European mapping of initiatives on the development of key competences

2012

Communication in the mother tongue
Communication in foreign languages
Mathematical competence and basic competences in science and technology
Digital competence

Learning to learn
Social and civic competences
Sense of initiative and entrepreneurship
Cultural awareness and expression

http://keyconet.eun.org
The initiatives related to key competence development described in this report differ in many ways, according to the nature of the key competences addressed, the implementation process used, the number of students and teachers directly concerned, the type of actors involved, and the duration and stage of development. Moreover, the initiatives described only represent those collected by KeyCoNet partners in 2012, and are therefore not exhaustive or representative of all KCD developments in each partner or associate country. This being said, the overview of the 35 initiatives offered in this report informs us that:

- Policy efforts to implement key competence development in schools are mainly concentrated at secondary school level;

- The majority of the initiatives identified are at national level, and are in the first or second stages of implementation, while pilot initiatives involving a network of schools and school level experiments have also been identified;

- One third of initiatives identified claimed that they were implemented in both formal and non-formal learning contexts, testifying to education systems’ growing awareness of the importance of building bridges between formal and non-formal learning to harness students’ motivation and maximize learning outcomes;

- In Spain, Poland and Austria, the initiatives identified directly complement these countries’ overarching national strategies on key competence development, in which recent curricular reform has played an important role;

- While all initiatives to some degree target the curriculum and the transformation of pedagogical practice so as to be more innovative, collaborative, motivational and student-centred; the majority of initiatives also involve investment in in-service teacher training, but rarely address initial teacher education also;
• Holistic, multi-competence and multi-dimensioned initiatives (covering an array of key competences and targeting three or more of the following dimensions: curriculum, assessment, teacher training, pedagogy, school organization, and learning resources) exist in Belgium, Finland, Ireland, Sweden and Slovakia.

• Around half of all countries (Austria, Estonia, Poland, Portugal, Norway and Finland) analyzed have at least one initiative mainly focused on the development of students’ digital competence, often including training teachers to use ICT more effectively for teaching and learning; other initiatives focus on the use of ICT as a means through which to teach and learn other competences;

• Competences in foreign languages, cultural awareness and expression and social and civic competences are rarely addressed in the initiatives identified, reflecting the fact that less than half of all EU countries have national strategies in these areas;

• Entrepreneurship education is beginning to be offered as a separate subject at secondary school level in Spain, Ireland and Estonia (and already exists as such in Poland), and national initiatives dedicated to this competence exist in Sweden and Norway, where it has been prioritized in recent education reforms.

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INTRODUCTION

The Lisbon agenda, launched by the European Council in 2000, underlined national education systems’ key role in fostering a dynamic and innovative European knowledge-based economy. To assist national education systems’ contribution to this objective, the 2006 Recommendation of the European Parliament and of the Council on Key Competences for Lifelong Learning was formulated. Since then, Europe’s focus on the digital agenda and the need to face the challenges posed by the current financial crisis have given renewed relevance to the importance of developing a key competence approach in education systems across Europe.

Most EU countries, including those represented within KeyCoNet, have introduced the concept of key competences and learning outcomes into their national curricula or official steering documents for compulsory education during the last decade (see Figure 1). In countries, including Finland and Sweden, where a competence-based approach has in fact been in place since the mid 1990s, current education reform is re-emphasizing the centrality of key competences in the new curricula to be introduced in the near future. It is this series of recent curriculum reforms across EU countries which have often given rise to the initiatives described in the 2012 case notes, focused on developing and strengthening the key competence development (KCD) approach adopted by each country’s new or recently revised curriculum.

1For more details on the nature of each reform and its relation to KCD please refer to the Key-CoNet 2012 Country Overviews accessible here: http://keyconet.eun.org/country-overviews
### Recent curricular reforms integrating KCD

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1. The Nature of the KCD Initiatives Described in the 2012 Case Notes

KeyCoNet’s remit includes the identification and analysis of emerging key competence initiatives, which are collected yearly and described in ‘case notes’ to keep abreast of new developments in this area. Each of KeyCoNet’s partners were responsible for identifying and contacting coordinators of KCD initiatives of interest at national level, and requesting those directly involved in the initiative to draft a case note. In 2012, the project’s first year, a total of 35 case notes have been produced on the basis of KCD initiatives identified in 10 partner and 2 associate countries of the network. Additionally, two European initiatives have been identified by Junior Achievement Young Enterprise (JA-YE) involving countries also not currently represented within the network. The initiatives collected by partners and described in this report are not exhaustive and therefore do not fully represent all KCD developments in each country.

The initiatives described in this report differ in many ways, according to the nature of the key competences addressed, the implementation process used, the number of students and teachers directly concerned, the type of actors involved, and the duration and stage of development. It should be noted therefore that this report is modest in the comparisons and trends it refers to due to the diverse nature and scope of the initiatives identified, as well as the varying degree of information available. Although already rich in information, the case notes are intended to provide an initial overview of the initiative concerned. A more detailed and critical analysis of the initiatives selected by the network will be developed into fuller case studies, which will identify all obstacles and enablers perceived during the initiative’s implementation, both from the substance and process points of view, with the objective to fuel recommendations at school, local, regional and national levels to support key competence development.

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2 External experts working in collaboration with KeyCoNet identified initiatives in Poland and the UK which are not formally represented within the network, but considered as associate countries. Spain was also an associate member to the network in 2012 (and will be a full member represented by Universidad Nacional de Educación a Distancia Madrid - UNED and Consejería de Educación de la Junta de Andalucía – CEJA, in 2013). Although no Spanish case note was produced in 2012, Spain is nevertheless included in this report as the network participated to a KCD peer learning visit in Seville in autumn of 2012.

3 JA-YE is a European partner within the network not representing any particular country.
1.1 Policy efforts in KCD are clearly concentrated at secondary school level

Half of all the initiatives identified target secondary school students only, some specifying a focus on lower or upper secondary level. The remaining half concentrate on the whole of compulsory education, covering both primary and secondary levels. Only one initiative (see case note FI2) targeted primary level only (see Figure 2).

Figure 2: Level of education covered by the KCD initiatives identified in 2012

- Compulsory education as well as initiatives targeting secondary education specifically
- Compulsory education only
- Secondary education only
- Primary education
1.2 Majority of initiatives identified at national level

The majority of the initiatives identified are at national level, and are in the first or second stages of implementation. A proportion of these initiatives have evaluation built into their programmes, and while the process has been launched, results are still not available (see for example case notes BE1, BE2, EE2, and IE1). Other national initiatives which have been in place for longer, such as the work carried out by the Norwegian Centre for ICT (see case note NO2) already have well established monitoring and assessment tools in place (e.g. the longitudinal Monitor study on ICT infrastructure and the use of ICT for learning, carried out at national level every two years since 2003).

1.3 Pilot initiatives involving networks of schools

In addition to initiatives which have already been mainstreamed, a group of six pilot initiatives were also identified. Three of these pilot initiatives involve a small network of 3 to 4 primary (see case note SK1) or secondary (see case notes SE2 and IE2) schools where all students and staff are involved in a whole school approach aimed at experimenting how best to embed competence-based learning within daily school practice. In the cases of Sweden and Ireland the choice to experiment using school pilots may be partially attributed to their decentralized approach to various dimensions of the education system. The Slovak 4-year pilot has come to an end, and has been the subject of a thorough evaluation conducted by the National Institute for Education, and was overall deemed successful. As a result the plan is to scale up the initiative to national level to ensure that all primary schools use the innovative methods developed by the project. A catalogue containing the proven innovative teaching methods and opportunities for accredited training will provide all Slovak teachers with free access to information and methodological documents intended to enhance a further systematic implementation of the programme.

1.4 School level initiatives

A group of eight initiatives were identified at school level, only involving one school (see case notes FI1, FI3, FR1, FR2, FR3, FR4, FR5, and PT2). Their scope and nature vary significantly however. In the Finnish school experiments for example
university researchers have carried out detailed formative evaluations with scalability in mind, with the intention of creating a nation-wide school network as the result of the LEAP21\(^4\) initiative for example. In France, where five school level initiatives were identified scaling up is envisaged to a much less ambitious extent, by expanding the initiative only to other year groups within the school where the project has taken place.

\(^4\)International researchers working on innovative teaching and learning have developed the professional development programme LEAP21 with the aim of embedding the principles of 21st century learning into schools’ daily practice (http://www.itlresearch.com/itl-leap21).
1.5 Non-formal learning complements some of the formal education initiatives

Figure 3: Learning context in which the KCD initiatives identified in 2012 are implemented

The remit of KeyCoNet’s work is to analyze the development of key competences in formal education, and therefore the majority of initiatives identified clearly operate within the formal school framework only. Interestingly however, a significant one third of initiatives identified claimed that they were implemented in both formal and non-formal learning contexts (see Figure 3). This is evidence of the fact that education systems across Europe are becoming increasingly aware of the im-
The importance of building bridges between formal and non-formal learning to harness students’ motivation and maximize learning outcomes. In Finland for example, the new core curricula currently under development will specifically encourage links to be made between formal and non-formal learning.

2. KCD INITIATIVES COMPLEMENTING OVERARCHING NATIONAL STRATEGIES TARGETING ALL OR MOST OF THE KEY COMPETENCES

Spain, Poland and Austria are the only partner or associate KeyCoNet member countries which have national strategies focusing on all or most of the key competences to be developed in school education. The key competence development (KCD) initiatives identified in these countries, described in the 2012 case notes, reflect this wide ranging approach. The information below regarding these countries’ national strategies derives from the report *Eurydice (2012) Developing Key Competences at School in Europe: Challenges and Opportunities for Policy*, and is used to contextualize the initiatives identified by network partners in these countries.

2.1 Spain’s national strategy

Spain’s Organic Act on Education 2/2006 (*Ley Orgánica de Educación* - LOE) specifically mentions ‘basic competences’, together with objectives, contents, pedagogic methods and assessment criteria as the building blocks of the curriculum. Spain’s education policy fully supports the key competence approach through the 2006 Education Act which establishes a common core national curriculum for compulsory education including eight ‘basic competences’, describing how each area or subject should contribute to their development. Likewise, following the shift in national curricula from subject knowledge to a competence-based approach, Spain’s assessment system has adopted an explicit emphasis on competences. The last national standardised tests took place in 2008-2009 for primary, and 2009-2010 for lower secondary compulsory education, and assessed linguistic communication, mathematical competence, knowledge and interaction with the physical world, and social and civic competences. Spain has also put in place specific strategies for students’ development of mother tongue (reading), foreign languages, science, digital competence and a sense of initiative and entrepreneurship.

5http://www.mecd.gob.es/cniie/investigacion-innovacion/competencias-basicas/proyecto-combas.html
This all-encompassing, concerted approach to KCD is furthermore reflected in the ongoing COMBAS project (Programme for consolidating Basic Competences as the essential element of the curriculum - *Programa para la consolidación de las Competencias Básicas como elemento esencial del currículo*), established by the Spanish Ministry of Education, Culture and Sport, in collaboration with the Autonomous Communities in 2011. The project targets all members of the education community at all stages of compulsory education (students, teachers, management teams, families, etc.) and its holistic approach includes: supporting competence-based curriculum development so as to increase students’ level of competences, develop their creativity, and prevent and reduce school failure by promoting lifelong learning; improving and updating initial teacher training in primary and secondary education to include the teaching and learning of key competences; financially supporting the development of projects seeking to consolidate a key competence approach in the curriculum; and evaluating the implementation of the programme and its impact. The PICBA programme (Programme for the integration of key competences in Andalusia - *Programa de Integración de las Competencias Básicas en Andalucía*), which ran from March 2011 until June 2012, is the regional sub-project of Spain’s national COMBAS project, and is the largest regional programme in this area. The PICBA programme aimed to develop pilot training actions for teachers to assist them in the integration of key competences into the curriculum, and involved 82 public Andalusian primary and secondary schools. As Spain was not a full member of KeyCoNet in 2012 a case note describing the PICBA initiative was not produced. However, the PICBA programme was the focus of the peer learning visit which KeyCoNet members participated to in Seville in October 2012. For more details please refer to the Peer Learning Visit Report, produced as a result of this visit. Moreover, the PICBA initiative will be the focus of a case study to be produced by Spanish researchers within the network in 2013.

### 2.2 Poland’s national strategy

Poland’s Strategy for the Development of Education (2007-2013) envisages curriculum changes including more emphasis on the development of key competences to help the employability prospects of graduating students. As a result, the new core curriculum introduced in 2008 fully reflects this approach and is organised around key competences such as learning to learn, communication, mathematical thinking, etc. Moreover another recent Polish strategy, namely the Strategy for the

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7[^http://keyconet.eun.org/peer-learning-visit-report]
Development of Social Capital (2011-2020), is currently subject to public consultation. The strategy refers directly to the provision of key competences, to basic and complex skills as well as to the development of students’ creativity within the framework of general education. It also aims to respond to the important challenges related to the development of civic activity and social participation in public life. The strategy addresses all competences and particularly aims to support the development of digital competences, ensuring the wide use of ICT for learning purposes. The document entitled Lifelong Learning Perspective, annexed to the above-mentioned strategy, includes a direct reference to the development of key competences as essential for tailoring education and training to the needs of the economy and to changes in the labour market.

The ongoing initiative ‘Students’ Academy’ (2009-2014) coordinated by the Centre for Citizenship education, described in the Polish case note, was designed to support the implementation of the new national core curriculum by developing and testing achievement standards for mathematical, scientific and digital competences in 300 secondary schools. In the classroom as well as during extra-curricular activities known as School Science Clubs, lower secondary school students perform experiments and carry out projects in mathematics and natural sciences. Although the initiative focuses mainly on improving teaching and learning in MST subjects, it also above all develops students’ learning to learn competence. It is one of only two initiatives collected in 2012 from the European countries surveyed which focuses on this rather elusive competence, which is rarely treated explicitly. Through a specific module within the Academy programme on peer teaching, students are required to identify and analyze their own learning styles (often normally unnoticed by themselves or by their teachers) and to use this reflective exercise to inform their teaching to peers. More than 300 secondary schools from 5 Polish provinces have participated in the project, and 3,000 teachers have been provided with practical training (face-to-face, online and blended modes) on how to use the achievement standards during lessons and extra-curricular activities. Since the project’s launch more than 1,000 teachers have implemented over 3,000 of the Academy programme’s modules benefitting circa 23,000 students aged between 13 and 16 years old. The project is multi-faceted targeting the effective implementation of the new competence-based curriculum, renewing the approach to MST

8The CoPE (Certificate of Personal Effectiveness) developed by ASDAN is a qualification which assesses students generic, cross-curricular ‘personal effectiveness skills’ including the learning to learn competence. The development of these skills is based on a methodology involving experiential learning by way of personal challenges which permit the incremental development and recognition of skills through formative assessment and on “learning to learn” through a process summarised as “PLAN>DO>REVIEW”. For more information see case note UK1: Building a culture of achievement through the ASDAN Certificate of Personal Effectiveness.
pedagogical methods, and providing teachers with support through in-service training and dedicated resources. Teachers who join the programme can benefit from e-learning courses that cover experiment preparation and implementation, project-based learning management, methods to increase student motivation and the role of feedback in the learning process.

2.3 Austria’s national strategy

Although Austria’s approach to KCD development is holistic and integrated in a similar way to Spain and Poland’s strategies, unlike these countries, it focuses mainly on a core group of competences, as opposed to all of them. With the amendment of the national School Education Act (Schulunterrichtsgesetz – SchUG), a legal basis for the implementation of educational standards (Bildungsstandard) in relation to the development of core competences in Austrian schools was established in 2008/09. This Act primarily determines the framework for quality standards in three main subjects (mother tongue, second foreign language and mathematics) for students in years 4 and 8. Regular evaluation of the standards allows for them to be adapted in order to ensure the quality of education, and teachers receive feedback on students’ learning results. An integrated programme for teacher training and professional development has also been developed accordingly, and has already been partly implemented. The aim is to improve education by moving towards more competence-based teaching, through a systematic and comprehensive approach that includes an analysis of assessment practices and quality assurance.

The Federal Institute for Educational Research, Innovation and Development of the Austrian School System (Bundesinstitut für Bildungsforschung, Innovation und Entwicklung des österreichischen Schulwesens – BIFIE) is responsible for the development of these standards as well as for the education and training of teachers, in close cooperation with the teacher training colleges (pädagogische Hochschulen - PH). PH are the bodies through which all educational and training measures in this area are carried out, and they also serve as the guidance and advisory board for teachers needing support in the implementation of key competences in their teaching. National standardised assessment of students’ learning and feedback to the teachers is an essential part of the quality assurance system set up by the Austrian implementation strategy. In 2012 the first assessment was implemented by BM:UKK and BIFIE in the key competences of maths (2013) and mother tongue (2014) in year 4, and in maths (2012), second foreign language (2013) and mother tongue (2014) in year 8. An essential step forward towards the full implementation of the key competences approach in the Austrian educational system is
the new secondary school leaving exam, also forming a part of the amended Education Act. By the 2013/14 school year the new exam will be partially standardised and competence-based, in order to correspond with the competence development of the educational standards for school years 4 and 8.

Austria, like Spain, has a national KCD programme, but rather than targeting all competences, focuses on those taught as specific subject areas within the curriculum; namely, MST competences, digital competence and communication in the mother tongue. The national programme IMST (Innovations Bring Schools to the Top) aimed at improving teaching in mathematics, science, information technology, German language and related subjects was launched in 1998 and in 2013 will be extended for a further three years. The programme is run by the Institute of Instructional and School Development (IUS) of the Klagenfurt University with support from the Austrian Educational Competence Centres (AECC) and the Pädagogische Hochschulen (university colleges of teacher education). The programme helps teachers to implement innovative pedagogical projects and to receive support in terms of content, organisation and funding. It involves around 7,000 teachers who participate in projects, attend conferences or cooperate in regional and thematic networks. Evaluation and research has been integrated at all levels of the IMST programme to ensure its impact is measured. Gender sensitivity and gender mainstreaming are important principles of the programme, and their implementation is supported by the Gender Network.

During 2011 and 2012 regional networks were supported under IMST’s network programme. By way of regional educational planning these networks can set their own priorities and support district networks, regional specialist didactics centres, specialist groups in schools and/or inter-school networks. This programme also permits the setting of contextual priorities by promoting small-scale projects, for example. As of 2010, IMST has started supporting five to ten theme programmes for classroom and school projects with a view to boosting specific priorities, including competences in mathematics and science. The network and theme programmes are monitored by programme teams, composed of academics at universities and colleges of teacher education as well as school staff, which work on approximately 20 classroom and school projects per theme and school year. Thanks to IMST’s support system, the way has been paved for further anchoring of specialist didactic knowledge so that educational policy projects can resort to reliable structures. The Austrian Educational Competence Centres for example, have turned out to be key agents in the introduction of educational standards and of a centralized secondary school leaving exam.
2.4 Targeted initiatives on specific competences in Austria, Spain and Poland

In addition to their overarching national strategies on KCD, Spain, Austria and Poland also have targeted initiatives on specific competences. To improve students’ literacy, all three countries have invested in reading initiatives: In Spain, the national ‘Plan for Promoting Reading’ (Plan de fomento de la lectura) (46), and the Act on Reading, Books and Libraries (47) (Ley de la lectura, del libro y de las bibliotecas) of 2007 aim to foster reading and further develop school libraries; In Austria the ongoing reading initiative Literacy Competence (see case note A2: Reading Initiative) focusing on improving reading and text comprehension was set up in 2004 to compensate for the shortcomings in reading skills revealed by PISA results; In Poland, the National Programme for the Development of Reading (2011-2020) is currently being prepared by the Ministry of Culture and National Heritage.

Austria has a range of national programmes, actions and centres, each dedicated to developing a specific competence or group of competences. For example, its national digital competence programme has recently completed a pilot phase which uses the EDUMOODLE platform to integrate ICT into the curriculum for the teaching and learning of various subjects (see case note A1: Digital Competences, Basic Education in ICT). Austria also has a specific national centre (ÖZEPS, www.oezeps.at) for students' personal development, encouraging the development of social and learning to learn competences, and another centre dedicated to citizenship education, which recently produced a publication including practical lessons and diagnostic exercises (Diagnoseaufgaben) to help teachers assess students’ ability to find solutions to problems independently, as well as assess their decision-making and conceptual thinking skills. Moreover, the Ministry of Education has set up the EESI centre (Entrepreneurship Education for School Innovation - http://www.eesi-impulszentrum.at/) which is responsible for all teaching materials, teacher training, competitions and workshops related to the development of entrepreneurial skills. Lastly, the Austrian government has also supported a number of arts projects with the explicit aim of fostering students’ creativity, innovation, cultural awareness and artistic expression. Since 2007 more than 20,000 new projects have been launched by schools, artists and cultural institutions, with the support of government funding. Spain also has national programmes or strategies dedicated to specific competences. For example, the Comprehensive Programme for Learning Foreign Languages (2010-2020) implemented by the Spanish Ministry of

9http://www.bmukk.gv.at/kultur/kulturvermittlung/kunstmachtschule.xml
Education, Culture and Sport in collaboration with the Autonomous Communities, focuses on the promotion of language learning from an early age; and the National Strategy for Science and Technology (2007-2015) underlines the need for the education system to promote interest in science and technology and particularly to develop students’ problem-solving and critical thinking skills.

3. HOW THE CURRICULUM, ASSESSMENT, PEDAGOGY, TEACHER TRAINING AND SCHOOL ORGANIZATION ARE ADDRESSED IN THE INITIATIVES IDENTIFIED

3.1. An emphasis on key competences is more visible in in-service teacher training as opposed to initial teacher education

All initiatives identified target the curriculum and pedagogy to some degree. Throughout the initiatives analyzed the teaching methods considered favourable to competence development are characterized as innovative, collaborative and motivational, often supported by ICT, with a focus on student-centred, personalized learning. The majority of initiatives also involve some degree of teacher training which typically accompanies a pilot project in its first implementation phase. However, this teacher training is nearly always dedicated to serving teachers, with less than a third of initiatives also targeting initial teacher education. This reflects the CASE Report’s (2009) finding that an emphasis on key competences is more visible in in-service teacher training as opposed to initial teacher education. The only initiative identified which solely targets initial teacher education is the introduction of a module focusing on the embedding of key skills in teaching and learning, as part of a third level undergraduate BSc Science and Maths Education Degree, at the National University of Ireland Maynooth (see case note IE4). Initiatives which are starting to look at teacher training holistically include Belgium’s cross-curricular final objectives initiative (see case notes BE1 and BE2) which emphasizes the need for more attention to be given to competence-based learning and assessment in both initial and in-service teacher education, in accordance with the curricular reform. Assessment is mentioned by various initiatives, but rarely focused on or elaborated in detail. Several coordinators involved in these initiatives mention the difficulty in developing appropriate assessment tools for this new way of teaching and learning, and pilot projects in their first implementation phase that do consid-
er assessment as part of a holistic approach to key competences, count on dedicating attention to this in their project’s next phase of development.

3.2: Initiatives addressing how KCD impacts on the school learning environment and timetable

Two initiatives interestingly specifically tackle the issue of how a key competence approach might impact on school organization in terms of learning spaces or timetables; a very practical and real concern for the implementation of any education reform. The Finnish initiative (see case note FI3: Co-designing learning environments) is based on the principle that physical learning environments need to be updated in order to better support the teaching and learning of key competences necessary for the 21st century. It is a cross-curricular project (visual arts, physics, chemistry, mathematics, ICT, mother tongue and literature, English and Spanish) but is conducted mainly as part of the visual arts course. The main objective is to transform school areas into spaces enabling diversified learning, through a user-centred co-design development process involving all members of the school community in a whole school approach. The French lower secondary Collège André Bauchant has implemented a new type of internal organisation which is innovative in both structural and pedagogical terms (see case note FR4: New pedagogical organization). The curriculum is partially taught through interdisciplinary workshops which has modified the timetables of some subjects and therefore required an exemption from local education authorities, due to its affect on compulsory education. This particular school’s initiative has achieved a key competence approach through the reorganisation of lessons, divided between subject lessons, team-taught interdisciplinary lessons, modular competence groups and personalised support.

3.3 Multi-competence and multi-dimensioned initiatives

Despite the absence of a national strategy dedicated to key competences, some countries (BE (nl), FI, IE, SE, and SK) have initiatives which cover all or most of the key competences and target various dimensions of the education system to ensure their successful implementation. For example, in Ireland the development of the key skills framework in the senior cycle (see case note IE3: Key skills for senior
cycle – a whole school approach) was tested in four secondary schools, in a whole school approach experiment. In order to successfully embed the key skills into teaching and learning several actions were taken: a network was established and schools participating in this network received support, training and funding from the NCCA; a Key Skills toolkit\(^{10}\) was developed for schools; whole staff training sessions were held with each school and in addition ‘champion’ key skills teachers were identified in each school to lead and support the process. This combination of targeted work on curriculum development, assessment methods, pedagogy, and the provision of teacher training and resources ensured the schools were given all the support and tools needed to integrate the key skills approach into every day teaching and learning across subjects. Similarly, Rektorsakadamien in Sweden also recently embarked on a pilot project involving three schools with the aim of integrating ‘future competences’ into the traditional syllabi and curriculum (see case note SE2: Future competences). The programme offers training, a handbook on how to implement and integrate the work on competences into the curriculum and process support in change management. Schools were asked to form an Advisory Committee including representatives from businesses as well as teachers and students, to ensure a link is made with the demands of working life. The role of the Advisory Committee is to support and advise the school management team in their work on future competences. After this successful pilot the programme is to be launched at national level in January 2013 for all interested secondary schools willing to pay the participation fee.

The Slovak ITI initiative (see case note SK2: Integrated Thematic Instruction – ITI) is another good example of an initiative which targets all key competences through a holistic programme. The initiative was implemented as a pilot project over a period of 9 years, and was subject to pedagogical research which concluded that the pilot had been very successful. As a result the programme is ongoing and is now officially recognized. The programme develops innovative teaching methods to ensure students’ effective learning of the key competences. The programme is accompanied by teaching materials and accredited training is provided by the Slovak National Institute for Education, the Methodology and Pedagogy Centre, ASK: Education for the 21st Century in Slovakia and the Children of Slovakia Foundation. Formative assessment is also an element of the ITI programme and while this is recognized as very important for the proper integration of the key competence approach, it is challenging and needs further development. There are also examples of initiatives focusing on one or a group of specific competences, where the approach used is holistic, targeting the various necessary dimensions, as in the cases described above (see for example case notes NO1, NO2, PL1, UK1 & UK2).

\(^{10}\) [http://action.ncca.ie/key-skills-introduction.aspx](http://action.ncca.ie/key-skills-introduction.aspx)
4. KCD INITIATIVES TARGETING SPECIFIC COMPETENCES

Figure 4: Specific competences targeted by the KCD initiatives identified in 2012

countries with at least one initiative focused mainly on the development of students’ digital competence

- communication in foreign languages
- cultural awareness and expression
- social and civic competences
- a sense of initiative and entrepreneurship
4.1 Initiatives focusing on training teachers to use ICT more effectively for teaching and learning

Around half of all KeyCoNet partner and associate country members surveyed have at least one initiative mainly focused on the development of students’ digital competence. In Estonia, Finland and Norway, where more than one initiative focused fully or in part on developing students’ digital skills was identified, recent curricular reforms have placed emphasis on the development of digital literacy as a cross-curricular competence. In Estonia, ICT is considered a compulsory cross-curricular theme and is a focus of the General Education System Development Plan for 2007-2013, together with Maths, Science and Technology (MST) competences more generally. This focus is reflected in the large pilot project coordinated by the Tiger Leap Foundation (see case note EE1: ICT management and assessment model for schools) which aims to train teaching and administrative staff in the effective use of ICT for teaching and learning in all curriculum areas, as well as for management purposes.

In Norway digital competence is similarly considered as a ‘basic skill’ which is to be integrated in all subject teaching. The Norwegian Centre for ICT in Education (see case note NO2: Norwegian Centre for ICT in Education) set up in 2010 has been instrumental in ensuring ICT is embedded in all teaching and learning processes, as required by the Knowledge Promotion Reform of the national curriculum in 2006. The centre contributes to this goal through policy initiatives, research and development projects, collaboration with schools and professional development courses for teachers. The centre has also developed several tools for monitoring, supporting and assessing schools, teachers and students in their engagement with digital technologies for learning. In Portugal, the ongoing EduScratch initiative (see case note PT3: EduScratch) is directly linked to the curriculum reforms introduced in August 2012, which stipulated the need for ICT to be taught as a separate subject in grades 7 and 8 (students aged 12 and 13 years old). The initiative, which promotes the educational use of the programming tool Scratch, including dedicated in-service teacher training, is intended to support the implementation of the new curriculum target devoted to the exploration of computational environments.
4.2 Initiatives using ICT as a means through which to teach and learn other competences

Various other KCD initiatives collected, if not specifically targeting digital competence, nevertheless addressed this competence in one way or another, especially those focused on MST competences (see case notes FR1, NO3, PL1, SE3, and SK1). The prominence of digital competence in the KCD initiatives identified across Europe is partially due to the fact that digital competence is often seen not only as a subject-related competence (i.e. associated to ICT and technology related disciplines), but also as a means through which to teach and learn the other competences. An example can be seen in the Finnish case note describing a primary school’s involvement in the LEAP21 project, on fostering 21st century skills (see case note FI1: LEAP21: Towards 21st century learning – innovative teaching and learning in Raumankari comprehensive school). The project is based on the principle that the effective use of ICT in education can support the development of innovative teaching practices at schools in relation to any of the key competences. Another example is the French case note (see case note FR5: Competences and self esteem) describing a lower secondary school’s project in which the school’s pedagogical team developed an IT tool to assess subject-related and cross-curricular competences, permitting the follow-up of students’ progress.

4.3 Competences in foreign languages, cultural awareness and expression and social and civic competences are rarely addressed in the initiatives identified

Only one initiative amongst the 2012 case notes specifically targets foreign language learning (see case note PT1: Portuguese as a second language), and only two mainly focus on, in each case, cultural awareness and expression (see case notes NO4: The cultural rucksack and PT2: European Club), and social and civic competences (see case notes FI2: Children’s site and UK2: National curriculum citizenship). This is not surprising when considering that less than half of all EU countries currently have national strategies in these areas (Eurydice 2012a, pp. 16-17).
4.4 Entrepreneurship initiatives feature in countries where this competence has been prioritized in recent education reforms

Strategies to develop a sense of initiative and entrepreneurship are slightly more common across Europe (Eurydice 2012a, pp. 17). Interestingly, the only two Key-CoNet countries where initiatives specifically dedicated to the development of entrepreneurial skills in the curriculum were identified are Norway and Sweden, whose recent education reforms have explicitly brought entrepreneurship education to the forefront. In Norway, the Action Plan Entrepreneurship in Education and Training – from compulsory school to higher education (2009-2014) was launched in September 2009. The main objective of the action plan is to strengthen the quality and the scope of entrepreneurship education and training at all levels and in all areas of the education system. A key aim is to bring students into close contact with the world of work and business life, and to connect learning with real life working situations. To contribute to this objective JA-YE Norway (see case note No1: Junior Achievement Young Enterprise Norway) runs more than twenty different programmes from the earliest stage of primary education through until higher education, focused on cultivating a culture of entrepreneurship in schools in partnership with industry, rooted in the Government’s 2006 Knowledge Promotion curriculum reform. JA-YE Europe has also described two of the large initiatives it runs (see case note JA-YE1: Global Enterprise Project and JA-YE2: Company programme) involving all the current KeyCoNet partner and associate member countries, in addition to other European countries, with the goal of equipping students with entrepreneurial skills.

Sweden has also recently prioritized entrepreneurship as one of the key areas for students’ competence development. This is reflected in the ongoing entrepreneurship initiative (see case note SE1: Entrepreneurial approach) run by Skolverket (National Agency for Education), which aims to encourage entrepreneurship in schools by providing in-service training for teachers, counsellors and head teachers to equip them with the basic attitudes and skills necessary to work on entrepreneurial activities in schools. The initiative also promotes schools’ cooperation with employers, facilitates the exchange of experience between schools and allocates development funds. Although not specifically targeting only entrepreneurship, the CoPE certificate in the UK developed by ASDAN (see case note UK1: Building a
culture of achievement through the ASDAN Certificate of Personal Effectiveness) recognizes entrepreneurial skills as one of the generic, cross-curricular “effectiveness skills” it assesses in students.

Compared to the other transversal competences, teaching entrepreneurship as a separate subject is less common in Europe (Eurydice, 2012a, pp. 24), particularly at primary level, where it is in fact only taught as such in Slovakia (Eurydice, 2012a, pp. 22). However, a new trend in this direction can be identified amongst some of the KeyCoNet partner and associate member countries. Poland is one of the few countries where entrepreneurship is already taught as a compulsory separate subject at secondary school level. In Spain since 2011/12 education authorities in the Autonomous Communities have been free to implement a separate subject, but as of 2014/15 it will be obligatory for schools to offer a new elective subject on ‘professional guidance and entrepreneurial initiative’ in the 4th grade of lower secondary schools. In Ireland, NCCA has developed a senior cycle short course on enterprise which is currently being discussed with education stakeholders before implementation, and in Estonia, from September 2013 ‘Economic and business studies’ will be offered as an optional separate subject in all secondary schools.
REFERENCES


