issues of concern. The Group's suggestions will guide further development of the initiative and have also informed the questionnaire on which this Eurydice report is based.

The Eurydice Network provided the initial input for the 'New Skills for New Jobs' initiative in 2008 through a questionnaire posted on the Eurydice Question/Answer Forum on behalf of the European Commission. 22 Eurydice National Units participated in this first consultation. The 2010 reporting exercise on 'New Skills for New Jobs' based on a questionnaire prepared by the European Commission which was posted on the Eurydice Question/Answer Forum in May 2010, was intended to update and further develop the 2008 initiative. Its purpose was to support the European Commission in the preparation of a Communication on competences and a Communication on the 'Agenda for New Skills and Jobs'. This report complements the work on identification and anticipation of skills for the labour market carried out by Cedefop.

Eurydice National Units participated in this consultation on a voluntary basis. The collection of data and the preparation and drafting of the present summary report were coordinated by the Eurydice Unit of the Education, Audiovisual and Culture Executive Agency (EACEA).

This document summarises the information received from 25 Eurydice National Units (representing 24 countries) in the framework of the 2010 'New Skills for New Jobs' consultation. No information is available from Belgium (French and German-speaking Communities), Bulgaria, France, Lithuania, Luxembourg, Portugal, Liechtenstein and Turkey. Where relevant and appropriate, reference to the information provided within the 2008 reporting exercise is also included.

The summary report is divided into four sections. The first section focuses on recent national initiatives in the area of forecasting and matching skills with the demands of employers. It looks at the development of methods, approaches and tools for forecasting the skills that will be required, and it provides examples of range of measures taken to ensure that available human resources match labour market needs. The second section provides information on the institutional mechanisms required to forecast and address the demand for skills. This includes arrangements to ensure that the results of work on the identification and analysis of skills is fed into the planning and design of education and training systems. The third section offers concrete examples of policy initiatives and education reforms introduced in response to labour market needs. This section illustrates the current European trends towards skills, competences and learning outcomes in various aspects such as curriculum design, teacher training and assessment. While certain initiatives and measures have

various dimensions and purposes, institutional aspects (second section) and the content of educational reforms (third section) are discussed separately in this summary. Finally, the last section focuses on the impact of the recent economic crisis on education systems and on the transition of young people from school to the labour market.

## SECTION 1: RECENT INITIATIVES IN SKILLS FORECASTING AND CAREER TRACKING

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This section provides information on recent initiatives (since 2008) in the area of skills anticipation and matching. Firstly, it provides examples of projects related to the development of methods, approaches and tools for identifying which skills will be needed and for planning how to meet the demand. Secondly, it looks at some recent initiatives set up to ensure that the skills provided by education and training systems are matching the current needs of the labour market, i.e. initiatives to gather information on the employment or subsequent education/training destinations of school leavers.

### 1.1. Recent projects and initiatives in the area of skills forecasting

Several new projects and initiatives to ensure the early identification of skills needs have been carried out since 2008. Most of these activities have been financially supported by the European Social Fund.

Since 2008 countries (or different regions within countries) have introduced a number of new initiatives to establish or improve their systems of skills forecasting. These include the **development of methods, approaches and tools for the forecasting of skill needs**:

The **Flemish Community of Belgium** has recently launched a pilot project to develop an instrument for the identification of skills requirements for the Flemish region. The project explores the feasibility of developing a monitoring system for Flanders, based on the combination of a quantitative model of labour market changes and a qualitative method for skills forecasting.

The **Czech Republic** has launched the project 'Forecasting the Skills Needs of the Labour Market' <sup>(1)</sup> (*Předvidání kvalifikačních potřeb trhu práce*) which aims to develop a system of continuing labour market forecasting.

In January 2010, **Germany** launched a new instrument to make the movements and trends in the German Labour Market more transparent. The 'Regional Labour Market Monitor' started as a pilot project in three German Regions. It helps regional bodies to gain a deeper understanding of the regional labour market and a detailed view of local employment opportunities and threats <sup>(2)</sup>.

In 2010, the **Latvian** Ministry of Welfare initiated a project with the intention of developing a system for the identification and monitoring of skills needs. The purpose of the system is to analyse skills needs; forecast labour market developments; provide information about trends; as well as planning education and training provision.

In **Finland**, the national project 'VOSE' aims to create a forecasting model that will enable skills needs to be predicted for all levels of education and all occupations. The model will incorporate methods of forecasting, planning processes, the setting up of networks of key organisations/personnel as well as establishing a system of communication.

Apart from projects and initiatives which are already in place, several countries reported on their intention to carry out similar activities in the near future.

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<sup>(1)</sup> See: <http://www.budoucnostprofesi.cz/cs/aktualne/2.html>

<sup>(2)</sup> For further information see: <http://www.bildungsspiegel.de/aktuelles/regionaler-arbeitsmarktmonitor-neues-analysedool-soll-arbeitsagenturen-unterstuetzen.html?Itemid=262> and [http://www.arbeitsagentur.de/nn\\_172038/Dienststellen/RD-RPS/Kaiserslautern/AA/04Presse/2009/63-2009-Regionaler-Arbeitsmarktmonitor.html](http://www.arbeitsagentur.de/nn_172038/Dienststellen/RD-RPS/Kaiserslautern/AA/04Presse/2009/63-2009-Regionaler-Arbeitsmarktmonitor.html)

During 2010, **Hungary** intends to launch a project focusing on improved forecasting of labour market needs. In addition to static results and future trends, the objective is to develop a dynamic forecasting model which could, in the future, inform education and employment policy decisions at central and regional level.

**Norway** plans to bring various existing forecasting activities under one roof and build up a system of early identification of labour market needs covering different levels and types of education.

Several participating countries have recently carried out various **medium- or long-term forecasting studies on future skill needs**. Some of these studies relate to distinct sectors of economy while others are more comprehensive.

In **Estonia**, the Ministry of Economics and Communication commissioned a study on the future needs of the knowledge-based labour market. The study was carried out by a research team from the University of Tartu (Riigikantselei, 2009). It presents three different models of economic development with specific recommendations for the Ministry of Education and Research. In addition, during the period of 2008-2009, the Estonian Development Fund carried out several forecasting projects relating to different sectors of the economy including industry, ICT, the financial sector, logistics, the creative industries and the health and education sectors. Each project included aspects relating to education and training.

In **Ireland**, the Expert Group on Future Skills Needs (EGFSN), which advises the Government on various labour market issues, recently produced several sectoral reports including *Future Skills Needs of the Wholesale and Retail Sector* (EGFSN, 2010) and *Future Skills Requirements of the Food and Beverage Sector* (EGFSN, 2009).

In **Cyprus**, the Human Resource Development Authority (HRDA) is conducting a new study to be completed in 2010 that will identify the skills needed and provide employment forecasts for green jobs in the economy for the period 2010-2013. This will further strengthen existing research on the anticipation of skill needs.

In **Slovakia**, the Institute of Economy of the Slovak Academy of Science recently prepared a macro-economic prognosis for the development of the Slovak economy up to 2020. The prognosis focuses on the trends in labour demand and supply. In parallel, the Business Alliance of Slovakia (PAS), in cooperation with the organisation Uni2010 (organisation comprising experts from business practice and universities), carried out the qualitative research 'Professions 2010-2020' which aimed to identify the professions that will be needed in the Slovakian labour market during the period of 2010-2020.

In **Finland**, the Government Institute for Economic Research (VATT) used VATTAGE, a dynamic, applied general equilibrium model of the Finnish economy (Honkatukia, 2009), to forecast structural changes in the Finnish economy up to the year 2025 (Ahokas et al., 2010). The forecast is based on a historical simulation of the development of the Finnish economy from the mid-1990s on and it identifies some key challenges for the labour market and the Finnish economy. According to the results of the study, 'the ageing of the Finnish population will entail a marked increase in the GDP share of health care and social service provision that affects the industry structure of the whole economy. Because of the increased demand for labour in these sectors, productivity growth especially in the service industries proves crucial for the overall development of the economy. The development of manufacturing industries is likely to be affected by labour shortages' (Ahokas, Honkatukia & Marttila 2010, p. 2).

In the **United Kingdom (England)**, the Government commissioned a national skills audit. The audit (National Strategic Skills Audit for England) was produced by the employer-led UK Commission for

Employment and Skills <sup>(3)</sup> in close cooperation with Sector Skills Councils, Regional Development Agencies and the Migration Advisory Committee. It was published on 17 March 2010. The purpose of the audit was to assess current and future skill needs so that England could more effectively meet the changing skill needs of the economy and labour market.

It is also important to note that while several countries do not provide information about any major recent initiatives in the area of skills forecasting, many of these countries already have **regular and continuing activities relating to the early identification of skills needs**.

In the **Netherlands**, there have not been any significant changes in labour market forecasting since 2008. However, the centres of expertise for the different branches of the labour market as well as the Research Centre for Education and the Labour Market (ROA) in Maastricht continue to provide educational institutions and employers with relevant data.

**Cyprus** has a long established system of providing 10-year employment forecasts in economic sectors and occupations on a regular basis (every 2 to 3 years). The latest set of employment forecasts were completed in 2010 and they cover the period of 2010-2020, incorporating the effects of the current economic crisis. Furthermore, with the involvement of the social partners, another annual study identifies skills needs and provides annual estimates for the number of people required for specific occupations by district. On the bases of these estimates proposals are made for the implementation of initial training programmes.

Since 2002, **Austria** has been using a forecasting tool 'AMS – Skills Barometer (AMS-QB)'. This online tool summarises statements on current and foreseeable labour market trends and makes this information available to a broad public via the Internet <sup>(4)</sup>. Once a year, the results of the AMS-QB are published in printed form.

**Sweden** has a long established forecasting system including several complementary forecasts, sectoral studies, regular skills surveys on employers and regular regional surveys on employment. Some elements of the Swedish skills forecasting system have been in place since the 1950s.

Examples of regular forecasting activities can be found in virtually all European countries. However, the 2008 and 2010 Commission's questionnaires were not intended to cover these activities. This is why the information provided within the Eurydice reporting exercises should also be seen in the light of more comprehensive analyses of skills forecasting, for example, the typology of national systems of identification of skill needs elaborated in 2008 by Cedefop (2008). Within its typology, Cedefop distinguishes four types of systems of early identification of skill needs (Cedefop 2008, p. 25):

- **Decentralised systems:** Systems developed mostly at trade, sector or local levels. Systematic anticipation of skills needs at national level is not very pronounced (Denmark, Greece, Spain, Latvia, Lithuania, Hungary, Portugal, Slovenia and Slovakia);
- **Coordinated non-holistic systems:** Systems are developed around quantitative forecasting. There are also some qualitative surveys conducted in parallel (Ireland, Cyprus and Finland);
- **Building a coordinated holistic system:** Systems mostly based on medium-term macro-level quantitative forecasting, incorporating the qualitative elements of different projections. There are visible efforts to develop a more systematic, complementary and holistic approach (the Czech Republic, Estonia, Italy and Poland);

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<sup>(3)</sup> The Commission for Employment and Skills was created in 2008 and is responsible for monitoring the UK's employment and skills systems.

<sup>(4)</sup> See: <http://www.ams.at/qualifikationsbarometer>

- **Coordinated holistic systems:** Well-developed systems based on medium and/or short-term macro-level forecasts, system of sectoral studies, regular surveys among employers, regular regional surveys and an efficient system of dissemination of results and application of findings to policy and practice (Germany, France, the Netherlands, Austria, Sweden and the United Kingdom).

It must be underlined, however, that Cedefop asks for some caution in using this classification. Firstly, the proposed typology is only a rough indication depicting the predominant line of each system. Secondly, the typology was developed in 2008 and it is important to keep in mind that systems of early identification of skills needs are constantly evolving (for example, as of 2009, Latvia can be classified as building a coordinated holistic system). Despite these limitations, Cedefop's typology of systems of early identification of skills needs can be seen as an important tool to complement Eurydice information.

## 1.2. Recent initiatives to track the careers of school leavers

There are various ways to ensure that the skills supplied by education and training systems are matching labour market needs. For example, tracking the careers of school leavers is often used as an instrument to ensure that the education and training systems provide young people with the knowledge and skills required in the labour market.

The **Flemish Community of Belgium** has financially supported research focusing on 'horizontal mismatch', i.e. the mismatch between a young person's subject of study and their eventual area of work. Different methodologies to measure horizontal mismatch have been explored within the framework of this research project.

**Hungary** has recently introduced a national career tracking system of VET leavers <sup>(5)</sup>. The system is being implemented by the National Institute of Vocational and Adult Education. The objective of the career tracking system is to evaluate the performance of VET institutions through the school-to-work transition of young people. It is expected that the career tracking system will provide feedback to the careers guidance system and will help individuals to decide what and where to learn.

In addition, the country has also introduced systematic career tracking of higher education graduates (see more detailed information at the end of this sub-section).

In **Latvia**, two inter-related research projects conducted between 2005 and 2008 resulted in a document published by the University of Latvia entitled *Portrait of the youth of Latvia: social integration and risks of marginalisation* (Rungule et al., 2009). The findings show that more than one third of higher education graduates and almost half of vocational education students choose a different career path from their field of study or training. Data also show that graduates choose to work in a field different from the one studied because they want to avoid low paid jobs.

In **Slovenia**, a research project entitled *Analysis of trends in graduate employment in 2007* was conducted in 2007 (Farčnik & Domadenik, 2009). The findings show that the probability of finding a job for a university graduate varies significantly depending on the discipline, institution, method and length of studies, as well as the graduate's gender. Employability data by educational discipline show that graduates in technical disciplines are the most employable, followed by graduates in humanities and sciences.

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<sup>(5)</sup> See: <http://www.kepzesevolucioja.hu/index.php/palyakovetes> and [http://www.nfu.hu/new\\_hungary\\_development\\_plan](http://www.nfu.hu/new_hungary_development_plan)

In **Sweden**, Statistics Sweden follows up the career of young people in the labour market after completion of upper secondary education. The reports show, programme by programme, who found employment and in which sector. The latest report deals with the situation of young people three years after their graduation (Statistics Sweden, 2008) <sup>(6)</sup>.

Several countries report on projects that are currently being carried out and could deliver significant results in the near future.

As mentioned above, **Hungary** reports that systematic career tracking of higher education graduates has been obligatory for all higher education institutions since 2006. However, up to now, a large number of institutions have not collected such data. To remedy this situation, a central career-surveying model has been developed so that institutional data collection is carried out in a comparable way. The first harmonised data should be available soon.

In **Austria**, Statistik Austria is working on modules that will enable improved monitoring of the transition from school to work. These modules should be available before the end of 2010. In addition, the Federal Ministry for Science and Research has recently commissioned a study which surveyed the transition from higher education to employment during the five years from 2003/04 to 2007/08. The findings of the study are expected to be published by the end of 2010.

In **Romania**, three projects aimed at monitoring the school-to-work transition of young people are currently being implemented. Partial results should be available in autumn 2010. One of these projects focuses on the school-to-work transition of 20 000 university graduates and is being implemented by a central government authority (the Executive Unit for Financing Higher Education and University Scientific Research). The other two projects are being implemented by local authorities (county school inspectorates) and they focus on initial VET graduates (5 350 VET graduates).

The **United Kingdom (England)** is currently implementing an annual performance assessment framework for the post-16 learning sector (the Framework for Excellence). This assessment tool includes an indicator which rates a learning provider on the volume of their learners who progress to positive destinations. Positive destinations are defined as progression to: further learning (at the same or higher level); higher education; or employment (or progression within employment if already employed). Destinations information is collected through data matching techniques and through telephone surveys. The Department plans to publish these results annually on a publicly-available website together with the supporting data and other performance indicators. The results will inform customer choice, commissioning decisions and government policy. The first publication of results is planned for December 2010.

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<sup>(6)</sup> This information is also available at <http://utbildningsinfo.se/>, a web-based service providing counselling for students and their parents.



## SECTION 2: INSTITUTIONAL MECHANISMS FOR FORECASTING, ANTICIPATING AND ADDRESSING SKILLS NEEDS

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There are various mechanisms which ministries of education and training can use to anticipate and address skills needs. Ministries can strengthen cooperation with a range of stakeholders who can provide information on current or future labour market requirements. They can also take steps to encourage cooperation between relevant bodies at different levels. On the basis of available forecasts and skill analyses, public authorities may take various measures to regulate the supply of education and training or improve the quality of existing provision. In addition, qualification frameworks can be used as a tool to weld education and training provision to labour market requirements.

This section looks at the measures and mechanisms in use in European countries and illustrates how existing institutional arrangements can contribute to the transfer of information on skills identification into the planning and design of education and training provision.

### 2.1. Creating partnerships and reinforcing cooperation between stakeholders at all levels

The information received by Eurydice both in 2008 and 2010 confirms that the identification of future skills requirements and the integration of this information into the planning of education and training provision is a process which involves many different bodies.

The creation of partnerships can be observed at central level. In almost all countries, forecasting activities are carried out through close **cooperation between ministries of labour and education**. Other ministries are also often involved in the process of early identification of skills needs. For example, in Norway, four different ministries have recently joined forces to form a consortium of contractors to set up a long-term research project on forecasting the supply and demand of skills.

In addition to cooperation between different ministries, **various forms of partnership between different stakeholders** are progressively being strengthened. This process can be observed in all educational sectors and is reported by all countries participating in this information gathering.

Specific attention is given to **cooperation with the business sector and employers' representatives** as a means to ensure that labour market information is taken into account when designing education and training programmes. Estonia, for instance, remarks that while a few years ago statements regarding collaboration with the business sector were more rhetorical than actual (founded on reality) – especially in higher education – it is nowadays considered a necessity. The business sector (i.e. professional organisations and employer's associations) has become actively involved in predicting skills requirements and in the development of national framework curricula for vocational education and training.

Cooperation with employers' representatives is particularly noticeable **in the area of vocational education and training**. For example:

In September 2010, **Latvia** launched a three-year European Social Fund project for the Development of a System of Sector Qualifications and the Restructuring of the Vocational Training System. In this context, partnerships were formed between the State Education Development Agency, the Latvian Employers Confederation, the Latvian Confederation of Free Trade Unions, the National Curriculum Development

Centre and the National Education Inspectorate (7). The objective of the project is to bring vocational training curricula in line with labour market sector studies by developing a sectoral skills system, reviewing vocational standards and developing a system for the accreditation of prior learning.

In **Slovakia**, the social partners, in particular, employers have been given more responsibility for the final upper secondary VET examinations. Initially present only as observers of final exams, they were subsequently granted the right to examine students alongside pedagogical staff.

In the **United Kingdom**, employers and Sector Skills Councils are responsible not only for identifying which vocational qualifications are required in their sectors but also for developing these qualifications. Together with employers, Sector Skills Councils have been involved in the design of the Training Quality Standard – an accreditation system for public and private training providers based on rigorous quality assessment criteria. Employers may also have their own training accredited as part of the Qualifications and Credit Framework. An increasing number are doing so and some employers have also become awarding bodies.

**Iceland** has currently adopted a new legislative framework aiming to increase the quality and attractiveness of VET programmes and their relevance to the labour market. Curriculum development will be decentralised, creating an opportunity for representatives from the labour market to participate directly with schools in creating new areas of study which address the need of the labour market.

In this context, several countries have established **sectoral (national or regional) councils, commissions or committees**. These bodies have been entrusted with various responsibilities for forecasting which skills will be needed and translating this knowledge into education and training provision. They are often directly involved in the design of occupational standards and in the process of curriculum development.

In the **Czech Republic**, employers are involved in VET developments by means of the National Council for Qualifications and Sectoral Councils. Twenty Sectoral Councils have been established so far and their activities include:

- monitoring of the labour market in the relevant sector;
- identifying changes in the sector affecting employers' and labour force needs;
- supporting VET and the development of professional competencies of the sector;
- promoting innovation in the curricula for qualifications in the sector;
- cooperating with schools and training institutions.

In **Greece**, the social partners are represented in the Tripartite Advisory Committees (TSEs) that have been established by the Organization of Vocational Education and Training (OEEK). The main task of these tripartite bodies is to monitor labour market needs at regional and local level and make proposals to the administrative board for the introduction of new specialisations according to regional labour needs.

In **Spain**, the General Council of Vocational Training (*Consejo General de Formación Profesional*) has the following functions:

- monitoring and evaluation of the 'National Vocational Training Program';
- establishing the conditions and characteristics that vocational qualification programs must fulfil in order to be incorporated into the National System of Professional Qualifications;

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(7) See: <http://izm.izm.gov.lv/aktualitates/informacija-medijem/5761.html>

- establishing a procedure which permits shared responsibility between the qualifications agencies and institutes of the Autonomous Communities and the social partners for defining qualifications in the Catalogue of Professional Qualifications and also for responding to the needs of the different sectors;
- carrying out mainly technical activities related to vocational training both at national and regional level, such as: studies, reports, comparative analyses and scientific seminars.

Similar qualifications agencies and institutes have been established with analogous functions in all Autonomous Communities.

In **Cyprus**, social partners contribute to policy development as well as to the development of training programmes and curricula. They act in an advisory and consultative capacity to support the planning process; they sit on the boards of governors of institutions dealing with human resources; they are members of technical sectoral committees for the development of vocational qualifications and consultative committees (Consultative Committee of Technical and Vocational Education and *ad hoc* committees for curriculum development).

The sectoral committees in **Romania** are responsible for the evaluation of skills needs in their area. They monitor the evolution of the labour market and report on changes and future needs of the sector in question.

In **Finland**, the Ministry of Education and Culture established 34 tripartite National Education and Training Committees. Their task is to follow, evaluate, anticipate and analyse the development of skills needed in the labour market, to make suggestions for the qualitative and quantitative development of VET, to survey the core curricula and qualifications requirements and provide statements on issues in their sector. At the regional level, 19 regional councils are responsible for medium- and long-term forecasts of educational needs.

Sector Skills Councils (SSCs) in the **United Kingdom** are independent, employer-led organisations established to enable employers to exert influence on the UK's education and skills systems to ensure they meet employers' needs. They operate on a four-nation basis and therefore need to be sensitive not only to the different skills strategies in each country but also to the variations in the education/qualifications systems across the United Kingdom. There are currently 23 Sector Skills Councils covering over 80 % of the economy.

Similar committees/councils are often established in direct relation to specific education and training programmes and courses.

In **Sweden**, the Parliament recently decided to reform the upper secondary education system. The reforms include, among others, a new structure for upper secondary vocational education with more emphasis on work-related subjects and skills. For each vocational programme, councils are established at both national and local level in order to ensure quality. These councils identify emerging skills needs, articulate the educational needs of business, and assist the National Agency for Education in its development of policy documents.

Besides, in July 2009, the Swedish National Agency for Higher Vocational Education <sup>(8)</sup> was established to develop and oversee a new form of publicly funded vocational education at post-secondary level: 'higher vocational education'. These programmes cover a wide range of vocational areas and their common objective is to provide advanced vocational education and training tailored to labour market needs. From the outset, companies and business sector partners participate in the development of these programmes. Each

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<sup>(8)</sup> See: <http://www.yhmyndigheten.se/english>

higher vocational programme has a steering group in which social partners and representatives from working life form a majority.

The reinforcement of cooperation between the education sphere and employers' representatives can also be observed **in the area of higher education**. The objective is to ensure that the workforce with high-level skills also responds to current and future labour market challenges.

In the **Czech Republic**, higher education institutions are recommended to create study programmes/courses that take employers' requirements into account. They are also advised to involve professionals from the relevant field in teaching and creating study programmes.

During the period of 2010-2014, **Estonia** has allocated special funds for innovative curriculum development projects carried out in partnership between higher education institutions and enterprises. All projects include the identification of labour market needs in specific areas in cooperation with employers' organisations and professionals from the relevant field.

As a standard practice, higher education institutions in **Ireland** engage with employers in the review and development of higher education programmes so as to ensure that programmes are relevant to the skills needs of enterprises. In addition, research and reports of the Expert Group on Future Skills Needs (EGFSN) provide an input to the development and reform of higher education courses.

In **Italy**, higher education institutions are obliged to consult labour market representatives (including professional organisations and enterprises) when creating new higher education programmes/fields of study.

In **Latvia**, the Action Plan for Necessary Reforms in Higher Education 2010-2012 envisages legislative reform to enhance the role of employers in a number of areas including the development of higher professional education programmes, the assessment of student achievement, and the evaluation of programmes to ensure that they meet labour market needs. The legislative changes are planned to take place in 2011 and will motivate entrepreneurs to provide students with internship opportunities in modern businesses <sup>(9)</sup>.

In the **Netherlands**, the curriculum of each study programme is developed in cooperation with labour market representatives. They take part in the *beroepenveldcommissie* – a forum for dialogue between higher education institutions and the labour market. Different issues relating to the skills match are addressed in this forum.

In **Austria**, higher education courses are to a large extent developed in cooperation with professionals from the field in question. The steering bodies of universities (university councils) often include representatives from industry and public life. The *Fachhochschule* councils actively involve the social partners in the accreditation of study programmes.

In the **United Kingdom**, Foundation Degrees in higher education are designed in close collaboration between higher education institutions, employers and Sector Skills Councils.

## 2.2. Planning and regulating education and training supply

The early identification of skills required in the labour market is an important trigger for the **planning and regulation of education and training supply**. Skills forecasts are often used to define **specific quantitative targets for education and training provision**.

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<sup>(9)</sup> For details about the proposed Action plan, see: <http://www.mk.gov.lv/lv/mk/tap/?pid=40173173>

In **Hungary**, in the area of higher education, the government decides each year on the number of state-funded places for different fields of study. When deciding, the government takes into consideration the feedback from the labour market, statistics on unemployment, results of career monitoring <sup>(10)</sup> and forecasts for labour force demand.

In the **Netherlands**, the Ministry of Education, Culture and Science uses various tools to regulate educational provision. The so-called 'macro-efficiency' test is designed to ensure that there are not too many graduates in a field for which there is no demand in the Netherlands. In order to stimulate new jobs, the Ministry of Education decided that education programmes for jobs in developing areas of the economy have a greater chance of being approved than education programmes leading to traditional jobs.

In **Finland**, on the basis of various forecasting studies, the development plan 'Education and Research 2007-2012' sets entry targets for educational provision. With regard to initial education and training, the targets were set separately for different fields of education. Targets for adult education and training were grouped by type of education, with an outline for field-specific targets for qualification-oriented adult education and training. When adopting the development plan, the Finnish government decided that an intermediate evaluation would be conducted halfway through and the targets would be adjusted if necessary. According to the updated forecast, no changes are necessary to the targets set in the original plan. However, in some fields the intake of students has not met the targets set by the Ministry of Education and is not high enough to meet demand. These fields include social services and health; medicine; engineering, metal and energy technology; and sanitation.

Information on future skills needs can also lead to the introduction of specific **targeted incentives for students** who engage in studies related to an occupation where a large number of workers is (or will be) needed.

In **Hungary**, financial incentives have been introduced targeting VET students. Students enrolling in fields leading to qualifications that are needed in the labour market receive higher financial support than other VET students. Similar targeted incentives have also been introduced for vocational education and training providers <sup>(11)</sup>.

The **Latvian** Ministry of Education is implementing an EU Structural Fund project aiming to enhance the attractiveness of initial vocational education by offering a monthly stipend to students of public and private initial vocational training institutions. This project lasts from 2009 to 2013 <sup>(12)</sup>.

### 2.3. Reinforcing quality assurance mechanisms

Many countries have introduced **measures to assure and/or strengthen the quality of educational programmes**, primarily through the introduction of external monitoring (e.g. in Austria), certification procedures (e.g. in Germany), or performance-based funding (e.g. in the Czech Republic). Some countries have also implemented European quality assurance frameworks, for example the European Quality Assurance Reference Framework for Vocational Education and Training (EQARF). Some of these activities are funded by the European Social Fund (e.g. the quality improvement of initial vocational education and training programmes in Latvia). Quality assurance efforts are **concentrated in vocational and higher education**.

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<sup>(10)</sup> For more details on the career monitoring system in Hungary, see Section 1.

<sup>(11)</sup> See: <http://www.oh.gov.hu/szakkepzes/szakiskolai-osztondij>

<sup>(12)</sup> See: <http://izm.izm.gov.lv/ESF/prof-izgl-pievilciba.html>

In the **Czech Republic**, the new national project 'The Way to Quality' <sup>(13)</sup> (*Cesta ke kvalitě*) aims to support schools in implementing self-evaluation processes. As part of this project, educational programmes, a guidance system and a database containing examples of good practice are provided for teachers.

In **Cyprus**, the continual improvement of the quality and flexibility of the education system is a policy priority. The Human Resource Development Authority (HRDA) performs site inspections to ensure the quality of programmes. In addition, a new system for the assessment and certification of training providers is expected to be implemented by 2012. The aim is to upgrade and improve the quality and effectiveness of training provision.

In **Austria**, external quality assurance is geared towards a closer integration of education, training and the labour market. External quality assurance mechanisms are primarily focused on curricula and take the form of audits at public universities and as accreditation of study programmes and institutions in *Fachhochschule*. A system of external quality assurance based on uniform standards is currently being developed. The standards include a bias towards learning outcomes and competences, as well as employability. The new system is due to be implemented in 2011.

In addition, the 'VET Quality Initiative' or QIBB, in preparation since 2004, was implemented in the 2006/07 school year at nearly all VET schools and colleges. QIBB constitutes a key element of the national strategy to implement the Recommendation of the European Parliament and of the Council on the establishment of a European Quality Assurance Reference Framework for Vocational Education and Training (EQARF).

Currently work is also ongoing to develop a quality framework model for the field of adult education, which is intended to form the basis not only of a mutual appreciation of quality efforts of educational institutions and countries but also an overall strategy for promoting quality in the Austrian adult learning sector.

In **Finland**, in 2008, the Finnish National Board of Education launched a National recommendation for quality in VET. The national recommendation for quality management in VET aims at supporting and encouraging VET providers to aim for excellence in the quality of their operations. This recommendation is based on the common European Quality Assurance Framework (CQAF) <sup>(14)</sup>. It is seen as an important step in implementing the recommendations of the Copenhagen Declaration within Finland. The recommendation for quality management provides a framework for the long-term development of quality management in all vocational education and training. It also emphasises a practical approach to quality management. The recommendation can be implemented at different levels of VET: in vocational upper secondary education and training, in further vocational training, in competence-based qualifications as well as in the preparatory training courses for these higher level qualifications.

In **Iceland**, the Ministry of Education, Science and Culture is carrying out external evaluation at all school levels according to a three-year plan. Iceland is in the process of implementing the European Quality Assurance Reference Framework for Vocational Education and Training (EQARF) <sup>(15)</sup>. The Minister of Education, Science and Culture has recently decided to establish an independent international quality board responsible for the quality control of teaching and research in higher education institutions. The quality board should be operational in autumn 2010.

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<sup>(13)</sup> See: <http://www.nuov.cz/ae>

<sup>(14)</sup> Please note: This quality assurance framework was established in 2003 and endorsed by the Council in May 2004. For more details see: [http://ec.europa.eu/education/lifelong-learning-policy/doc1134\\_en.htm](http://ec.europa.eu/education/lifelong-learning-policy/doc1134_en.htm)

<sup>(15)</sup> Please note: The European Quality Assurance Reference Framework for Vocational Education and Training (EQARF) builds on and further develops the common European Quality Assurance Framework (CQAF). It is now known as EQAVET. For more details see: [http://ec.europa.eu/education/lifelong-learning-policy/doc1134\\_en.htm](http://ec.europa.eu/education/lifelong-learning-policy/doc1134_en.htm)

## 2.4. Establishing qualification frameworks

At present, virtually all European countries are developing their **National Qualifications Frameworks** (NQFs). The aim of these frameworks is to enable employers, learners and the general public to understand the full range of qualifications existing within a country, to clarify how they relate to one another and show how the different types of qualifications can contribute to improving the skills of the workforce. The National Qualifications Frameworks have already been established in the Flemish Community of Belgium, Estonia, France, Ireland, Malta, Portugal and the United Kingdom (Cedefop and DG Education and Culture, 2010). Within the current reporting exercise, many countries (the Flemish Community of Belgium, the Czech Republic, Estonia, Greece, Spain, Ireland, Italy, Cyprus, Latvia, Malta, Austria, Poland, Romania, Slovakia, Slovenia, Finland, the United Kingdom and Iceland) referred to their NQF developments.

National Qualification Frameworks are often seen as a **mechanism to link education and training provisions with labour market requirements**. For instance:

The **Flemish Community of Belgium** reports that the Flemish Qualification Structure (*kwalificatiestructuur*, FQS) adopted in April 2009 will organise the large number of different certificates and diplomas and will make qualifications and how they relate to each other more transparent. It will facilitate communication between the relevant stakeholders in education (students, pupils and providers) and in the labour market (social partners) about qualifications and the competences they entail. The framework will be a common reference for the development of a coordinated and coherent policy for the recognition of competences and will provide a common language on competences which will bridge the education and labour market spheres.

Similarly, the **Czech Republic** reports that the National Qualification Framework (NQF) <sup>(16)</sup> is intended to make educational provision more reflective of labour market needs.

The process of developing National Qualifications Frameworks often includes the implementation of a learning outcomes-based approach to qualification design. Related educational reforms are discussed in Section 3.

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<sup>(16)</sup> See: <http://www.nuov.cz/nsk2>



## SECTION 3: RESPONDING TO LABOUR MARKET NEEDS: POLICY INITIATIVES AND REFORMS IN EDUCATION AND TRAINING

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This section provides examples of current policy initiatives and reforms which are intended to make education and training more responsive to labour market needs. It highlights examples of both comprehensive as well as targeted approaches in the various sectors of education (general, vocational, higher and adult education). In doing so, it focuses on new initiatives and reforms largely in the areas of curriculum development, teacher education and student assessment.

The first sub-section focuses on comprehensive strategies which are intended to improve flexibility and transparency in the transition of students between the various levels and sectors of education. The second sub-section looks specifically at shifts towards competence-based and learning outcomes-based frameworks in education. The areas examined include qualifications, curriculum reforms and the validation of non-formal and informal learning. The third sub-section shows examples of an increasing reliance on apprenticeship schemes in recent reforms and outlines related changes in student assessment and teacher education.

### 3.1. Improving flexibility and transparency in the transition between different levels and types of education

When developing policy strategies and reforms to enable education and training to become more responsive to labour market needs, some countries have chosen a consistent approach throughout all educational levels and sectors. A prominent trend is to construct systems which allow for a more flexible and transparent transition between the different levels and sectors of education, and especially between vocational and non-vocational paths. This greater flexibility and transparency could reduce the existing number of 'dead ends' in education systems and could potentially increase the number of students who successfully complete their education.

In **Germany**, the qualification initiative entitled *Getting ahead through Education* was passed in 2008. This initiative provides both guiding principles as well as a range of measures to make education a top priority in Germany. The goals of this initiative include improving the transition between school and university and introducing formal qualifications for every educational path. The Federal Government and the *Länder* are also drafting measures to make improving transfer opportunities a key element of the qualification initiative. The aim is to make it easier for people with vocational qualifications to enter university.

In **Spain**, one of the objectives of the Action Plan 2010-2011 of the Spanish Ministry of Education is to enhance 'the flexibility of the education system and of post-compulsory studies'. Within the framework of this objective are measures such as the recognition of subjects of intermediate vocational training programmes and the revision of the structure of general upper secondary education (*Bachillerato*).

In addition, the bill on the Sustainable Economy includes the goal of creating bridges between the different levels of the education system (i.e. the different levels of vocational training and between vocational, general upper secondary and tertiary education).

Flexibility in accessing intermediate vocational training programmes is being improved by the introduction of a nationwide test to allow those who do not hold a certificate in compulsory education another opportunity to qualify for entry to these programmes.

In **Cyprus**, one of the most significant innovations introduced into the national education system has been to facilitate the movement of students between branches of upper secondary education, including between general education and upper secondary technical and vocational education (STVE).

In **Austria**, there is a differentiated initial vocational education and training (IVET) sector at upper secondary level. Due to this differentiation of VET paths, the country aims to improve the permeability between the paths (horizontal permeability) and repeated opportunities to obtain the necessary qualifications to access further education programmes (vertical permeability).

In **Iceland**, the main emphasis of the Comprehensive National Lifelong Learning Strategy is to make all levels of education comprehensive so that students' paths through the system are as transparent, direct and flexible as possible. The strategy forms part of the Icelandic government's objective to increase the number of adults with upper secondary education so that by 2020, only 10 % of the working population would be without a recognised qualification at upper secondary level.

The strategy includes measures to allow a more flexible integration of academic and vocational courses. At the level of compulsory education, schools now have an option to introduce vocational courses to the oldest age group (14-16 years). This is considered an essential part of the strategy to make VET more attractive to students before they reach upper secondary education.

At upper secondary level, VET and academic education are now of equal importance when organising study streams which allows students the opportunity to combine academic and vocational education. Furthermore, those choosing vocational streams will have easier access to higher education institutions than before.

## 3.2. Moving towards skills, competences and learning outcomes

One of the main trends in reforming education and training systems is the move towards education frameworks based on **skills and competences**. In some cases, especially in relation to qualification frameworks, students' knowledge, skills and competences are expressed as the **learning outcomes** of the education process. This refocusing process takes various forms and occurs at various levels and in different sectors. This sub-section aims to show examples in three main areas.

Firstly, as Section 2 has already indicated, many countries have started the process of **developing National Qualifications Frameworks (NQF)**. This process often goes hand in hand with adapting curricula, teacher training and assessment frameworks to a new, skill- and competence-based approach. Secondly, as curriculum changes can also take place independently from the development of new qualifications or the qualifications frameworks, changes in **curricula, teacher training and assessment** are discussed in the second part of this sub-section. Finally, several countries have started focusing attention on **non-formal and informal learning** and the validation of skills and competences gained outside formal education processes. Examples are shown in the last part of this sub-section.

### 3.2.1. Developing qualifications based on a learning outcomes approach

As Section 2 showed, several countries report that they have been developing national qualifications frameworks. In most cases, qualification frameworks have been, or are being developed in close relation to the European Qualifications Framework (EQF), which describes what a learner knows, understands and is able to do in terms of 'learning outcomes'.

**Spain** is currently developing a national qualifications framework for lifelong learning (Spanish Qualifications Framework – MECU), based on learning outcomes. The development work started in

January 2009 and the framework is expected to be adopted in 2011. However, new VET programmes are already defined in terms of learning outcomes. The National Catalogue of Professional Qualifications (NCPQ) is closely linked to working activities and required professional competences. The main elements of the catalogues are competence units structured into professional qualifications.

In **Greece**, between March and September 2010, the Greek Manpower Employment Organization (OAED) discussed the Hellenic National Qualification Framework (NQF), which is yet to be implemented<sup>(17)</sup>. The introduction of the NQF also involves curriculum reform based on learning outcomes, closer cooperation with social partners and with the world of work, new assessment methodologies and a change in emphasis with respect to pedagogical principles.

This skills-based learning outcomes approach is an important part of many educational reforms related to developing new qualifications.

In **Romania**, in initial VET, qualifications are outcome-related and are based on occupational standards or occupational analysis. The qualifications are subjected to a continuous process of revision in order to be constantly adapted to labour market needs.

In the **United Kingdom (England)**, the recently introduced Diploma qualification is aimed at students aged 14-19 and combines academic and vocational learning. The Diploma is a composite qualification designed to ensure that a learner achieving a diploma has the skills needed to be successful in work, life and in further study. All Diploma learners must complete: (a) subject-specific learning related to an area of employment, (b) an extended project, (c) functional skills in English, maths and ICT, (d) personal skills, thinking and learning skills, (e) a minimum of 10 days work experience, and (f) additional and specialist learning (ASL). 36 441 young people were on a Diploma course in September 2009 – up from 12 000 in September 2008<sup>(18)</sup>. Some 8 000 employers are involved in providing Diplomas.

### 3.2.2. Implementing competence-based curricula

This part of the summary illustrates how European countries have implemented competence-based frameworks in education – at different levels and in different sectors. In most countries, **changing curricula** have also brought about the adaptation of **teacher training** and **assessment frameworks** in order to support the development of new skills and competences.

In **general education**, several countries have implemented the EU's key competences framework. In some countries this is coupled with an increasing attention to key skills in maths, science and technology (e.g. in the Czech Republic, Latvia and Malta). A few countries also reported follow-up difficulties (e.g. the Czech Republic) and changes (e.g. Austria and Iceland) in their teacher training systems.

In **Austria**, in parallel to the launching of new competence-based curricula in 2008/09, a coherent further and continuing teacher education programme was developed. The aim of this further training initiative is to safeguard the move towards outcome-oriented, sustainable competence development as well as targeted individual promotion as a compulsory teaching principle. Teachers also learn from each other through in-house professional development (peer-learning, cooperative team learning schemes and supervision groups) as well as networking (regional, supra-regional networks and communities with face-to-face learning phases and/or with the use of electronic platforms).

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<sup>(17)</sup> See: <http://www.gsae.edu.gr/> and <http://www.opengov.gr/ypepth/?p=43>

<sup>(18)</sup> Data obtained directly from the Department for Education (DfE). Data is expected to be published at the end of 2010 at: <http://www.dcsf.gov.uk/rsgateway/>.

In the **United Kingdom (Northern Ireland)**, a revised curriculum was introduced during the period 2007/08 to 2009/10. In developing the revised curriculum, the concerns of employers were taken into account. The curriculum includes a new post-primary area called 'Learning for Life and Work' covering personal development, citizenship and employability. For primary pupils this is complemented by the area of 'Personal Development and Mutual Understanding' (PDMU). It provides greater emphasis on developing the skills children need i.e. what they can do, not just what they know and understand. There is an increased emphasis on developing children's skills, including skills that employers are looking for, for example the essential skills of reading, writing and maths, skills in ICT, the ability to communicate well, work with others and solve problems.

Several countries have also embarked upon competence-based framework curricula in **vocational education** (reported by the Czech Republic, Spain, Latvia, the Netherlands, Austria, Poland, Romania, Slovakia, Finland, the United Kingdom and Iceland). As in general education, countries have also developed support for teachers and trainers as well as adopting new assessment frameworks.

In the **Czech Republic**, the competence-based curriculum reform (framework educational programmes) was implemented up to upper secondary level. To give didactic support for teachers of the new curriculum, a Methodology Portal <sup>(19)</sup> was launched (*Metodický portál RVP*) with three main components: a) content, where both theoretical and practical teaching materials and teaching aids are provided, b) community, which allows the exchange of experience among teachers, and c) e-learning courses.

Another project, the 'New Final Examination' <sup>(20)</sup> (*Nová závěrečná zkouška*) (2009-2012) creates a unified practical assignment for students in various fields at ISCED 3C (mostly courses that provide training for manual occupations). From 2011/12, the assignments will be linked to the new educational programmes. They are being developed in cooperation with employers' representatives.

In **Spain**, new curricula include not only technical and professional competences, but also personal and social competences. Assessment methods have also been adapted to the new competence-based framework, partly based on criteria expressed in learning outcomes. These learning outcomes reflect students' competences in a training context and simulate real work settings as closely as possible.

In **Cyprus**, within the context of education reforms, in 2009 the Ministry of Education and Culture (MoEC) established various working groups which revised the technological and laboratory curricula of the practical strand of technical schools. The objective of the revision was to reduce the number of specialties offered by the STVE (Secondary Technical and Vocational Education), thus providing students the opportunity to acquire the key competences needed to be more competitive when they enter the labour market. The revised curricula of the practical strand have now been implemented and will subsequently form the template for the revision of the curricula of the theoretical strand of technical schools.

In **Poland** between 2008 and 2013, the National Centre for Supporting Vocational and Continuing Education (NCFSVCE) is implementing a system project 'Core Curricula Improvement as a Key to the Modernisation of VET'. One of the aims of the project is the preparation of new core curricula for vocational schools. The intention is to prepare innovative core curricula including entrepreneurship, MST and technology for 100 occupations, as well as 300 model programmes of vocational specialisations <sup>(21)</sup>.

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<sup>(19)</sup> See: <http://rvp.cz>

<sup>(20)</sup> See: <http://www.nuov.cz/nzz>

<sup>(21)</sup> See: <http://pokl.koweziu.edu.pl/index.php>

In **Romania**, a consistent and comprehensive strategy for initial VET has been implemented through PHARE and then European Social Fund projects. It covers the following aspects:

- curriculum reform starting from learning outcomes-based qualifications;
- professional development of teachers, trainers, institutional leaders and social partners in order to increase VET responsiveness to labour market needs and also to develop student-centred learning;
- competency-based assessment and the semi-externalisation of final examinations;
- participation of social partners in the examination commissions;
- mechanisms, procedures and instruments for quality assurance;
- accreditation of VET providers, external validation and monitoring of VET providers self-evaluation reports;
- correlation of VET provision with labour market needs through strategic forecasts and planning instruments implemented through partnerships.

In **Slovakia**, curriculum reform (from September 2008) and changes in governance (from September 2009) are two milestones of recent reforms in VET. The State Institute of Vocational Education (ŠIOV) developed state educational programmes in different educational fields with the explicit objective of aligning the profile of graduates with employers' needs in terms of qualification requirements translated into learning outcomes.

In the **United Kingdom (Northern Ireland)**, following a major consultation exercise early in 2008, the curriculum in further education colleges has undergone a major review in the last two years. This development is particularly important for the education of 16-19 year olds who enrol in further education. The educational offer for this cohort of young people now includes the essential skills of literacy, numeracy and ICT and the wider employability skills of problem solving, team-working, and managing one's own learning along with an understanding of how business operates. The curriculum is moving towards a higher proportion of courses which are included in the National Qualifications Framework (NQF) and in Northern Ireland's priority skills areas.

Due to the general autonomy of **higher education** institutions, central initiatives regarding the introduction and implementation of competence-based frameworks are less common in this educational sector. Nevertheless, some countries report the existence of specific initiatives (Estonia, Ireland, Italy, Hungary, Malta, the Netherlands, Austria and Romania).

In **Estonia**, a network of specialists for curriculum development was created in 2009 aiming at a shift towards a learning outcomes-based approach.

In **Ireland**, Trinity College (Dublin) and University College (Dublin) established a joint Innovation Academy. The aim of this initiative is to mainstream state-of-the-art concepts of business, innovation and entrepreneurship into PhD training, and to create PhD programmes that include the development of generic and transferable skills relevant to the modern, knowledge-based enterprise economy.

In **Italy**, according to the reform of the university system (DM 509/1999 and 270/2004), all degree courses designed at university level should make public – among other things – the expected learning outcomes of courses (applying knowledge and understanding, making judgements, communication skills, learning skills, etc.) <sup>(22)</sup>.

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<sup>(22)</sup> More information is available in the database on university offers (<http://off.miur.it>). For an example of the new descriptions of courses see: [http://www.study-in-italy.it/php5/scheda\\_corso.php?ambiente=off&anno=2009&corso=1201847](http://www.study-in-italy.it/php5/scheda_corso.php?ambiente=off&anno=2009&corso=1201847)

In **Malta**, the University of Malta is also developing learning outcomes for all its courses, as well as for the study-units making-up its programmes of study <sup>(23)</sup>.

The Malta College of Arts, Science and Technology will be introducing a new system of 'embedded learning' for literacy, language and numeracy for new students as from September 2010. Embedded teaching and learning combines the development of literacy, language and numeracy with vocational and other skills.

The College is also planning to introduce portfolio assessments. A portfolio, which holds evidence of an individual's skills, ideas, interests, and accomplishments, will be used to supplement, not replace, traditional assessment procedures. Portfolios are meant to provide a more accurate picture of students' specific achievements and progress. Furthermore, portfolios offer the additional benefit of involving students in the assessment process.

In the **Netherlands**, higher education institutions are financially encouraged to develop students' transferable skills. Since 2008, the national government has invested €30 million to stimulate entrepreneurship in primary, secondary, vocational and higher education.

Finally, several countries report that competence-based education is being provided to unemployed **adults** who have either low level qualifications, or no qualifications at all (Spain, Latvia, Malta, Austria and Slovenia). This category can also include programmes directed towards young people considered to be early school leavers.

In **Spain**, adult education for people without any qualifications, or for those who have left the school system, is based on competences. During 2010-2011, a platform for distance vocational training will be launched targeting citizens over the age of 18, especially workers and people with family responsibilities. This platform will be created within the framework of programmes of territorial co-operation with the aim of making vocational training more accessible to everyone. An on-line vocational training website <sup>(24)</sup> as well as teaching materials for distance training on 100 vocational training programmes will be created for this purpose.

In **Austria**, open access policies, transparency and educational information/counselling as well as the availability of continuous, nation-wide programmes are all designed to ensure that the further education offer for adults wanting to acquire key competences is as accessible as possible. In addition there are specific measures in the areas of basic education (including ICT), attainment of educational qualifications and certification in later life, political education, cultural education, social competencies and personal development. Concrete examples include the Vienna Adult Education Centres (*Volkshochschulen*) which have geared their programme to the eight key competences. Finally, the *Weiterbildungsakademie* <sup>(25)</sup> is a good example of a competence-based accreditation and recognition system for adult educators.

In **Slovenia**, the Project-Based Learning Programme is aimed at unemployed young adults aged 15-25 who may or may not have completed the basic school programme but have not yet completed vocational, technical or general upper secondary school. In this programme, they acquire general, vocational, social and cultural skills.

Also in Slovenia, literacy courses have been developed for adults who have completed less than 10 years of school. The aim is to support adults who have decided to rejoin formal learning in order to develop key skills. Participants in literacy courses acquire new knowledge, improve their communication skills, their writing, numeracy and social skills and learn about the importance of becoming active citizens.

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<sup>(23)</sup> For more details see: [http://www.um.edu.mt/\\_\\_data/assets/pdf\\_file/0006/66219/LO-LV.pdf](http://www.um.edu.mt/__data/assets/pdf_file/0006/66219/LO-LV.pdf)

<sup>(24)</sup> See: <http://www.educacion.es/fponline.html>

<sup>(25)</sup> See: <http://www.wba.or.at/>

### 3.2.3. Facilitating the validation of non-formal and informal learning

Several countries report that they have been focusing attention on how non-formal and informal learning can be acknowledged (the Flemish Community of Belgium, the Czech Republic, Denmark, Germany, Greece, Spain, Latvia, Slovakia, Slovenia and Iceland). A competence- or learning outcomes-based approach can facilitate this recognition process. The following four examples illustrate how European countries can potentially tackle this problem.

In **Germany**, to address some of the problems which stem from informally acquired learning, the Federal Ministry of Education and Research (BMBF) has launched the 'ProfilPass' in 2006. This instrument helps to record and certificate informal learning outcomes. It is now being used across Germany as a means of providing evidence of acquired skills; it helps to improve individual's educational prospects and raises awareness of informal learning. The ProfilPass is frequently used by people who find themselves in a transition or reorientation phase such as those who are returning to the workplace or those who are looking to set up their own business, but is also used by migrants looking for a way of coping more effectively in the German labour market.

In **Spain**, the 'Royal Decree on the recognition of skills acquired through work experience' was passed in 2009 and regulates the recognition of formal and non-formal learning outcomes. This Decree is included in the Strategic Plan for Vocational Education within the framework of the territorial co-operation plans of 2010-2011. Throughout these two years, the training of advisors and evaluators as well as the development of the appropriate evaluation instruments is planned. Furthermore, the evaluation of 50 000 candidates from the highest demand occupations in the labour market is envisaged.

The Parliament of **Latvia** adopted amendments to the Vocational Education Law defining the validation of competencies and skills acquired through non-formal education. The legislative reform entered into force on 1 July 2010 but its provisions have yet to be implemented. The amendment ensures the official recognition of competencies previously obtained in a non-formal way, aiming for a more effective integration of adults and young people into the labour market <sup>(26)</sup>.

In **Iceland**, the new Adult Education Act (2010) includes provisions for building bridges between the system for validation of non-formal and informal learning and the formal school system. A new system for recognising competences is designed to facilitate second chance education. During the pilot phase of the system, a number of people who had worked in particular sectors were assessed with a view to qualifying for a reduced period of study. In addition, a number of projects were initiated with the aim of reaching individuals who had dropped out of their vocational studies in particular sectors. The skills they had acquired in the labour market were evaluated and they were given the opportunity to finish their studies.

### 3.3. Extending and strengthening apprenticeship schemes

In addition to, or sometimes in parallel to the implementation of competence-based frameworks in education, curricula are often becoming more practice-oriented. This change usually occurs through either the introduction of new requirements on more extensive practical training (for example in Spain or Greece) or the introduction and support of a wider range of apprenticeship schemes as alternatives to school-based vocational education (for example in Denmark, Germany or Sweden). These policies also serve to reduce the number of early school leavers. Most countries report this trend in relation to VET (Denmark, Germany, Greece, Spain, Malta, Austria, Romania, Sweden and the United Kingdom), but it also exists in higher education (the Netherlands).

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<sup>(26)</sup> See: <http://www.vestnesis.lv/?menu=doc&id=212500>

In **Denmark**, 'New Apprenticeship' (*ny mesterlære*) has been introduced as an alternative pathway into VET. It is part of the government's strategy for increasing enrolment and reducing dropout within VET fulfilling the 95 percent objective (95 percent of a youth cohort should complete a youth education programme by 2015). Pupils undertaking a VET programme via the new apprenticeship pathway will typically spend the first year of their education receiving practical training within a company.

In **Germany**, the Federal Ministry of Education and Research is supporting the development of a training structure through its JOBSTARTER programme. This programme is already supplying funding for 200 innovative projects in vocational training. The projects are helping to create additional traineeships in the regions and are offering various measures to support companies that either have no previous experience with training or have lost interest in providing training.

In **Greece**, VET Institutes (IEKs) mostly operate school-based programmes, but learning-by-doing or apprenticeship schemes are also included in their curricula. In particular, the curriculum has incorporated a period of apprenticeship for trainees in working areas, including visits to enterprises as a means to help trainees assimilate and transform theoretical knowledge. In addition, after the acquisition of a VET Certificate, there is six months of optional practical training designed, supervised and subsidised by the Organisation for Vocational Education and Training (OEEK) <sup>(27)</sup>.

**Cyprus** has introduced the New Modern Apprenticeship (NMA) system with significant changes in the philosophy, structures, systems and processes. The NMA will become fully operational in 2014. It is directed at young people between 14 and 25 and has three levels (preparatory, core and post-secondary level); it will be linked to the national System of Vocational Qualifications.

In **Malta**, apprenticeship training is designed directly with employers and it includes a combination of on-the-job and off-the-job training. The former is provided at a recognised employers' establishment. To ensure that training delivered by employers and the vocational institution (theory) is in line with labour market needs, the Employment & Training Corporation has set up a number of steering committees for various sectors. The role of these committees is to develop occupational profiles, standards of competence and assessment criteria for apprenticeships. Steering committees are composed of representatives of employers, VET institutions and the Corporation.

In **Austria**, the placement foundation for irregular apprenticeship qualifications enables jobseekers to gain qualifications in line with company requirements. The training is theoretical and practical and is aligned with the future workplace. In sectors where there is a lack of skilled workers, the placement foundation provides companies with the opportunity to have skilled workers trained specifically for their requirements. At the same time it offers jobseekers the opportunity of gaining a qualification with a guaranteed job after the training.

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<sup>(27)</sup> See: <http://www.oEEK.gr/>

## SECTION 4: THE INFLUENCE OF THE ECONOMIC CRISIS ON EDUCATION SYSTEMS AND THE SCHOOL-TO-WORK TRANSITION

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This final section looks at national responses to the recent economic crisis. It investigates whether the economic crisis has made the education world more aware of labour market challenges and it examines recent surveys related to the transition from school to work in order to gauge how far the crisis has affected the quality of this process.

### 4.1. The influence of the economic crisis on education and training systems

Not all countries participating in the consultation were able to respond to the question whether **the economic crisis has made the education world more aware of labour market challenges**. Nevertheless, three countries (Greece, Latvia and Iceland) reported explicitly that the economic crisis had made the education sector more aware of labour market challenges.

In **Greece**, as a result of the economic crisis, skills forecasting and matching available skills to labour force needs have become an explicit priority. In particular, sectors such as construction and tourism have been severely affected and, consequently, more targeted vocational training is needed in these areas. Furthermore, particular attention is being paid to upgrading the skills of older workers in order to keep them economically active <sup>(28)</sup>.

**Latvia** reports that the crisis has meant that the education sector has become more deeply involved in labour market skills identification and it is now widely recognised that education and training should do more to meet labour market challenges.

In **Iceland**, the crisis and budget cuts in formal education have made decision-makers more aware of the importance of non-formal and informal learning. Furthermore, while the education sector is suffering from budget cuts, additional financial resources are available in the area of adult learning. The Ministry of Education, Science and Culture and the Ministry of Social Affairs launched an initiative to help the unemployed and early school leavers (under 25s) to get back to work or education.

Specific initiatives also exist to counteract the negative impacts of the economic crisis by providing additional support for the training of employees.

**Hungary** has recently launched a scheme combining job preservation with training. The initiative aims to strengthen the adaptability and competitiveness of companies affected by the crisis but still able to operate in the long term. Firms may apply for financial assistance to preserve their existing, experienced workforce in the period of recession. During halts to production, employees participate in vocational education and training. Applicant companies may decide what kind of training they need in order to meet future skill demands. They can choose among sector-specific training, languages, IT skills or basic transferable skills. It is expected that after the crisis the companies participating in the programme will be able to respond rapidly to the recovering demand.

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<sup>(28)</sup> For more information, see the website of OEEK: <http://www.oEEK.gr/>

**Cyprus** introduced specific measures in order to deal with the effects of the crisis. These measures include in-company/on-the-job training programmes to help employers retain their employees instead of laying them off.

In **Latvia**, the Ministry of Welfare launched a programme for full-time employees who are at risk of losing their jobs. The programme aims to support their competitiveness and professional development by attending courses in project management, foreign languages, entrepreneurship, digital literacy, social skills and mathematics. The project is funded by the European Social Fund and participation in courses is financed through a voucher system.

Denmark, Cyprus and Austria mention the influence of the economic crisis in relation to apprenticeship training.

In **Denmark**, the economic crisis had a strong influence on apprenticeship placements of VET students. To remedy the situation, public authorities have introduced various support measures to tackle the shortage of apprenticeship placements.

In **Cyprus**, the problem of securing employment for apprentices became severe under the conditions of economic recession. In an effort to alleviate the problem, in 2009, the HRDA in cooperation with the Ministry of Labour and Social Insurance (MLSI) introduced a new temporary measure of giving wage subsidies to employers who employ participants. In addition, during the school year of 2010/11, the Cyprus Productivity Centre (CPC) has implemented a subsidy scheme aiming to promote the employment and in-company training of Apprenticeship System Students in the private sector. Within this scheme, companies are subsidised for part of the salary costs of the in-company trainer who is responsible for training the apprentice. Furthermore, this scheme covers the social insurance contributions for the apprentice.

**Austria** also points out that apprenticeship training could be an area where some direct consequences of the crisis could be potentially felt. Nevertheless, currently available data reveal that Austrian companies have not yet reduced apprenticeship training. Figures related to the latest developments will be available in spring 2010. Only then it will be possible to tell whether the crisis has had any impact on the employers' willingness to train apprentices.

Finally, it is interesting to note that the crisis seems to have had some impact on the motivation of young people to stay in education and training.

In **Spain**, between 2008 and 2010, 15 % more students who had successfully completed compulsory education decided to continue their learning by enrolling in a vocational training programme instead of going directly into the labour market (Ministerio de Educación/Secretaría General Técnica, 2010).

In **Cyprus**, statistical data show that there has been a decrease in the percentage of early school leavers from 13.7 % in 2008 to 11.7 % in 2009 (Eurostat, 2010a). Furthermore, the percentage of the population aged 20 to 24 having completed at least upper secondary education has increased from 85.1 % in 2008 to 87.4 % in 2009 (Eurostat, 2010a). This shows that learners are staying longer in education and highlights the preference of young people to continue and complete their studies in higher education.

## 4.2. The impact of the crisis on school-to-work transition

With regard to the impact of the crisis on the school-to-work-transition, only seven countries (the Flemish Community of Belgium, the Czech Republic, Estonia, Italy, Cyprus, Slovakia and Norway) provide information detailed enough to evaluate how far the crisis has modified the quality of the transition from education to labour market.

In the **Flemish Community of Belgium**, the Flemish Public Employment and Vocational Training Service (VDAB) presented the results of the yearly study on school leavers (25th edition) in May 2010 (VDAB, 2010). The study examines the labour market transition of school leavers primarily by looking at their chances of finding a job in the first year after leaving school. According to the study, the impact of the economic crisis is very marked. Almost 15 % of school leavers are still unemployed one year after the end of their studies. The school leavers with lower level qualifications are the most vulnerable. With regard to the group with medium level qualifications, school leavers with a technical VET qualification have the best chance to find a job. One extra year of post-secondary non-tertiary vocational education (ISCED 4) has a positive impact on labour market outcomes. Those with a professionally-oriented bachelor's degree have the best chance to find a job. A large proportion of these are employed in traditionally female sectors that are less affected by the crisis, e.g. social work and care, and education. As noticed in previous years, there remains a shortage of people with technical qualifications at bachelor level.

In the **Czech Republic**, the National Institute of Technical and Vocational Education published the report *Unemployment of School Leavers from Upper Secondary Education and Vocational Tertiary Education – 2009* (Chamoutová, 2009). The unemployment rate of new leavers increased for most groups: from 6.9 % to 13.4 % for upper secondary leavers with an apprenticeship certificate; from 5.7 % to 7.8 % for upper secondary school leavers with a school leaving examination certificate; from 6.0% to 6.8% for leavers from vocational tertiary education; and from 2.5 % to 3.1 % in the case of leavers from higher education. The only exception to this pattern is represented by school leavers from general upper secondary programmes where the unemployment rate slightly decreased, from 2.5 % to 2.4 %.

**Cyprus** reports that young people have been particularly affected by the crisis. According to the Labour Force Survey (LFS), youth unemployment under 25 years of age has increased from 8.8 % in 2008 to 14.1 % in 2009 (Eurostat, 2010b).

**Slovakia** provides the results of a study on secondary school leavers (2008/09) prepared by the Institute of Information and Prognosis of Education (Herich, 2010). Compared to data from the previous year, it appears that the crisis has had a significant impact on the unemployment rate of young secondary school leavers. Leavers from vocational secondary schools seem to be more affected by the crisis than leavers from general secondary education.

Information provided by Estonia, Ireland, Italy and Norway focuses on school-to-work transition related to higher education.

**Estonia** reports that while the economic crisis has not changed the structure of unemployment according to the highest education achieved, it has deeply affected the chances of new higher education graduates to find a job. In October 2009, the number of recent higher education graduates registered as unemployed was four times greater than in the same period of the previous year <sup>(29)</sup>.

In **Ireland**, the Higher Education Authority (HEA) published the report *What Do Graduates Do? The Class of 2008* (HEA, 2010). It shows that while third level graduates still enjoy somewhat higher rates of employment than the wider population, those seeking employment have increased in tandem with the overall rise in unemployment levels.

**Italy** presents data from the most representative national survey on school-to-work transition by AlmaLaurea (2009). Compared to the previous year, the results of the survey show an increase in the unemployment rate of higher education graduates, a decrease in stable employment and loss of purchasing power of the already modest graduates' wages.

**Norway** reports that the impact of the crisis on the labour market transition of higher education graduates does not seem to be very significant although it is visible. In 2009, the Norwegian Institute for Studies of Innovation, Research and Education (NIFU STEP) conducted a survey among new master's level graduates (Arnesen, 2010). The survey was conducted six months after the end of their studies. According to the results of the survey, the unemployment rate of master's level graduates was around 6 %. In addition, around 5 % of master's level graduates were in involuntary part-time work or in work not appropriate to their level of education and qualifications. Less than 2 % were in irrelevant work. This means that nearly 90 % of master's level graduates were in a job appropriate to their education and qualifications six months after graduation.

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<sup>(29)</sup> Data collected by the Estonian Labour Market Board and obtained directly from the Estonian Unemployment Insurance Fund. The number of recent higher education graduates who registered as unemployed was 290 (out of 12 612 graduates) on 1 October 2009, 71 (out of 11 345) on 1 October 2008, and 58 (out of 11 89) on 1 October 2007.

## CONCLUSION

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With 24 countries participating in the 2010 Eurydice reporting exercise on 'New Skills for New Jobs', the consultation provided a unique opportunity to gather information on recent national developments in skills forecasting and to assess how this information is channelled into education and training provision.

Virtually all European countries are improving their capacity to forecast and anticipate skills needs. As information provided through the consultation shows, the period since 2008 brought about several new initiatives related to the development of methods, approaches and tools for the early identification of skills needs. In addition to various ad hoc forecasting projects, many countries are trying to put in place a holistic system of skills forecasting that will bridge different forecasting studies and surveys and will use their results in a coordinated way.

In order to ensure that this kind of labour market information is taken into account in the planning and delivery of education and training, most countries rely on specific institutional mechanisms bridging the worlds of education and employment. Most importantly, various forms of cooperation and partnership connect the different bodies (ministries, employers, trade unions, education providers, etc.) and channel labour market information into the education sector. Some countries have also opted for the direct regulation of education and training supply based on employment forecasts. Furthermore, many countries have implemented quality assurance mechanisms that allow for performance monitoring and feedback. Finally, virtually all European countries are in the process of establishing qualification frameworks that provide additional mechanisms to link education and training provision with labour market requirements.

The policies, strategies and reforms in education which are intended to reinforce its responsiveness to labour market needs can take a variety of forms ranging from comprehensive measures to more targeted approaches. Comprehensive strategies connecting education and training to the labour market cover the following main areas: curriculum reform, education and training of teachers and trainers, student assessment and quality management. Policy reforms can target different levels or sectors of education.

The reporting exercise showed that while some countries have been developing strategies with a consistent approach across all educational sectors, most countries have concentrated their reform efforts and strategies in the vocational education sector. This is the sector where comprehensive reforms including the four areas mentioned are most common. In higher education, several countries have developed specific targeted measures with the aim of bringing higher education programmes closer to the labour market; however, comprehensive reforms are rare. With respect to general education (primary, lower secondary and general upper secondary education), improving the responsiveness of the system to labour market changes is not an explicit policy priority in most countries, though several do have some reforms in this area.

This report distinguishes three main trends in labour market-related educational reforms. Firstly, several countries have implemented educational frameworks which allow a more flexible and transparent transition between the different levels and sectors of education, and especially between vocational and non-vocational paths. Secondly, there has been a general move towards skills- and competence-based frameworks in education and training provision at all levels. Thirdly, several

countries have been strengthening and extending apprenticeship schemes to provide more practical and employment-related training for students in vocational and higher education.

The reporting exercise showed that, as a result of the economic crisis, education decision-makers in some countries now seem to be more aware of the challenges arising in the labour market. It also appears that in many cases the crisis has had a significant impact on the transition of young people from school to the labour market. This reality might, in the near future, prompt more countries to take steps to further improve the responsiveness of their education and training systems to meet labour market needs.

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