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Subject:	Council Recommendation on Key Competences for Lifelong Learning

Delegations will find in the annex the Council Recommendation on Key Competences for Lifelong Learning, adopted by the Council at its 3617th meeting held on 22 May 2018.

ANNEX

COUNCIL RECOMMENDATION
of 22 May 2018

on Key Competences for Lifelong Learning

(Text with EEA relevance)

THE COUNCIL OF THE EUROPEAN UNION

Having regard to the Treaty on the Functioning of the European Union, and in particular Articles 165 and 166 thereof,

Having regard to the proposal from the European Commission,

Whereas:

(1) The European Pillar of Social Rights[1] states as its first principle that everyone has the right to quality and inclusive education, training and lifelong learning in order to maintain and acquire skills that allow full participation in society and successful transitions in the labour market. It also states the right of everyone "to timely and tailor-made assistance to improve employment or self-employment prospects, to training and re-qualification, to continued education and to support for job search". Fostering the development of competences is one of the aims of the vision towards a European Education Area that would be able "to harness the full potential of education and culture as drivers for jobs, social fairness, active citizenship as well as means to experience European identity in all its diversity"[2].

1 COM(2017)250
2 COM(2017)673

(2) People need the right set of skills and competences to sustain current standards of living, support high rates of employment and foster social cohesion in the light of tomorrow's society and world of work. Supporting people across Europe in gaining the skills and competences needed for personal fulfilment, health, employability and social inclusion helps to strengthen Europe's resilience in a time of rapid and profound change.

(3) In 2006, the European Parliament and the Council of the European Union adopted a Recommendation on Key Competences for Lifelong Learning. In that Recommendation the Member States were asked "to develop the provision of key competences for all as part of their lifelong learning strategies, including their strategies for achieving universal literacy, and use the 'Key Competences for Lifelong Learning — A European Reference Framework'[3]. Since its adoption, the Recommendation was a key reference document for the development of competence-oriented education, training and learning.

(4) Nowadays, competence requirements have changed with more jobs being subject to automation, technologies playing a bigger role in all areas of work and life, and entrepreneurial, social and civic competences becoming more relevant in order to ensure resilience and ability to adapt to change.

(5) At the same time, international surveys such as the Organisation for Economic Co-operation and Development (OECD) Programme for International Student Assessment (PISA) or the OECD Programme for the International Assessment of Adult Competencies (PIAAC) indicate a constant high share of teenagers and adults with insufficient basic skills. In 2015 one in five pupils had serious difficulties in developing sufficient reading, mathematic or science skills.[4] In some countries up to one third of adults are proficient at only the lowest levels in literacy and numeracy [5]. 44% of the Union population have low or no (19%) digital skills[6].

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3 OJ L394, 30.12.2006, p. 10.
4 OECD (2016), PISA 2015 results
5 European Commission (2016), Education and Training Monitor 2016
6 European Commission's Digital Scoreboard 2017

(6) Consequently, investing in basic skills has become more relevant than ever. High quality education, including extra-curricular activities and a broad approach to competence development, improves achievement levels in basic skills. In addition, new ways of learning need to be explored for a society that is becoming increasingly mobile and digital.[7] Digital technologies have an impact on education, training and learning by developing more flexible learning environments adapted to the needs of a highly mobile society[8].

(7) In the knowledge economy, memorisation of facts and procedures is key, but not enough for progress and success. Skills, such as problem solving, critical thinking, ability to cooperate, creativity, computational thinking, self-regulation are more essential than ever before in our quickly changing society. They are the tools to make what has been learned work in real time, in order to generate new ideas, new theories, new products, and new knowledge.

(8) The New Skills Agenda for Europe[9] announced the review of the 2006 Recommendation on Key Competences for Lifelong Learning acknowledging that investing in skills and competences and in a shared and updated understanding of key competences is a first step for fostering education, training and non-formal learning in Europe**.**

(9) Responding to the changes in society and economy, reflecting discussions on the future of work, and following the public consultation on the review of the 2006 Recommendation on Key Competences, both the Recommendation and the European Reference Framework of Key Competences for Lifelong Learning need to be revised and updated .

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7 Reflection Paper on Harnessing Globalisation, COM(2017) 240 final

8 Rethinking Education: Investing in skills for better socio-economic outcomes, COM(2012) 669 final

9 COM(2016) 381 final

(10) The development of key competences, their validation and the provision of competence-oriented education, training and learning should be supported by establishing good practices for better support of educational staff in their tasks and improving their education, for updating assessment and validation methods and tools, and for introducing new and innovative forms of teaching and learning[10]. Therefore, basing itself on the experiences of the last decade, this Recommendation should address the challenges in implementing competence-oriented education, training and learning.

(11) Supporting the validation of competences acquired in different contexts will enable individuals to have their competences recognised and obtain full or, where applicable, partial qualifications[11]. It can build on the existing arrangements for the validation of non-formal and informal learning as well as the European Qualification Framework[12], which provides a common reference framework to compare levels of qualifications, indicating the competences required to achieve them. In addition, assessment may help in structuring learning processes and in guidance, helping people to improve their competences also with regard to changing requirements on the labour market[13].

(12) The definition of the set of key competences needed for personal fulfilment, health, employability and social inclusion has been shaped not only by societal and economic developments, but also by various initiatives in Europe during the last decade. Special attention has been given to improving basic skills, investing in language learning, improving digital and entrepreneurial competences, the relevance of common values in the functioning of our societies, and motivating more young people to engage in science related careers. These developments should be reflected in the Reference Framework.

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10 Joint Report of the Council and the Commission on the implementation of the strategic framework for European cooperation in education and training (ET 2020), OJ C 417**,** 15.12.2015, p.25

11 OJ C 398, 22.12.2012, p.1

12 OJ C 189, 15.6.2017, p.15

13 Council Resolution of 21 November 2008 on better integrating lifelong guidance into lifelong learning strategies, OJ C 319, 13.12.2008, p.4.

(13) Target 4.7 of the Sustainable Development Goals highlights the need to "ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development"[14]. UNESCO's Global Action Programme on Education for Sustainable Development affirms that education for sustainable development is an integral element of quality education and key enabler of all other Sustainable Development Goals. This aim is reflected in the revision of the Reference Framework.

(14) The provision of language learning, which is increasingly important for modern societies, intercultural understanding and cooperation, profits from the Common European Framework of Reference for Languages (CEFR) . This Framework helps to identify the main elements of the competence and supports the learning process. It also lays the foundation of defining language competences, in particular those referring to foreign languages and is reflected in the update of the Reference Framework.

(15) The development of the Digital Competence Framework and the Entrepreneurship Competence Framework support competence development. Likewise, the Council of Europe's Reference Framework of Competences for Democratic Culture presents a comprehensive set of values, skills and attitudes for an appropriate participation in democratic societies. All of these have been taken into due consideration when updating the Reference Framework.

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14 United Nations Resolution adopted by the General Assembly on 25 September 2015, Transforming our world: the 2030 Agenda for Sustainable Development

(16) In order to motivate more young people to engage in science, technology, engineering and mathematics (STEM) related careers, initiatives across Europe started to link science education more closely with the arts and other subjects, using inquiry-based pedagogy, and engaging with a wide range of societal actors and industries. While the definition of those competences has not changed much over the years, the support of competence development in STEM becomes increasingly relevant and should be reflected in this Recommendation.

(17) The importance and relevance of non-formal and informal learning is evident from the experiences acquired through culture, youth work, voluntary work as well as grassroots sport. Non-formal and informal learning play an important role in supporting the development of essential interpersonal, communicative and cognitive skills such as: critical thinking, analytical skills, creativity, problem solving and resilience that facilitate young people's transition to adulthood, active citizenship and working life[15]. Establishing better cooperation between different learning settings helps promoting a variety of learning approaches and contexts[16].

(18) In addressing the development of key competences in a lifelong learning perspective, support should be ensured at all levels of education, training and learning pathways: to develop quality early childhood education and care[17], to further enhance school education and ensure excellent teaching[18], to provide up-skilling pathways to low-skilled adults[19] as well as to further develop initial and continuing vocational education and training and modernise higher education[20].

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15 Council conclusions on the role of youth work in supporting young people's development of essential life skills that facilitate their successful transition to adulthood, active citizenship and working life, OJ C189, 15.6.2017, p.30

16 Council conclusions on enhancing cross-sectorial policy cooperation to effectively address socio-economic challenges facing young people, OJ C172, 27.5.2015, p.3

17 Council conclusions on the role of early childhood education and primary education in fostering creativity, innovation and digital competence, OJ C172, 27.5.2015, p.17.

18 Council conclusions on school development and excellent teaching, OJ C421, 8.12.2017, p.2

19 Council Recommendation of 19 December 2016 on Upskilling Pathways: New Opportunities for Adults OJ C484, 24.12.2016, p.1

20 Council conclusions on a renewed EU agenda for higher education, OJ C429, 14.12.2017, p.3

(19) This Recommendation should cover a wide range of education, training and learning settings, both formal, non-formal and informal in a lifelong learning perspective. It should seek to establish a shared understanding of competences which can support transitions and co-operation between these different learning settings. It sets out good practices that could address the needs of educational staff which includes teachers, trainers, teacher educators, leaders of education and training institutes, employees in charge of training colleagues, researchers and university lecturers, youth workers and adult educators as well as employers and labour market stakeholders. This Recommendation also addresses institutions and organisations, including social partners and civil society organisations, guiding and supporting people in improving their competences from early age on throughout their lives.

(20) This Recommendation fully respects the principles of subsidiarity and proportionality.

HAS ADOPTED THIS RECOMMENDATION

Member States should:

1. support the right to quality and inclusive education, training and lifelong learning and ensure opportunities for all to develop key competences by making full use of the 'Key Competences for Lifelong Learning — A European Reference Framework' as set out in the Annex, and

   1.1. support and reinforce the development of key competences from an early age and throughout life, for all individuals, as part of national lifelong learning strategies;

   1.2. support all learners, including those facing disadvantages, or having special needs, to fulfil their potential;

2. support the development of key competences paying special attention to:

2.1. raising the level of achievement of basic skills (literacy, numeracy and basic digital skills) and supporting the development of learning to learn competence as a constantly improved basis for learning and participation in society in a lifelong perspective;

2.2. raising the level of personal, social and learning to learn competence to improve health conscious, future-oriented life management;

2.3. fostering the acquisition of competences in sciences, technology, engineering and mathematics (STEM), taking into account their link to the arts, creativity and innovation and motivating more young people**,** especially girls and young women**,** to engage in STEM careers;

2.4. increasing and improving the level of digital competences at all stages of education and training, across all segments of the population;

2.5. nurturing entrepreneurship competence, creativity and the sense of initiative especially among young people, for example by promoting opportunities for young learners to undertake at least one practical entrepreneurial experience during their school education;

2.6. increasing the level of language competences in both official and other languages and supporting learners to learn different languages relevant to their working and living situation and that may contribute to cross-border communication and mobility;

2.7. fostering the development of citizenship competences with the aim of strengthening the awareness of common values, as referred to in Article 2 of the Treaty on the European Union and the Charter of Fundamental Rights of the European Union;

2.8. increasing the awareness of all learners and educational staff of the importance of the acquisition of key competences and their relation to society;

3. facilitate the acquisition of key competences by making use of good practices to support the development of the key competences as set out in the Annex, in particular by:

   3.1. promoting a variety of learning approaches and environments, including the adequate use of digital technologies, in education, training and learning settings;

   3.2. providing support to educational staff as well as other stakeholders supporting learning processes, including families, to enhance key competences of learners as part of the approach for lifelong learning in education, training and learning settings;

   3.3. supporting and further developing the assessment and validation of key competences acquired in different settings in line with the Member States' rules and procedures;

   3.4. reinforcing collaboration between education, training and learning settings at all levels, and in different fields, to improve the continuity of learner competence development and the development of innovative learning approaches;

   3.5. reinforcing tools, resources and guidance in education, training, employment and other learning settings to support people in managing their lifelong learning pathways;

4. mainstream the ambitions of the UN Sustainable Development Goals (SDG), in particular within the SDG4.7, into education, training and learning, including by fostering the acquisition of knowledge about limiting the multifaceted nature of climate change and using natural resources in a sustainable way;

5. report through existing frameworks and tools of the Strategic Framework for European Cooperation in Education and Training (ET2020) and any successor framework on experiences and progress in promoting key competences in all education and training sectors, including non-formal and, as far as possible, informal learning;

HEREBY WELCOMES THAT THE COMMISSION WITH DUE REGARD TO MEMBER STATES' COMPETENCES:

6. supports the implementation of the Recommendation and the use of the European Reference Framework by facilitating mutual learning among Member States and developing in cooperation with Member States reference material and tools such as:

   6.1. where appropriate, frameworks for specific competences which facilitate development and assessment of competences[21];

   6.2. evidence-based guidance material on new forms of learning and supportive approaches;

   6.3. support tools for educational staff, and other stakeholders, such as on-line training courses**,** self-assessment tools[22], networks, including eTwinning and the Electronic Platform for Adult Learning in Europe (EPALE);

   6.4. approaches to the assessment and support of validation of key competences acquired following up on previous work in the context of ET2020[23] and any successor framework;

7. supports initiatives to further develop and promote education for sustainable development with regard to the UN Sustainable Development Goal 4 on inclusive and equitable quality education and lifelong learning opportunities for all;

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21 Based on the experiences and expertise developed in creating the Common European Framework of References for Languages, the Digital Competence Framework and the Entrepreneurship Competence Framework

22 Such as the Digital Competence Framework

23 Assessment of Key Competences in initial education and training: Policy Guidance, SWD (2012) 371

8. reports on experiences and good practices to enhance key competences of learners as part of the approach for lifelong learning in education, training and learning settings in the Union through existing frameworks and tools.

This Recommendation replaces Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning.

Done at Brussels, 22 May 2018

For the Council
The President
K. VALCHEV

KEY COMPETENCES FOR LIFELONG LEARNING

A EUROPEAN REFERENCE FRAMEWORK

Background and aims

Everyone has the right to quality and inclusive education, training and life-long learning in order to maintain and acquire skills that enable them to participate fully in society and manage successfully transitions in the labour market.

Everyone has the right to timely and tailor-made assistance to improve employment or self-employment prospects. This includes the right to receive support for job search, training and re-qualification.

These principles are defined in the European 'Pillar of Social Rights'.

In a rapidly changing and highly interconnected world, each person will need a wide range of skills and competences and to develop them continually throughout life. The key competences as defined in this Reference Framework aim to lay the foundation for achieving more equal and more democratic societies. They respond to the need for inclusive and sustainable growth, social cohesion and further development of the democratic culture.

The main aims of the Reference Framework are to:

a) identify and define the key competences necessary for employability, personal fulfilment and health, active and responsible citizenship and social inclusion;

b) provide a European reference tool for policy makers, education and training providers, educational staff, guidance practitioners**,** employers, public employment services and learners themselves;

c) support efforts at European, national, regional and local level to foster competence development in a lifelong learning perspective.

Key Competences

For the purposes of this Recommendation, competences are defined as a combination of knowledge, skills and attitudes, where:

a) knowledge is composed of the facts and figures, concepts, ideas and theories which are already established and support the understanding of a certain area or subject;

b) skills are defined as the ability and capacity to carry out processes and use the existing knowledge to achieve results;

c) attitudes describe the disposition and mind-sets to act or react to ideas, persons or situations.

Key competences are those which all individuals need for personal fulfilment and development, employability, social inclusion, sustainable lifestyle, successful life in peaceful societies, health-conscious life management and active citizenship. They are developed in a lifelong learning perspective, from early childhood throughout adult life, and through formal, non-formal and informal learning in all contexts, including family, school, workplace, neighbourhood and other communities.

The key competences are all considered equally important; each of them contributes to a successful life in society. Competences can be applied in many different contexts and in a variety of combinations. They overlap and interlock; aspects essential to one domain will support competence in another. Skills such as critical thinking, problem solving, team work, communication and negotiation skills, analytical skills, creativity, and intercultural skills are embedded throughout the key competences.

The Reference Framework sets out eight key competences:

- Literacy competence;
- Multilingual competence;
- Mathematical competence and competence in science, technology and engineering;
- Digital competence;
- Personal, social and learning to learn competence;
- Citizenship competence;
- Entrepreneurship competence;
- Cultural awareness and expression competence.

1. Literacy competence

Literacy is the ability to identify, understand, express, create, and interpret concepts, feelings, facts and opinions in both oral and written forms, using visual, sound/audio and digital materials across disciplines and contexts. It implies the ability to communicate and connect effectively with others, in an appropriate and creative way.

Development of literacy forms the basis for further learning and further linguistic interaction. Depending on the context, literacy competence can be developed in the mother tongue, the language of schooling and/ or the official language in a country or region.

Essential knowledge, skills and attitudes related to this competence

This competence involves the knowledge of reading and writing and a sound understanding of written information and thus requires an individual to have knowledge of 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, and the main features of different styles and registers of language.

Individuals should have the skills to communicate both orally and in writing in a variety of situations and to monitor and adapt their own communication to the requirements of the situation. This competence also includes the abilities to distinguish and use different types of sources, to search for, collect and process information, to use aids, and to formulate and express one's oral and written arguments in a convincing way appropriate to the context. It encompasses critical thinking and ability to assess and work with information.

A positive attitude towards literacy involves a disposition to critical and constructive dialogue, an appreciation of aesthetic qualities and an interest in interaction with others. This implies an awareness of the impact of language on others and a need to understand and use language in a positive and socially responsible manner.

2. Multilingual competence[24]

This competence defines the ability to use different languages appropriately and effectively for communication. It broadly shares the main skill dimensions of literacy: it is based on the ability to understand, express and interpret concepts, thoughts, feelings, facts and opinions in both oral and written form (listening, speaking, reading and writing) in an appropriate range of societal and cultural contexts according to one's wants or needs. Languages competences integrate a historical dimension and intercultural competences. It relies on the ability to mediate between different languages and media, as outlined in the Common European Framework of Reference. As appropriate, it can include maintaining and further developing mother tongue competences, as well as the acquisition of a country's official language(s) [25].

Essential knowledge, skills and attitudes related to this competence

This competence requires knowledge of vocabulary and functional grammar of different languages and an awareness of the main types of verbal interaction and registers of languages. Knowledge of societal conventions, and the cultural aspect and variability of languages is important.

Essential skills for this competence consist of the ability to understand spoken messages, to initiate, sustain and conclude conversations and to read, understand and draft texts, with different levels of proficiency in different languages, according to the individual's needs. Individuals should be able to use tools appropriately and learn languages formally, non-formally and informally throughout life.

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24 While the Council of Europe uses the term '*plurilingualism*' for referring to multiple language competences of individuals, European Union's official documents use '*multilingualism*' to describe both individual competences and societal situations. This is partly due to difficulties making a distinction between *plurilingual* and *multilingual* in other languages than English and French.

25 The acquisition of classical languages such as Ancient Greek and Latin is also included. Classical languages are the source of many modern languages and therefore can facilitate language learning in general.

A positive attitude involves the appreciation of cultural diversity, an interest and curiosity about different languages and intercultural communication. It also involves respect for each person's individual linguistic profile, including both respect for the mother tongue of persons belonging to minorities and/or with a migrant background and appreciation for a country's official language(s) as a common framework for interaction.

3. Mathematical competence and competence in science, technology, engineering

A. Mathematical competence is the ability to develop and apply mathematical thinking and insight in order to solve a range of problems in everyday situations. Building on a sound mastery of numeracy, 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 and presentation (formulas, models, constructs, graphs, charts).

B. Competence in science refers to the ability and willingness to explain the natural world by making use of the body of knowledge and methodology employed, including observation and experimentation, in order to identify questions and to draw evidence-based conclusions. Competences in technology and engineering are applications of that knowledge and methodology in response to perceived human wants or needs. Competence in science, technology and engineering involves an understanding of the changes caused by human activity and responsibility as an individual citizen.

Essential knowledge, skills and attitudes related to this 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 an awareness 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 (e.g. financial skills), and to follow and assess chains of arguments. An individual should be able to reason mathematically, understand mathematical proof and communicate in mathematical language, and to use appropriate aids including statistical data and graphs and to understand the mathematical aspects of digitalisation.

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

B. For science, technology and engineering, essential knowledge comprises the basic principles of the natural world, fundamental scientific concepts, theories, principles and methods, technology and technological products and processes, as well as an understanding of the impact of science, technology, engineering and human activity in general on the natural world. These competences should enable individuals to better understand 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.).

Skills include the understanding of science as a process for the investigation through specific methodologies, including observations and controlled experiments, the ability to use logical and rational thought to verify a hypothesis and the readiness to discard one's own convictions when they contradict new experimental findings. It includes the ability to use and handle technological tools and machines as well as scientific data to achieve a goal or to reach an evidence-based decision or conclusion. 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, a concern for ethical issues and support for both safety and environmental sustainability, in particular as regards scientific and technological progress in relation to oneself, family, community, and global issues.

4. Digital competence

Digital competence involves the confident, critical and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society. It includes information and data literacy, communication and collaboration, media literacy**,** digital content creation (including programming), safety (including digital well-being and competences related to cybersecurity), intellectual property related questions, problem solving and critical thinking.

Essential knowledge, skills and attitudes related to this competence

Individuals should understand how digital technologies can support communication, creativity and innovation, and be aware of their opportunities, limitations, effects and risks. They should understand the general principles, mechanisms and logic underlying evolving digital technologies and know the basic function and use of different devices, software, and networks. Individuals should take a critical approach to the validity, reliability and impact of information and data made available by digital means and be aware of the legal and ethical principles involved in engaging with digital technologies.

Individuals should be able to use digital technologies to support their active citizenship and social inclusion, collaboration with others, and creativity towards personal, social or commercial goals. Skills include the ability to use, access, filter, evaluate, create, program and share digital content. Individuals should be able to manage and protect information, content, data, and digital identities, as well as recognise and effectively engage with software, devices, artificial intelligence or robots.

Engagement with digital technologies and content requires a reflective and critical, yet curious, open-minded and forward-looking attitude to their evolution. It also requires an ethical, safe and responsible approach to the use of these tools.

5. Personal, social and learning to learn competence

Personal, social and learning to learn competence is the ability to reflect upon oneself, effectively manage time and information, work with others in a constructive way, remain resilient and manage one's own learning and career. It includes the ability to cope with uncertainty and complexity, learn to learn, support one's physical and emotional well-being, to maintain physical and mental health, and to be able to lead a health-conscious, future-oriented life, empathize and manage conflict in an inclusive and supportive context.

Essential knowledge, skills and attitudes related to this competence

For successful interpersonal relations and social participation it is essential to understand the codes of conduct and rules of communication generally accepted in different societies and environments. Personal, social and learning to learn competence requires also knowledge of the components of a healthy mind, body and lifestyle. It involves knowing one's preferred learning strategies, knowing one's competence development needs and various ways to develop competences and search for the education, training and career opportunities and guidance or support available.

Skills include the ability to identify one's capacities, focus, deal with complexity, critically reflect and make decisions. This includes the ability to learn and work both collaboratively and autonomously and to organise and persevere with one's learning, evaluate and share it, seek support when appropriate and effectively manage one's career and social interactions. Individuals should be resilient and able to cope with uncertainty and stress. They should be able to communicate constructively in different environments, collaborate in teams and negotiate. This includes showing tolerance, expressing and understanding different viewpoints, as well as the ability to create confidence and feel empathy.

The competence is based on a positive attitude toward one's personal, social and physical well-being and learning throughout one's life. It is based on an attitude of collaboration, assertiveness and integrity. This includes respecting diversity of others and their needs and being prepared both to overcome prejudices and to compromise. Individuals should be able to identify and set goals, motivate themselves, and develop resilience and confidence to pursue and succeed at learning throughout their lives. A problem-solving attitude supports both the learning process and the individual's ability to handle obstacles and change. It includes the desire to apply prior learning and life experiences and the curiosity to look for opportunities to learn and develop in a variety of life contexts.

6. Citizenship competence

Citizenship competence is the ability to act as responsible citizens and to fully participate in civic and social life, based on understanding of social, economic, legal and political concepts and structures, as well as global developments and sustainability.

Essential knowledge, skills and attitudes related to this competence

Citizenship competence is based on knowledge of basic concepts and phenomena relating to individuals, groups, work organisations, society, economy and culture. This involves an understanding of the European common values, as expressed in Article 2 of the Treaty on the European Union and the Charter of Fundamental Rights of the European Union. It includes knowledge of contemporary events, as well as a critical understanding of the main developments in national, European and world history. In addition, it includes an awareness of the aims, values and policies of social and political movements, as well as of sustainable systems, in particular climate and demographic change at the global level and their underlying causes. Knowledge of European integration as well as an awareness of diversity and cultural identities in Europe and the world is essential. This includes an understanding of the multi-cultural and socio-economic dimensions of European societies, and how national cultural identity contributes to the European identity.

Skills for citizenship competence relate to the ability to engage effectively with others in common or public interest, including the sustainable development of society. This involves critical thinking and integrated problem solving skills**,** as well as skills to develop arguments and constructive participation in community activities, as well as in decision-making at all levels, from local and national to the European and international level. This also involves the ability to access, have a critical understanding of, and interact with both traditional and new forms of media and understand the role and functions of media in democratic societies.

Respect for human rights as a basis for democracy lays the foundations for a responsible and constructive attitude. Constructive participation involves willingness to participate in democratic decision-making at all levels and civic activities. It includes support for social and cultural diversity, gender equality and social cohesion, sustainable lifestyles, promotion of culture of peace and non-violence, a readiness to respect the privacy of others, and to take responsibility for the environment. Interest in political and socio-economic developments, humanities and intercultural communication is needed to be prepared both to overcome prejudices and to compromise where necessary and to ensure social justice and fairness.

7. Entrepreneurship competence

Entrepreneurship competence refers to the capacity to act upon opportunities and ideas, and to transform them into values for others. It is founded upon creativity, critical thinking and problem solving, taking initiative and perseverance and the ability to work collaboratively in order to plan and manage projects that are of cultural, social or financial value.

Essential knowledge, skills and attitudes related to this competence

Entrepreneurship competence requires knowing that there are different contexts and opportunities for turning ideas into action in personal, social and professional activities, and an understanding of how these arise. Individuals should know and understand approaches to planning and management of projects, which include both processes and resources. They should have an understanding of economics and the social and economic opportunities and challenges facing an employer, organisation or society. They should also be aware of ethical principles and challenges of sustainable development and have self-awareness of their own strengths and weaknesses.

Entrepreneurial skills are founded on creativity which includes imagination, strategic thinking and problem-solving, and critical and constructive reflection within evolving creative processes and innovation. They include the ability to work both as an individual and collaboratively in teams, to mobilize resources (people and things) and to sustain activity. This includes the ability to make financial decisions relating to cost and value. The ability to effectively communicate and negotiate with others, and to cope with uncertainty, ambiguity and risk as part of making informed decisions is essential.

An entrepreneurial attitude is characterised by a sense of initiative and agency, pro-activity, being forward-looking, courage and perseverance in achieving objectives. It includes a desire to motivate others and value their ideas, empathy and taking care of people and the world, and accepting responsibility taking ethical approaches throughout the process.

8. Cultural awareness and expression competence

Competence in cultural awareness and expression involves having an understanding of and respect for how ideas and meaning are creatively expressed and communicated in different cultures and through a range of arts and other cultural forms. It involves being engaged in understanding, developing and expressing one's own ideas and sense of place or role in society in a variety of ways and contexts.

Essential knowledge, skills and attitudes related to this competence

This competence requires knowledge of local, national, regional, European and global cultures and expressions, including their languages, heritage and traditions, and cultural products, and an understanding of how these expressions can influence each other as well as the ideas of the individual. It includes understanding the different ways of communicating ideas between creator, participant and audience within written, printed and digital texts, theatre, film, dance, games, art and design, music, rituals, and architecture, as well as hybrid forms. It requires an understanding of one's own developing identity and cultural heritage within a world of cultural diversity and how arts and other cultural forms can be a way to both view and shape the world.

Skills include the ability to express and interpret figurative and abstract ideas, experiences and emotions with empathy, and the ability to do so in a range of arts and other cultural forms. Skills also include the ability to identify and realise opportunities for personal, social or commercial value through the arts and other cultural forms and the ability to engage in creative processes, both as an individual and collectively.

It is important to have an open attitude towards, and respect for, diversity of cultural expression together with an ethical and responsible approach to intellectual and cultural ownership. A positive attitude also includes a curiosity about the world, an openness to imagine new possibilities, and a willingness to participate in cultural experiences.

Supporting the development of key competences

Key competences are a dynamic combination of the knowledge, skills and attitudes a learner needs to develop throughout life, starting from early age onwards. High quality and inclusive education, training and lifelong learning provides opportunities for all to develop key competences, therefore competence-oriented approaches can be used in all education, training and learning settings throughout life.

In support of competence-oriented education, training and learning in lifelong learning context, three challenges have been identified: the use of a variety of learning approaches and contexts; support for teachers and other educational staff; and assessment and validation of competence development. In order to address those challenges, certain examples of good practices have been identified.

a) A variety of learning approaches and environments

a) Cross-discipline learning, partnerships between different education levels, training and learning actors, including from the labour market, as well as concepts such as whole school approaches with its emphasis on collaborative teaching and learning and active participation and decision-making of learners can enrich learning. Cross-discipline learning also allows for strengthening the connectivity between the different subjects in the curriculum, as well as establishing a firm link between what is being taught and societal change and relevance. Cross-sectoral cooperation between education and training institutions and external actors from business, arts, sport and youth community, higher education or research institutions, can be key to effective competence development.

b) Acquisition of basic skills as well as broader competence development can be fostered by systematically complementing academic learning with social and emotional learning, arts, health-enhancing physical activities supporting health conscious, future-oriented and physically active life styles. Strengthening personal, social and learning competences from early age can provide a foundation for development of basic skills.

c) Learning methodologies such as inquiry-based, project-based, blended, arts- and games-based learning can increase learning motivation and engagement. Equally, experimental learning, work-based learning and scientific methods in science, technology, engineering and mathematics (STEM) can foster development of a range of competences.

d) Learners, educational staff and learning providers could be encouraged to use digital technologies to improve learning and to support the development of digital competences. For example, by participating in Union initiatives such as "The EU Code Week". The use of self-assessment tools, such as the SELFIE tool, could improve the digital capacity of education, training and learning providers.

e) Specific opportunities for entrepreneurial experiences, traineeships in companies or entrepreneurs visiting education and training institutions including practical entrepreneurial experiences, such as creativity challenges, start-ups, student-led community initiatives, business simulations or entrepreneurial project-based learning, could be particularly beneficial for young people, but also for adults and for teachers. Young people could be given the opportunity to have at least one entrepreneurial experience during their school education. School, community and business partnerships and platforms at local level, notably in rural areas, can be key players in spreading entrepreneurial education. Appropriate training and support for teachers and principals could be crucial to create sustained progress and leadership.

f) Multilingual competence can be developed by close cooperation with education, training and learning settings abroad, the mobility of educational staff and learners and the use of eTwinning, EPALE and or similar on-line portals.

g) All learners, including those facing disadvantages, or having special needs**,** could be given adequate support in inclusive settings to fulfil their educational potential. Such support could consist of language, academic or socio-emotional support, peer coaching, extra-curricular activity, career guidance or material support.

h) The collaboration between education, training and learning settings at all levels can be key to improve the continuity of learner competence development throughout life and for developing innovative learning approaches.

i) Cooperation between education and training and non-educational partners in local communities and employers in combination with formal, non-formal and informal learning can support competence development and ease the transition from education to work as well as from work to education.

b) Support for educational staff

a) Embedding competence-oriented approaches to education, training and learning in initial education and continuing professional development can help educational staff in changing teaching and learning in their settings and to be competent in implementing the approach.

b) Educational staff could be supported in developing competence-oriented approaches in their specific contexts by staff exchanges and peer learning, and peer counselling allowing for flexibility and autonomy in organising learning, through networks, collaboration and communities of practice.

c) Educational staff could be provided assistance in creating innovative practices, taking part in research and making appropriate use of new technologies, including digital technologies, for competence-oriented approaches in teaching and learning.

d) Guidance could be provided for educational staff, access to centres of expertise, appropriate tools and materials can enhance the quality of teaching and learning methods and practice.

c) Assessment and validation of competence development

a) Key competence descriptions could translate into frameworks of learning outcomes that could be complemented with suitable tools for diagnostic, formative and summative assessment and validation at appropriate levels[26].

b) Digital technologies, in particular, could contribute to capturing the multiple dimensions of learner progression, including entrepreneurial learning.

c) Different approaches to assessment of key competences in non-formal and informal learning settings could be developed, including related activities of employers, guidance practitioners and social partners. These should be available to everyone, and especially to low skilled individuals to support their progression to further learning.

d) Validation of learning outcomes acquired through non-formal and informal learning could expand and become more robust, in line with the Council Recommendation on the Validation of prior non-formal and informal learning, including different validation processes. Also the use of tools such as Europass and Youthpass, which serve as tools for documentation and self-assessment, may support the validation process.

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[26] E.g. the Common European Framework of References for Languages, the Digital Competence Framework, the Entrepreneurship Competence Framework as well as PISA competence descriptions provide supporting material for assessment of competences.