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from: Secretary-General of the European Commission,  
signed by Mr Jordi AYET PUIGARNAU, Director

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to: Mr Uwe CORSEPIUS, Secretary-General of the Council of the European  
Union

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Subject: Communication from the Commission to the European Parliament, the  
Council, the European Economic and Social Committee and the Committee of  
the Regions  
Rethinking Education: Investing in skills for better socio-economic outcomes

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Delegations will find attached Commission document COM(2012) 669 FINAL.

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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**Rethinking Education: Investing in skills for better socio-economic outcomes**

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## 1. EDUCATION AND SKILLS – A CORE STRATEGIC ASSET FOR GROWTH

Investment in education and training for skills development is essential to boost growth and competitiveness: skills determine Europe's capacity to increase productivity. In the long-term, skills can trigger innovation and growth, move production up the value chain, stimulate the concentration of higher level skills in the EU and shape the future labour market. The massive increase in the global supply of highly skilled people over the last decade puts Europe to the test. The time when competition came mainly from countries that could offer only low-skilled work has come to an end. The quality of education and supply of skills has increased worldwide and Europe must respond.

European education and training systems continue to fall short in providing the right skills for employability, and are not working adequately with business or employers to bring the learning experience closer to the reality of the working environment. These skills mismatches are a growing concern for European industry's competitiveness<sup>1</sup>.

Despite progress over the last five years in the percentages of those qualifying from higher education, sustained efforts will be needed to reach the headline target of 40% of young people completing higher education.

Though significant improvement has been made over the last five years, early school leaving remains at unacceptable levels in too many Member States, such as Spain with 26.5% and Portugal with 23.2%. Targeted action remains necessary to reduce early school leaving through comprehensive, targeted evidence-based strategies, as called for in the recently adopted Council Recommendation.

There remains significant evidence of underperformance in other areas: 73 million adults have only a low level of education; nearly 20% of 15 year olds lack sufficient skills in reading; and participation in lifelong learning is only 8.9%.

By 2020, 20% more jobs will require higher level skills. Education needs to drive up both standards and levels of achievement to match this demand, as well as encourage the transversal skills needed to ensure young people are able to be entrepreneurial and adapt to the increasingly inevitable changes in the labour market during their career.

The broad mission of education and training encompasses objectives such as active citizenship, personal development and well-being. While these go hand-in-hand with the need to upgrade skills for employability, against the backdrop of sluggish economic growth and a shrinking workforce due to demographic ageing, the most pressing challenges for Member States are to address the needs of the economy and focus on solutions to tackle fast-rising youth unemployment. In this communication, emphasis is being placed on delivering the right skills for employment, increasing the efficiency and inclusiveness of our education and training institutions and on working collaboratively with all relevant stakeholders.

The scope and pace of reforms needs to be scaled up so high quality skills can support both growth and jobs. The Commission identifies here a limited number of strategic priorities to

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<sup>1</sup> Industrial Policy Communication Update COM (2012) 582

be addressed by Member States, alongside new EU actions to leverage national efforts. The priorities reflect the Country Specific Recommendations<sup>2</sup> which the Commission made to a number of Member States and support the Annual Growth Survey 2012<sup>3</sup>.

Among these, particular attention is given to combatting youth unemployment. This Communication covers four areas which are essential to addressing this issue and where Member States should step up efforts.

- Developing world-class vocational education and training to raise the quality of vocational skills
- Promoting work based learning including quality traineeships, apprenticeships and dual learning models to help the transition from learning to work
- Promoting partnerships between public and private institutions (to ensure appropriate curricula and skills provision)
- Promoting mobility through the proposed Erasmus for All programme<sup>4</sup>

These issues are of direct relevance to the package on Youth Employment to be put forward by the Commission before the end of 2012. The Youth Package will propose new tools to address youth unemployment and facilitate school-work transitions.

To underpin the guidance provided here, this Communication is accompanied by: **country fiches summarising the performance and policy reforms** of the Member States in the key areas covered by the Communication; the **first edition of the Education and Training Monitor**, which gives a picture of current skills supply and progress towards the Europe 2020 headline targets; and five other **Staff Working Documents, showcasing policy evidence and good practice**.

## 2. CHALLENGES IN MEMBER STATES TO BE ADDRESSED IN THE EUROPEAN SEMESTER

### 2.1. Building skills for the 21st century

#### Transversal and basic skills

##### *Efforts need to be concentrated on developing transversal skills...*

Modern, knowledge-based economies require people with higher and more relevant skills. CEDEFOP forecasts predict that the proportion of jobs in the EU requiring tertiary level qualifications will increase from 29% in 2010 to 34% in 2020, while the proportion of low-skilled jobs will fall in the same period from 23% to 18%. Transversal skills such as the ability to think critically, take initiative, problem solve and work collaboratively will prepare individuals for today's varied and unpredictable career paths.

##### *...particularly entrepreneurial skills...*

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<sup>2</sup> [http://ec.europa.eu/europe2020/index\\_en.htm](http://ec.europa.eu/europe2020/index_en.htm)

<sup>3</sup> Annual Growth Survey COM (2011) 815

<sup>4</sup> Erasmus for All is the proposed EU programme for education, training, youth and sport put forward by the European Commission on 23 November 2011

Attention should be particularly focused on the development of entrepreneurial skills<sup>5</sup>, because they not only contribute to new business creation but also to the employability of young people. However, at the national level only six Member States have a specific strategy for entrepreneurship education<sup>6</sup>. To address this, in 2013 the Commission will publish policy guidance to support improvements in the quality and prevalence of entrepreneurship education across the EU. Member States should foster entrepreneurial skills through new and creative ways of teaching and learning from primary school onwards, alongside a focus from secondary to higher education on the opportunity of business creation as a career destination. Real world experience, through problem-based learning and enterprise links, should be embedded across all disciplines and tailored to all levels of education. All young people should benefit from at least one practical entrepreneurial experience before leaving compulsory education. Measuring the impact of this work is important, and to support Member States the Commission will identify tools to assess progress and demonstrate the acquisition of entrepreneurial skills. At the level of individual institutions progress will be boosted by a self-assessment framework, carried out jointly with the OECD, to guide and advance the development of entrepreneurial education institutions at all levels including schools and vocational education and training (VET).

***...while the demand for STEM related skills is still high***

Scientific subjects are also important. The demand for a qualified workforce in technology and research intensive sectors is and will remain at a high level, with an impact on the demand for science, technology, engineering and mathematics (STEM) related skills. Greater efforts must now be made to highlight STEM as a priority area of education, and increase engagement at all levels. Although broad challenges are well known, such as the need to make it more attractive to females, it is also now important to increase understanding of the career pathways followed by STEM graduates.

***...but the first step must be that foundation or basic skills are achieved by all...***

Literacy, numeracy and basic maths and science are key foundations for further learning as illustrated in the accompanying Education and Training Monitor 2012, and are a gateway to employment and social inclusion. These skills are nonetheless being redefined by the on-going digital revolution, as new forms of reading and writing and the diversity of information sources are changing their very nature.

Across the EU, reforms have streamlined curricula. They have introduced national standardised tests; established an infrastructure of literacy, maths and science centres; created teacher networks and continuing professional development; and stepped up action to improve digital and media literacy. Nevertheless, underperformance remains and addressing low achievement is now urgent. The share of 15 year olds in Europe that have not acquired basic skills is around 20%, while five countries have over 25% low achievers in reading. Member States need to introduce new systemic reforms to strengthen early screening and intervention for learning difficulties and to replace repetition or ability grouping with increased learning support.

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<sup>5</sup> For an overview of entrepreneurial skills, cf Staff Working Document on the Assessment of Key Competences

<sup>6</sup> Entrepreneurship Education at School in Europe – National Strategies, Curricula and Learning Outcomes (Eurydice 2012)

These efforts within compulsory schooling need to be preceded by high-quality, accessible and affordable early childhood education and care. They should be complemented with family literacy and numeracy programmes as well as high quality adult basic skills programmes, particularly through workplace learning. Efforts are necessary to increase the current alarmingly low participation levels in adult learning in most Member States<sup>7</sup>, and new evidence-based policies are needed drawing on the results of the PIAAC survey<sup>8</sup>. The average adult participation in lifelong learning in the EU is 8.9%. In seven Member States the adult participation is as low as 5% or less.

***...while language learning is important for jobs and needs particular attention***

In a world of international exchanges, the ability to speak foreign languages is a factor for competitiveness. Languages are more and more important to increase levels of employability<sup>9</sup> and mobility of young people, and poor language skills are a major obstacle to free movement of workers. Businesses also require the language skills needed to function in the global marketplace.

As detailed in the accompanying Staff Working Document on Languages, the first European Survey on Language Competences<sup>10</sup> shows that, despite investment in many countries, education systems in a number of Member States are still not efficient enough<sup>11</sup> to cope with these challenges. In France only 14% of all pupils reach the level of an independent user of one foreign language at the end of lower secondary education, and in the UK this is only 9%. Faster reform is needed by Member States, based on new methodologies and technologies for teaching both the first and second foreign languages, with a view to reaching the target defined by Heads of State of 'mother tongue plus two'<sup>12</sup>.

**Vocational skills**

***Increasing the quality of vocational skills requires the development of world-class VET systems...***

Increasing transversal and basic skills alone will not be sufficient to generate growth and competitiveness, and there is still too much distance between the educational environment and the workplace. Targeted investment in VET, namely initial and continuous training, is vital for innovation, growth and competitiveness. The value of VET, and notably dual training systems, in facilitating youth employment is now strongly acknowledged.

Some European countries already have world-class VET systems (Germany, Austria, Denmark, the Netherlands), with built-in mechanisms to adapt to current and future skills needs so training is more demand-driven. They report fewer problems with skills mismatches and show better employment rates for young people, and in these countries VET education is characterised by dual systems which have a high proportion of work-based learning. Many

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<sup>7</sup> Cf. Education & Training Monitor 2012

<sup>8</sup> PIAAC - Programme for the International Assessment of Adult Competencies: for more information see [http://ec.europa.eu/education/literacy/resources/statistics/more-info/index\\_en.htm](http://ec.europa.eu/education/literacy/resources/statistics/more-info/index_en.htm)

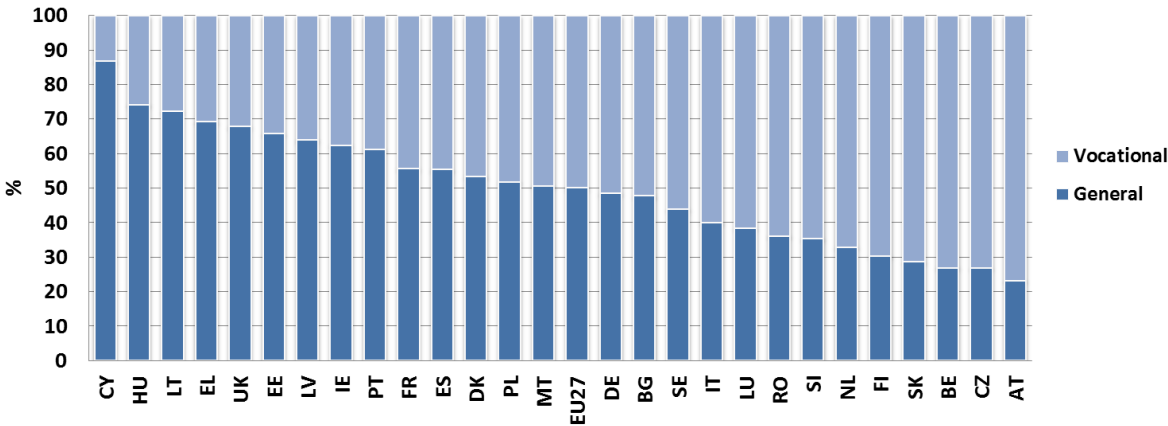
<sup>9</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2011:372:0027:01:EN:HTML>  
<sup>10</sup> <http://ec.europa.eu/languages/eslc/index.html>

<sup>11</sup> Cf. Education and Training Monitor 2012

<sup>12</sup> Barcelona European Council, March 2002

others, typically in Southern Europe, lag behind in terms of participation, quality, outcomes and attractiveness. Figure 1 illustrates the disparity between countries of the percentages involved in VET and general education at upper secondary level. These differences are due to socio-cultural traditions and perceptions, diverse structures of education and training systems and of the economy and labour market, reforms undertaken, the extent of involvement of social partners as well as the employment prospects of VET graduates, and the preferences of individuals.

**Figure 1** - Distribution of upper secondary (ISCED 3) students by programme orientation (general or vocational). %. (2010)



Source: Eurostat Database<sup>13</sup>, UOE data collection

Work based learning and notably apprenticeships and other dual models help facilitate transition from learning to work. These require a clear regulatory framework, defined roles for the different players and must be an integral part of the entire education system. The approach which underpins the dual system – classroom-based education side by side with hands on experience in the workplace - has an important potential role to play at tertiary level.

In order to achieve excellence in VET, curricula must be systematically renewed, delivery must be constantly modernised and businesses, especially SMEs, must be actively involved; as outlined in the attached Staff Working Document. VET must be able to react to the demand for advanced vocational skills, tailored to the regional economic context. It also needs to be an open door for those who want to access higher education, as well as individuals who need to re-enter learning to upgrade or update skills.

**... which can greatly contribute to the reduction of skills shortages...**

VET systems can and must play a key role in addressing skills shortages, especially for sectors with growth potential such as ICT, health and care, low carbon technologies, personalised services, business services, the maritime economy<sup>14</sup> and green sectors, or those undergoing major transformation requiring a better skilled workforce. Targeted investment in VET to address skills shortages can support growth in these sectors. These sectors should also be encouraged to make use of existing European tools for qualifications (EQF), credits (ECVET) and quality assurance (EQAVET) to facilitate mobility of a skilled labour force.

<sup>13</sup> For country specific data notes refer to Eurostat website  
<sup>14</sup> Blue Growth opportunities for marine and maritime sustainable growth COM(2012) 494

### ***...through a higher level of cooperation at European level***

Work-based learning, such as dual approaches, should be a central pillar of vocational education and training systems across Europe, with the aim of reducing youth unemployment, facilitating the transition from learning to employment and responding to the skill needs of the labour market. To achieve this, the Berlin meeting of EU Ministers of Education in December 2012 will be the first step towards new levels of cooperation in the field of vocational education and training. Ministers will sign a memorandum outlining their ambitions for VET across Europe: attractiveness and quality of vocational education and training should be enhanced; learning pathways must reach into higher education levels; social partners and other relevant stakeholders need to be actively involved in development and implementation; and increased mobility measures must be introduced. To support this cooperation, the Commission will establish a new EU-level Alliance for Apprenticeships to drive the vision forward, bringing together Member States and a wider range of stakeholders to learn from each other and take action at national level.

## **2.2. Stimulating open and flexible learning**

### **Improving learning outcomes, assessment and recognition**

#### ***Achievement should be driven by learning outcomes...***

Education and training can only contribute to growth and job-creation if learning is focused on the knowledge, skills and competences to be acquired by students (learning outcomes) through the learning process, rather than on completing a specific stage or on time spent in school.

While the learning outcomes approach is already the basis of the European Qualifications Framework and national qualification frameworks, this fundamental shift has not yet fully percolated through to teaching and assessment. Institutions at all levels of education and training still need to adapt in order to increase the relevance and quality of their educational input to students and the labour market, to widen access and to facilitate transitions between different education and training pathways.

#### ***...and the power of assessment needs to be better harnessed***

What is assessed can often determine what is valued and what is taught. While many Member States have reformed curricula, it remains a challenge to modernise assessment to support learning. As outlined in the annexed Staff Working Document on the assessment of key competences, the power of assessment has to be harnessed by defining competences in terms of learning outcomes and broadening the scope of tests and exams to cover these. Assessment for formative purposes to support the day-to-day skills learning of pupils also needs to be more widely used. In this context, the potential of new technologies to help find ways of assessing key competences needs to be fully explored.

Outside school, individuals should also be able to have their skills assessed, validated and recognised, providing a skills profile for potential employers. Information on the quality and quantity of skills across the population will allow authorities to better map potential shortages and focus on areas with the best returns on investment. Efforts should continue to develop



tools for individual assessment of skills, particularly in the areas of problem solving, critical thinking, collaboration and entrepreneurial initiative.

### ***Qualifications should open as many doors as possible...***

A number of European instruments such as the European Qualifications Framework (EQF), Europass, European credit transfer systems (ECTS and ECVET), the multilingual classification of European Skills/Competences, Qualifications and Occupations (ESCO) and quality assurance frameworks have been implemented in the last decade to support the mobility of learners and workers. These tools are improving transparency, for instance making qualifications comparable across countries (EQF) and credit points transferable (ECTS).

These instruments were not developed in isolation from each other; however, there is room for much closer coherence where the different tools and services - including transparency and recognition of qualifications, validation of non-formal and informal learning and lifelong guidance - are offered in a coordinated way. This will contribute to real European mobility where a person's knowledge, skills and competences can be clearly understood and quickly recognised. The creation of a European Area of Skills and Qualifications will support this drive to achieve transparency and recognition of academic qualifications across borders, acquired in vocational and higher education.

### ***... and academic recognition can lead the way***

The recognition of both higher education qualifications and those enabling access to higher education has been on the European policy agenda for some time. Academic mobility is steadily increasing as a result of the changing structures of higher education systems, and this internationalisation is complemented by the drive to promote the EU as a destination for study and research<sup>15</sup>. Nevertheless, to make the EU more attractive to students and researchers better approaches to recognition are needed, as well as a more systematic and coordinated application of the European Credit Transfer and Accumulation System (ECTS) and improvements in the application and assessment of learning outcomes. In addition, this will contribute to the European Area of Skills and Qualifications.

The ongoing development of the Bologna Process provides an important contribution to the promotion of transparent and fair recognition of higher education qualifications in Europe and beyond. As part of this and the recent Bucharest Communiqué, countries committed to improving academic recognition of diplomas. This includes screening national legislation against the Lisbon Recognition Convention and encouraging assessment of institution recognition procedures for quality assurance. A Pathfinder Group of countries is testing ways of achieving the automatic recognition of comparable academic degrees. Its objective is to place students on an equal footing, irrespective of the origin of their academic degree, by shifting the focus away from the academic recognition of individual diplomas to an approach based on trust in the system under which the diploma was awarded.

## **Tap into the potential of ICT and Open Educational Resources for learning**

### ***The digital revolution brings important opportunities for education...***

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<sup>15</sup> Forthcoming Commission proposal to recast Directives 2004/114/EC and 2005/71/EC

Technology offers unprecedented opportunities to improve quality, access and equity in education and training. It is a key lever for more effective learning and to reducing barriers to education, in particular social barriers. Individuals can learn anywhere, at any time, following flexible and individualised pathways.

Digital learning and recent trends in Open Educational Resources<sup>16</sup> (OER) are enabling fundamental changes in the education world, expanding the educational offer beyond its traditional formats and borders. New ways of learning, characterised by personalisation, engagement, use of digital media, collaboration, bottom-up practices and where the learner or teacher is a creator of learning content are emerging, facilitated by the exponential growth in OER available via the internet. Europe should exploit the potential of OER much more than is currently the case. This requires good computer skills, but some Member States are still lagging behind as seen in the Education and Training Monitor 2012, with 9 Member States with over 50% of 16-74 year olds with no or low computer skills. While the use of ICT in education and training has been high on the policy agenda, critical elements are not in place to enable digital learning and OER to be mainstreamed across all education and training sectors. A coherent strategy at EU level could address the scope, size and complexity of the challenges in support of actions of the Member States and the entire chain of stakeholders.

***...and it is time to scale-up use of ICT in learning and teaching...***

Recent research<sup>17</sup> shows that disparities persist in the availability of ICT-based educational tools and content. ICT-based assessment is often recommended but it is rarely indicated how it should be applied. For personalised and flexible learning, the use of technologies should be embedded in educational practice. Large-scale pilots in real-life environments should define how, when and where ICT can be used effectively in pedagogical and assessment approaches. Turning research into educational practice is even more necessary in a fast changing environment. Communities of practices (e.g. eTwinning; European Institute of Innovation and Technology (EIT) Knowledge and Innovation Communities) and hubs of ICT-based excellence should be further developed, as should faster transfer of innovation research into educational practice. In all of this, stakeholder engagement and collaboration is a condition for success.

***...to exploit freely available knowledge.***

The quality of education relies on a mix of different educational materials. To achieve this, wider access and use of OER needs to be accompanied by clear quality standards and mechanisms to assess and validate skills and competences acquired through it. Education and training institutions which have not yet integrated OER should also seek cooperation with technologically more advanced educational providers in order to meet the expectations of digital-born learners. Teachers tend to acquire ICT teaching skills through initial education

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<sup>16</sup> Open Education Resources (OER), as defined by UNESCO in 2002, are "teaching, learning or research materials that are in the public domain or released with an intellectual property license that allows for free use, adaptation, and distribution". Open Education (OE) is a wider concept that refers to practices and organisations aiming at removing barriers to entry to education. OER are a part of OE, which has received a strong push through the use of ICT. For further information please consult the UNESCO website on OER: <http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/open-educational-resources>

<sup>17</sup> [http://eacea.ec.europa.eu/education/eurydice/documents/key\\_data\\_series/129EN.pdf](http://eacea.ec.europa.eu/education/eurydice/documents/key_data_series/129EN.pdf)

rather than through professional development; it is essential that they are well equipped to embrace the potential of the new technologies in the way they teach, in order to stimulate and engage learners.

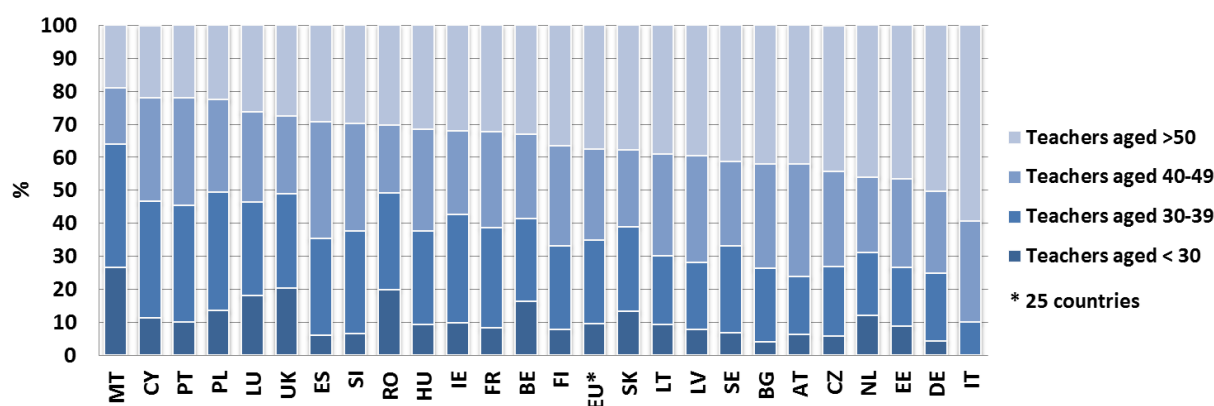
The educational marketplace is being transformed. There are growing numbers of non-commercial OER providers alongside technological advances such as open access, internet file-sharing and open source, and educational publishers and the wider industry continue to adapt to these changes. They are already revising their business models in order to profit from new commercial opportunities.

## Supporting Europe's teachers<sup>18</sup>

### *Teachers face rapidly changing demands...*

High quality and well trained teachers can help learners develop the competences they need in a global labour market based on ever higher skill levels, and evidence<sup>19</sup> shows that a primary influence on learners' performance is the quality of teaching and learning. However teachers now face unprecedented challenges. As elaborated on in the accompanying staff working document, the increasing requirements of education, the massive retirement of teachers from the baby-boom generation (see figure 2) and severe staff shortages in some subject areas will result in an increased demand for qualified educators at all levels and call for comprehensive actions to boost the attractiveness of the profession. These should include both financial and non-financial incentives. The crisis and the workforce currently available, also offer an opportunity to undertake skills renewal across the profession and attract new qualified staff.

**Figure 2 - Age distribution of teachers in lower and upper secondary school % (2010)**



Source: Eurostat Database<sup>20</sup>, UOE data collection

*...which require a new set of competences for teachers, teacher educators and education leaders ...*

However, well-resourced strategies are necessary to recruit, retain and develop high-quality teachers, spanning both initial teacher education and career-long professional development.

<sup>18</sup> Cf. definition in Staff Working Document on Supporting the Teaching Professions for Better Learning Outcomes

<sup>19</sup> Cf. OECD Education at a Glance 2012

<sup>20</sup> For country specific data notes refer to Eurostat website

Member States need to establish a competence framework or professional profile for teachers, including trainers in initial and continuing VET. To support this, the role of the teacher educator should be clearly defined through competence-based criteria. Along with quality assurance measures, this should be the basis for re-engineering recruitment systems to attract and retain high quality candidates into teaching.

The recruitment, preparation and retention of the right staff for leadership positions at all levels of education is equally important and requires further investment. These roles need to focus on improving teaching and learning, which remains a problem in many Member States due to growing administrative workloads. Leadership academies or professional development programmes offer models of good practice.

***...and calls for strong action to support new approaches to teaching and learning...***

Curricula, especially in VET, should be made more relevant to the workplace through ongoing collaboration with business and employers, for example entrepreneurs brought into the classroom to enhance learning. Reforms of teaching and learning approaches are required at all levels, as well as well-resourced continuing professional development which should include provision of regular feedback and support from teacher educators. Teachers need a strong commitment to training: in the use of new technologies; to improve learning to learn competencies; how to cater for diversity and inclusion; and to meet the needs of disadvantaged learners, such as Roma, children with disabilities or those from a migrant background. The ultimate focus of all these activities should be to improve learning outcomes.

***...and the quality of teaching is a critical issue in higher education as well***

If efforts are maintained, then the European Union is likely to achieve the headline target of 40% completion of tertiary level education. Both research<sup>21</sup> and teaching should be supported by sound professional development provision. Yet it is teaching that primarily influences student outcomes, enhances graduate employability and raises the profile of European higher education institutions worldwide. Currently, only a few countries have strategies to promote quality in higher education teaching, including the training of teaching staff in pedagogical skills. The Commission has set up a High Level Group on Modernisation of Higher Education, and in 2013 this group will make recommendations to policy makers and higher education institutions on how to promote quality in teaching and learning.

### **2.3. Promoting a collaborative effort**

#### **Funding education**

***Investment in education and training is key to increasing productivity and economic growth and is a concern for all...***

Despite the clear medium and long-term positive returns for education, the economic downturn and the associated need for fiscal consolidation has led many Member States to reduce investment in education and training. Starting from the 2009/10 school year and especially after mid-2010, quite a few countries were obliged to apply salary cuts for teachers

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<sup>21</sup>[http://ec.europa.eu/euraxess/pdf/research\\_policies/Towards\\_a\\_European\\_Framework\\_for\\_Research\\_Careers\\_fi nal.pdf](http://ec.europa.eu/euraxess/pdf/research_policies/Towards_a_European_Framework_for_Research_Careers_fi nal.pdf)

and other public employees. In 2012, the majority of countries maintained their arrangements regarding the funding of support mechanisms for pupils and students and/or their families. From the countries with available data only Spain (central budget), Cyprus and Portugal reported a decrease in the funding of available schemes for support of people in education. Any under-spending today will inevitably have serious consequences in the medium to long-term for Europe's skills base.

While the room for manoeuvre may be greater for some Member States than others, all share the same double challenge: to prioritise public investment in the education and training sector, and to find more efficient ways of deploying available financial resources which might call for structural reform in particular education systems. The main lever for increasing the efficiency of investment in education and training is to enhance the quality of provision and to focus on prevention of educational failure. Increasingly, Member States are developing models of cost-sharing between different partners in the educational process – the state, businesses and individuals, foundations and alumni – with public investment helping to leverage private sector match-funding.

***...and the focus should be to maximise efficient investment at all levels of education...***

One priority for more efficient use of funds should be the earlier stages of education, to prevent early educational failure and its consequences in adulthood (school achievement, employment rates, earnings, crime prevention, health etc)<sup>22</sup>. Providing high quality and affordable early childhood education pays off, in particular for socially disadvantaged groups. Although countries have invested more since 2000 in the field of pre-school and school education, public investment per capita in the early childhood phase is still lower than at any other stage.

Public investment should also be maintained in school education, but governments must seek ways to achieve more with these resources. Important returns of investment can be gained through more effective teacher recruitment, retention and professional support (outlined in section 2.2).

***...with cost-sharing in VET and higher education an option to help meet that goal***

Public and private returns on VET, higher education and adult learning are considerable<sup>23</sup>. In well-established dual VET systems companies achieve long-term returns even when the costs for apprenticeships may first exceed the company's direct revenues from an apprentice's work. In order to stimulate the provision of apprenticeships, public funds should be targeted especially at sectors with growing labour force needs. Companies, on the other hand, should increase investment in initial VET notably through their involvement in alternate training models, but also by supporting schools with adequate equipment.

Continuous VET can be associated with substantial private returns and productivity gains for employers. Research suggests, however, that current public funding instruments (individual learning accounts, subsidies for training etc.) may not be efficiently targeted, given that provisions tend to favour the participation of high skilled workers and their high private returns. Public funding in this area needs to be thoroughly evaluated and focused on raising

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<sup>22</sup> Cf. EURYDICE (forthcoming), Recent Trends in the Public Funding of Education in Europe

<sup>23</sup> Cf. OECD Education at a Glance 2012

new training participation, notably of disadvantaged groups. Public responsibility also increases in periods of economic re-structuring. Mechanisms to share the financial burden of training between employers, such as sectoral training funds, need to be applied more widely.

In higher education, it is well established that investment can generate substantial returns for individuals as well as for society at large<sup>24</sup>. Different models of funding are found across Member States, with a growing number of countries introducing greater cost-sharing into their higher education systems, in the face of growing student numbers and pressure for fiscal constraint. While choosing the most appropriate funding mechanism is a Member State's prerogative, considerations of efficiency should go hand-in-hand with concerns on equity and access. The degree to which students or others contribute directly to the cost of their studies<sup>25</sup> and more generally the effects of cost-sharing, are a matter of debate and deserve to be supported with further research and analysis.

Finally, in a context of fewer resources, governments also need to make effective use of available Structural Funds, in particular the European Social Fund. Several countries have recently reallocated significant funding in the 2007-13 programming period towards key education and training priorities. For the period 2014-2020, further concentration and prioritisation is necessary to sustain investment in education and respective infrastructure. The proposed Erasmus for All 2014-2020, through mobility, cooperation and policy support actions, will also support transnational initiatives in these fields.

## **Partnerships**

### ***Partnerships can provide a platform for targeting the 'right' skills- if they are actively supported***

Partnerships of public and private institutions are not only a source of education funding but also of mutual learning, joint policy development and implementation. Partnerships present an opportunity to develop skills agendas in a targeted, innovative and sustainable way and to include those directly involved in the provision, application and updating of specific skills. They can link various policy areas, education and training sub-sectors, public and private actors, and different levels of governance<sup>26</sup>.

For education and training, a reinforced partnership approach means becoming more active in the development of skills strategies, rather than being just a 'supplier'. To be sustainable, partnerships need to be built on clear objectives and should be a systematic part of the policy approach. They must involve all stakeholders, including representatives from teachers' organisations, social partners and student bodies.

The partnership approach is a key factor for the success of Youth Guarantee schemes (see forthcoming Youth Employment Package). Education and training institutions need to be part of a concerted effort with other stakeholders to put in place such comprehensive schemes.

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<sup>24</sup> Cf. OECD Education Today, 29 June 2012

<sup>25</sup> Cf. EURYDICE (2012), National student fee and support systems 2011/2012

<sup>26</sup> For Member States practices cf. Staff Working Document on Partnerships and flexible pathways for lifelong skills development

Different forms of partnerships are being promoted at EU level. The Knowledge and Innovation Communities (KICs), supported by the European Institute of Innovation and Technology (EIT), pool together education, research and business to address the development of skills in a highly integrated manner consistent with the needs and challenges of the relevant economic actors. Another example, this time sector specific, is the Grand Coalition for ICT Jobs. The Coalition will bring together industry, employers, education and governments to address skills shortages in the ICT sector.

The proposed Erasmus for All funding programme will also provide incentives for partnerships. Support will be given to Knowledge Alliances to implement a comprehensive set of activities that stimulate the sharing, exchange and flow of knowledge between higher education institutions and enterprises. They aim to foster excellence and innovation and create new multidisciplinary curricula to promote skills such as entrepreneurship, real-time problem solving and creative thinking. In the VET arena, funding will be provided to Sector Skills Alliances, uniting training institutions, enterprises and professional organisations, to design curricula and training programmes. Both the Knowledge and Sector Skills Alliances will benefit from the on-going work of social partners in identifying sector-specific skills needs, including at EU level through the European Sector Skills Councils.

### 3 PRIORITIES FOR MEMBER STATES

The varying nature and urgency of the challenges facing Member States requires the use of different instruments implemented over different time scales, and joint action is needed from the worlds of both education and employment. Efforts to boost the supply of relevant and high quality skills must go hand-in-hand with targeted actions to smooth the transition from schools to work, reduce obstacles to mobility and improve the functioning of the labour market so young people have wider access to job opportunities.

The forthcoming **Youth Employment Package** will call on Member States to step up efforts in the area of work-based learning, mobilities and traineeships, and to promote partnerships (including education) supporting the implementation of Youth Guarantees as an immediate response to the youth unemployment crisis.

In line with the actions put forward in the 2012 Country Specific Recommendations, the European Commission invites Member States to push forward educational reforms to combat youth unemployment and boost skills supply through the following actions:

1. **Promote excellence in vocational education and training (VET).** Key actions are developing, according to national circumstances, high-quality dual VET systems, aligning VET policies with regional/local economic development strategies namely for smart specialisation, enabling permeability with other educational offers, developing short cycle tertiary qualifications (2 years) focused on identified areas of skills shortage especially where there is growth potential such as ICT, healthcare and green skills, and strengthening local, national and international partnerships and networks between companies, especially SMEs, and VET providers.
2. **Improve the performance of student groups with high risk of early school leaving and low basic skills.** Key actions are putting in place high quality and accessible early

childhood education and care, reinforcing the learning of basic skills such as literacy, numeracy and basic maths and science, early detection of low achievers in basic skills across all phases of schooling, and providing individualised support as well as implementing evidence-based strategies to reduce early school leaving.

3. **Strengthen the provision of transversal skills that increase employability such as entrepreneurial initiative, digital skills and foreign languages.** Key actions are to ensure that measures are taken to introduce transversal skills across all curricula from early stages of education up to higher education, using innovative and student-centred pedagogical approaches, and to design assessment tools through which levels of competence can be effectively assessed and evaluated. All young people should benefit from at least one practical entrepreneurial experience before leaving compulsory education.
4. **Reduce the number of low-skilled adults.** Key actions are setting national targets and strategies, increasing incentives for adult training by companies, validating skills and competences acquired outside formal education, and setting up access points (one-stop shops) that integrate different lifelong learning services such as validation and career guidance offering tailored learning to individual learners.
5. **Scale up the use of ICT-supported learning and access to high quality OER.** Key actions are modernising the ICT infrastructure of schools, supporting ICT-based teaching and assessment practices, promoting the transparency of rights and obligations of users of digitalised content, establishing mechanisms to validate and recognise skills and competences acquired through OER and supporting education and training institutions to adapt their business models to the emergence of OER.
6. **Revise and strengthen the professional profile of all teaching professions** (teachers at all levels, school leaders, teacher educators). Key actions are reviewing the effectiveness as well as the academic and pedagogical quality of Initial Teacher Education, introducing coherent and adequately resourced systems for recruitment, selection, induction and professional development of teaching staff based on clearly defined competences needed at each stage of a teaching career, and increasing teacher digital competence.

Implementation of these reforms will not be successful without increasing the efficiency of funding in education. In order to address this complex challenge, **the Commission calls on Member States to stimulate national debates on ways to provide sustainable funding mechanisms to enhance stability and efficiency**, while channelling support towards those who tend to participate less. Among these, particular attention should be devoted to developing funding schemes for VET and adult learning financed via shared responsibility between public authorities, enterprises and appropriate individual contributions (e.g. sectoral training funds, training levies, etc) and aimed at attracting large companies and SMEs to provide work-based VET training.



#### 4. EUROPEAN LEVEL COORDINATION AND CONTRIBUTIONS

While the responsibility and the instruments to address the issues identified in this communication lie with the Member States, the ambitious reforms needed call for a strong joint effort from both the EU and Member States. At EU level, immediate focus will also be given to the following **key actions**:

1. **Enhanced country-specific focus and support to Member States** in their efforts to implement the identified priorities by:
  - monitoring progress in each Member State in the context of the next European Semester and feeding the results of this country examination into the preparations of the 2013 draft **country-specific recommendations**;
  - strengthening the analytical base of country-monitoring through i) regular **peer reviews** in the framework of the Open Method of Coordination for Education and Training, ii) a framework for cooperation between the European Commission and OECD in the area of skills policies. Within the context of this framework, the **public portal "Education and Skills Online Assessment"** will be launched in autumn 2013, allowing individuals and enterprises, through the PIAAC methodology, to benchmark skills against other survey users; iii) enhanced monitoring of the education and training benchmarks, including a **new benchmark on language teaching** as elaborated in the Staff Working Document on Languages.
2. **Accelerate improvements in work-based learning**, in particular by establishing an EU-level Alliance for Apprenticeships (see also forthcoming Youth Employment Package). As the first step, the Commission will support a Memorandum on European cooperation in vocational education and training, bringing together a number of Member States to learn from successful approaches and schemes.
3. **Create a European Area for Skills and Qualifications** to promote a stronger convergence between the EU transparency and recognition tools to ensure that skills and qualifications can be easily recognised across borders, based on on-going evaluations and pursuing the learning-outcomes approach.
4. **Funding Education for Growth** to strengthen commitment to a skilled and continuously trained and re-trained workforce by:
  - monitoring actions taken by Member States to prioritise growth-enhancing expenditure and developing an evidence-based framework to analyse the efficiency of public spending for quality education and training;
  - initiating for the first time a debate at EU level with relevant stakeholders on the benefits of investment in different education and training sectors (vocational training, adult learning, higher education) and ways to increase the efficiency of spending;
  - exploring with Social Partners at EU level the options for increasing significantly the level of training provision for adults working in companies, with a view to re-skilling and up-

skilling the workforce. This consultation will take place after the ongoing consultations on the Quality Framework of Traineeships to fully take into account its results.

5. Analyse the impact of providing EU support to upscaling access and use of OER and ICT, establishing quality parameters and certification processes for OER, developing ICT-enabled teaching practices and creating a EU dimension for online education. The results of this preparatory work will pave the way towards a **new European initiative on “Opening up education”**.
6. **Entrepreneurship education actions to include:** publishing policy guidance on entrepreneurship education in 2013; establishing, jointly with the OECD, a guidance framework for entrepreneurial education institutions; and the development of tools to monitor progress and the acquisition of entrepreneurial competences.
7. **Partnerships between education, business and research** such as the Knowledge Alliances, the Sector Skills Alliances and the partnership actions within the Marie Skłodowska-Curie programme will be promoted through the proposed Erasmus for All programme 2014-2020 and Horizon 2020 in order to adapt education and training systems closer to the needs of companies, especially SMEs.

## 5. CONCLUSIONS

Europe will only resume growth through higher productivity and the supply of highly skilled workers, and it is the reform of education and training systems which is essential to achieving this. This Communication and the country analysis provided in the accompanying Staff Working Documents are intended to give the impetus to governments, education and training institutions, teachers, businesses and other partners alike to pull together, in accordance with national circumstances, in a concerted push for reform. At national level, Member States are now invited to pursue their reflections on this document through debates with their Parliaments and relevant stakeholders in order to press ahead with reforms.

The Commission will ensure that the contribution of education and investment in skills to growth and jobs is fully reflected in the European Semester. It will use European platforms of dialogue such as the Open Method of Coordination in the field of Education and Training, the Bologna process for Higher Education and the Copenhagen process for VET as well as the funding instruments to stress the sense of urgency on the priorities identified here.