Literacy

Personal, social and learning to learn

Mathematical, science, technology and engineering

Digital

Citizenship

Entrepreneurship

Multilingual

Cultural awareness and expression

SUPPORTING KEY COMPETENCE DEVELOPMENT: LEARNING APPROACHES AND ENVIRONMENTS IN SCHOOL EDUCATION

INPUT PAPER FOR CONFERENCE PARTICIPANTS

12–13 NOVEMBER 2019, BRUSSELS

#EUkeycompetences
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Education and Training

About

This input paper is designed to help participants prepare for the conference on **Supporting Key Competence Development: Learning approaches and environments in school education** (Brussels, 12-13 November 2019). It presents key terms and concepts and provides a starting point for reflection about policy support to local and national approaches.

This conference will discuss different learning approaches and environments that support key competence development in **school education**, including **Early Childhood Education and Care** (ECEC) and initial **Vocational Education and Training** (IVET). Developing key competences for all is at the heart of the European Education Area where everyone should have access to high quality education, training and lifelong learning. In today's world, young people need a broad range of competences to find fulfilling jobs and become independent, active citizens.

Key competences are best developed in school education systems which promote and use a variety of learning approaches and environments, support their teachers, and embed appropriate and flexible ways to assess and validate key competences.

The conference will bring together policymakers and other stakeholders involved in and responsible for implementing school education policies and reforms. Participants will discuss and identify systemic conditions and define policy guidelines for introducing and developing competence-based teaching and learning in schools across Europe. Participants will also have an opportunity to network and visit the conference exhibition area. In the exhibition area Erasmus+, eTwinning, Horizon 2020 and national projects will be presented.

At the end of conference, we aim to have a set of concrete policy actions which can be adapted at national level with the aim of introducing different learning approaches and environments in schools in Europe.

Conference participants are invited to read this input paper, to critically reflect on the learning approaches and environments that best suit the development of key competences in different contexts, and to reflect on examples of systemic conditions and policies that truly support the development of those competences in school education. Some examples of policy initiatives are included in Section 4 along with a short template to record some examples that you would like to feed into the discussion.

The other key documents underpinning the work are:

- the Council Recommendation on Key Competences for Lifelong Learning (2018); and

- the Staff Working Document (European Commission, 2018a), developed to support the proposal, which provides evidence and additional background information on the key competences put forward in the recommendation, on the consultation process, and on examples of practice in Member States.

We hope you have a very productive and inspiring experience at the conference and that you will leave with many ideas about how systems can support the development of key

competences and about how this will impact on the policies that you contribute to. We know that we will learn a lot from you in this regard too.

1. Key Competences for Lifelong Learning

Following a review of the European Reference Framework of Key Competences for Lifelong Learning (2006) in 2017 and 2018, the Council adopted a new Recommendation on Key Competences for Lifelong Learning on 22nd May 2018.

The Recommendation is clear on the purpose of key competences stating that "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" *(*European Council, 2018, p. 7).

The Recommendation defines eight key competences for lifelong learning:

- **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.**

The Recommendation invites the Commission to support its implementation by facilitating mutual learning among Member States and developing, in cooperation with Member States, reference materials and tools supporting key competence development. In support of competence-oriented education, training and learning in a lifelong learning context, three challenges have been identified: the use of a **variety of learning approaches, contexts and environments**; **support for teachers and other educational staff**; and **assessment and validation of competence development.** The Recommendation also invites the Commission to support initiatives to further develop and promote education for sustainable development and report on experiences and good practices enhancing key competences development (Council of the European Union, 2018).

This conference places particular emphasis on these **learning approaches and environments** that support key competence development and on the action(s) at **policy level** that would support such approaches in different learning contexts, predominantly in **school education**.

2. Supporting change in school education

In its 2018 final report (European Commission, 2018b), the ET2020 Working Group Schools highlighted that:

> It is important that policies support equity and inclusion but also allow flexibility to meet the diverse needs of learners in schools both within and outside of mainstream education. Policymaking needs to involve all relevant stakeholders in order to achieve this and create shared ownership and accountability (p.4).

This means that when we talk about supporting change to teaching and learning in school education, aspiring to better learning outcomes for the pupil is the ultimate objective. However, we also **consider equally the role of teachers, school leaders, local and regional authorities, and actors at national level** (Fig. 1), i.e. a bottom-up and top-down approach. Schools and other education settings do not exist in isolation; they are linked and embedded within learning systems where decision-makers can learn from the developments that are taking place in schools (p. 7).

In identifying systemic conditions and defining policy guidelines for introducing and developing competence-based teaching and learning in schools across Europe it is important to consider **how these conditions and policies can support schools and other settings to develop new competence-based approaches as best fits the needs of their own pupils**. Policy makers may therefore consider:

- developing a shared vision and understanding, which considers national, regional and local perspectives and priorities on school policy, and gives direction to the work of schools as learning organisations and to the systems by which they are supported;

- the role of all stakeholders including, teachers, parents, school leaders, local and regional authorities, and actors at national level;

- setting clear expectations for competence development, such as standards, competence frameworks and curricula, which help to define teachers and school leader roles whilst being flexible and encouraging innovation;

- supporting the professional development of teachers and school leaders.

- how to encourage a culture of research, reflective practice and enquiry-based learning at school level.
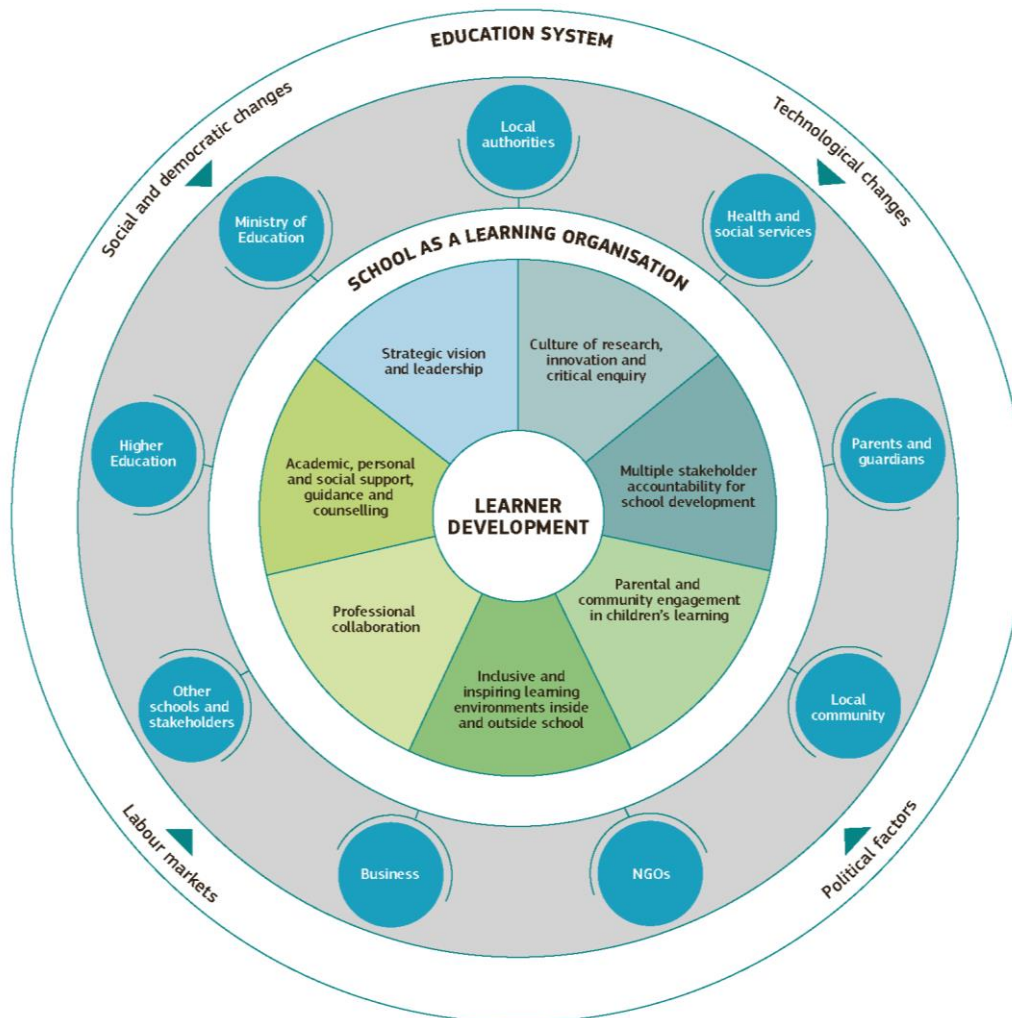
Figure 1: Schools as learning organisations within a learning system (European Commission, 2018b, p. 7)

3. Learning approaches and environments

The focus of the conference is on policy support to learning approaches and environments that support competence development. However, the other challenges of support for teachers and other educational staff, and assessment of competence development, will naturally be addressed as all three are interlinked and impact on each other

It is recognised that moving to a competence-oriented approach in education, training and learning has significant implications for education systems. It impacts on the structure of curricula and on the organisation of learning and assessment and requires cross-curricular approaches, a greater emphasis on interactive learning and teaching approaches, combining formal with non-formal learning and informal learning, more collaboration with non-education stakeholders and local communities, new approaches for teachers and other educational staff in guiding learning processes as well as new approaches to assessment (European Commission, 2018a, p.5).

3.1 What do we mean by "learning approaches and environments"?

Learning approaches means the methods (tools and processes) used for designing and shaping the learning experiences that pupils have. Contemporary pedagogy – particularly where the learning concerns developing skills and attitudes as well as knowledge (i.e. competences) - has moved away from the concept of the educator as the single 'knowledge authority' and towards the learner being more active in their own learning. Such approaches have the potential to increase the motivation and engagement of learners, and their sense of responsibility for learning outcomes. The 2019 Council Recommendation on a comprehensive approach to the teaching and learning of languages introduces the concept of 'language awareness' as an element that can be embedded into school culture. It implies teaching the language of schooling and supporting literacy and language development across the curricula. (European Commission 2018d, pp 15-23)

In the context of this conference, we highlight a number of learning approaches that have been used for the development of some or all of the key competences. Different categories of learning approaches are proposed below, and perhaps you will come up with some new categories.

Learning environments can be broadly understood as the 'particular learning arrangements for a group of learners in context over time, in which the learning taking place is an integral part' (OECD, 2013). At this conference we are focusing on examples of designing learning environments that support the development of some or all of the key competences, including physical learning environments or learning spaces; social learning environments; cross-sectoral environments, and digital learning environments.

In the interest of clarity, we are defining learning approaches and environments separately, but in practice it is recognised that they are frequently linked. Focusing on adapting the learning environment must also consider the learning approaches used and changes to learning approaches will often require adaptations to the learning environment.

3.2 Competence-oriented learning approaches

The Council Recommendation (Council of the European Union, 2018, pp.12-13) and the accompanying Commission Staff Working document (European Commission, 2018a, pp. 75-78) have identified particular approaches that research shows can have a "positive impact on competence development as a multi-dimensional, interdisciplinary way of learning" (p.76). These build on the work of the KeyCoNet network (2014) and the

recommendations in its final report (Looney and Michel, 2014). The work of KeyCoNet is underpinned by two literature reviews (Arjomand et al, 2013), (Pepper, 2013).

Learning approaches that support key competences include:

- **Active role of the learner in the lifelong development of competences**

  Learners need to have an active role in the creation of their learning journey and a sense of autonomy can be nurtured within learners from an early age through self-reflection and self-assessment. Active learning is supported by formative assessment, student reflection and quality feedback.

- **Individual and collaborative learning**

  A combination of individual (autonomous and self-managed) and collaborative learning opportunities helps develop a range of competences. The development of attitudes, often socially constructed, are being developed alongside knowledge and skills. These include negotiation of ideas and the understanding of the role of different perspectives in generating new possibilities. Diversity of learners is recognised and matched by a diversity of learning approaches and differentiated learning support systems, to provide targeted and individualised learning when necessary.

- **Inquiry and project-based learning**

  Inquiry and project-based learning encourages learners to draw on a broad range of knowledge, skills and attitudes and to follow a cyclical process of design, creation, reflection, and adaptation, while also collaborating with other learners (Marth et al., 2018). "Real world scenario" learning and the scientific experiment methods typically used in science, technology, engineering and mathematics (STEM) can foster development of a range of competences (Sotiriou et al., 2017).

- **Experiential learning**

  Experiential learning allows learners to think-in-action, do and reflect on a personal level on the processes necessary to complete a task, combining problem-solving with reflection-in-action. Meaningful learning experiences can be facilitated, for example, by in-role learning of arts-based education , or through 'play' and some virtual world learning where the learner is imagining that they are acting as someone else would.

- **Cross-discipline collaboration**

  Collaboration and cross-discipline teaching and learning, for example through projects, team-teaching and learner-led activities, improves engagement and learning outcomes in a range of competences. 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 (Conradty & Bogner, 2018).

- **Language aware schools**

  A language-aware school will consider the language dimension in all levels of school organisation, teaching and practice: in literacy development, foreign language learning, in subject teaching, for acknowledging other languages brought in by pupils, in communication with parents and with the wider school environment. In language-

aware schools, language learning is regarded as a dynamic process and a continuum – the acquisition of the mother tongue and its different registers and styles continues and is deeply interlinked with the learning of other languages, in different levels of proficiency, corresponding to every learner's circumstances, needs and interests.

- **Making optimal use of digital technologies**

  Digital technologies have the capacity to challenge and change the relationships between educator and learner and between learner and the learning process and content (European Commission, 2018a, pp. 75-79). Understanding the roles of both social media and limitless internet in this context is vital, and schools and parents need to be very aware of the effects of the paradigm shift we are currently experiencing in this field (L'Ecuyer 2018). Learners, educational staff and learning providers can use digital technologies to support the development of a range of competences. Support is already widely available, e.g. by participating in initiatives such as 'The EU Code Week'.

- **A whole school approach to wellbeing supporting learners' social and emotional development**

  Classroom teachers are instrumental but should be one group of a number of stakeholders committed to supporting learners' broad range of competences, including their wellbeing and social and emotional development.

  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.

  Strengthening personal, social and learning competences from an early age can provide a foundation for the development of other competences.

These learning approaches can also support **creativity and innovation**, by encouraging the development of curiosity (or inquisitiveness), use of imagination, problem-solving, critical reflection and perseverance which includes positive risk-taking. 'Creativity' is a process of imagining possibilities, creating something new, and reflecting upon and modifying what is being created. In a broader sense it is a way of interpreting and acting in the world (Conradty & Bogner 2018; Chappell et al., 2019).

3.3 Learning environments

Using new learning approaches to support the development of key competences also points to the learning environments that are available for innovative learning approaches to take place.

Some education settings are fortunate to have new **well-equipped and spacious classrooms, open spaces, outside areas** (such as gardens and nearby woodland or fields) and **excellent technology infrastructure**, but these are not available in all cases and neither are they pre-requisites for innovative teaching and learning. Some schools **adapt existing learning spaces** to facilitate and inspire new learning approaches (Bannister, 2017; Sotiriou & Bogner, 2011).

Learning can also take place at **different sites**, such as museums and galleries, laboratories, theatres, and even in other countries (physically, or virtually by means of digital technologies) (Sotiriou & Bogner, 2008).

The literature indicates that approaches to assessing the effectiveness of physical learning environments in supporting pedagogy are in their infancy and underdeveloped (Cleveland and Fisher, 2014). Nonetheless, there are some interesting initiatives looking at how physical learning environments can support new approaches to learning. For instance, the work of the European Schoolnet Interactive Classroom Working Group resulted in the publication, *Guidelines on Exploring and Adapting Learning Spaces in Schools* (Bannister, 2017). OECD's work on Effective Learning Environments (ELE) sets out to improve how learning environments can most efficiently support the pedagogies, curriculum, assessment and organisational forms necessary to develop students' capacities and competences for the 21st century. The OECD Learning Environments Evaluation Programme (LEEP) (OECD 2017) seeks to develop the evidence base for how the physical learning environment impacts on learning and create best practice guidelines supported by toolkits to assist OECD countries in developing physical learning environments that meet the needs of 21st century learning and guides investment decisions.

Unfortunately, there is a lack of empirical evidence in many of the studies on learning spaces and learning outcomes, which presents a challenge for decision-makers. Studies carried out in the UK (PricewaterhouseCoopers, 2003) and in New Zealand (AC Nielsen, 2004) were unable to conclude strong links between the physical learning environment and student, teacher and parent perceptions, nor establish direct links to learning outcomes.

Examples of learning environments can be categorised as follows:

▪ **Adapting existing or creating new learning spaces**

Adapting learning spaces to allow for more innovation and collaboration in the classroom can support the development of key competences. Reorganisation of the learning space also shapes social relations and practices in schools and settings.

▪ **Learning in sites outside of schools and settings**

Learning in sites beyond the school can open up the learning environment and improve motivation and engagement. It also opens up opportunities for real world activities. Sites may include: the local environment, heritage sites, theatres, parks; activity centres for sports-based activities; involvement in social enterprises; library visits.

• **Learning in and with different countries**

Multilingual competence, including cultural and intercultural aspects, 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, Open Discovery Space and or similar on-line portals.

▪ **Creating cross-sectoral partnerships**

Cross-sectoral partnerships between education and training institutions and external

organisations from business, arts, sport and youth communities, higher education or research institutions, can support effective competence development. These partnerships might include work-based learning; opportunities for entrepreneurial experiences, allowing learners access to arts, culture, science and technology; cooperation between schools and other education institutions; student-led community initiatives (Chappell et al., 2019).

- **Learning in digital environments**

  Virtual learning environments are already used as platforms for creating, accessing and using learning resources, for communication and collaboration through audio and video conferencing. The use of simulation can support experiential learning by creating opportunities for learners to experience a learning situation that may be difficult to create in a classroom, for example in science, engineering and technology. Simulations also allow for mistakes to be part of the experiential learning process, in a safe environment.

Many examples of national initiatives and Erasmus+ and eTwinning projects on these topics, as well as expert articles and publications, can be found on the European Commission's School Education Gateway: www.schooleducationgateway.eu and on the KeyCoNet website: http://keyconet.eun.org/project-results/case-studies.

3.4 Learning approaches and environments: What is happening across Europe?

A summary of the learning approaches and environments that have already been identified is presented in table 1, along with some examples of policy innovations that we have gathered so far, as well as examples of projects that will be exhibited at the conference. The conference workshops also illustrate some of these approaches. These provide a good starting point to

I. consider and identify other approaches that you have seen in action

II. begin identifying policy initiatives that have the potential to have a systemic impact on the development of the competences.

This is where you, as policy makers and experts in this area, can add to the information that we already have and bring it alive with examples of where policy action and other initiatives are happening across Europe and how school education systems can learn from each other.

Over to you

Having read the descriptions of learning approaches and environments in this section, we invite you to **reflect on examples of policies and other initiatives** that you are familiar with in your own countries and contexts.

Record your initial ideas about examples that could be shared and could contribute to the discussion around learning approaches and environments that support the development of key competences in Table 1.

Remember that the purpose of the conference is to consider how policies can **have an impact** across the school education system or are capable of doing so in the future. So, we are most interested in examples that have system wide impacts.

We have already added some examples to get you started.

Table 1: *Learning approaches and environments: some examples*

Learning Approaches and Environments	
Competence oriented learning approaches	**Policy examples and other initiatives**
Active role of the learner in the lifelong development of competences	Workshop 1: Whole school approach to Learning - Schools Workshop 3: Supporting key competences through formative feedback and student reflection Policy initiative 3: National curriculum redesigned: Autonomy and Curriculum Flexibility (ACF) in Portugal Exhibition project: Raising students' perceived self-efficacy in STEAM to provide opportunities for all (STEAM4U) Exhibition project: CROSSCUT: Cross-curricular teaching Exhibition project: Discovering Europe: CHIPE. Exhibition project: PerLen: A concept for competence-oriented teaching and learning ✍ **. . .**
Individual and collaborative learning	Policy initiative 5: Common framework for knowledge competences and culture (France) Exhibition project: CO-LAB project Exhibition project: Raising students' perceived self-efficacy in STEAM to provide opportunities for all (STEAM4U) Exhibition project: CROSSCUT: Cross-curricular teaching Exhibition project: INCLUD-ED. Strategies for Inclusion and social cohesion from education in Europe. Exhibition project: IMAGINE….together for the world Exhibition project: Beaconing Exhibition project: Stories of Tomorrow Exhibition project: PerLen: A concept for competence-oriented teaching and learning ✍ **. . .**
Inquiry and project-based learning	Policy initiative 1: Trial program to improve technological understanding in primary and lower secondary education Policy initiative 2: Junior cycle reform in Ireland: Embedding key competences Exhibition project: CO-LAB project Exhibition project: Sustainable Entrepreneurship: A game based exploration for lower secondary schools Exhibition project: Find your way through Art Exhibition project: Discovering Europe Exhibition project: IMAGINE….together for the world

	Exhibition project: CREATIONS Exhibition project: Stories of Tomorrow ✎ ...
Experiential learning	Exhibition project: Pollution! Find a STEM solution Exhibition project: E-reading Exhibition project: Beaconing Exhibition project: Stories of Tomorrow ✎ ...
Cross-discipline learning	Workshop 2: Whole School Approach to learning – cross discipline learning. Policy initiative 4: The introduction of CLIL in Italian schools Exhibition project: Find Your Way through Art Exhibition project: CROSSCUT: Cross-curricular teaching Exhibition project: Discovering Europe Exhibition project: CREATIONS Exhibition project: Beaconing Exhibition project: E-reading Exhibition project: Integrative Learning for Teaching in school-based curriculum: Life Education and Adolescence & self-development ✎ ...
Language aware schools	Workshop 6: Language aware schools – how languages shape learning Policy initiative 4: The introduction of CLIL in Italian schools Policy initiative 6: Improvement of German Language learning of pupils to help them to access the curriculum Exhibition project: Find your way through Art Exhibition project: Discovering Europe Exhibition project: E-reading Exhibition project: CHIPE. Learning in sites outside of schools and settings. ✎ ...

Making optimal use of digital technologies	Workshop 4: Digital technologies supporting competence development Exhibition project: Imagine together for the world Exhibition project: Sustainable Entrepreneurship: A game0based exploration for lower secondary schools Exhibition project: CROSSCUT: Cross-curricular teaching Exhibition project: Discovering Europe Exhibition project: E-reading Exhibition project: Beaconing ✎ . . .
A whole school approach to wellbeing supporting learners' social and emotional development	Policy initiative 6: Improvement of German Language learning of pupils to help them to access the curriculum Exhibition project: Integrative Learning for Teaching in school-based curriculum: Life Education and Adolescence & self-development Exhibition project: Teach In. Teacher leadership for school improvement. Exhibition project: Steps4Seas.Policies based on Successful Educational Actions. Exhibition project: PerLen: A concept for competence-oriented teaching and learning ✎ . . .
Other categories?	

Learning environments	Policy examples and other initiatives
Adapting existing or creating new learning spaces within the school (including outdoor spaces)	Workshop 1: Whole school approach to Learning - Schools Cooperating with External Organisations Workshop 5: Learning spaces: thinking out of the box Exhibition project: Educational spaces 21: Open up! Exhibition project: Find Your Way through Art Exhibition project: Bridging multicultural diversities in education Exhibition project: INCLUD-ED. Strategies for Inclusion and social cohesion from education in Europe. Exhibition project: Beaconing Exhibition project: Stories of Tomorrow Exhibition project: Integrative Learning for Teaching in school-based curriculum: Life Education and Adolescence & self-development ✍ ...
Learning in sites outside of schools and settings	Exhibition project: Children's personal epistemologies (CHIPE) Exhibition project: Raising students' perceived self-efficacy in STEAM to provide opportunities for all (STEAM4U) Exhibition project: Beaconing Exhibition project: CREATIONS ✍ ...
Learning in and with different countries	Erasmus+, eTwinning and Horizon 2020 projects Exhibition project: EnlargeSEAS. Schools as Learning Communities in Europe. Enlarging Successful Educational Actions for all. Exhibition project: Peace Island Exhibition project: Imagine ……. together for the World Exhibition project: CREATIONS ✍ ...
Cross-sectoral partnerships	Workshop 1: Whole school approach to Learning - Schools Cooperating with External Organisations Exhibition project: E-reading Exhibition project: Matters of matter: future materials in science education Exhibition project: STEP4SEAS: Social Transformation through Educational Policies based on Successful Educational Actions and Enlarge Seas

	Exhibition project: TEACH-IN: Teacher leadership for school improvement Exhibition project: Integrative Learning for Teaching in school-based curriculum: Life Education and Adolescence & self-development ✍ ...
Learning in digital environments	Workshop 4: Digital technologies supporting competence development using Future Classroom Labs and Makerspaces. Policy initiative 1: Trial program to improve technological understanding in primary and lower secondary education Exhibition project: Online labs and virtual simulators for engineering education Exhibition project: Stories of Tomorrow Exhibition project: Beaconing Exhibition project: Educational spaces 21: Open up! Exhibition project: IMAGINE….together for the world ✍ ...
Other categories?	

4. Policy initiatives and projects supporting change in approaches to competence development

In its 2018 final report (European Commission, 2018b), the ET2020 Working Group Schools highlighted that, "in order for systems to evolve effectively, and to support schools in their development, they need high quality feedback loops and a flow of information to support evidence-informed action". The policy-making process can be understood as a cycle, integrated with similar cycles of school-level development and with mutual learning and support.
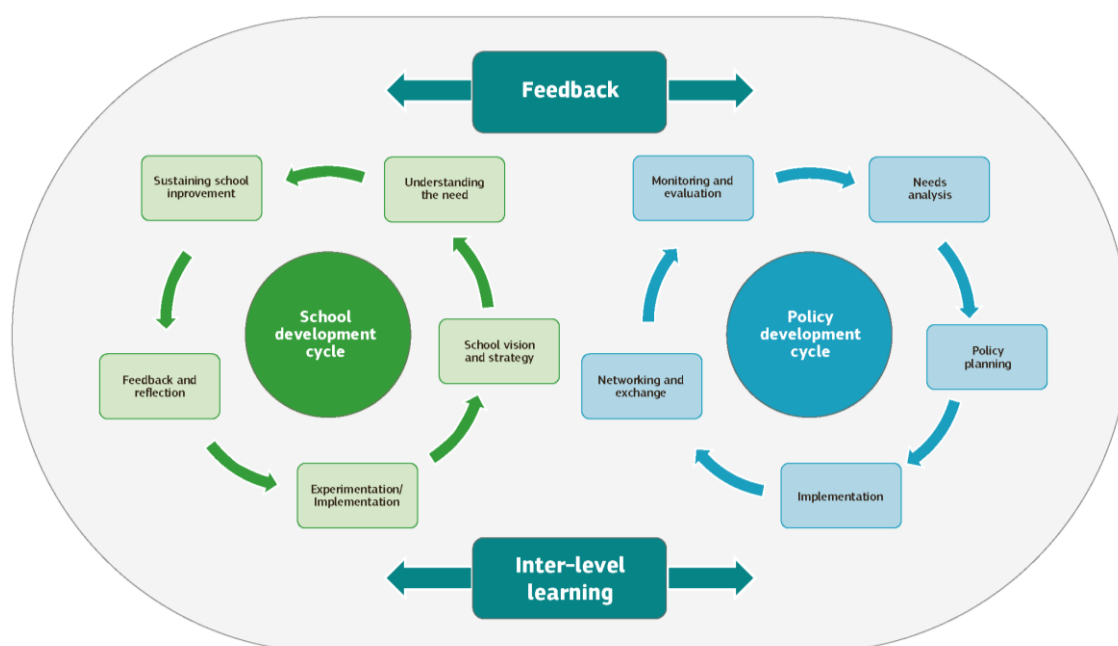
Figure 2 : The twin cycles of development at school and system level, developed from the Study on Supporting school innovation across Europe (European Commission, 2018c)

Sharing examples of relevant policy initiatives from various Member States helps to establish what works well in supporting key competences at a systemic level. It is interesting to see the various approaches taken, to ascertain what the key drivers have been as well as the enablers and challenges to the work.

Summaries of six policy initiatives and twenty Erasmus+, FP6 and FP7, eTwinning and Horizon 2020 projects are presented here as a starting point. Many more will be shared by speakers and conference participants.

The six presented policy initiatives have been selected as they have the potential to support key competence development at a systemic level with a clear impact at school level. They are spread over six countries and they span primary and post-primary school education.

Having read the examples, perhaps you might like to further reflect on a policy initiative that you identified earlier by reflecting more on the systemic impact, and the enablers and challenges.

4.1 National policy initiatives supporting change in approaches to competence development

1. Trial program to improve technological understanding in primary and lower secondary education in Denmark

A government supported initiative in Denmark that will test different teaching methods and learning approaches with the potential to enhance the technological knowledge of teachers and pupils. A trial subject called *Technological Understanding* will be taught in 46 Danish primary and lower secondary schools in 2019-2021.

Key competences	The main focus is on focus on digital skills. Mathematical and science, technology and engineering competences are also addressed.
Key drivers	Government strategy for digital growth
Learning approaches	Engaging with digital artefacts in a critical, reflective and constructive manner as well as participating in iterative design processes to create a digital artefact of value for individuals and society. In the area of computational thinking, pupils will gain technological experience by structuring and analysing data as well as using data processes to solve specific problems.
Systemic impact	The test programme will be evaluated by experts in the fields of education and digital technology. The expert group will document the learning outcomes of the project, which will later inform policymakers in their decisions on how to permanently implement the effort to strengthen the digital skills of pupils in Danish primary and lower secondary education.
Enablers	The Danish Ministry of Education is facilitating conferences stimulating the formation of open networks between schools, teachers, and experts with an interest in the initiative. The participants can use these open networks to share experiences and develop ideas on teaching methods and learning approaches that can strengthen technological skills.
Challenges	Integrating the proposed technological and digital topics into existing subjects.
Links	Danish Government's Digital Growth Strategy
	Digital Strategy Fact Sheet

2. Junior Cycle Reform in Ireland: Embedding key competences

Lower secondary education in Ireland is undergoing significant change through the introduction of the Framework for Junior Cycle (2015) to all post-primary schools. The development of key competences is central to the educational changes outlined in the Framework.

Key competences	All competences are addressed, some through full subject areas such as mathematics, science, languages, civic and social and personal competence. The more transversal competences are addressed through a Key Skills Framework that underpins the curriculum.
Key drivers	Research and consultation around curriculum reform pointed to the need for a focus on key competences. Points of concern included the dominating effect of the examinations on teaching and learning.
Learning	Embedding of key skills into all subjects promotes more competence-based

approaches	approaches to teaching and learning. The introduction of Classroom Based Assessments provides opportunities for these approaches to be reflected in the assessment.
Systemic impact	The eight key skills of junior cycle have been embedded in the curriculum and assessment specifications for all subjects and these are being implemented in schools on a rolling basis. Assessment approaches have changed.
Enablers	The systemic reform of junior cycle curriculum and assessment was the major enabler of the embedding of key competences.
Challenges	Teacher Unions reacted to the assessment aspects of the reforms, not wanting teachers to be involved in the assessment of their own students. This slowed the implementation process and resulted in some changes to the original plans for assessment.
Links	Junior Cycle Key Skills Framework document

3. National curriculum redesigned: Autonomy and Curriculum Flexibility (ACF) in Portugal

The ACF aims to define the guiding principles and rules for the design, implementation and evaluation of the curriculum of primary and secondary education in Portugal.

Aiming to foster equal opportunities and educational success for all students included in the Portuguese educational system, the ACF was developed to support schools in effectively exercising autonomy and greater flexibility, as they redesign their curricula regarding the development of the Essential Core Curriculum. This is done in an integrated way in each classroom context, according to the specific needs and potentialities of their students and contexts, in order to achieve the *Students' Profile by the End of Compulsory Schooling goals.* This Student's Profile is a guiding document that describes the principles, vision, values and competences areas (KC) that Portuguese students should have by the time they finish compulsory schooling.

Key competences	Languages and texts; Information and communication; Reasoning and problem solving; Critical and creative thinking; Interpersonal relations; Autonomy and personal development; Well-being, health and enviroment; Aesthetic and artistic sensitivity/awareness; Scientific, Technical and technological knowledge; Body awareness and mastery
Key drivers	ACF Pilot-Project developed at national level by schools involved at a voluntary basis. The creation of national, technical and regional teams with representatives of the Ministry of Education, responsible for the school´s support regarding the development of the curriculum redesigned process, at local level. Significant analysis and public consultation, including student´s consultation (Student´s Voices Initiative). Publication of the Essential Core Curriculum defined per school subject/year. Publication of the Students' Profile by the End of Compulsory Schooling in 2017.
Learning approaches	Research, evaluation, reflection, critical and autonomous mobilisation of information to solve problems and boost their knowledge, self-esteem and well-being. Development of connections between knowledge and competences of each

	subject and the student's real-life contexts, making them more meaningful Cross-disciplinary learning Formative assessment
Systemic impact	The Students' Profile by the End of Compulsory Schooling is now a guiding document for all schools. Within the ACF process, school leaders and teachers are being identified due to their practices of reference and are being invited to share them, in platforms and initiatives at national and regional level, so that their knowledge and experiences can inspire other schools to improve their way of action.
Enablers	Clear, consistent and comprehensive implementation strategy at national level, supported by the national, technical and regional teams created for that purpose with representatives of the Ministry of Education. Allowing schools to find the best pedagogical and curriculum ways and paths to promote educational success by all students.
Challenges	Tensions between an established culture of subject- and teacher-centred approach and high stakes examinations and the proposed development of a more student-centred and interdisciplinary approaches.
Links	OECD report on the pilot–project ACF Students' Profile by the End of Compulsory Schooling (Portuguese) ACF - Online platform

4. The introduction of CLIL in Italian schools

A cultural change has taken place in Italy as to how foreign languages are taught. CLIL was introduced to all secondary schools, with the Presidential Decrees for High School Reform in 2010. Students are taught non-linguistic content through a foreign language in the senior year of Lycées and Technical Schools.

Key competences	Multilingualism; Literacy
Key drivers	Government decree; strong support in Universities
Learning approaches	The content of a subject is taught completely through a foreign language, carried out by a subject teacher rather than a language teacher. This entailed a shift from teacher-centred lecturing towards learner-centred ways of learning, which is one of the strongest innovations incorporated in CLIL approaches.
Systemic impact	All secondary schools now teach at least one foreign language through CLIL. Teachers report that they have discovered new ways of teaching through CLIL and have in many cases completely changed their teaching strategies.
Enablers	Specific continuing professional development for teachers is being financed. In 2016, within a new school reform, a National Teacher Training Plan which established a wide range of training programmes in CLIL methodology.
Challenges	The linguistic knowledge of the subject teachers may not be sufficient to engage with the subject content to an appropriate level. Insufficient cooperation between subject teachers and language teachers.

5. *Common framework for knowledge competencies and culture (Socle commun de connaissance, compétences et culture)*

The French Government has adopted a decree (*décret*) called Common framework for knowledge competences and culture (*Socle commun de connaissance, compétences et culture*) in 2015. Competences are reported by a personal competence book for each pupil.

Key competences	Languages and how to communicate, including French, foreign and regional language, as well as mathematical language and language for the arts and body; Civic and personal competences; Learning to learn.
Key drivers	Adoption of the decree by the French Government.
Learning approaches	French educators are rethinking learning approaches and environments. Teachers rethought their pedagogical approaches, for example to introduce complex tasks, and experimented with various changes in learning environments, for example grouping pupils by competences rather than age; presenting evidence of learning in competence profiles was also introduced.
Systemic impact	The common framework led French education stakeholders to reconsider the mission of education (to provide knowledge or competences), to rethink the way to evaluate pupils, and to experiment with new practices.
Enablers	National dialogue around strengthening the focus on competences in schools based on a reduction of factual knowledge and a greater emphasis on competences.
Challenges	The introduction of the common framework was originally very debated in France, some stakeholders worrying that a greater focus on competences would leave out the acquisition of knowledge which has no immediate economic or social utility.
Links	French Ministry for National Education and Youth: Ministère de l'Education Nationale et de la Jeunesse:

6. Improvement of German language learning of pupils to help them to access the curriculum

The Austrian government has introduced legislation aimed at improving the German language skills of pupils struggling with proficiency levels in the national language of schooling, for whatever reason, that hinders their successful education. Pupils who are struggling because of language proficiency will be supported with extra German language tuition. Additionally, standardised language screenings will be applied nationwide to determine which children and young people need the German language support measures.
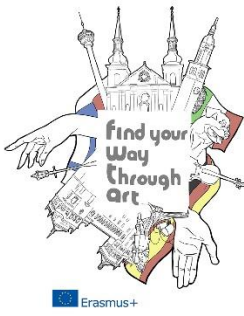
Key competences	Literacy competence; multilingual competence
Key drivers	Relatively high proportion of children whose first language is not German. Evidence shows that pupils whose first language is not German don't perform as well as those who are proficient in German. The need to address performance gaps in German language skills overall.
Learning approaches	Language screenings are applied to improve the accuracy in identifying pupils' lack of proficiency in the language of schooling. The support measures also increase the number of weekly support lessons in German that pupils can receive. The pupils with the most severe lack of proficiency in the national language of schooling receive intensive language

	support, while joining their peers in regular subjects and activities such as arts, gymnastics, class and school trips.
Systemic impact	The implementation of the German courses and German-support-classes has strengthened the language support measures for pupils struggling with a lack of proficiency in the national language of schooling. Schools can adjust learning approaches for individual pupils depending on their progress.
Enablers	Introduction of these measures to improve German language proficiency as part of a broader educational reform.
Challenges	Politicians have criticised the measures because it may hinder integration efforts and potentially isolate students with a migrant background from their peers.
Links	Improvement of German

4.2 Erasmus+, eTwinning and Horizon 2020 projects supporting change in approaches to competence development

Erasmus+ Projects

Project title	**ColEduLAB (CO–LAB): Collaborative Education Lab**
Link to learning approach and environment	Individual and collaborative learning Inquiry and project-based learning
	The project produced guidance and scenarios for collaborative learning in schools and the tools for its assessment. The experts from the project found that the ability to work in a team is a transversal skill which also has the potential to increase student motivation and longer-term learning commitment. Moreover, teachers' cooperation within and across learning settings is a challenging skill expected from a modern teacher. CO-LAB project engaged six ministries of education and national agencies, policy makers and schools. The project recommends systemic approach to support mainstreaming and implementation of collaborative learning across schools, at all levels: policy making, teacher training, school and classrooms.

http://colab.eun.org/

Project title	**Sustainable Entrepreneurship: A Game-Based Exploration for Lower Secondary Schools**
Link to learning approach and environment	Inquiry and project-based learning Making optimal use of digital technologies
	The project developed an online "Power Play" game which is an innovative teaching and learning method in the classroom to promote the entrepreneurship mind-set, group discussions and strong cooperation amongst the 12-15-year-old pupils. The game is focussed around clothing manufacture and aims to introduce the concept of sustainable entrepreneurship. The teaching and learning techniques included in the game are appealing to the younger audience offering varied and interesting 'auditive' and 'visual' learning styles.

http://powerplayer.info/

Project title	**Find Your Way through Art**
Link to learning approach and environment	Inquiry and project-based learning Individual and collaborative learning Making optimal use of digital technologies Language aware schools Cross-discipline collaboration
	The project combined learning at school with real life working situations by giving practical tasks to the learners. The learners were responsible for carrying out five project events from the planning stage to the actual implementation and performing. These events were: a concert, an art exhibition, a fashion show, a theatre performance and a modern art creation. Learners gained the sense of initiative and broadened horizons while cooperating with professionals and their European peers. The projects' tasks also engaged learners performing less academically and helped all the learners to reinforce digital competences and language skills. They were happy to discover their own creativity, multiculturalism and the spectrum of competences used in working life.

https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/2015-1-FI01-KA219-009057

Project title	**Discovering Europe**
Link to learning approach and environment	Inquiry and project-based learning Active role of the learner in the development of competences Individual and collaborative learning Learning in and with different countries
	The project developed innovative teaching and learning materials, project-based learning and web quests on culture, history and natural environment of the partnership countries. Teachers also explored the methods of peer-learning and learning-by-teaching to foster students' autonomy. Learners discovered new lands and made new friends. They were particularly enthusiastic about the working styles which triggered their creativity and commitment to learn. They also understood the importance of teamwork and cooperation, as well as the ability to speak foreign languages.

https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/2014-1-PL01-KA201-002907

Project title	**E-reading**
Link to learning approach and environment	Making optimal use of digital technologies Creating cross-sectoral partnerships Language aware schools
	The project focused on reinforcing the language skills and digital competences of teachers. Several teachers from different schools jointly carried out the training courses and job shadowing. Once the project has been completed teachers found themselves more motivated and with better public speaking's skills. It helped them to be more inspired in the daily school life and to "think out of the box" in relation to teaching techniques. The project had an impact on pupils since many activities were organized with the aim to get them involved in the project: an e-twinning partnership with a Polish school and an Italian school to work with poetry using art; a photoshop course to teach them how make use of this tool to not only play with images but also with poems; different activities dealing with Economics and Science (taught in English by Spanish teachers of other subjects). Students participated also in an artistic contest where they had to integrate poetry and art with themes such as Immigrations and Refugees, Love, War, the importance of believing in themselves and the will to survive in the face of adversity. http://www3.gobiernodecanarias.org/medusa/proyecto/38010141-0001/?page_id=555

https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/2015-1-ES01-KA104-015324

Project title	**Pollution! Find a STEM solution!**
Link to learning approach and environment	Experiential learning Cross-discipline collaboration

The project included cross-curricular and integrated learning about environmental issues with digital technologies, maths, engineering, geography and science. Students developed practical skills, such as building devices that measure air, light and noise pollution in their schools and homes. They learned how to analyse data and compare the results with fellow students to find solutions to solve environmental issues. The project encouraged learners to expand the knowledge in the areas of sustainable development and renewable energy. Teachers were inspiring and they were very appreciated by their learners.

https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/2014-1-HR01-KA201-007149

Project title	**Matters of Matter: future materials in science education**
Link to learning approach and environment	Inquiry and project-based learning Creating cross-sectoral partnerships

	The project developed teaching and learning materials which offer students opportunities to experience cutting edge research. The learners had a possibility to inquire and experiment in school laboratories with various projects. Teachers observed very high interest in science and technology among the learners. Moreover, schools established contacts with associations, local companies, research centres and higher education institutions. It led to the better knowledge-sharing and synergies between education, research and manufacturers.

http://www.mattersofmatter.eu

Project title	**Educational spaces 21: Open up!**
Link to learning approach and environment	Adapting existing or creating new learning spaces

Most schools use a traditional school space model which often hinders the students' learning progress. Based on the analysis of the key problems in teaching and learning spaces the project came up with the guidance on how schools can modernise their spaces to better fit the needs and challenges of future education. The concept of opening up eduspaces in three crucial dimensions: physical (architecture, design and infrastructure), virtual (technology, ICT use), and social (the school community) can help teachers, local authorities, students and parents not only to strengthen students' achievements but also to develop a vision of the transformed place and open new opportunities for learning.

http://www.eduspaces.eu/

Project title	**Raising students' perceived self-efficacy in STEAM to provide opportunities for all (STEAM4U)**
Link to learning approach and environment	Active role of the learner in the lifelong development of competences Individual and collaborative learning Learning in sites outside of schools and settings
	The STEAM4U project aimed to promote equity in STEAM (Science, Technology, Engineering, Arts and Mathematics) education by enhancing 10-14-year-old students' self-efficacy (perception of their own capabilities) in these fields, and particularly targeting disadvantaged students in STEAM, such as girls and students from low socioeconomic levels. Learners actively participated in formal and non-formal hands-on activities and became more engaged in STEM. These activities boosted their creativity and curiosity and, through different strategies, made learners feel that they had the competences to become STEAM experts if they want. The outputs of the project are aimed at providing educators and families different tools and strategies to engage learners in similar activities.

http://steam4u.eu/

Project title	**Bridging the multicultural diversities in education**
Link to learning approach and environment	Adapting existing or creating new learning spaces Active role of the learner

The project developed guidance on reinforcing educators' competences to successfully integrate immigrant children in early childhood and preschool education. The Project's activities have proved that creating multicultural surroundings in playrooms allows children to recognize differences, as well as similarities, and creates opportunities to see that even when people have different customs and traditions, they often share some common traits. The multicultural playrooms helped children in developing cooperation and social skills. Their self-esteem was boosted as they were recognized and accepted for their individuality. Parents were very happy to observe that a standard early childhood curriculum was complemented by raising international and multicultural awareness.

https://ebtmdie.wixsite.com/education-innovation

Project title	**Online labs and virtual simulators for engineering education**
Link to learning approach and environment	Making optimal use of digital technologies Learning in digital environments

The project developed an online lab platform combined with curriculum modules and open learning content for educational institutions. The online lab platform integrates existing and new remote and virtual labs into one portal by creating a unified interface and sharing functionality. The platform offers access to different types of online labs which can be located either in educational institutions or SMEs across Europe. The platform has been designed to support teachers, trainers and other educational staff to acquire or improve digital skills. The use of platforms seems to increase the efficiency of public expenditure for education. For example, institutions can share expensive equipment through the remote lab interface, offering a wider, and institution-over spanning (even Europe-wide) access to lab equipment.

http://simlab.roboticlab.eu

Project title	**CROSSCUT: Cross-curricular teaching**
Link to learning approach and environment	Cross-discipline learning
	The CROSSCUT project created a training programme for secondary level teachers to develop and implement innovative cross-curricular approaches, in order to enhance the acquisition of transversal key competences by pupils. The situational survey and the teachers' reference framework, created by the CROSSCUT team, were used to develop a comprehensive online training programme including teaching resources and collaborative spaces to exchange best practices. The project proposes recommendations to policy makers, teacher-training institutions and school leaders, on how to influence teacher education and teacher working environment creating favourable conditions for cross-curricular teaching. The project covered several dimensions of teachers' professional development e.g. critical thinking, way of working (from isolated activity to collaborative culture) and online resources.
https://www.ciep.fr/en/cooperation-in-education/expertise/crosscut **https://crosscut.uab.pt/**	

Project title	**STEP4SEAS: Social Transformation through Educational Policies based on Successful Educational Actions)**
Link to learning approach and environment	Creating cross-sectoral partnerships Learning in and with different countries
	The project aimed at promoting the development of educative policies that foster the inclusion of disadvantaged learners based on Successful Educational Actions (SEAS) implemented through collaborative work between schools, universities and governments. The Successful Educational Actions were identified by the FP6 INCLUD-ED research Programme. Those actions, researched in 14 European countries, increased attainment for disadvantaged learners, coexistence and social cohesion, being transferable across different contexts. The projects work in two complementary levels: promoting SEAS implementation in new schools and their communities across Europe, fostering social inclusion; and working with the partner's governments and universities to develop policies that can scale up the benefits of this implementation.

Project title	**Enlarge SEAS (Schools as Learning Communities in Europe: Enlarging Successful Educational Actions for all)**
Link to learning approach and environment	Creating cross-sectoral partnerships Adapting existing or creating new learning spaces
	Enlarge SEAS aims to extend to new countries the network of schools implementing and sharing Successful Educational Actions (SEAS) in Europe, a network initiated by the SEAS4ALL project. The project aims to increase the number of students from vulnerable groups achieving the basic skills and competences, reduction of conflicts inside and outside the educational centres, and improvement of family participation and engagement in the schools involved. The project will develop a series of open courses, available on the School Education Gateway, to support the implementation and to scale up the benefits of the SEAS to all schools interested in Europe.
https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/2018-1-ES01-KA201-050491	

6th Framework Programme for Research and Innovation Project:

Project title	**INCLUD-ED. Strategies for inclusion and social cohesion from education in Europe**
Link to learning approach and environment	Individual and Collective Learning A whole school approach to wellbeing supporting learners' social and emotional development

INCLUD-ED project analysed educational strategies that contribute to overcome inequalities and promote social cohesion. The project has identified the elements that can influence school failure or success and their relationship with other areas of society, namely, housing, health, employment, and social and political participation. A specific focus has been placed on social groups that are vulnerable to social exclusion: youths, migrants, cultural minorities (i.e. Roma), women, and persons with disabilities.

The project has identified Successful Educational Actions with universal components, which are effective regardless of the context and therefore are transferrable to other schools and communities to improve school success and social cohesion. At the moment, more than 6700 schools in Europe and Latin America are improving their academic results and living together, implementing SEAS.

https://creaub.info/included/

7th Framework Programme for Research and Innovation Projects

Project title	**TEACH-IN: Teacher leadership for school improvement**
Link to learning approach and environment	Creating cross-sectoral partnerships

	The main objective of the TEACH-IN project was to increase our understanding of teacher leadership and how it can be developed in secondary schools and communities in ways that support school improvement and social transformation. The analysis of teacher leadership, and strategies that involve families and the wider community were at the core of this initiative. The project was based on the involvement of the Leadership for Learning academic group at the University of Cambridge and the University of Barcelona. Particularly, it took advantage of the non-positional teacher leadership approach developed in the HertsCam network, the International Teacher Leadership initiative and the FP6 INCLUD-ED project.

https://www.educ.cam.ac.uk/research/projects/teachin/

Project title	**Children's personal epistemologies (CHIPE)**
Link to learning approach and environment	Learning in sites outside of schools and settings

	The project was exploring children, families' and teachers' beliefs about knowledge and learning in the school context in order to promote effective learning and teaching. It aimed to enhance a more inclusive epistemic climate that brings closer knowledge from children's out-of-school experience to classroom knowledge. The project intended to capitalize on children's and families' "expertise" to promote better learning environments for all children, increase educational success and learners' achievements.

https://www.educ.cam.ac.uk/research/projects/chipe/

eTwinning Projects

Project title	**PEACE ISLAND**
Link to learning approach and environment	Learning in and with different countries
	Within this project, students participated in activities to become more autonomous, responsible citizens, to improve language and digital skills. Teachers and students produced a book 'Peace Island'. The book tells a story about a utopian island built in all schools taking part in the project. Students were very active and creative while creating the Peace Islands. They composed an anthem, created a flag, set up building's architecture, and chose the best technology and tools to protect the environment.

https://belgintuncben.weebly.com/

Project title	**IMAGINE….together for the world**
Link to learning approach and environment	Learning in and with different countries Individual and collaborative learning Inquiry and project-based learning Individual and collaborative learning

Italian and Greek 10-year-old students worked in groups and increased their understanding of the refugee experiences through reading books, watching videos, playing role-play games, completing collaborative activities, interviewing migrants and producing posters, slogans and collaborative stories. Digital tools were used to engage students in critical thinking and to improve their productive skills in English language. Overall these tasks helped students become aware of the different aspects of refugee difficulties and work as a transnational group to raise further questions about migration, war, biases and stereotypes and develop their own answers.

https://twinspace.etwinning.net/30463/home

Horizon 2020 Projects:

Project title	**CREATIONS**
Link to learning approach and environment	Inquiry and project-based learning Cross-discipline learning Learning in and with different countries Learning in digital environments Learning in sites outside of schools and settings
	The project developed and implemented on a large scale, creative approaches based on scientific phenomena and discoveries, combined with Art to provide an engaging science classroom. Through a variety of events, exhibitions, interactive workshops and numerous school-based activities, the project established a pan European network of students, teachers, researchers and artists, involving them in unique learning experiences. Recent discoveries in the field of high-energy physics, astronomy and biology were the focus of the implemented activities. Students interacted with researchers in live internet chats, podcasts and webcasts. Students had the chance to conduct or imitate scientific experiments as "performers of knowledge".

http://creations-project.eu/

Project title	**Stories of Tomorrow**

Link to learning approach and environment	Adapting existing or creating new learning spaces Inquiry and project-based learning Cross-discipline collaboration Experiential learning Learning in digital environments
	The Stories of Tomorrow project has contributed to the dynamic future of children's e-books evolution by developing user-friendly interfaces for young students (10-12 years old) to create their own multi-path stories expressing their imagination and creativity. The project offered these innovations through a single environment, the STORIES Storytelling Platform which has been the place for students' artistic expression and scientific inquiry at the same time. The virtual environment of STORIES helps students feel immersed in ways not possible with traditional learning materials. The STORIES Platform can be used as a tool for the classroom teacher of any subject, it gives the professional educator another avenue to explore with learners.

http://www.storiesoftomorrow.eu/

Project title	**BEACONING**
Link to learning approach and environment	Learning in digital environments
	BEACONING sets a forefront in multifaceted education technologies through large-scale piloting of a digital learning platform that blends physical and digital spaces. The concept is to digitally enable play-learn in everyday spaces fostering cross-subject learning, facilitated by personified gamified lesson plan where context-aware educational resources and ad-hoc learning in the surrounding environment can be triggered. Most importantly, Beaconing empowers educators to create and author their own gamified and pervasive lesson plans towards promoting the adoption of game-based learning in teaching and learning. Students and teachers can access a wide range of resources through the student and teacher dashboards, where the gamified learning approach is modular, allowing learning content to be accessed via engaging digital and physical activities.

https://beaconing.eu/

National and regional projects:

Project title	**Integrative Learning for Teaching in school-based curriculum: Life Education and Adolescence & self-development – Romania**
Link to learning approach and environment	A whole school approach to wellbeing supporting learners' social and emotional development Cross-discipline learning Adapting existing or creating new learning spaces within the school (including outdoor spaces) Cross-sectorial partnerships
	The project increased the cooperation between teachers at school, encouraged co-teaching and co-designing of lessons. Teachers became more specialised in applying key competences in everyday life, outside the formal school environment. The project's activities strengthened soft skills and boosted pupil self-development. Learners achieved better in school, absenteeism decreased, and overall positive attitude increased. Students felt more optimistic about their future perspectives in education and employability. Evidence is provided to support a call for relevant learning experiences and life skills to be part of the formal education system from the first years of school.

https://lifelearning.ro/category/formare/

Project title	**PerLen: A concept for competence-oriented teaching and learning – Germany**
Link to learning approach and environment	Active role of the learner in the lifelong development of competences Individual and collaborative learning A whole school approach to well-being supporting learners' social and emotional development
	The concept of **the "PerLes"** (**Per**sonal **L**earning **e**xperiences) is aimed at identifying and developing extracurricular competences as well as subject related theoretical knowledge. This concept can meet the requirements of school and extracurricular learning. ✓ **The "Learning-PerLe" serves awareness and visualization of all learning associated with activities and opens up a new form of communication on learning among members of a**

group.
- ✓ The "**Subject-PerLe"** offers new ways to record proof of achievement and can be used to complement or substitute written class tests in school.
- ✓ The "**Job-PerLe"** opens up prospects towards the students' career development. It allows students to present themselves on specially organised job fairs to representatives of enterprises in order to apply for practical training and apprenticeships.

Over to you

Critical reflection

Reflecting back on one of the policy examples that you identified earlier, have you an example in mind that you would like to share at the conference? Use the template below to describe the policy briefly and reflect in particular on the systemic impact, the enablers and challenges and any measures taken to align it with other relevant policies.

Title of policy initiative	
Description	
Key competences addressed	
What were the key drivers?	
Learning approaches or environment	
Systemic impact	
Enablers	

Challenges	
How is this linked to other policies/strategies? Or could this be improved?	

5. Some questions for reflection

We look forward to the keynotes, presentations, workshops, exhibition projects and all of your contributions at the conference. Our primary focus will be on identifying systemic conditions and defining policy guidelines for introducing and developing competence based teaching and learning in schools across Europe. Here are some of the questions that we hope to address through this conference. Perhaps you might find it useful to reflect on them before and during the conference.

Sharing what we know:

- In your experience, what learning approaches and/or environments have the potential to really **make a difference** in supporting the development of some or all of the eight key competences?

- Are there any areas where your country has recently taken **specific policy action** around the development of key competences? If so, what implementation supports have been or are being put in place?

- What are **enablers and challenges** for effective policies to support learning approaches and environments in schools?

Moving forward:

- Which policies or strategies need to be linked in order to ensure that school education policies and reforms are **coherent** and improve the approaches to key competence development?

- What do you see as being the most **important first step** in developing the necessary policies/strategies and ensuring that they are coherent and integrated? Which **other steps** need to be taken to successfully implement policies supporting key competences development?

- Which **stakeholders** need to be involved in the process of policy design?

- Which **resources** are needed for effective policy implementation?

- How can the experience of policy examples be shared in a way that can be **useful to other countries**, recognizing that they may not be directly transferable, but are likely to be useful, nonetheless?

We look forward to hearing your input at the conference and wish you an enjoyable and collaborative learning experience.

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Erasmus+ Project Results

https://ec.europa.eu/programmes/erasmus-plus/projects/

eTwinning

www.etwinning.net

Horizon 2020

https://ec.europa.eu/programmes/horizon2020/en

School Education Gateway

www.schooleducationgateway.eu