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New Skills for New Jobs Anticipating and matching labour market and skills needs

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TABLE OF CONTENTS

1.	New skills: the key to more and better jobs
1.1.	Meeting the skills challenge
1.2.	Upgrading skills at all levels and promoting employability
1.3.	Matching skills to labour market needs
1.4.	Improving the Union's capacity for skills assessment, anticipation and matching 5
2.	A first assessment of skills and labour market needs up to 2020
2.1.	Long-term trends in job creation and labour supply
2.1.1.	An expanding labour market, increasingly dominated by the service sector
2.1.2.	A risk of labour shortages and a need for higher employment rates
2.2.	Trends in skills needs and occupations7
2.2.1.	Higher skills requirements across all occupations7
2.2.2.	A significant creation of high-skilled jobs, and a risk of labour market polarisation 8
3.	Anticipating and matching: New Skills for New Jobs
3.1.	Addressing mismatches
3.2.	Strengthening the Union's capacity for forecasting and anticipation
3.3.	Deepening international cooperation
3.4.	Mobilising Community instruments

1. NEW SKILLS: THE KEY TO MORE AND BETTER JOBS

1.1. Meeting the skills challenge

The severity of the financial crisis adds an exceptional degree of unpredictability about the future of the world's economy – yet in order to put Europe on the road to recovery it is essential to enhance human capital and employability by upgrading skills. But upgrading skills is not enough: ensuring a better match between the supply of skills and labour market demand is just as necessary.

As part of the European Economic Recovery Plan proposed by the Commission¹ to help Europe alleviate the effect of the immediate crisis and prepare for the economic upturn, the Commission launched a major European employment support initiative. This initiative aims to promote employment and reintegration into the labour market of workers made redundant through activation, retraining and skills upgrading measures.

Skills upgrading is critically important for Europe's short-term recovery and longer term growth and productivity, for its jobs and its capacity to adapt to change, for equity, gender equality and social cohesion.

Across Europe, the shift to a low-carbon economy and the growing importance of the knowledge economy, in particular the diffusion of ICTs and nano-technologies offer great potential for the creation of sustainable jobs. Globalisation, ageing populations, urbanisation and the evolution of social structures also accelerate the pace of change in labour market and skills requirements. The development of new skills and competencies to fully exploit the potential for recovery is a priority and a challenge for the EU and national public authorities, for education and training providers, companies, workers and students.

Situations in Member States and regions differ significantly as concerns the skills profile of their populations or the sector distribution of employment. Improving monitoring, assessing and anticipating as well as the matching of skills is crucial to address both the employment impact of the crisis and the long-term job prospects of the EU workforce.

1.2. Upgrading skills at all levels and promoting employability

Skills upgrading is crucial for equity, since the low skilled are more vulnerable in the labour market and can be hit first by the crisis. Upgrading skills is not just a luxury for the highly qualified in high-tech jobs: it is a necessity for all. Low-qualified adults are seven times less likely to participate in lifelong learning than those with high educational attainment; too little is done to increase and adapt the skills of an ageing workforce. The education, training and employment policies of the Member States must focus on increasing and adapting skills and providing better learning opportunities at all levels, to develop a workforce that is high skilled and responsive to the needs of the economy. Similarly, businesses have an acute interest in investing

1

Commission Communication COM (2008)800

in human capital and improving their human resource management. Moreover, gender equality is a key factor to responding to new skills needs.

Improving the equity and efficiency of EU education and training systems is essential to avoid the waste of its human and financial resources, increase employability and reduce inequalities². While upgrading skills implies immediate costs and must be seen in a context of financial sustainability, medium and long-term private, fiscal and social returns should out-weigh initial costs. A qualified labour force not only contributes to productivity: investment in well-designed lifelong learning systems can largely offset the economic cost of skills shortages and gaps. While the economic downturn puts increasing pressure on public and private expenditure, now is not the time to reduce investment in education, skills or active employment measures.

Education and training systems must generate new skills, to respond to the nature of the new jobs which are expected to be created, as well as to improve the adaptability and employability of adults already in the labour force. Providing high quality early-childhood and basic education for all, improving education attainment and preventing early school leaving are crucial to equip people with key competences, including the basic skills and learning that are pre-requisites for further updating of skills³.

1.3. Matching skills to labour market needs

To confront rising unemployment matching of skills must be improved. Skills mismatches in the labour market have been a growing concern in most Member States. Due to imperfect information and structural rigidities, workers and businesses are not provided with the right level of skills in the right areas, which damages competitiveness in particular of smaller enterprises. The composition of skills emerging from EU universities and training systems does not fully support a truly innovation-driven economy. The educational and professional choices of young men and women continue to be influenced by traditional gender paths. Reducing gender imbalances in sectors and occupations could partly address future skills shortages, for example in technical and managerial occupations⁴.

The removal of obstacles, including administrative barriers, to the free movement of workers in the EU, as well as more transparent information on labour market trends and skills requirements, would contribute to the promotion of occupational, sector and geographical mobility and allow a better match between peoples' skills and job opportunities. Mobility periods during education and training (e.g. via the Erasmus and Leonardo programmes) help make people more open to mobility later in their working lives. More effective and efficient job search requires enhanced

 ² Commission Communication "Efficiency and Equity in Education and Training Systems" - COM(2006) 481, 8.9.2006.

³ "European Reference Framework on Key Competences for Lifelong Learning", European Parliament and Council Recommendation 2006/962/EC of 18.12.2006.

⁴ Commission Report on equality between men and women 2009, forthcoming. Commission Communication "Promoting young people's full participation in education, employment and society" - COM(2007) 498, 4.9.2007.

coordination between different policy areas and labour market institutions, notably Public Employment Services and social security systems.

The Commission and the European Pact on Immigration and Asylum highlight that employment and geographical mobility of third-country workers can help reduce skills mismatches, and ensure that their skills can be used at the optimal level⁵. The successful integration of migrants and their descendants is key for EU economies and societies.

1.4. Improving the Union's capacity for skills assessment, anticipation and matching

Improving the monitoring and anticipation of labour market and skills requirements is necessary to help people return to the labour market, facilitate the matching with existing vacancies and orientate skill development in order to improve long-term job prospects. A substantial improvement in the Member States' and the Union's capacity to forecast, anticipate and match future skills and labour market needs is a precondition for the design of efficient employment, education and training policies and individual career choices. Such an improved capacity can play a key role in the success of integrated flexicurity policies within the Growth and Jobs Strategy, as highlighted by the EU Mission for Flexicurity⁶.

The European Council stressed in March 2008 that investing in people and modernising labour markets is one of the four priority areas of the Lisbon strategy, and invited the Commission "to present a comprehensive assessment of the future skills requirements in Europe up to 2020, taking account of the impacts of technological change and ageing populations and to propose steps to anticipate future needs".

In response to the European Council mandate, chapter 2 of this Communication presents a first assessment of future skills requirements up to 2020. But this analysis cannot be a one-shot exercise. It must be followed by a sustained, strategic effort as new sectors increase their potential to spark growth and job creation, assessments need to be updated regularly to integrate these new developments.

To this end, chapter 3 suggests ways to gradually improve capacities, and sets the assessment of skills and labour market needs in the framework of the EU Strategy for Growth and Jobs. Alongside this initiative, the Commission is also proposing an updated strategic framework for European cooperation in education and training to support Member States in raising skills levels through lifelong learning.

2. A FIRST ASSESSMENT OF SKILLS AND LABOUR MARKET NEEDS UP TO 2020

The unforeseen financial crisis of the second half of 2008 illustrates the limitations of any forecasting exercise. Many of the skills and jobs that will seem common to European citizens in 2020 - e.g. as a consequence of changes in the use of 'clean'

⁵ Commission Communication "A Common Immigration Policy for Europe" - COM(2008)359, 17.6.2008.

⁶ Commission Communication "Towards Common Principles of Flexicurity" - COM(2007) 359, 27.6.2007. Report of the Mission for Flexicurity to the Council, Dec. 2008.

technologies - cannot even be imagined today. But while a forecast cannot provide an exact picture of the future, it can provide an indication of general trends, and highlight the need for policy responses⁷.

Three core conclusions stem from the Commission's assessment: first, there is in the medium and long term a great potential for employment creation in Europe – both for new and replacement jobs. Second, the skills, competencies and qualification requirements will increase significantly, and across all types and levels of occupation. Third, there is a need to ensure a better long-term match between skills supply and labour market demand.

This first assessment is largely based on an elaborate forecast of future skills needs, made in June 2008 by the European Centre for the Development of Vocational Training (Cedefop)⁸. Further details, methodology and a description of Member States' forecasts can be found in the Staff Working Document accompanying this Communication.

2.1. Long-term trends in job creation and labour supply

2.1.1. An expanding labour market, increasingly dominated by the service sector

The Cedefop analysis suggested that there could be approximately 100 million job openings in EU 25^9 over the period from 2006 to 2020. In addition to the creation of 19.6 million additional jobs, another 80.4 million replacement jobs could be available as workers retire or leave the labour market.

The slow but steady shift in the sector distribution of EU employment, from agriculture and traditional manufacturing industries towards services, is likely to continue notwithstanding the recent downturn. In 2020, almost three quarters of jobs will be in services.

Job creation in services is likely to be substantial up to 2020, especially in business services. The primary sector could lose 2.9 million jobs while construction should tend to stabilise. Manufacturing would experience a net loss of 800,000 jobs despite an increase in engineering; however, given the impact of a strong replacement demand, there would still be important job openings in manufacturing, which will therefore remain a crucial sector for the EU economies.

With a shorter-time perspective, a more detailed forecast of trends in services can be provided. The best prospects of job creation up to 2015 are expected in business services (such as IT, insurance or consultancy), health care and social work, distribution, personal services, hotels and catering, and to a lesser extent education (Figure 1). The prospects for business services and other sectors may need to be adjusted in the light of the financial crisis.

⁷ On the constraints and methodology of forecasting, see the Commission Staff Working Document (SWD).

⁸ Cedefop, *Skill Needs in Europe. Focus on 2020.* Luxembourg, 2008.

⁹ This preliminary assessment does not include Bulgaria or Romania. The will be included in the first update of projections.

The transition towards a low-carbon economy will also have an important impact on employment, especially in energy, water and waste treatment, construction, transport, industry, agriculture and forestry. According to the International Labour Organization, the global market for ecological services and products should double and reach 2740 billion dollars in 2020¹⁰.

2.1.2. A risk of labour shortages and a need for higher employment rates

Demographic trends will have a major impact on labour supply, although for several years this will be partly compensated by the increase of activity rates¹¹. Eurostat estimates that the EU working age population (15-64 years) will peak in 2012 and then start shrinking as the "baby-boom" cohorts retire. As the participation rate of women and of older workers will continue to increase, until 2020 the effective labour force should continue to grow slowly; then the "ageing effect" will outstrip the increase in participation rates, resulting in a slight but continuous decline of total EU labour supply; this will affect Member States in different ways.

Migration flows might compensate for some of the decline in birth rates, but they will not solve the demographic deficit - not least because in the long run immigrant populations tend to acquire the demographic patterns of their country of residence. Qualitative EU labour market mismatches are likely to be exacerbated by quantitative shortages: the matching of skills and labour market needs will be essential for an effective use of human capital.

2.2. Trends in skills needs and occupations

2.2.1. Higher skills requirements across all occupations

Several correlated factors will stimulate demand for better and adapted skills: globalisation and increased international trade; the transition towards a low-carbon economy; the application of technologies, especially ICT; and changes in work organisation which are themselves in part a consequence of technological change and skills upgrading¹².

The next decade will see an increasing demand for a high-qualified and adaptable workforce and more skills-dependent jobs. The general upward trend in skills demand can be illustrated by looking at required levels of education attainment, although these are a very approximated variable for skill levels.

In EU 25, between 2006 and 2020, the proportion of jobs requiring high levels of education attainment should rise from 25.1% to 31.3% of the total; jobs requiring medium qualifications would also increase slightly, from 48.3% to 50.1%. This would amount respectively to 38.8 and 52.4 million high-and medium-level job openings. At the same time, the share of jobs requiring low levels of education attainment would decline from 26.2% to 18.5%, despite 10 million job openings (Figure 2).

¹⁰ ILO, Green jobs : facts and figures, 2008.

¹¹ See Commission's first Demography Report - SEC(2007) 638, 11.5.2007.

¹² SWD page 18.

Most jobs in non-manual skilled occupations will require highly qualified workers; workers with medium educational attainment will increasingly fill skilled occupations. Since overall education rates increase at a faster rate than labour market changes, only half of elementary jobs will be held by workers with low educational attainment (Figure 3).

In the service sector, there is a clear tendency towards the broadening of the required skills portfolio at all occupational levels, linked to "non-routine" tasks. For example, ICT professionals have to develop skills in marketing or management; services workers have to develop customer orientation skills and digital literacy. In many knowledge-intensive sectors, both managerial skills and scientific knowledge are needed. In social care and education, further skills upgrading is needed to improve the quality of services.

This reflects the growing demand from employers for transversal key competencies, such as problem-solving and analytical skills, self-management and communication skills, linguistic skills, and more generally, "non-routine skills".

2.2.2. A significant creation of high-skilled jobs, and a risk of labour market polarisation

Net job creation projections show a polarised job expansion among occupations, with a strong bias in favour of high-skilled jobs. Up to 2020, in EU25 17.7 million additional jobs could be created in high-skilled non-manual occupations such as administrative, marketing, logistics and sales managers, IT systems administrators, teaching professionals and technicians. At the same time, forecasts highlight a low or even negative job creation prospects for some skilled occupations, but also a considerable net creation of elementary jobs (5 million), especially in the service sector – e.g. security staff, domestic helpers, cashiers or cleaning workers. (Figure 4).

New technologies and developments in work organisation seem to result in an important job expansion at the ends of the job spectrum (especially at the higher level). New technologies cannot substitute either the "non-routine" tasks typical of high-skilled occupations (e.g. cognitive and communication tasks), or low skilled jobs, especially in the service sector (e.g. care or truck driving). However, medium-skilled routine tasks and repetitive work can be replaced by automation and computerization, or outsourced.

Such polarisation is perceptible in some Member States. However, it is not a clearcut phenomenon, and the polarising trend in net job creation should be largely offset by a high replacement demand for middle-skilled workers, though replacement demand will also accentuate the upward trend in skill demand.

Such shifts in labour market demand already raise concerns about wage differentiations between jobs. The trend in labour income shares in the EU since 1980 has been clearly upwards for the high skilled, but downwards for the low skilled, while the wages levels of the low and middle skilled tended to converge¹³.

Service sector "low-skilled" jobs increasingly include more demanding non-routine tasks; yet there is still little financial recognition of the new competencies and skills

¹³ SWD page 30.

necessary for these jobs in the wage structure. This has also an impact on gender inequality, since women, especially migrant women, disproportionately hold service sector jobs¹⁴.

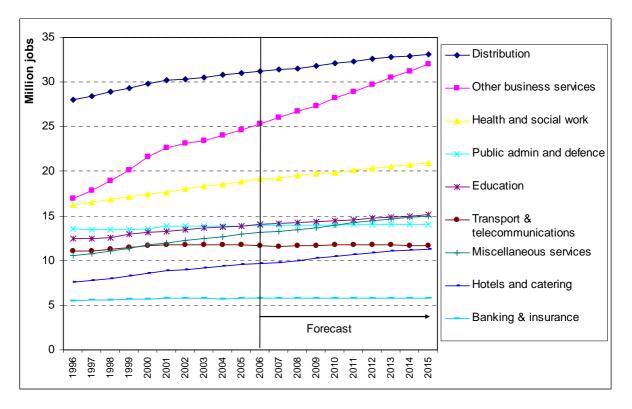
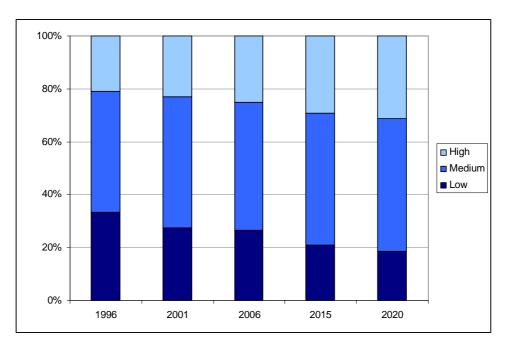


Figure 1. Trends in employment levels in the service sector up to 2015, EU-25

Source: Cedefop, 2008

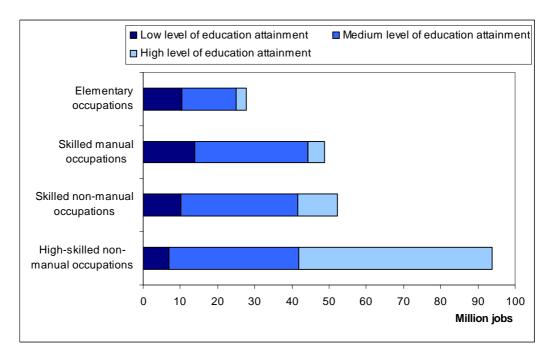
Figure 2. Past and future structure of jobs by education attainment level, EU-25

¹⁴ SWD page 31.



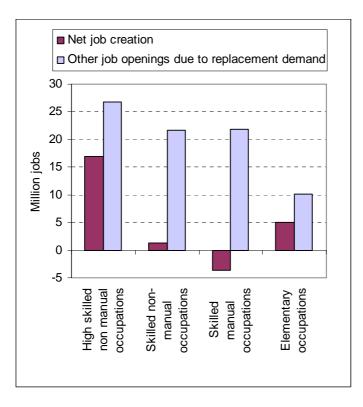
Source: Cedefop, 2008

Figure 3. Projected employment levels in 2020, by broad categories of occupations and education attainment level, EU-25



Source: Cedefop, 2008

Figure 4. Job openings between 2006 and 2020 by broad categories of occupations, EU-25



Source: Cedefop (2008).

3. ANTICIPATING AND MATCHING: A NEW SKILLS FOR NEW JOBS AGENDA

To better face the challenges described, it is crucial to promote more comprehensive information on the Union's future skills and job requirements and to facilitate matching and anticipation. It places at the centre of the EU strategy for growth and jobs the need to upgrade skills of the EU population and to ensure a better match with labour market needs, to address the immediate employment and social impacts of the crisis and contribute to the Union's competitiveness and equity in the longer term. Drawing on existing budgets and EU programmes, it is organized under four strands.

3.1. Addressing mismatches

Public authorities at national, regional and local level, business, social partners, training providers and individuals would benefit from regular information on EU short-term labour market changes, job vacancies available across the EU, and projections of skills requirements. To promote professional and geographical mobility, the Commission will:

Establish as of 2009 a "European Labour Market Monitor" with periodical, up to date information on short-term trends on the European labour market. The Monitor will collect, analyse and disseminate data on vacancies and registered job seekers through the EU network of Public Employment Services and, in time, from wider sources such as sectors, companies and recruitment agencies;

- Develop as of 2009 a standard multilingual dictionary of occupations and skills, to enhance the quality and transparency of vacancy information to improve matching between job seekers and vacancies;
- Create in 2009 Match and Map, a user-friendly, transparent online service for citizens, providing qualitative information on occupations, skills, learning and training opportunities across the EU. As part of EURES, and linked to the PLOTEUS and EURAXESS portals¹⁵, it will provide a clear geographic mapping of the EU job offers matching a user's profile, feedback on why jobs and skills do not match, and information on learning opportunities.

3.2. Strengthening the Union's capacity for forecasting and anticipation

Most Member States are already developing forecasting and anticipation tools¹⁶. However, these initiatives vary significantly in scope and methodology and need to be brought together into an orchestrated effort. The resources and expertise of Cedefop and the European Foundation for the Improvement of Living and Working Conditions must be harnessed for this purpose. The Commission will:

- Establish a regular, systematic assessment of long-term supply and demand in EU labour markets up to 2020, broken down by sectors, occupations, levels of qualification and countries. Updated projections will be published every two years starting in 2010, along with ad-hoc early-warnings of potential labour market imbalances;
- Increase EU methodological, analytical and mutual learning capacities for skills and jobs anticipation. As of 2009, the Commission will concentrate efforts under the PROGRESS and Lifelong Learning programmes to develop new ways of measuring competences;
- Increase EU capacity for assessing the employment effects of a transition to a low carbon economy.

Businesses have a key role to play in the assessment of skills needs, and should be actively involved in this initiative. The Commission will:

 Promote dialogue between business and education and training providers, for the establishment of partnerships to meet medium-term skills needs; and provide insight on the expectations of employers with respect to students and graduates, through qualitative prospective studies such as 'Tuning Educational Structures in Europe';

¹⁵ EURES, the European Employment Services portal, (http://eures.europa.eu) currently includes 1.2 million job vacancies, over 300,000 CVs and 17,700 registered employers. It also provides information needed for professional mobility in Europe. PLOTEUS, the Portal on Learning Opportunities throughout the European Space, (http://ec.europa.eu/ploteus/) receives over 800,000 visits per year. EURAXESS, the Researchers Motion web-site, Portal in contains а Jobs (http://ec.europa.eu/euraxess/jobs) dedicated to employees and employees with a research profile; it publishes 5000 vacancies per year.

¹⁶ For a comprehensive overview of national initiatives, see SWD, chapter 3.

- Enhance knowledge, awareness and involvement of businesses in forecasting skills needs, through an employers' survey tool and qualitative studies on the skills needs of business, notably SMEs;
- Support platforms of companies, training providers and recruitment specialists to jointly design targeted training courses and organise an annual "Partnership for skills and employment" event, to recognize the most innovative partnerships matching skills supply and demand.

The sector level is of special relevance when looking at adaptation to change. The Commission, in cooperation with EU institutions, social partners and EU agencies Eurofound and Cedefop, has already developed a foresight cross-sector methodology for the anticipation of sector skills needs, which delivers scenarios for the sectors' evolution and the impact on occupation and employment. The Commission will

- Provide an analysis of the skills and labour market needs of key sectors. Comprehensive results for 16 sectors covering 75% of total EU private sector jobs will be available in mid-2009, providing a full picture of labour demand and its implications for restructuring;
- Discuss with stakeholders, notably the existing sector social dialogue committees, the possibility of establishing "sector councils on employment and skills" at EU level, to collect information available in Member States and regions and provide guidance drawn from stakeholders and from education and training systems.

In order to draw on the expertise of Member States, business and social partners, education and training providers, academics and international institutions, the Commission will establish a small group of experts in support of the New Skills for New Jobs initiative. Over the course of one year, the group will provide expertise and advice on analysis, common methodologies and policy responses.

3.3. Deepening international cooperation

The EU and other economies are affected by global trends and challenges, which in turn have a direct impact on EU labour markets; policy dialogue and exchange of experiences with our global partners can contribute to meeting the challenges of today and tomorrow. In addition to the ongoing cooperation with the 46 member countries of the Bologna process for reform of higher education, the Commission will intensify cooperation with third countries and international institutions. In particular, it will:

- Actively participate in the OECD's new Programme for the Assessment of Adult Competences (PIAAC), alongside the ongoing PISA and AHELO Programmes on student and higher education outcomes. The Commission will also co-operate with the OECD in the development of qualitative studies on the evolution of skills demand and indicators of mismatches;
- Cooperate with the International Labour Organisation (ILO), particularly with a view to developing a knowledge sharing platform and to assess the global impact of climate change policies on skills and jobs;

- Enhance the current bilateral dialogues with third countries, particularly with China, India, the USA and Canada, leading to joint research and cooperation on forecasting and methodology;
- Develop the policy dialogue with neighbourhood countries and within the Eastern Partnership and the Union for the Mediterranean supported by the European Training Foundation, notably to develop the vocational education and training sector (VET) and national qualifications frameworks.

3.4. Mobilising Community instruments

Preparing for recovery through a radical skills upgrading will only succeed through a concerted effort of all stakeholders in the Member States, with the contribution of Community policies, financial instruments and processes:

- The Growth and Jobs Strategy and the Mutual Learning programmes within the Open Method of Co-ordination provide an overall policy framework for the New Skills for New Jobs initiative. The Commission's Recovery Plan underlines that a stronger emphasis on flexicurity policies, with a focus on activation measures, retraining and skills upgrading, is essential to promote employability and reintegration into the labour market;
- The updated strategic framework for cooperation in education and training can stimulate innovative partnerships between education and training providers and social and economic actors, to promote more flexible and demand-led systems. The implementation of the European Qualifications Framework should increase the transparency of qualifications and facilitate access to further learning. The Copenhagen process on cooperation in VET will include a new priority to improve the links with the labour market;
- The "Fifth Freedom" the freedom of movement of knowledge called for by the 2008 Spring European Council, will support the deployment of the New Skills for New Jobs initiative. It will foster the mobility of knowledge workers across borders and sectors and thus help match demand and supply at the high skill level;
- The New Skills for New Jobs initiative is fully within the scope of the European Social Fund (ESF). Several Member States have already identified as a priority in their 2007-2013 ESF programming the development of policies and services to address skills needs and labour market mismatches, including actions aiming at a better gender balance and guidance on educational choices. The Commission will provide policy guidance for Member States on an optimal use of ESF funds;
- The European Regional Development Fund (ERDF) can also contribute to developing skills and anticipation, by promoting technology forecasting, innovation, research and development and communication infrastructure and through cross-border cooperation between education and training organizations;
- The European Agricultural Fund for Rural Development (EAFRD) invests in innovation, new technologies, research and development, and supports the skills upgrading of farmers, foresters and food processors as well as of the broader rural population through training, information and diffusion of knowledge actions.

- The Commission's proposal to amend the European Globalisation adjustment Fund (EGF) Regulation will allow for strengthening skills upgrading activities;
- The European Fund for the integration of third country nationals can also contribute – complementing the ESF - in upgrading and adapting immigrants' skills, in particular by supporting pre-travel measures (e.g. vocational and language training) in the country of origin, and language courses in the Member State of residence;

European social dialogue is a key instrument for mobilising social partners to invest in the right skills through education and lifelong learning. The Commission will invite social partners to develop joint initiatives to promote skills forecasting and upgrading, and to accompany short-term restructuring.

Skills upgrading is critically important for Europe's future; so too, especially today, is a better match between skills and labour market needs. The New Skills for New Jobs initiative stresses the need for more effective education and training policies and modernisation of labour markets through flexicurity policies. It proposes a concerted effort towards a comprehensive assessment of future skills and labour market needs, in partnership with Member States, companies and other stakeholders. The initiative aims to contribute to economic recovery and the Growth and Jobs strategy, to attenuate the impact of the current crisis in terms of jobs and skills, and enhance long-term competitiveness and equity. In partnership with the Member States, the Commission will evaluate the effectiveness of the measures on an ongoing basis, beginning with a first report in 2010.