COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 10.11.2005
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2005/0221(COD)

Proposal for a

RECOMMENDATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on key competences for lifelong learning

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(presented by the Commission)

<u>**EXPLANATORY MEMORANDUM**</u>

1. CONTEXT OF THE PROPOSAL

- **Grounds for and objectives of the proposal**

The Lisbon European Council in March 2000 recognised that Europe faces challenges in adapting to globalisation and the shift to knowledge-based economies. It stressed that "Every citizen must be equipped with the skills needed to live and work in this new information society" and that "a European framework should define the new basic skills[1] to be provided through lifelong learning: IT skills, foreign languages, technological culture, entrepreneurship and social skills". The recognition that people are Europe's most important asset for growth and employment was clear in 2000, and has been regularly restated, most recently in the relaunched Lisbon Strategy and at the European Council of March 2005, which called for increased investment in education and skills.

The mandate was reiterated and developed in the "Education and Training 2010" work programme (ET2010) adopted by the Barcelona Council in March 2002, which also called for further action to "improve the mastery of basic skills" and to strengthen the European dimension in education. This work was to focus on identifying the basic skills and how, together with traditional skills, they can be better integrated in the curricula, learned, and maintained through life. Basic skills should be genuinely available for everyone, including for those with special needs, school drop-outs and adult learners. Validation of basic skills should be promoted to support further learning and employability. The Commission Communication on lifelong learning (2001) and the subsequent Council Resolution (June 2002) further stressed the need to provide lifelong learning opportunities for all, particularly to acquire and update basic skills.

Based on this political mandate, a Working Group on basic skills, established in 2001 in the context of Education and Training 2010 work programme, has developed a framework of key competences[2] needed in a knowledge society and prepared with a number of recommendations on ensuring that all citizens can acquire them[3].

The 2004 Joint Interim report of the Council and the Commission on the progress of the Education and Training 2010 work programme[4] made the case for common European references and principles to support national policies, facilitate and encourage reform, and gave priority to the key competences framework.

The Recommendation proposed here therefore presents a European reference tool for key competences and suggests how access to these competences can be ensured for all citizens through lifelong learning.

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[1]	'Basic skills' is generally taken to refer to literacy and numeracy; the Lisbon Council called for adding the new skills needed in a knowledge society such as ICT and entrepreneurship.

[2]	The Working Group preferred the term 'competence' that refers to a combination of knowledge, skills and attitudes and 'key competence' to define competences necessary for all. It thus includes basic skills, but goes beyond them.

[3]	Working group on Basic skills, progress reports 2003, 2004: http://europa.eu.int/comm/education/policies/2010/objectives_en.html#basic

[4]	Joint Interim Report, Council document 6905/04 of March 2004.

More concretely, its objectives are to:

1) Identify and define the key competences necessary for personal fulfilment, social cohesion and employability in a knowledge society.

2) Support Member States' work on ensuring that by the end of initial education and training young people have developed the key competences to a level that equips them for adult life, and that adults are able to develop and update them throughout their lives.

3) Provide a European level reference tool, the annexed **Key Competences for Lifelong Learning - a European Reference Framework**[5] for policy makers, education providers, employers, and learners themselves to facilitate national and European level effort towards commonly agreed objectives.

4) Provide a framework for further action at Community level both within the Education and Training 2010 work programme and within the Community Education and Training Programmes.

- **The demand for competences in a knowledge society**

In accordance with international studies, 'competence' is defined here as a combination of knowledge, skills and attitudes appropriate to a particular situation. 'Key competences' are those that support personal fulfilment, social inclusion, active citizenship and employment.

The development of the knowledge society is raising demand for the key competences in the personal, public and professional spheres. The way in which people access information and services is changing, as are the structure and make-up of societies. There is increasing concern about social cohesion and developing democratic citizenship; this requires people to be informed, concerned and active. The knowledge, skills and attitudes that everyone needs are changing as a result.

The growing internationalisation of economies affects the world of work, with rapid and frequent change, the introduction of new technologies and new approaches to organising companies. Employees need both to update specific job-related skills and to acquire generic competences that enable them to adapt to change. The knowledge, skills and attitudes of the workforce are a major factor in innovation, productivity and competitiveness and they contribute to the motivation, job-satisfaction of workers and the quality of work.

However, the High Level Group on the Lisbon Strategy made it clear in November 2004 that "far from enough is being done in Europe to equip people with the tools they need to adapt to an evolving labour market, and this applies to high- and low-skilled positions." It has been estimated that almost a third of the European labour force (80 million people) is low skilled. Further, a 2004 Cedefop report suggested that by 2010 only 15 % of newly created jobs will be for people with basic schooling, whereas 50% will require highly skilled workers.

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[5] The annex of the Recommendation, the 'Key Competences for Lifelong Learning – A European Framework' is a revised version of the key competences framework developed by the Working Group on basic skills.

International surveys such as IALS (the International Adult Literacy Survey) show that in many European countries a considerable share of the adult population does not have the reading and writing skills necessary to function in society, and early school leavers are particularly at risk. Although rates of illiteracy in Europe appear relatively low, no society is immune to this phenomenon and there are a number of minorities among whom illiteracy is a major problem. The 2005 data on European reference levels ('benchmarks'), adopted by the Council in May 2003[6], show no progress since 2000 in reducing the percentage of low achievers in reading literacy at age 15, or in raising the completion rate for upper-secondary education. Progress towards achieving other reference levels is also too low: at current rates early school leaving would drop to 14% by 2010 while the reference level is 10%. Adult participation in education and training is growing only by 0.1-0.2 percentage points a year which will not lead to achieving the reference level of 12.5% by 2010. Moreover, data show that low skilled people are less likely to participate in further training, making it harder to support those who need it most.

- **Current provisions on key competences**

At European level, the Community programmes such as Leonardo da Vinci and the Grundtvig action within Socrates programme provide support for projects tackling the lack of basic skills.

Since the adoption of the Education and Training 2010 work programme, several working groups have focussed on specific subject areas such as ICT or broader themes (e.g.; social inclusion and active citizenship) to which the work on key competences has provided a context by collecting all essential competences into a single framework. This work has also included collecting and disseminating good policy practice, including on developing transversal competences within compulsory education, ensuring access to key competences for disadvantaged learners and developing coherent provision of key competences for adults.

The work on key competences is closely linked to other developments in improving European education and training systems such as the ongoing work on the development of a European Qualifications Framework, and initiatives seeking to strengthen transparency and recognition of qualifications and competences (such as principles of validation of non-formal and informal learning and credit transfer systems). The work on Common European Principles for Teacher Competences and Qualifications is also related as it seeks to address the changing role of schools in developing competences of young people.

At Member State level, there is substantial activity in the reform of initial education curricula, reflecting a shift of focus from imparting knowledge to developing transferable competences that equip young people for adult life and further learning. This requires different approaches in organising learning, and new competences from teachers. Consequently, there is a debate on what competences each young person should develop and how schools would be best supported through developing e.g. their governance and evaluation. The social aspects of learning have also been given a more important role: educational disadvantage is often a combination of personal, social, cultural and economic circumstances and needs to be tackled in collaboration with other sectors. Schools are seeking ways of engaging families and local

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[6] Progress Towards the Lisbon Objectives in Education and Training; Commission Staff Working Paper, report 2005, page 20. http://europa.eu.int/comm/education/policies/2010/doc/progressreport05.pdf

communities not only to support young people's learning but to promote lifelong learning in the whole community.

Many countries have begun basic skills programmes, for example on literacy, numeracy and ICT for adults, often through NGOs. However, a number of countries are not yet in a position that would allow all citizens to learn and update their basic skills, and while many recognise the need to provide adult learners with broader competences, there has not been a common understanding of what they are, and provision is still far from consistent.

The good policy practice examples from Member States show that provision for adults should focus on clearly defined national, regional and/or local priorities. It should lead to infrastructures that recognise and meet the differing needs of adults, with qualified teachers/trainers, measures to ensure access by incentives, guidance and counselling support. Learners' particular situations should be recognised: their prior experiences, learning needs and aspirations should be taken into account, as well as broader issues that link to social and employment policies, and require the engagement of all partners.

Despite many good examples of good practice, the provision for key competences is seldom adapted to meet the learning needs of citizens at all ages. In this context, this proposal brings considerable added value by providing a reference tool identifying those key competences considered necessary for all, and supporting Member States in their endeavours to ensure that the provision of key competences is fully integrated into their lifelong learning strategies and infrastructures.

- **Consistency with other policies and objectives of the Union**

The proposal contributes to the Lisbon goals of growth, employment and social cohesion:

–   The Integrated guidelines for Member States' employment policies[7] recognise the importance of competences for employment (especially for vulnerable groups) and for adapting to change. This should be an important element of Member States National Reform Programmes in implementing the Integrated Guidelines.

–   Social policy emphasises the role of education and training as a route out of poverty and/or a key factor for social cohesion.

–   The Youth Pact[8] calls for ensuring that knowledge matches the needs of a knowledge-based economy and, to this end, encouraging the development of a common set of core skills.

–   The Entrepreneurship Action Plan[9] recognises the essential role of education; entrepreneurship is one of the key competences.

–   The 'Key Competences for Lifelong Learning – A European Reference Framework' includes knowledge, skills and attitudes that lead people to be more involved in both sustainable development and democratic citizenship.

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[7]   Council Decision of 12 July 2005 on Guidelines for the employment policies of the Member States. OJ L 205 of 6.8.2005, p. 21.

[8]   The European Youth Pact, http://ue.eu.int/ueDocs/cms_Data/docs/pressData/en/ec/84335.pdf

[9]   http://europa.eu.int/comm/enterprise/entrepreneurship/promoting_entrepreneurship/doc/com_70_en.pdf

2. CONSULTATION OF INTERESTED PARTIES AND IMPACT ASSESSMENT

The basis of this proposal has been the 'European Framework of Key Competences', developed by a Working Group made up of experts from Member States, EFTA/EEA countries, candidate countries (from January 2003) and European associations. Expertise in the group included policy-makers, practitioners and academic researchers, covering both adult and compulsory education and European level stakeholders.

The work has been debated in a range of conferences and seminars organised by stakeholders or international organisations. Ministers of Education discussed the 'European dimension' of key competences at their informal meeting in Rotterdam in July 2004 and encouraged the Commission to continue working on this initiative.

A focus group of 5 experts (from Universities and government agencies on school development) was convened in spring 2005, to refine the framework on the basis of their expertise and the feedback gathered from debates in conferences and other sources and to discuss its implementation.

The Advisory Committee on Vocational Training was consulted in September/October 2005.

- **Collection and use of expertise**

A consultant was engaged to survey related international work. Specific themes such as the European dimension of the framework, provision for less advantaged learners, and entrepreneurship were prepared in smaller groups and approved by the larger working group[10].

The consultation and expertise provided, confirmed the need for an initiative at European level, and indicated that the proposed approach was in line with current trends and would be welcomed.

- **Impact assessment**

This proposal will support the development of Member States' lifelong learning strategies and education and training systems. It will facilitate curricular reforms and debates around them and give impetus to the creation of a coherent adult education and training provision. This will have a positive impact on individuals' personal, social and professional lives, and - at a broader level - on the Lisbon goals for social cohesion and economic competitiveness and growth. It should have most impact on disadvantaged groups who often do not acquire key competences at present.

3. LEGAL ELEMENTS OF THE PROPOSAL

- **Summary of the proposed action**

The proposed recommendation defines the key competences needed by all citizens in knowledge-based economies and societies. It acknowledges that implementation decisions are best taken at national, regional and/or local level. It calls for Member States to ensure the acquisition of key competences by all by the end of initial education and training and, in the

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[10] Working group on key competences, progress report 2004.

light of the European reference levels, encourages them to tackle educational disadvantage. As for adults, the Recommendation calls for comprehensive infrastructures to be created together with all relevant partners.

The proposal invites the Commission to support reforms at national level through:

–   peer learning, exchange of good practice and reporting on progress in ET2010 biennial reports;

–   support for relevant projects through the Community Education and Training Programmes;

–   promoting a common understanding of key competences and their links to employment and social policies;

–   promoting partnerships with social partners and other relevant organisations.

- **Legal basis**

According to the article149 of the Treaty the Community shall contribute to the development of quality education by encouraging cooperation between Member States and, if necessary, by supporting and complementing their action, while fully respecting the responsibility of the Member States for the content of teaching and the organisation of education systems and their cultural and linguistic diversity. The proposed Recommendation aims to support Member States efforts to develop their initial education and training systems as well as their adult education and training provision by providing a reference tool on key competences, and to encourage them to continue cooperation within the Education and Training 2010 work programme. In conformity with the paragraph 2 of the Article, the proposed Recommendation aims at developing exchanges of information and experience on common issues related to key competences provision through lifelong learning.

Article 150 of the Treaty states that Community action shall support and supplement the action of the Member States and, in particular, as stated in paragraph 2 of the Article, improve initial vocational training, facilitate vocational integration and reintegration as well as to develop exchanges of information and experience on common issues. The objective of the proposed recommendation is to improve all these aspects of vocational education and training as it provides a reference tool of key competences that facilitates Member States efforts to adapt their vocational education and training systems to meet the changes in labour market and society in general.

- **Subsidiarity and proportionality principles**

The proposed recommendation contributes to the quality of education and training by facilitating the work in which Member States have committed themselves within the Education and Training 2010 work programme and by the adoption of European reference levels in the Council in May 2003. It encourages and supports national reforms and learning from good practice from other countries in order to help Member States to create a comprehensive and coherent provision of key competences as part of their lifelong learning strategies. Therefore, this proposal conforms to the principle of subsidiarity. The Recommendation establishes a European reference framework on key competences to be acquired by all citizens, and creates and enhances the political commitment for reforms that

cannot be achieved by using only e.g. the Community education and training programmes. However, it leaves the implementation of it entirely to Member States, and is therefore in conformity with the proportionality principle.

4. BUDGETARY IMPLICATION

The proposal has no implication for the Community budget.

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THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 149 (4), and Article 150 (4) thereof,

Having regard to the proposal from the Commission[11],

Having regard to the opinion of the European Economic and Social Committee[12],

Having regard to the opinion of the Committee of the Regions[13],

Acting in accordance with the procedure laid down in Article 251 of the Treaty[14],

Whereas:

(1)   The Lisbon European Council in 2000 concluded that a European framework should define the new basic skills as a key measure in Europe's response to globalisation and the shift to knowledge-based economies, and emphasised that people are Europe's main asset. Since then, these conclusions have been regularly restated including by the European Councils of March 2003 and of March 2005, and in the re-launched Lisbon Strategy which was approved in 2005

(2)   The European Councils of Stockholm in 2001 and Barcelona in 2002 endorsed the concrete future objectives of European education and training systems and a work-programme (the Education and Training 2010 work programme) to achieve them by 2010. These objectives include developing skills for the knowledge society and specific objectives for promoting language learning, developing the spirit of enterprise and the overall need to enhance the European dimension in education.

(3)   The Communication of the Commission on lifelong learning[15] and the subsequent Council Resolution of 27 June 2002 on lifelong learning[16] identified "the new basic skills" as a priority, and stressed that lifelong learning must cover the preschool age to

[11]   OJ C […], […], p. […].
[12]   OJ C […], […], p. […].
[13]   OJ C […], […], p. […].
[14]   OJ C […], […], p. […].
[15]   COM(2001) 678 final.
[16]   OJ C 163, 9.7.2002, p. 1.

that of post-retirement. The Youth Pact which is annexed to the conclusions of the Brussels European Council of March 2005 stressed the need to encourage the development of a common set of core skills.

(4)   In the context of improving the Community's employment performance, the European Councils of March 2003 and December 2003 stressed the need to develop lifelong learning with a particular focus on active and preventive measures for the unemployed and inactive persons. This built on the report of the Employment Taskforce, which emphasised the need for people to be able to adapt to change, the importance of integrating people into the labour market, and the key role of lifelong learning.

(5)   The report of the Council on the broader role of education adopted in November 2004 stressed that education contributes to preserving and renewing the common cultural background in society and is particularly important at a time when all Member States are challenged by the question of how to deal with increasing social and cultural diversity. Moreover, enabling people to enter and stay in working life is an important part of the role of education in strengthening social cohesion.

(6)   Five European reference levels ('benchmarks') were adopted by the Council in May 2003, demonstrating commitment to a measurable improvement in European average performance. Reference levels relating to reading literacy, early school leaving, completion of upper secondary education and participation of adults in lifelong learning are closely linked to the development of key competences.

(7)   The Report adopted by the Commission in 2005 on progress towards the Lisbon objectives in education and training[17] showed that there had been no progress in reducing the percentage of low achievers in reading literacy at age 15 or in raising the completion rate for upper-secondary education. Some progress was visible in reducing early school leaving, but at current rates the 2010 European reference levels adopted by the May 2003 Council will not be achieved. Participation of adults in learning is not growing fast enough to reach the 2010 reference level and data shows that low-skilled people are less likely to participate in further training.

(8)   The Framework of Actions for the Lifelong Development of Competences and Qualifications, adopted by the European social partners in March 2002, stresses the need of business to adapt their structures more and more quickly in order to remain competitive. Team-work, flattening of hierarchies, devolved responsibilities and greater need for multi-tasking are leading to the growth of learning organisations. In this context, the ability of organisations to identify competences, to mobilise and recognise them and to encourage their development for all employees represent the basis for new competitive strategies.

(9)   The Maastricht Study on Vocational Education and Training indicates a significant gap between the levels of education required by new jobs, and the levels of education achieved by the European workforce. More than one third of the European workforce (80 million persons) is low-skilled whilst it has been estimated that by 2010 almost 50% of new jobs will require tertiary level qualifications, just under 40% will require

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[17]   SEC(2005)419.

upper secondary schooling, and only about 15% will be suitable for those with basic schooling.

(10)   The need to equip young people with necessary key competences and improving educational attainment levels is an integral part of the Integrated Guidelines for Growth and Jobs 2005-2008, approved by the June 2005 European Council. In particular, the Employment Guidelines call for adapting the education and training systems in response to new competence requirements through better identification of occupational needs and key competences as part of Member States reform programmes.

(11)   The report of the High Level Group on the Lisbon Strategy in 2004 made it clear that far from enough is being done in Europe to equip people with the tools they need to adapt to an evolving labour market, and that this applies to high- and low-skilled positions, and to both manufacturing and services.

(12)   The Joint Council/Commission Report on the Education and Training 2010 work programme, adopted in 2004, reinforced the need to ensure that all citizens are equipped with the competences they need as part of Member States' lifelong learning strategies. To encourage and facilitate reform, the report suggests the development of common European references and principles and gives priority to the Key Competences Framework.

(13)   The objective of this Recommendation is to contribute to the development of quality education by supporting and supplementing Member States' actions in ensuring that their initial education and training systems offer all young people the means to develop key competences to a level that equips them for further learning and adult life and that adults are able to develop and update their key competences through coherent and comprehensive lifelong learning provision. It provides a common European reference framework on key competences for policy makers, education and training providers, employers and learners themselves, to facilitate national reforms and exchange of information between the Member States and the Commission within the 'Education and Training 2010' work programme, aiming to achieve the agreed European reference levels. Furthermore, the Recommendation supports other related policies such as employment and social policies and other policies affecting youth.

(14)   This recommendation conforms to the principle of subsidiarity referred to in Article 5 of the Treaty insofar as its objective is to support and supplement Member States action by establishing a common reference point that encourages and facilitates national reforms and further cooperation with Member States. This Recommendation conforms to the principle of proportionality referred to in that Article because it, by leaving the implementation of the recommendation to Member States, does not go beyond what is necessary to achieve the objectives pursued.

HEREBY RECOMMEND THAT MEMBER STATES:

1.   Ensure that initial education and training offers all young people the means to develop the key competences to a level that equips them for adult life, and which forms a basis for further learning and working life;

2.   Ensure that appropriate provision is made for those young people who, due to educational disadvantages caused by personal, social, cultural or economic circumstances, need particular support to fulfil their educational potential;

3.   Ensure that adults are able to develop and update the key competences throughout their lives, and that there is a particular focus on target groups identified as priorities in the national, regional and/or local contexts;

4.   Ensure that appropriate infrastructure for continuing education and training of adults is in place including teachers and trainers, measures to ensure access, and support for learners that recognises the differing needs of adults;

5.   Ensure the coherence of adult education and training provision for individual citizens via close links to employment and social policies and other policies affecting young people and collaboration with social partners and other stakeholders;

6.   Use the "Key Competences for Lifelong Learning – A European Framework" in the Annex as a reference tool in developing the provision of key competences for all as part of their lifelong learning strategies.

TAKE NOTE OF THE COMMISSION'S INTENTION TO:

1.   Contribute to Member States' efforts to develop their education and training systems and to implement this Recommendation, including by using the 'Key Competences for Lifelong Learning – A European Reference Framework' as a reference to facilitate peer learning and the exchange of good practices and to follow up developments and report on progress through the biennial progress reports on the Education and Training 2010 work programme;

2.   Use the 'Key Competences for Lifelong Learning – A European Reference Framework' as a reference in implementing the Community Education and Training programmes and ensure that they promote the acquisition of the key competences;

3.   Promote the wider use of the 'Key Competences for Lifelong Learning – A European Reference Framework' in related Community policies, and particularly in the implementation of employment, youth and social policy, and develop further links with social partners and other organisations working in those fields;

4.   Review the impact of the 'Key Competences for Lifelong Learning – A European Reference Framework' within the framework of the Education and Training 2010 work programme and report, four years after the adoption of this Recommendation to the European Parliament and to the Council on the experience gained and implications for the future.

Done at Brussels,

For the European Parliament   *For the Council*
The President   *The President*

ANNEX

Key Competences for Lifelong Learning
- A European Reference Framework

Introduction

This Framework sets out the eight key competences:

1.	Communication in the mother tongue;
2.	Communication in the foreign languages;
3.	Mathematical competence and basic competences in science and technology;
4.	Digital competence;
5.	Learning to learn;
6.	Interpersonal, intercultural and social competences and civic competence;
7.	Entrepreneurship; and
8.	Cultural expression.

Competences are defined here as a combination of knowledge, skills and attitudes appropriate to the context. Key competences are those which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment. By the end of initial education and training young people should have developed the key competences to a level that equips them for adult life, and they should be further developed, maintained and updated as part of lifelong learning.

Many of the competences overlap and interlock: aspects essential to one domain will support competence in another. Competence in the fundamental basic skills of language, literacy, numeracy and ICT is an essential foundation for learning, and learning to learn supports all learning activities. There are a number of themes that are applied throughout the Framework: critical thinking, creativity, initiative taking, problem solving, risk assessment, decision taking, and managing feelings constructively play a role in all eight key competences.

Key Competences

1. Communication in the mother tongue[18]

Definition: Communication in the mother tongue is the ability to express and interpret thoughts, feelings and facts in both oral and written form (listening, speaking, reading and writing), and to interact linguistically in an appropriate way in the full range of societal and cultural contexts — education and training, work, home and leisure.

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[18]   It is recognised that the mother tongue may not in all cases be an official language of the Member State, and that ability to communicate in an official language is a pre-condition for ensuring full participation of the individual in society. Measures to address such cases are a matter for individual Member States according to their specific needs and circumstances.

Essential knowledge, skills and attitudes related to this competence

Communication in the mother tongue requires an individual to have **knowledge** of basic vocabulary, functional grammar and the functions of language. It includes an awareness of the main types of verbal interaction, a range of literary and non-literary texts, the main features of different styles and registers of language, and the variability of language and communication in different contexts.

Individuals should have the **skills** to communicate in oral and written forms in a variety of communicative situations and to monitor and adapt their own communication to the requirements of the situation. Competence also includes the abilities to write and read different types of texts, search, collect and process information, use aids, formulate and express one's own arguments in a convincing way appropriate to the context.

A positive **attitude** towards communication in the mother tongue involves a disposition to critical and constructive dialogue, an appreciation of aesthetic qualities and a willingness to strive for them, and an interest in interaction with others.

2. Communication in foreign languages

> **Definition:** Communication in foreign languages broadly shares the main skill dimensions of communication in the mother tongue: it is based on the ability to understand, express and interpret thoughts, feelings and facts in both oral and written form (listening, speaking, reading and writing) in an appropriate range of societal contexts — work, home, leisure, education and training — according to one's wants or needs. Communication in foreign languages also calls for skills such as mediation and intercultural understanding. An individual's level of proficiency will vary between the four dimensions, different languages and according to their background, environment and needs/interests.

Essential knowledge, skills and attitudes related to this competence

Competence in additional or foreign languages requires **knowledge** of vocabulary and functional grammar and an awareness of the main types of verbal interaction and registers of language. Knowledge of societal conventions, and the cultural aspect and variability of languages is important.

Essential **skills** consist of the ability to understand spoken messages, to initiate, sustain and conclude conversations and to read and understand texts appropriate to the individual's needs. Individuals should also be able to use aids appropriately, and learn languages also informally as part of lifelong learning.

A positive **attitude** involves the appreciation of cultural differences and diversity, and an interest and curiosity in languages and intercultural communication.

3. Mathematical competence and basic competences in science and technology

Definition:

A. Mathematical competence is the ability to use addition, subtraction, multiplication, division and ratios in mental and written computation to solve a range of problems in everyday situations. The emphasis is on process and activity, as well as knowledge. Mathematical competence involves - to different degrees - the ability and willingness to use mathematical modes of thought (logical and spatial thinking) and presentation (formulas, models, constructs, graphs/charts).

B. Scientific competence refers to the ability and willingness to use the body of knowledge and methodology employed to explain the natural world, in order to identify questions and to draw evidence-based conclusions. Competence in technology is viewed as the application of that knowledge and methodology in response to perceived human wants or needs. Both areas of this competence involve an understanding of the changes caused by human activity and responsibility as an individual citizen.

Essential knowledge, skills and attitudes related to the competence

A. Necessary **knowledge** in mathematics includes a sound knowledge of numbers, measures and structures, basic operations and basic mathematical presentations, an understanding of mathematical terms and concepts, and of the questions to which mathematics can offer answers.

An individual should have the **skills** to apply basic mathematical principles and processes in everyday contexts at home and work, and to follow and assess chains of arguments. They should be able to reason mathematically, understand mathematical proof and communicate in mathematical language, and to use appropriate aids.

A positive **attitude** in mathematics is based on the respect of truth and willingness to look for reasons and to assess their validity.

B. For **science and technology**, the essential **knowledge** comprises the basic principles of the natural world, fundamental scientific concepts, principles, and methods, technology and technological products and processes. Individuals should have an understanding of the advances, limitations and risks of scientific theories, applications and technology in societies at large (in relation to decision-making, values, moral questions, culture etc), both in specific areas of science such as medicine, and also an understanding of the impact of science and technology on the natural world.

Skills include the ability to use and manipulate technological tools and machines as well as scientific data to achieve a goal or to reach a decision or conclusion, based on evidence. Individuals should also be able to recognise the essential features of scientific inquiry and have the ability to communicate the conclusions and reasoning that led to them.

Competence includes an **attitude** of critical appreciation and curiosity, an interest in ethical issues and respect for both safety and sustainability - in particular as regards scientific and technological progress in relation to oneself, family, community and global issues.

4. Digital competence

> **Definition:** Digital competence involves the confident and critical use of Information Society Technology (IST) for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet.

Essential knowledge, skills and attitudes related to the competence

Digital competence requires a sound understanding and **knowledge** of the nature, role and opportunities of IST in everyday contexts: in personal and social life as well as at work. This includes main computer applications such as word processing, spreadsheets, databases, information storage and management, and an understanding of the opportunities of Internet and communication via electronic media (e-mail, network tools) for leisure, information sharing and collaborative networking, learning and research. Individuals should also understand how IST can support creativity and innovation, and be aware of issues around the validity and reliability of information available and the ethical principles of in the interactive use of IST.

Skills needed include: the ability to search, collect and process information and use it in a critical and systematic way, assessing relevance and distinguishing real from virtual while recognising the links. Individuals should have skills to use tools to produce, present and understand complex information and the ability to access, search and use internet-based services; they should also be able use IST to support critical thinking, creativity, and innovation.

Use of IST requires a critical and reflective **attitude** towards available information and a responsible use of the interactive media; an interest in engaging in communities and networks for cultural, social and/or professional purposes also supports competence.

5. Learning to learn

> **Definition:** 'Learning to learn' is the ability to pursue and persist in learning. Individuals should be able to organise their own learning, including through effective management of time and information, both individually and in groups. Competence includes awareness of one's learning process and needs, identifying available opportunities, and the ability to handle obstacles in order to learn successfully. It means gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts – at home, at work, in education and training. Motivation and confidence are crucial to an individual's competence.

Essential knowledge, skills and attitudes related to the competence

Where learning is directed towards particular work or career goals, an individual should have **knowledge** of the competences, knowledge, skills and qualifications required. In all cases, learning to learn requires an individual to know and understand their preferred learning strategies, the strengths and weaknesses of their skills and qualifications, and to be able to search the education and training opportunities and guidance/support available to them.

Learning to learn **skills** require firstly the acquisition of the fundamental basic skills such as literacy, numeracy and ICT that are necessary for further learning. Building on this, an individual should be able to access, gain, process and assimilate new knowledge and skills. This requires effective management of one's learning, career and work patterns, and in particular the ability to persevere with learning, to concentrate on extended periods and to reflect critically on the purposes and aims of learning. Individuals should be able to dedicate time to learning autonomously and with self-discipline, but also to work collaboratively as part of the learning process, draw the benefits from a heterogeneous group, and to share what they have learnt. They should be able to evaluate their own work, and to seek advice, information and support when appropriate.

A positive **attitude** includes the motivation and confidence to pursue and succeed at learning throughout one's life. A problem-solving attitude supports both learning and an individual's ability to handle obstacles and change. The desire to apply prior learning and life experiences and the curiosity to look for opportunities to learn and apply learning in a variety of life-wide contexts are essential elements of a positive attitude.

6. Interpersonal, intercultural and social competences, civic competence

> **Definition:** These competences cover all forms of behaviour that equip individuals to participate in an effective and constructive way in social and working life, and particularly in increasingly diverse societies, and to resolve conflict where necessary. Civic competence equips individuals to fully participate in civic life, based on knowledge of social and political concepts and structures and a commitment to active and democratic participation.

Essential knowledge, skills and attitudes related to the competence

A. Personal and social well-being requires an understanding of how individuals can ensure optimum physical and mental health, including as a resource for oneself and one's family, and **knowledge** of how a healthy lifestyle can contribute to this. For successful interpersonal and social participation it is essential to understand the codes of conduct and manners generally accepted in different societies and environments (e.g. at work), and to be aware of basic concepts relating to individuals, groups, work organisations, gender equality, society and culture. Understanding the multi-cultural and socio-economic dimensions of European societies and how national cultural identity interacts with the European identity is essential.

Skills to communicate constructively in different environments, express and understand different viewpoints negotiate with the ability to create confidence, and feel empathy are the core of this competence. Individuals should be able to cope with stress and frustration and to express it in a constructive way and should also distinguish between the personal and professional spheres.

As regards **attitudes**, the competence is based on collaboration, assertiveness and integrity. Individuals should have an interest in socio-economic development, intercultural communication, value diversity and respect others, and be prepared both to overcome prejudices and to compromise.

B. **Civic competence** is based on **knowledge** of the concepts of democracy, citizenship, and civil rights, including how they are expressed in the Charter of Fundamental Rights of the

European Union and international declarations and applied by various institutions at the local, regional, national, European and international levels. Knowledge of main events, trends and agents of change in national, European and world history and present, with a specific view on European diversity is essential, as is knowledge of the aims, values and policies of social and political movements.

Skills relate to the ability to engage effectively with others in the public domain, display solidarity and interest in solving problems affecting the local and wider community. It involves critical and creative reflection and constructive participation in community/neighbourhood activities as well as decision-making at all levels from local to national and European level, in particular by voting.

Full respect for human rights including equality as a basis for democracy, appreciation and understanding of differences between value systems of different religious or ethnic groups lay the foundations for a positive **attitude**. It comprises also the display of a sense of belonging to one's locality, country, EU and Europe in general and (one's part of) the world and the willingness to participate in democratic decision making at all levels. Constructive participation also involves civic activities, support for social diversity and cohesion and sustainable development, and a readiness to respect the values and privacy of others.

7. Entrepreneurship

Definition: Entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports everyone in day to day life at home and in society, employees in being aware of the context of their work and being able to seize opportunities, and is a foundation for more specific skills and knowledge needed by entrepreneurs establishing social or commercial activity.

Essential knowledge, skills and attitudes related to the competence

Necessary **knowledge** includes available opportunities for personal, professional and/or business activities, including 'bigger picture' issues that provide the context in which people live and work, such as a broad understanding of the workings of the economy, and the opportunities and challenges facing an employer or organisation. Individuals should also be aware of the ethical position of enterprises, and how they can be a force for good for example through fair trade or through social enterprise.

Skills relate to proactive project management (involving skills such as planning, organising, managing, leadership and delegation, analysing, communicating, de-briefing and evaluating and recording), and the ability to work both as an individual and collaboratively in teams. The judgement to identify one's strengths and weaknesses, and to assess and take risks as and when warranted is essential.

An entrepreneurial **attitude** is characterised by initiative, pro-activity, independence and innovation in personal and social life, as much as at work. It also includes motivation and determination to meet objectives, whether personal goals or aims held in common with others, and/or at work.

8. Cultural expression

Definition: Appreciation of the importance of the creative expression of ideas, experiences and emotions in a range of media, including music, performing arts, literature, and the visual arts.

Essential knowledge, skills and attitudes related to the competence

Cultural **knowledge** includes a basic knowledge of major cultural works, including popular contemporary culture as an important part of human history in the contexts of national and European cultural heritage and their place in the world. It is essential to understand the cultural and linguistic diversity of Europe (and European countries), the need to preserve it and to understand the evolution of popular taste and the importance of aesthetic factors in daily life.

Skills relate to both appreciation and expression: self-expression through the variety of the media with individuals' innate capacities and appreciation and enjoyment of works of art and performances. Skills include also the ability to relate one's own creative and expressive points of views to the opinions of others and to identify and realise economic opportunities in cultural activity.

A strong sense of identity is the basis for respect and open **attitude** to diversity of cultural expression. A positive attitude also covers creativity, and the willingness to cultivate aesthetic capacity through artistic self-expression and interest in cultural life.

Proposal for a recommendation of the European parliament and of the council,
Drafted under the responsability of the commission of the European communities.