



Entrepreneurship Education at School in Europe

Eurydice Report



Education and
Training



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CODES AND ABBREVIATIONS

Country codes

EU/EU-28	European Union	NL	Netherlands
		AT	Austria
BE	Belgium	PL	Poland
BE fr	Belgium – French Community	PT	Portugal
BE de	Belgium – German-speaking Community	RO	Romania
BE nl	Belgium – Flemish Community	SI	Slovenia
BG	Bulgaria	SK	Slovakia
CZ	Czech Republic	FI	Finland
DK	Denmark	SE	Sweden
DE	Germany	UK	United Kingdom
EE	Estonia	UK-ENG	England
IE	Ireland	UK-WLS	Wales
EL	Greece	UK-NIR	Northern Ireland
ES	Spain	UK-SCT	Scotland
FR	France	EFTA/EEA and candidate countries	
HR	Croatia	BA	Bosnia and Herzegovina
IT	Italy	IS	Iceland
CY	Cyprus	LI	Liechtenstein
LV	Latvia	ME	Montenegro
LT	Lithuania	MK*	former Yugoslav Republic of Macedonia
LU	Luxembourg	NO	Norway
HU	Hungary	RS	Serbia
MT	Malta	TR	Turkey

MK*: ISO code 3166. http://www.iso.org/iso/country_codes/iso_3166_code_lists.htm

Statistical codes

: Data not available

(–) Not applicable

Abbreviations and acronyms

CPD Continuing Professional Development
EE Entrepreneurship Education
ITE Initial Teacher Education
IVET Initial Vocational Education and Training

GEM Global Entrepreneurship Monitor
PISA Programme for International Student Assessment
TALIS Teaching and Learning International Survey

MAIN FINDINGS

Developing and promoting entrepreneurship education has been one of the key policy objectives for the EU and Member States for many years. There is a growing awareness of the potential of young people to launch and develop their own commercial or social ventures thereby becoming innovators in the areas in which they live and work. Entrepreneurship education is essential not only to shape the mind-sets of young people but also to provide the skills, knowledge and attitudes that are central to developing an entrepreneurial culture.

This report captures all the latest developments in this regard in European countries, following earlier Eurydice reports (2006, 2012). It covers school education (primary, general secondary and school-based IVET) in all Eurydice network countries/regions, except Germany, Ireland and Liechtenstein. The sections below summarise the main findings of the report, focusing notably on the national definitions and contextual indicators (see Chapter 1) as well as on strategic actions and funding mechanisms that support entrepreneurship education (see Chapter 2). The report also looks at integration of entrepreneurship education into national school curricula and learning outcomes (see Chapter 3) as well as the curricula of initial and continuing teacher education (see Chapter 4). Finally, the last chapter (Chapter 5) provides an overview of the elements that European countries have already put in place as well as those that need to be further developed in order to make advances in this field.

Most national definitions reflect the same broad understanding of entrepreneurship education as the European Key Competence definition

About half of the countries use the European Key Competence definition of entrepreneurship education, and about a third of countries use their own national definition (see Section 1.1). In most definitions (European and national), the role and purpose of entrepreneurship education does not only reflect the context of work and business but also the more general context of an individual's life. In almost 10 countries there is no commonly agreed definition of entrepreneurship education in the national context.

Research shows generally low levels of participation in practical entrepreneurial learning at school and a need to further develop the entrepreneurial skills of young people

According to the special Eurobarometer survey, *Entrepreneurship in the EU and beyond*, published in 2012, just less than a quarter (23 %) of EU respondents said they had taken part in a course or activity at school relating to entrepreneurship, defined as turning ideas into action and developing one's own project (see Section 1.2.1). Younger respondents were twice as likely to have taken part in an entrepreneurship course.

The results of the 2012 PISA survey show that a large proportion of 15 year-olds still lack basic problem-solving skills (see Section 1.2.2). However, one of the conclusions of this assessment is that school curricula, and teachers, do make a difference in imparting problem-solving skills.

An analysis carried out by the Global Entrepreneurship Monitor (GEM) shows a strong correlation between perceived entrepreneurial capabilities (skills) and the total early stage entrepreneurial activity (TEA), which indicates how important education is in developing entrepreneurial competences (see Section 1.2.5).

Specific entrepreneurship education strategies are generally more comprehensive, with a broader range of actions

The evidence suggests that the development of a specific strategy focusing exclusively on entrepreneurship education offers a more coherent and comprehensive approach to supporting entrepreneurship education, backed up by findings from all areas of the analysis (see Section 2.1). Specific strategies feature a wider range of priority topics than broader strategies, and more frequently include the key conditions needed to support implementation, i.e. a cross-ministerial approach, partnerships and stakeholder engagement, and robust monitoring procedures. Of the different types of broader strategy, innovation strategies are also more comprehensive in terms of entrepreneurship education compared to other types of strategies. Some broader strategies have very few or in some cases only a single action relating to entrepreneurship education.

There are signs of an emerging trend towards broader innovation strategies

In those countries which previously had a specific strategy, there are indications of a move towards including entrepreneurship education objectives within broader strategies linked to innovation (see Section 2.1). The OECD has identified a trend towards broader innovation strategies that better address the coordination of education and innovation policy, ensuring that the education sector is an active partner in the drive for increased innovation ⁽¹⁾. As countries/regions come to the end of the tenure of their current strategy, it will be interesting to observe what they find to be the best strategic fit to make progress in this area of policy and practice.

Specific entrepreneurship education strategies are concentrated in northern Europe and the western Balkan region

The prominence of specific entrepreneurship education strategies in the Nordic countries can be linked to their commitment to innovation, evidenced from the consistently high international innovation rankings (see Section 2.1). Sweden, Finland and Denmark take the top places in the European Innovation Scorecard 2015 ⁽²⁾ and are placed in the top 10 globally through the Global Innovation Index ⁽³⁾, with Norway also in the global top 20.

Development in the western Balkan region is supported by the focus on entrepreneurship education through the Small Business Act assessment process ⁽⁴⁾ and the VET-related deliverables of the Riga Conclusions ⁽⁵⁾. Both of these are national policy requirements in all pre-accession countries, and are monitored at country and EU level as an integral part of the pre-accession process.

Employability is a common objective across all types of strategy

In comparison to broader strategies, specific entrepreneurship education strategies generally address all the surveyed objectives including active citizenship, social entrepreneurship, venture creation and employability (see Section 2.1). However, there is a strong emphasis on employability across all types of strategies, which may be linked to the economic crisis that countries in Europe are facing.

⁽¹⁾ OECD Innovation Strategy 2010.

⁽²⁾ http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index_en.htm

⁽³⁾ <https://www.globalinnovationindex.org/content/page/data-analysis/>

⁽⁴⁾ http://ec.europa.eu/growth/smes/business-friendly-environment/small-business-act/index_en.htm

⁽⁵⁾ With the Riga Conclusions of 22 June 2015, the Council of the European Union agrees a new set of medium term deliverables in the field of VET for 2015-2020, such as strengthening key competences including entrepreneurship. http://ec.europa.eu/education/policy/vocational-policy/doc/2015-riga-conclusions_en.pdf

Targeting learning outcomes is rarely defined as a priority action within strategies

Establishing learning outcomes does not appear to be a priority action within strategies linked to entrepreneurship education, with only eight countries/regions (Denmark, Estonia, Austria, Poland, the United Kingdom (Wales), Bosnia and Herzegovina, Montenegro and the former Yugoslav Republic of Macedonia) including this as a strategic action (see Section 2.1.4). The current lack of comprehensive learning outcomes related to entrepreneurship education may be identified as one of the main hindrances to the development of effective and high quality entrepreneurship education. More emphasis is also needed on the introduction of entrepreneurial learning outcomes into the assessment process, which is a key feature of the quality of entrepreneurship education and is only highlighted as a strategy action by two countries (Denmark and Estonia).

Few strategies feature detailed approaches to monitoring progress and impact

There is strong evidence of good cross-ministerial collaboration and partnership within most strategies (see Section 2.1.5). However, more work may be needed to support countries in developing and implementing more robust monitoring frameworks. Few countries provide detailed information on the monitoring approach within the strategy, some broader strategies do not specifically link to outcomes or impacts related to entrepreneurship education and often there is no defined link back into the entrepreneurship education policy development cycle. As government and other funding is squeezed ever more tightly across Europe, it is important to provide a robust reflection of the progress and impact of strategies and their actions.

More than half of European countries allocate both national and EU funding to entrepreneurship education but stable and comprehensive funding streams still need to be developed

Across Europe, the development and implementation of entrepreneurship education is funded through national and/or European sources (see Section 2.2). National funding is often provided by the ministry in charge of education, together with other competent ministries. Twenty-seven of the European countries/regions dedicate national funding to entrepreneurship education, most of them for the implementation of their specific or broader strategy related to entrepreneurship education.

Funds are allocated either as a specific budget for entrepreneurship education or, more often, as part of an overall national budget. Amongst the countries with a specific entrepreneurship education strategy, only Sweden has allocated a specific national budget to it; all the others fund their specific strategy through their overall national budget. Luxembourg, Malta and the Netherlands, on the other hand, do not have an entrepreneurship education (related) strategy; however, they provide a specific budget at national level for the development and implementation of entrepreneurship education more generally.

In addition to national funding, 24 European countries/regions receive EU funding for entrepreneurship education (see Section 2.2.3). A few countries – Croatia, Hungary, Bosnia and Herzegovina and Turkey – rely exclusively on EU funding for entrepreneurship education in general or for the implementation of their specific or broader strategy related to entrepreneurship education.

Both types of EU funding, direct and indirect ⁽⁶⁾, are thus crucial instruments for the development and implementation of entrepreneurship education. However, EU indirect funding may result in more sustainable outcomes as it supports operational programmes with national investment priorities, specific objectives and concrete actions over an extended period of time, as opposed to the often (shorter-term) project-based approach of EU direct funding. The majority of countries who make use of EU funding for the implementation of their specific or broader strategy related to entrepreneurship education are supported by indirect funds.

More than half of European countries allocate both national and EU funding to the development and implementation of entrepreneurship education. However, stable and long-term funding streams ensuring a comprehensive approach to funding for entrepreneurship education, including for strategy implementation, the curriculum, teacher education and support, building partnerships with stakeholders, etc. still needs to be developed across Europe.

Entrepreneurship education is increasingly recognised as a cross-curricular objective in primary education, but is most commonly taught in upper secondary education through a variety of approaches

Certain trends can be identified in the way countries have integrated entrepreneurship education into the curriculum (see Section 3.1). It is included in the curriculum at primary level largely in the form of cross-curricular objectives, which are also common at all other educational levels.

Entrepreneurship education is most common at upper secondary level and there is more variety in approaches. It is often both a separate subject and integrated in other subjects, mostly in social sciences, economics and business studies. Still, it is often taught within optional subjects at this education level. This is in line with the fact that, in general, there is more freedom of choice for students in upper secondary education than in lower levels of education. However, entrepreneurship education is less likely to reach all students in countries where it is more often found in optional than in compulsory subjects, and where it is not a cross-curricular theme.

Over half of the countries have very few or no guidelines for teaching methods

Teaching guidelines for entrepreneurship education are more usual at general upper secondary level and in school-based IVET than at lower levels of education (see Section 3.1.3). There is not much difference between countries in the types of activities recommended in guidelines. Active learning and activities outside the classroom are the most common, while experiential learning is the least common.

Research suggests that methods involving students' experiences outside the classroom and connecting them to the real world are central to entrepreneurship education. Clear guidelines are important in order for teachers to have a common understanding of what methods are appropriate for entrepreneurship education, and which methods will contribute most effectively to its successful teaching. This report suggests that while the majority of countries report integrating entrepreneurship education in their curricula, they do not often recommend any particular teaching/learning methods to be used and consequently leave them with great autonomy in this area.

⁽⁶⁾ EU funding consists of either direct financial support, which is provided directly by the European institutions to the final beneficiaries (e.g. Erasmus+), or indirect funding as in the case of the Structural Funds (and for entrepreneurship education in particular the European Social Fund).

Very few countries include practical entrepreneurial experiences as a regular and compulsory part of the curriculum

The most widespread examples of practical entrepreneurial experience are the creation of mini or junior companies and project-based work that has a clear idea generation process and a tangible end product (see Section 3.2).

Many practical entrepreneurial experiences are run within initiatives where the involvement of external partners, such as Junior Achievement, is a key element. While in most countries this is limited to extra-curricular provision, in others (Flemish Community of Belgium, Bulgaria, Estonia, Greece and Latvia), these programmes are already offered as part of the normal curriculum.

Learning outcomes linked to entrepreneurship education are fragmented in most European countries; they are not comprehensive and lack progression between education levels

The coverage in the curriculum of the different types of learning outcomes related to entrepreneurship education is uneven across Europe (see Section 3.3). Some of them, namely self-confidence, planning and teamwork are also broader educational objectives, non-specific to entrepreneurship education, and quite wide-spread. Creativity is sometimes stated as a general aim, but it is rare to find clearly stated learning outcomes related to entrepreneurship education. 'Managing resources', 'managing uncertainty/risk', 'the role of entrepreneurs in society' and 'entrepreneurial career options' are quite specific and therefore much less common as clearly stated learning outcomes in European curricula. Financial literacy is a learning outcome that has traditionally been associated with entrepreneurship education, not least because it is more easily identifiable and measurable. This report confirms that it is among the most widespread learning outcomes for entrepreneurship education, across all educational levels.

Overall, only around 15 countries/regions include a wide range of entrepreneurial learning outcomes (defined as at least six categories) in relation to compulsory subjects and/or cross-curricular areas at least for one education level. Curricula of higher levels of education do not contain significantly more learning outcomes than those of lower levels. There are, however, differences in the relative occurrence of the particular outcomes identified. At the levels of primary and lower secondary education, they mostly relate to the categories of entrepreneurial attitudes and the skills of creativity, planning, financial literacy and teamwork. At the level of general upper secondary education and in school-based IVET, there are fewer learning outcomes related to entrepreneurial attitudes and teamwork skills, but more for 'managing resources', 'managing uncertainty/risk' and, in the knowledge category, 'assessing opportunities'.

Specific assessment of learning outcomes linked to entrepreneurship education is usually lacking, illustrating its limited embedding

Only few countries/regions show a more structured approach to progression and comprehensiveness with respect to entrepreneurial learning outcomes (Estonia, Spain, the United Kingdom (Scotland) and Norway) (see Section 3.3.3). Also, some countries are already developing a more comprehensive and strategic approach, especially through the development of a competence reference framework. This is the case in the Flemish Community of Belgium, Denmark, Austria and the United Kingdom (Wales).

However, there is not yet any specific assessment of learning outcomes linked to entrepreneurship education (see Section 3.3.4). At most, some learning outcomes are assessed in relation to specific subjects including entrepreneurship. This is a considerable limitation to the effective teaching and learning of entrepreneurship education, as both teachers and pupils tend to focus more on aspects of the curriculum that are subject to assessment.

Almost half of the European countries grant autonomy to initial teacher education institutions for the introduction of entrepreneurship education

Examining entrepreneurship education in initial teacher education (ITE) is a complex task, as more than three-quarters of European countries/regions either grant autonomy to training institutions for curricular matters or do not have regulations/recommendations on entrepreneurship education in relation to ITE (see Section 4.1). Only an examination of individual programmes or a survey on what actually happens in teacher training institutions could make the picture clearer.

Only two central authorities recommend that at least all prospective teachers in primary and general secondary education are introduced to entrepreneurship education during their initial education. This is the case in Estonia and Latvia. In Denmark, the recommendation only concerns prospective teachers in primary and lower secondary education. In four additional countries, central authorities recommend it, but only for some teachers, depending on the subject and the level of education (Austria, Slovakia and Montenegro), or the type of ITE followed (Turkey).

Thirteen countries/regions mention in their central recommendations the need for prospective teachers to acquire some of the skills considered as key for entrepreneurship education, be it explicitly in the context of entrepreneurship education or not. At least four of the five skills considered in the report should be taught to all prospective teachers in Denmark, Estonia, Spain, Latvia, Malta, Poland and Norway.

The provision of courses on entrepreneurship education within continuing professional development is better developed than in initial teacher education

Continuing professional development (CPD) provision exists for some subject-teachers of some education levels in 28 countries/regions (see Section 4.2). In 17 countries/regions, this is the situation for all primary and general secondary teachers. Provision may be organised by the institutions usually in charge of CPD or may be delegated to bodies/associations, specifically dedicated to entrepreneurship education.

Although it is very difficult to have a complete picture of what happens in teacher education, it clearly seems that some efforts could be made to improve both the initial education of teachers and the provision of CPD courses for entrepreneurship education in order to help teachers become familiar with the topic and the teaching approaches needed to develop their students' entrepreneurial skills and attitudes.

Teaching material is the most common form of support provided by central authorities

The main type of support for teachers provided by central authorities is through the funding or development of teaching materials (17 countries/regions; see Section 4.3). In 12 countries/regions central authorities have developed guidelines for entrepreneurship education, sometimes in cooperation with other stakeholders. Centres of expertise supported by central authorities exist in 11 countries/regions (in the three Communities of Belgium, Denmark, Spain, France, Croatia, Austria, Romania, Finland and Montenegro).

Networking between teachers is also a method which could be useful in developing a common understanding and sharing best practice. It could be further explored as teacher networks on entrepreneurship education only exist in Denmark, Estonia, Spain and France.

In some countries/regions, the private and non-profit making sectors are already engaged in developing teaching materials and online resource centres for teachers. However, the situation could be improved with a greater commitment from central authorities.

For the time being none of the countries covered by this report have fully mainstreamed entrepreneurship education in their schools

For entrepreneurship education to be fully mainstreamed this would imply that a strategy has been in operation for several years, is being monitored systematically, that robust funding mechanisms exist, that learning outcomes are assessed, and that it is fully integrated into ITE and CPD for all teachers (see Chapter 5). Progress is most needed in two areas – learning outcomes and teacher education. The development of comprehensive and consistent learning outcomes, applied across several levels of education and specifically assessed is essential. Furthermore, the integration of entrepreneurship education into ITE and CPD for all teachers, irrespective of the subject and the level of education at which they teach is crucial if high quality provision is to be made for students.

INTRODUCTION

Developing and promoting entrepreneurship education has been one of the key policy objectives for the EU and Member States for many years. In the context of high youth unemployment, economic crises and rapid changes linked to our complex knowledge-based economy and society, it would appear that transversal skills, particularly entrepreneurship, are essential if young people are to become active, creative and entrepreneurial citizens. Although it is a relatively recent area of research, a solid body of evidence ⁽⁷⁾ exists already, showing the benefits of entrepreneurship education for the individual as well as for society. At national level, there are different levels of engagement, some countries having already been committed for more than a decade, while others are just beginning to address entrepreneurship education as part of their education policies ⁽⁸⁾.

The European Commission has long supported the development of entrepreneurship education. In its 2012 Communication *Rethinking education: Investing in skills for better socio-economic outcomes*, it emphasises transversal skills and particularly entrepreneurial skills and recommends that:

'Member States should foster entrepreneurial skills through new and creative ways of teaching and learning from primary schools onwards, alongside a focus from secondary to higher education on the opportunity of business creation as a career destination. Real world experience, through problem-based learning and enterprise links, should be embedded across all disciplines and tailored to all levels of education. All young people should benefit from at least one practical entrepreneurial experience before leaving compulsory education' ⁽⁹⁾.

The Entrepreneurship 2020 Action Plan, published in 2013, identified entrepreneurial education as one of three areas for immediate intervention ⁽¹⁰⁾.

The Council adopted conclusions in December 2014 on entrepreneurship in education and training, stressing that 'developing an entrepreneurial mind set can have considerable benefits for citizens in both their professional and private lives'. It invites Member States to 'encourage the development of a coordinated approach to entrepreneurship education throughout the education and training system' ⁽¹¹⁾.

In 2015, the European Parliament adopted a resolution on promoting youth entrepreneurship through education and training. It recognises that:

'Some Member States have yet to develop a cross-cutting policy or a strategic approach to entrepreneurship education or entrepreneurial curricula and teaching methods; whereas not all teachers and education leaders in Europe are sufficiently trained in entrepreneurship education'; and 'stresses the need for a broad approach to entrepreneurship as a set of transversal key competences for personal and professional purposes' ⁽¹²⁾.

⁽⁷⁾ Please see References at the end of the report.

⁽⁸⁾ EACEA/European Commission (2012); McCoshan, A. et al. (2010).

⁽⁹⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions on Rethinking education: Investing in skills for better socio-economic outcomes, COM/2012/0669 final.

⁽¹⁰⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions on Entrepreneurship 2020 Action Plan: Reigniting the entrepreneurial spirit in Europe. COM/2012/0795 final.

⁽¹¹⁾ Council conclusions on entrepreneurship in education and training, OJ C 17, 20.01.2015, p.2.

⁽¹²⁾ European Parliament resolution of 8 September 2015 on promoting youth entrepreneurship through education and training. (2015/2006 (INI)).

Objectives and content of the report

The present report follows up on the need expressed in the Council conclusions to enrich the evidence base on entrepreneurship education. The priorities expressed in the Council conclusions, as well as in other European policy guidance, have also been taken into account in defining the research questions and scope of this report.

Comparative research and the development of indicators in this field are still scarce. However, developing knowledge and understanding of how to enhance entrepreneurial skills is necessary to support the exchange of practice and the development of policies.

Therefore, taking into consideration the experiences gained from the two previous Eurydice reports on entrepreneurship education ⁽¹³⁾, this new analysis aims at updating relevant information on strategies, curricula and learning outcomes. It also attempts to fill the research gaps and information lacunas identified by the Expert Group on Indicators on Entrepreneurial Learning and Competence ⁽¹⁴⁾ by covering themes such as partnerships, assessment of learning outcomes, teacher education and funding schemes.

The report consists of five chapters, each dealing with a different aspect of entrepreneurship education at school in Europe, and the last one, bringing together these key aspects.

- Chapter 1 focuses on definitions of the term 'entrepreneurship education' and its context, looking at existing statistical indicators.
- Chapter 2 provides an overview of strategies adopted by central level authorities to promote entrepreneurship education and the sources of funding available.
- Chapter 3 explores whether and how entrepreneurship education is embedded in school curricula and learning outcomes.
- Chapter 4 focuses on teacher education and other central level support to teachers for the implementation of entrepreneurship education.
- Chapter 5 analyses the current state of entrepreneurship education in European countries and the progress of its implementation.

The annexe includes a table with links to the main organisations, programmes and publications related to teacher support at national level.

The report is supplemented by national information sheets providing the main information on entrepreneurship education in each education system.

⁽¹³⁾ EACEA/Eurydice (2012). The first one was a summary of data from Eurydice National Units: *Entrepreneurship in Education in Europe. Explicitly recognised in curricula of upper secondary general education*. October 2006.

⁽¹⁴⁾ The group was created in December 2012 by the European Commission to assess existing data sources that can support indicators of entrepreneurship education and to define a framework of monitoring indicators that will allow for an assessment of the extent of current entrepreneurship education activity across Europe. The group includes a dozen of members from different institutions including the European Commission (DG EAC and DG ENTR), EACEA (Unit A7), the South East European Centre for Entrepreneurial Learning (SEECCEL), Junior Achievement Europe (JA), the European Training Foundation (ETF), the Global Entrepreneurship Monitor (GEM) and OECD.

Scope and methodology

The report covers most members of the Eurydice network, except Germany, Ireland and Liechtenstein. Those three not participating in the Eurydice data collection may still be mentioned in the discussion of other data sources.

It covers school education: primary and general secondary education, as well as school-based initial vocational education and training (IVET) (ISCED levels 1, 2 and 3). In line with the objectives of entrepreneurship education as a transversal key competence for all students, the coverage of school-based IVET is limited to the branches common to ALL students (core curriculum), and to optional subjects available to ALL students, regardless of the particular vocational branch they are following. Branches that are essentially devoted to entrepreneurship as a career path, such as business studies, will not be considered, as this analysis is based on the understanding of entrepreneurship as a transversal key competence.

The report is built on a common working definition of entrepreneurship education. As in the 2012 Eurydice report (EACEA/Eurydice, 2012), the background for this is the 2006 Recommendation of the European Parliament and the Council on Key Competences for Lifelong Learning, which identified a 'sense of initiative and entrepreneurship' as one of eight key competences:

'Sense of initiative and entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports individuals, not only in their everyday lives at home and in society, but also in the workplace in being aware of the context of their work and being able to seize opportunities, and is a foundation for more specific skills and knowledge needed by those establishing or contributing to social and commercial activity. This should include awareness of ethical values and promote good governance' ⁽¹⁵⁾.

Work undertaken since 2006 has led to a more precise understanding of entrepreneurship as a key competence. Also, a direct comparison with the findings of the 2012 Eurydice report cannot be made, as concepts, definitions and methodology have been refined, in particular regarding learning outcomes. The definition used by the former Thematic Working Group on Entrepreneurship Education, which is based on a framework definition agreed by an international working group on entrepreneurial learning, has been used as a common working definition for the present report:

'Entrepreneurship education is about learners developing the skills and mind-set to be able to turn creative ideas into entrepreneurial action. This is a key competence for all learners, supporting personal development, active citizenship, social inclusion and employability. It is relevant across the lifelong learning process, in all disciplines of learning and to all forms of education and training (formal, non-formal and informal) which contribute to an entrepreneurial spirit or behaviour, with or without a commercial objective' ⁽¹⁶⁾.

This report is based on answers provided by National Units of the Eurydice network and/or national experts to a questionnaire developed by Unit A7 Erasmus+: Education and Youth Policy Analysis which coordinates the Eurydice network within the Education, Audiovisual and Culture Executive Agency (EACEA). Other data sources, such as Eurostat, Eurobarometer, OECD and the Global Entrepreneurship Monitor (GEM), have been used to discuss other available indicators related to

⁽¹⁵⁾ Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning, OJ L 394, 30.12.2006, p. 10.

⁽¹⁶⁾ This is based on a framework definition agreed by an international working group on entrepreneurial learning in Geneva on 18 January 2012. The working group comprised representatives from ETF, GIZ, ILO, UNESCO and UNEVOC.

entrepreneurship education in the first, contextual, chapter. In general, the Eurydice data and indicators are qualitative. They are based mainly on official information about legislation, regulations and policies of the central/top-level authorities with responsibility for education. It is located at national (state) level in the vast majority of countries. In some countries, the regions (Communities, *Länder*, etc.) have responsibility for all matters relating to education. In Belgium, Germany and the United Kingdom, the different jurisdictions have their own education ministry.

The Eurydice data is confined to public sector schools with the exception of the three Communities of Belgium and the Netherlands. In these countries, government-dependent private institutions account for a significant share of school enrolments and follow the same rules as public schools. Hence, these are included in the analysis.

The preparation and drafting of the report was coordinated by the Unit A7 (EACEA). It was checked by all National Units participating. The main findings are the sole responsibility of the Eurydice Unit within EACEA. All contributors are acknowledged at the end of the document.

CHAPTER 1: DEFINITIONS AND CONTEXT OF ENTREPRENEURSHIP EDUCATION

The approaches to and objectives of entrepreneurship education can vary depending on each country's context and understanding of the concept. At one end of the spectrum is a narrow understanding focusing on developing the attitudes and skills that young people need to set up and run their own businesses or to become self-employed. The other end puts emphasis on entrepreneurship as a key competence, which seeks to empower young people and provide them with the transversal skills for active citizenship, employability and possibly, but not necessarily entrepreneurship and intrapreneurship.

1.1. Definitions of entrepreneurship education

The basis of this report is the 2006 Recommendation of the European Parliament and the Council on Key Competences for Lifelong Learning, which identified a 'sense of initiative and entrepreneurship' as one of eight key competences ⁽¹⁷⁾.

This conceptualisation of entrepreneurship as a key competence has since been further developed by the European Commission Thematic Working Group on Entrepreneurship Education ⁽¹⁸⁾ and its definition is used in this report:

'Entrepreneurship education is about learners developing the skills and mind-set to be able to turn creative ideas into entrepreneurial action. This is a key competence for all learners, supporting personal development, active citizenship, social inclusion and employability. It is relevant across the lifelong learning process, in all disciplines of learning and to all forms of education and training (formal, non-formal and informal) which contribute to an entrepreneurial spirit or behaviour, with or without a commercial objective'.

This common European understanding of entrepreneurship as a key competence indicates a dual focus ⁽¹⁹⁾. Firstly, the development of entrepreneurial attitudes, skills and knowledge should enable the individual to turn ideas into action. Secondly, entrepreneurship is not only related to economic activities and business creation, but more widely to all areas of life and society ⁽²⁰⁾. Innovative and creative action can be taken within a new venture, or within existing organisations, i.e. as 'intrapreneurial activity'.

Previous research on entrepreneurship education has shown significant variations in practice both between European countries and within them, which has resulted from a different understanding and interpretation of entrepreneurship education ⁽²¹⁾. In a field where government intervention has often been limited and where a shared and/or official interpretation has been lacking, there is a particular difficulty for stakeholders in reaching a common understanding.

It therefore seems important to first establish how entrepreneurship education is understood and defined in different European countries and thus recognise and acknowledge the different approaches to it. The understanding of the role and purpose of entrepreneurship education will also be reflected in any associated learning outcomes.

⁽¹⁷⁾ Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning. OJ L 394.

⁽¹⁸⁾ Agreed on in Geneva on 18 January 2012 by a working group that included representatives from ETF, GIZ, ILO, UNESCO and UNEVOC.

⁽¹⁹⁾ ICF GHK, 2014, p. 6.

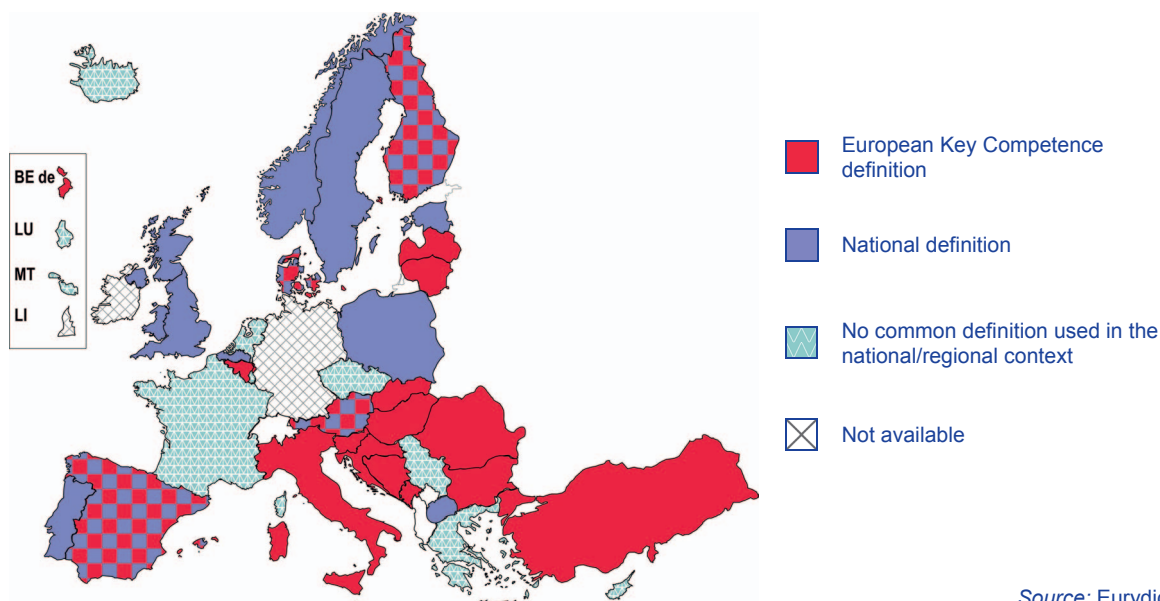
⁽²⁰⁾ See also the recent definition of entrepreneurship in education as 'learning-by-creating-value' in Lackéus 2015.

⁽²¹⁾ McCoshan, 2010, p. 14.

A specific survey on this ⁽²²⁾ has shown two main approaches. The first one involves a broad understanding of entrepreneurship, similar to that defined in the European key competence; thus emphasising learning outcomes related to employability, active citizenship and entrepreneurial skills for life and work. The second one is narrower in scope and focuses on learning outcomes directly linked to entrepreneurial and business activity, i.e. how to set up a company and run it.

Figure 1.1 shows which countries refer to the above-mentioned European Key Competence definition and which, instead or in addition, use a national definition in official documents, which is shared and agreed by most stakeholders.

Figure 1.1: Definitions of entrepreneurship education used, shared and agreed by most stakeholders at central level, 2014/15



Country-specific notes

Czech Republic: There is no official document on entrepreneurship education. Therefore, no official definition is used. Some experts, however, use the European Key Competence definition.

Greece: Although no common definition is used, the subjects in the school curriculum contributing to the development of entrepreneurship education reflect the European Key Competence definition.

France and Netherlands: There is a common understanding of entrepreneurship education rather than a commonly accepted definition, which is understood in the context of general education to mean the development of pupils’ sense of responsibility, autonomy, creativity, curiosity, and initiative.

Cyprus: Developing a national definition is currently under way and will be based on the definition of the European Parliament and the Council on Key Competence.

Malta: Although there is no common definition most stakeholders share the one given in the 'National Curriculum Framework for All' (2012), which states that 'entrepreneurship allows children and young people to develop skills for life, enables them to handle uncertainty, respond to change and to be creative'.

About half of the countries use the European definition, and about a third of countries use their own national definition for entrepreneurship education. In almost 10 countries, there is no commonly agreed definition for entrepreneurship education in the national context.

Most national definitions reflect the same broad understanding of entrepreneurship education as the European Key Competence definition. Its role and purpose reflects not only the context of work and business but also the more general context of an individual's life.

⁽²²⁾ European Commission, 2014b, p. 41.

Only a few national definitions emphasise a narrower understanding, in particular those used in Spain, the United Kingdom (Northern Ireland) and Norway. The Spanish national definition emphasises the knowledge and skills related to career and job opportunities, but it also refers to financial education and the principles of business operation, as well as to the development of attitudes that lead to a change in the mind-set and contribute to the development of entrepreneurial attitudes, the ability to think in a creative way and to manage risk and uncertainty. The definition in the United Kingdom (Northern Ireland) refers to skills which allow individuals to make a 'unique, innovative and creative contribution to the world of work whether in employment or self-employed' while in Norway it asserts the relevance of entrepreneurship to all areas of working and business life.

Among those national definitions with a broader understanding, there are differences in the way the purpose of entrepreneurship education is expressed.

The Flemish Community of Belgium speaks of the 'added value to each individual in his or her daily life at home and in society'; while in Malta 'skills for life' are mentioned. The Austrian 'Trio Model' of entrepreneurship education (see Section 3.3.3) states that the 'ultimate goal is to create a sustainable and dynamic civil society of citizens'. According to the Finnish definition, 'qualities (related to entrepreneurship) support everyday life in education, at work, in leisure activities and in other societal activities', while in Sweden it refers to activities in social, cultural or economic contexts. The definition from the former Yugoslav Republic of Macedonia speaks of 'basic principles of efficiency in everyday life without a particular focus on business start-up'.

The United Kingdom (England) uses a different term, i.e. 'enterprise education' ⁽²³⁾ rather than entrepreneurship education. It encompasses a broad range of skills and attributes which make an individual enterprising rather than focusing on the perceived need for more business start-ups and a more entrepreneurial economy. Key elements of enterprise education are entrepreneurial intention and capability. In the United Kingdom (Wales), both the terms enterprise education and entrepreneurship education are used. The latter aims at 'enabling young people to be positive, proactive and successful in their approach to life and work'.

1.2. Context of entrepreneurship education

This section looks at the wider context of entrepreneurship education, including social and cultural aspects such as attitudes towards entrepreneurship; it examines the available indicators which reveal how Europeans see themselves in terms of entrepreneurial skills. It also analyses how experts evaluate one specific aspect of entrepreneurship education in their country, namely training in the creation and management of small and medium-sized enterprises (SMEs). The section then explores how well prepared teachers feel to teach cross-curricular themes such as entrepreneurship. Finally, some indicators related to possible outcomes of entrepreneurship education are discussed, i.e. entrepreneurial intention and activity, and self-employment among young people.

These last indicators obviously only point towards some of the possible outcomes – those related to the narrower definition of entrepreneurship education described above (see Section 1.1). Indeed, from a business-oriented perspective, the first objective of entrepreneurship education would be to instil the notion in young people that it is possible for them to become an entrepreneur and set up their own business; the next step would be to equip them with the necessary skills to carry this out. In this context, it is often mentioned that, in Europe, the level of entrepreneurship and more specifically, of

⁽²³⁾ Enterprise education is defined as 'the application of creative ideas to practical situations'. It aims to raise awareness of the mindset and skills required to respond to opportunities, needs and challenges such as problem solving, teamwork, communication, creativity and resilience. It can be applied across the curriculum, extending beyond business to a wide range of practical and social skills. (Young enterprise: Outcomes map: Enterprise education and employability (2015)).

self-employment, is lower, compared to other parts of the world such as the United States of America. In the current economic climate of high unemployment, particularly amongst young people, national governments as well as the European Union are looking to strengthen entrepreneurship skills as a means of creating wealth and employment. Looking specifically at potential young entrepreneurs, it is acknowledged that they still face significant barriers as they endeavour to turn their ideas into action in order to create businesses. These barriers include: social attitudes, lack of skills and inadequate entrepreneurship education ⁽²⁴⁾.

1.2.1. Attitudes towards entrepreneurship and individuals' perceptions of their own entrepreneurial skills

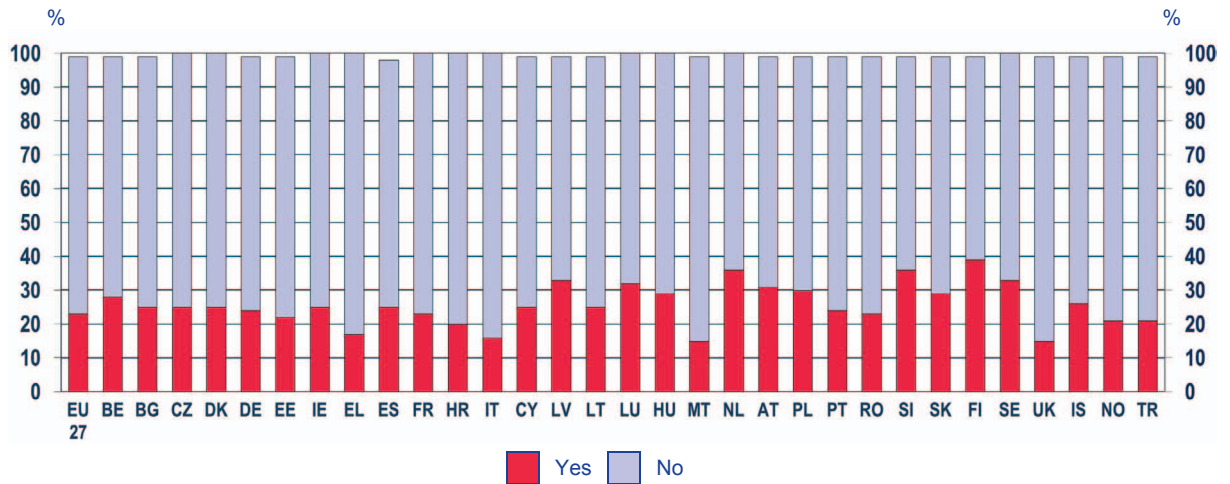
One area in which entrepreneurship education could have an influence is that of attitudes towards and perceptions of entrepreneurship. The special Eurobarometer on *Entrepreneurship in the EU and beyond*, published in 2012, sheds some light on perceptions of and opinions on entrepreneurship and entrepreneurs across Europe. Respondents were asked whether they agree with a series of statements about entrepreneurship. It shows that a large majority of respondents (EU 27, aged 15 years and over) agreed that 'entrepreneurs are job creators' (87 % totally agreed) and 'create new products and services that benefit us all' (79 % totally agreed). On the other hand, a majority of respondents also expressed a negative perception of entrepreneurs, agreeing that they 'take advantage of other people's work' (57 % totally agreed) and 'only think about their own pockets' (52 % totally agreed). Looking at individual country results, there are of course differences. In Denmark and Austria, for example, fewer respondents agreed with the statement that 'entrepreneurs take advantage of other people's work' (20 % and 33 % respectively), but elsewhere the percentage agreeing was particularly high – in Poland (91 %), Latvia (80 %) and Slovakia (80 %). As for the statement that 'entrepreneurs only think about their own pockets', again in Denmark the percentage agreeing was relatively low (26 %) but the figure was higher in Ireland (36 %) and Finland (38 %). In contrast, a rather large majority agreed with the statement in Cyprus (70 %), Greece (67 %) and Lithuania (67 %). These complex and sometimes divided perceptions of entrepreneurs can also partly explain the different attitudes towards entrepreneurship education, not only among policymakers and other stakeholders, but also teachers and students.

The same survey also enquired about the role of education in entrepreneurship activity. Respondents were asked whether they had ever taken part in any course or activity at school relating to entrepreneurship, defined as turning ideas into action and developing one's own project ⁽²⁵⁾ (see Figure 1.2). Just under a quarter (23 %) of EU respondents said they had, while just over three quarters (76 %) stated they hadn't. Interestingly, but not surprisingly, younger respondents were more likely to have taken part in an entrepreneurship course: 34 % of 15-24 year-olds had taken part in one, while this gradually decreased to only 17 % among the over-55s. The countries with the biggest share of respondents stating they had taken part in an entrepreneurship course or activity are Finland (39 %), the Netherlands (36 %), Slovenia (36 %), Latvia (33 %), Sweden (33 %), Luxembourg (32 %), Austria (31 %) and Poland (30 %). The least positive answers were found in Malta and the United Kingdom (15 % respectively), Italy (16 %) and Greece (17 %).

⁽²⁴⁾ OECD, 2012.

⁽²⁵⁾ Flash Eurobarometer 354, 2012, p. 117.

Figure 1.2: Percentage of respondents having participated in any course or activity relating to entrepreneurship at school, 2012



%	EU-27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU
Yes	23	28	25	25	25	24	22	25	17	25	23	20	16	25	33	25	32
No	76	71	74	75	75	75	77	75	83	73	77	80	84	74	66	74	68
%	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	LI	NO	TR	
Yes	29	15	36	31	30	24	23	36	29	39	33	15	26	:	21	21	
No	71	84	64	68	69	75	76	63	70	60	67	84	73	:	78	78	

Source: Flash Eurobarometer 354: Entrepreneurship in the EU and beyond.

The survey also contained some more detailed questions on the role and outcomes of entrepreneurship education at school, namely:

- 'My school education is helping/has helped me to develop my sense of initiative and a sort of entrepreneurial attitude';
- 'My school education is helping me/has helped me to better understand the role of entrepreneurs in society';
- 'My school education is giving/has given me skills and know-how to enable me to run a business';
- 'My school education is making/has made me interested in becoming an entrepreneur'.

There is a sort of progression in these questions, the first focusing on attitudes and transversal skills, the second on knowledge of entrepreneurs, the third on actual business skills and the last on the intention to become an entrepreneur. Half of the EU respondents answered positively to the first question, agreeing that their school education had helped them to develop a sense of initiative and a sort of entrepreneurial attitude. Just under half of EU respondents (47 %) agreed it had helped them to better understand the role of entrepreneurs in society; 41 % agreed that it gave them the skills to run a business; but less than a third (28 %) agreed that it made them interested in becoming an entrepreneur. Again, 15-24 year-olds were more likely than older respondents to agree with all four statements.

Of course, when analysing this data, it must be taken into account that the survey was completed several years ago, in 2012. Furthermore, for the older respondents, it must be remembered that, as it is a long time since they were at school, their responses do not reflect the impact of the recent policies and changes in education systems referred to in this report (reference year 2014/15). Moreover, the Eurobarometer survey tries to capture the perceptions and opinions of respondents and portray their own assessment of their capabilities, rather than presenting an objective evaluation. Nevertheless, it does give some idea of the starting point from which the progress made as a result of current efforts to promote entrepreneurship education at school can be measured.

1.2.2. Financial literacy and creative problem solving

Financial literacy has traditionally been associated with entrepreneurship education. It has even, in some cases, been equated with it. In any case, it is commonly accepted as one of the skills/learning outcomes to be expected from entrepreneurship education. Also, it is one of the very few entrepreneurial skills that has been assessed systematically.

PISA included, for the first time in 2012, an assessment of students' financial literacy. PISA defines financial literacy as the 'knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life'. The results of the 18 participating European countries show that students from the Flemish Community of Belgium, Estonia, the Czech Republic, Poland and Latvia scored higher than the OECD average. On the other hand, Italy, the Slovak Republic, Croatia, Spain, Slovenia and France scored below average.

One interesting finding from this first PISA survey on financial literacy is that the top performer (Shanghai) is not in a country that has actually introduced any financial education into its school curricula ⁽²⁶⁾. This shows that very little is yet known about how to develop transversal skills such as financial literacy.

Creative problem solving has also been integrated into the 2012 PISA assessment, as the first transversal skill to be tested. The next assessment round (to be published in 2018) will include collaborative problem solving. Both dimensions are intrinsically related to entrepreneurial skills, as they have common elements, such as dealing with uncertainty, developing a sense of initiative and seeking innovative opportunities. In its definition of problem-solving, PISA states that these are 'key to success in all pursuits, and can be developed in school through curriculum subjects'.

The results of the 2012 assessment show that a large proportion of 15 year-olds still lack basic problem-solving skills. Looking at the country results, Finland comes first among European participating countries, while the United Kingdom (England), Estonia, France, the Netherlands, Italy, the Czech Republic, Germany, the three Communities of Belgium, Austria as well as Norway also score above the OECD average. One of the conclusions of this assessment is that school curricula, and teachers, do make a difference in imparting problem-solving skills ⁽²⁷⁾.

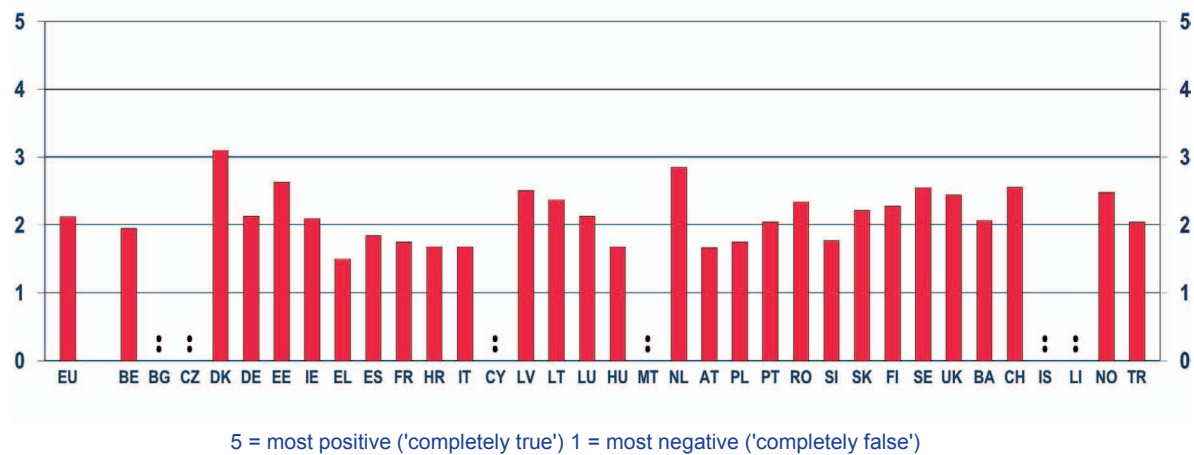
1.2.3. Experts' perceptions of the contribution of education to building an entrepreneurial culture

The Global Entrepreneurship Monitor (GEM) is the world's foremost study on entrepreneurship. It looks at two elements: the entrepreneurial behaviour and attitudes of individuals, and the national context, showing how it impacts on entrepreneurship. The GEM survey includes a specific part to be addressed by a selection of experts in each participating country. Experts have been asked how they evaluate the role of education in their country in promoting an entrepreneurial culture.

⁽²⁶⁾ PISA in Focus, 2014/07, p. 3.

⁽²⁷⁾ PISA in Focus, 2014/04, p. 4.

Figure 1.3: Experts' perceptions of the extent to which training in creating or managing SMEs is incorporated within the education and training system at primary and secondary levels, 2014



EU	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU
2.12	1.95	:	:	3.1	2.13	2.63	2.09	1.5	1.84	1.75	1.68	1.68	:	2.51	2.37	2.13	1.68
MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	BA	CH	IS	LI	NO	TR	
:	2.85	1.66	1.75	2.04	2.34	1.77	2.21	2.28	2.55	2.44	2.06	2.56	:	:	2.48	2.04	

Source: Global Entrepreneurship Monitor: National Expert Survey Measures, 2014.

Explanatory note

The GEM National Expert Survey (NES) monitors the factors that are believed to have a significant impact on entrepreneurship, known as the 'Entrepreneurial Framework Conditions' (EFCs). The National Experts' Survey is conducted every year, over the same period of time, by GEM national teams, comprising at least 36 experts (four experts for each of the nine components of the Entrepreneurial Conditions Framework), using the GEM questionnaire.

Most European countries scored quite low. Those evaluated as slightly above the medium grade of (2.5 points), are Denmark (the only European country scoring above 3), Estonia, Latvia, the Netherlands, Sweden and Switzerland. Lithuania, Romania, Slovakia, Finland and Norway also score close to the 2.5 points. The report concludes that if a country wants to be more proactive in developing such a culture, 'it is relevant to implement consistent policies and programs on restructuring the capability of education systems towards providing entrepreneurial competences as [...] transversal skills for everyone' ⁽²⁸⁾.

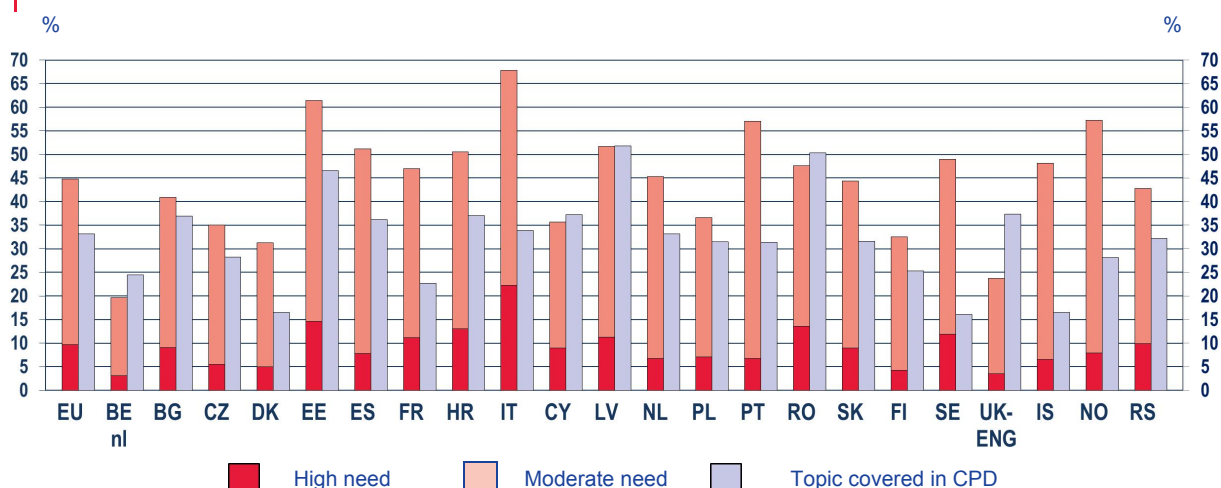
1.2.4. Continuing professional development for teaching cross-curricular skills

The recent Eurydice report, *The teaching profession in Europe: Practices, perceptions, and policies* (European Commission/EACEA/Eurydice, 2015b), highlights that there can be a mismatch between the topics covered by continuing professional development (CPD) activities and the actual needs of teachers. Secondary analysis of the 2013 OECD Teaching and Learning International Survey (TALIS) shows that the mismatch also concerns teaching cross-curricular skills, to which the key competence 'entrepreneurship' belongs. In general, larger proportions of teachers in lower secondary education express moderate or high needs of professional development in cross-curricular skills compared to the proportion declaring that their CPD activities have covered this topic. At EU level, 44.8 % of teachers express moderate or high need in this area, while only 33.2 % say that CPD activities in which they participated have covered this topic.

⁽²⁸⁾ GEM, 2014, p. 31.

Figure 1.4 shows the national results for those countries having participated in the survey. In most of them, the pattern is similar to the EU level, with lower proportion of teachers declaring that the topic was covered in CPD activities compared to those expressing a moderate or high need.

Figure 1.4: Proportion of teachers in lower secondary education (ISCED 2) declaring that their professional development activities covered the topic 'teaching cross-curricular skills' in the 12 months prior to the survey, and the proportion of teachers expressing moderate and high levels of need for professional development in the same topic, 2013



%	EU	BE nl	BG	CZ	DK	EE	ES	FR	HR	IT	CY	LV	NL	PL	PT	RO	SK	FI	SE	UK- ENG	IS	NO	RS
High need	9.8	3.2	9.1	5.6	5.1	14.7	7.9	11.2	13.1	22.3	9.0	11.3	6.8	7.2	6.8	13.7	9.0	4.3	12.0	3.6	6.6	8.0	10.0
<i>S.E.</i>	0.20	0.34	0.72	0.46	0.62	0.78	0.52	0.66	0.72	0.75	0.72	0.88	0.88	0.64	0.52	0.79	0.55	0.48	0.65	0.52	0.74	0.90	0.47
Moderate need	35.0	16.5	31.9	29.5	26.3	46.8	43.3	35.9	37.5	45.6	26.7	40.5	38.6	29.5	50.3	34.0	35.4	28.3	37.1	20.2	41.6	49.3	32.9
<i>S.E.</i>	0.37	0.70	1.27	1.01	1.41	1.08	0.99	1.00	0.87	1.02	1.21	1.24	1.31	1.09	1.21	1.15	0.86	1.17	1.03	0.89	1.45	1.52	0.87
Participation	33.2	24.5	37.0	28.3	16.6	46.6	36.3	22.8	37.1	34.0	37.3	51.9	33.2	31.6	31.5	50.4	31.7	25.4	16.2	37.4	16.6	28.2	32.3
<i>S.E.</i>	0.48	1.02	1.59	1.32	0.93	1.32	1.32	1.17	1.06	1.21	1.60	1.38	1.40	1.03	1.02	1.16	1.37	1.04	0.94	1.75	1.19	1.44	1.14

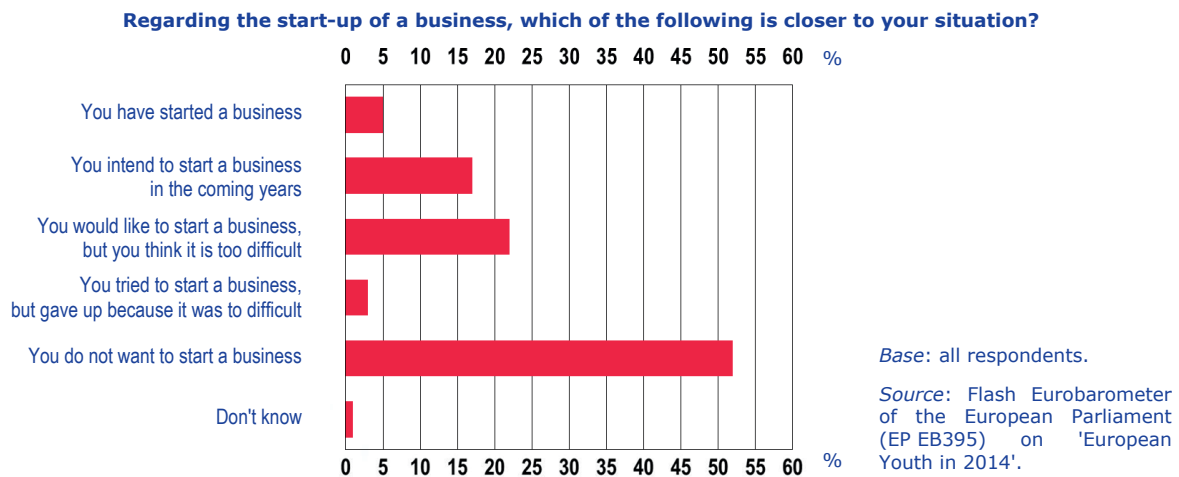
Source: Eurydice, on the basis of TALIS 2013.

In few countries the mismatch is higher, such as for example in France, Italy, Portugal, Sweden, Iceland and Norway. In contrast, with due consideration of standard errors, in two countries, higher proportions of teachers declare that the topic 'teaching cross-curricular skills' has been covered in their CPD activities compared to those expressing moderate or high needs. This is the case for the Flemish Community of Belgium and the United Kingdom (England). In others, needs and coverage are roughly equivalent, as in Cyprus, Latvia and Romania. Finally, TALIS measures the perceptions of teachers and not actual participation rates. Perception of teachers, as measured in TALIS is an important proxy to what happens in reality, or at least to what teachers consider occurs in reality. The expressed need would at least indicate that teachers do not feel prepared or comfortable with teaching cross-curricular skills, and at the same time that CPD activities do not cover in sufficient proportion such need. If teachers are considered an important vehicle to entrepreneurship education such mismatch would benefit from being addressed.

1.2.5. Entrepreneurial intentions

A recent Eurobarometer survey ⁽²⁹⁾ indicates that for many young Europeans entrepreneurship does not seem to offer an alternative solution in the face of the jobs crisis. Indeed, in the survey (see Figure 1.5), more than half of the respondents declared having no wish to start their own business (52 %). Just one in five (22 %) would like to start a business but considered it too difficult.

Figure 1.5: Young people (aged 15-29) who would like to set up their own business, EU-28 average, 2014



Only a quarter of young Europeans are more proactive about starting a business (5 % have done so, 17 % intend to do so in the near future and 3 % tried to start a business but gave up because it was too difficult) ⁽³⁰⁾.

The highest percentage of respondents willing to become entrepreneurs is registered in Lithuania (32 % 'intend to start a business in the coming years') and Romania (33 %). Conversely, the lowest values are recorded in Germany (11 %) and Greece (11 %). The country with the lowest percentage of young people that have started a business is Ireland (only 2 %).

Data on perceptions and attitudes towards entrepreneurship is also produced by the Global Entrepreneurship Monitor (GEM) project ⁽³¹⁾. The survey examines social attitudes towards entrepreneurship, asking, for example, whether respondents see entrepreneurship as a good career option. While, more than half of EU respondents agreed that entrepreneurship was a desirable career choice, the proportion is still lower than in all other regions of the world (the highest rate is in the African economies of Angola, Botswana and South Africa). This also shows that the desirability of entrepreneurship as a career choice is linked to the economic development of a country and to the availability of job opportunities. The GEM report highlights that people in factor-driven and efficiency-driven economies value entrepreneurship much more than those in innovation-driven economies ⁽³²⁾. The still high rates in the innovation-driven economies of the Netherlands and Italy are an exception.

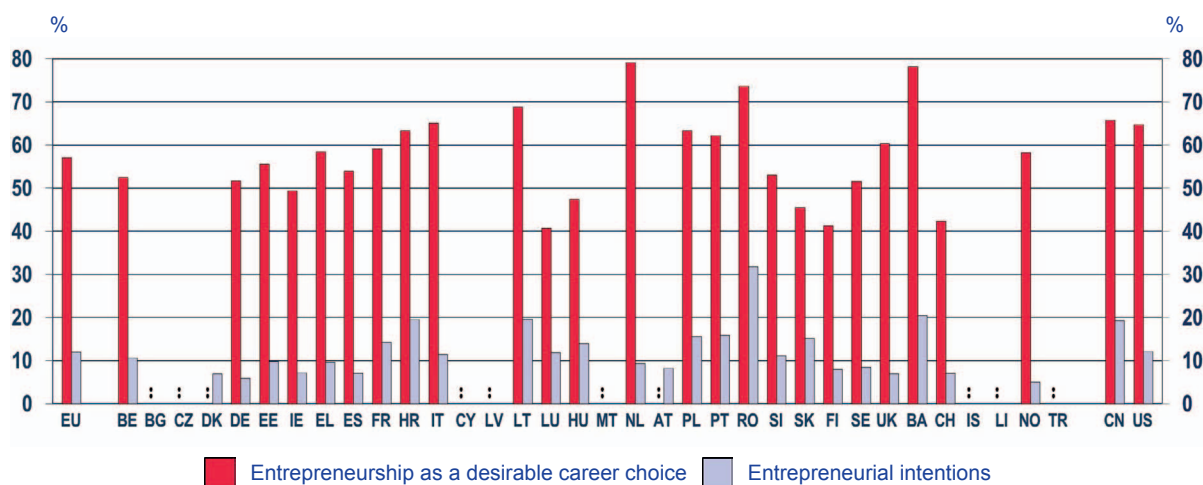
⁽²⁹⁾ European Parliament, 2014.

⁽³⁰⁾ Ibid.

⁽³¹⁾ GEM, 2014: <http://www.gemconsortium.org/data/sets>

⁽³²⁾ GEM classified countries according to their economic development level. In the first stage, the economy is *factor-driven* and countries compete based on their factor endowments, primarily unskilled labour and natural resources. In the second stage, as a country becomes more competitive, productivity will increase and wages will rise with advancing development, moving the country into the *efficiency-driven* stage. Finally, as countries move into the *innovation-driven* stage, wages will have risen by so much that they are able to sustain those higher wages and the associated standard of living only if their businesses are able to compete with new and unique products (see <http://reports.weforum.org/global-competitiveness-report-2014-2015/methodology/#hide/fn-19>). Most EU countries have innovation-driven economies, except for Croatia, Hungary, Lithuania, Poland and Romania, which are efficiency-driven (RO) or in transition to innovation-driven. As for non-EU countries, Switzerland and Norway are innovation-driven economies and Bosnia and Herzegovina and Turkey efficiency-driven economies.

Figure 1.6: Entrepreneurship as a desirable career choice and entrepreneurial intentions
 (% of population aged 18-64), 2014



%	EU	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT
Desirable career choice	57	52	:	:	:	52	56	49	58	54	59	63	65	:	:	69	41	47	:
Entrepreneurial intentions	12	11	:	:	7	6	10	7	10	7	14	19	11	:	:	20	12	14	:
%	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	BA	CH	IS	LI	NO	TR		CN	US
Desirable career choice	79	:	63	62	74	53	45	41	52	60	78	42	:	:	58	:		66	65
Entrepreneurial intentions		9	8	16	16	11	15	15	8	8	7	20	7	:	:	5		19	12

Source: Global Entrepreneurship Monitor: Key indicators 2014.

Explanatory note

Entrepreneurial intentions are defined by the percentage of individuals who expect to start a business within the next three years (those already entrepreneurially active are excluded from this measure), 18-64 age group.

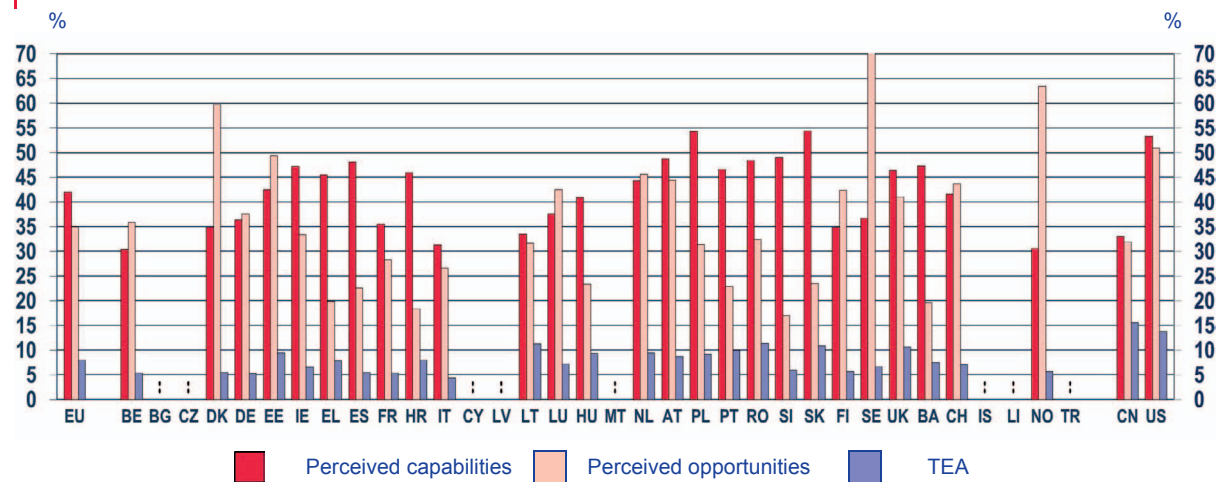
The GEM survey also measures several individual attributes, such as entrepreneurial intentions and perception of opportunities and of own capabilities. These have been contrasted, first, in Figure 1.6, with a social value of entrepreneurship (entrepreneurship as a desirable career choice), and, second, in Figure 1.7, with the total early stage entrepreneurial activity (TEA) in a country.

With respect to the social value of entrepreneurship, it is crucial to take into account the context when comparing data on individual attributes. Indeed, individuals in different economies will express their perceptions differently. Entrepreneurial intentions are highest among factor-driven economies and lowest among innovation-driven economies, confirming that individuals start their own business when other ways of earning an income are limited. Nevertheless, social attitudes towards entrepreneurship and the quality of entrepreneurship framework conditions either provide support for or constitute hindrances to budding entrepreneurs ⁽³³⁾.

⁽³³⁾ GEM, 2014, p. 34.

As shown in Figure 1.7, perceived capabilities are often higher than perceived opportunities. In Europe, a pattern emerges, namely that countries experiencing long-term economic difficulties (e.g. Greece, Spain, Croatia, Portugal, Slovenia, and Bosnia and Herzegovina) show a wider gap between perceived capabilities and opportunities, with capabilities higher than opportunities. In contrast, in Denmark, Finland, Sweden and Norway, perceived opportunities are significantly higher than perceived capabilities.

Figure 1.7: Individuals' perceived capabilities and opportunities and total early stage entrepreneurial activity (TEA) (% of population aged 18-64), 2014



%	EU	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT
Perceived capabilities	42	30	:	:	35	36	42	47	46	48	35	46	31	:	:	33	38	41	:
Perceived opportunities	35	36	:	:	60	38	49	33	20	23	28	18	27	:	:	32	43	23	:
TEA	8	5	:	:	5	5	9	7	8	5	5	8	4	:	:	11	7	9	:
%	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	BA	CH	IS	LI	NO	TR	CN	US	
Perceived capabilities	44	49	54	47	48	49	54	35	37	46	47	42	:	:	31	:	33	53	
Perceived opportunities	46	44	31	23	32	17	24	42	70	41	20	44	:	:	63	:	32	51	
TEA	9	9	9	10	11	6	11	6	7	11	7	7	:	:	6	:	16	14	

Source: Global Entrepreneurship Monitor: Key indicators 2014.

Explanatory note

Perceived capabilities reflect the percentage of respondents who believe they have the required skills, knowledge and experience to start a new venture.

Perceived opportunities reflect the percentage of individuals who believe there is an option to start a venture in the next six months in their immediate environment.

The Total Early-stage Entrepreneurial Activity (TEA) rate shows the percentage of individuals aged 18-64 in an economy who are in the process of starting a business or are already running a new business, set up within the previous 42 months.

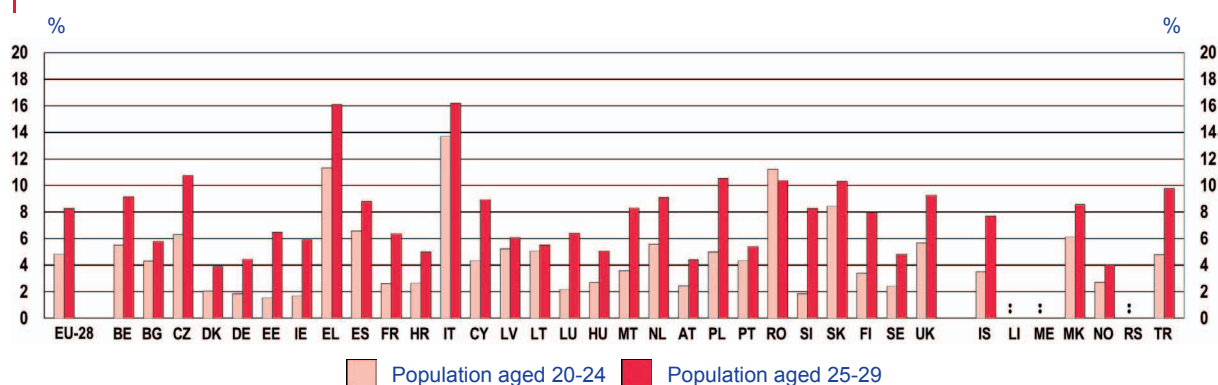
As with social attitudes to entrepreneurship, a comparison across countries in Europe and other regions of the world shows that both the perceived opportunities and perceived capabilities are less positive in innovation-driven economies than in economies at an efficiency-driven or factor-driven development stage. And again, by comparison, European countries have the lowest levels of entrepreneurial activity.

The GEM analysis also looked at correlations between the elements indicating that perceived opportunities and capabilities are positively associated with the level of 'Total early-stage Entrepreneurial Activity' (TEA). Interestingly, but not surprisingly, a strong correlation between perceived capabilities (skills) and TEA could be found, which 'indicates how all forms of education (formal, informal and non-formal) are important in developing entrepreneurial competences' ⁽³⁴⁾.

1.2.6. Self-employment rate among young people

Eurostat data shows that the lowest percentages of self-employed young people (see Figure 1.8) among the employed population aged 20-24 are recorded in Estonia (1.5 %), and Ireland (1.7 %). On the other side of the spectrum, Italy (13.7 %), Greece (11.3 %) and Romania (11.2 %) have the highest percentages. While for Italy and Romania, the GEM survey (see Figure 1.7) also shows that the rate of perceived opportunities for entrepreneurship is around the EU average; the rate in Greece is much lower but self-employment is still significantly higher than the EU average.

Figure 1.8: Self-employed young people, as a percentage of all employed young people, by age, 2014



	EU	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU
20-24	4.8	5.5	4.3	6.3	2.0	1.8	1.5	1.7	11.3	6.6	2.6	2.7	13.7	4.3	5.2	5.1	2.2	2.7
25-29	8.3	9.1	5.8	10.7	3.9	4.4	6.5	5.9	16.1	8.8	6.4	5.0	16.2	8.9	6.1	5.5	6.4	5.1
%	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	IS	LI	ME	MK	NO	RS	TR
20-24	3.6	5.6	2.4	5.0	4.3	11.2	1.9	8.4	3.4	2.4	5.7	3.5	:	:	6.1	2.7	:	4.8
25-29	8.3	9.1	4.4	10.5	5.4	10.4	8.3	10.3	7.9	4.8	9.3	7.7	:	:	8.6	4.0	:	9.8

Source: Eurydice calculation on Eurostat data (Labour Force Survey) on self-employed young people [yth_empl_040].

Explanatory note

Self-employed persons are those who work in their own business, farm or professional practice. A self-employed person is considered to be working if she/he meets one of the following criteria: works for the purpose of earning profit, spends time on the operation of a business or is in the process of setting up his/her business (Eurostat definition).

Among the 25-29 age group, Denmark (3.9 %) and Norway (4.0 %) have the lowest values, while Italy (16.2 %) and Greece (16.1 %) show the highest percentages of self-employed young people among those employed. This must certainly be viewed in a wider context, taking into account the economic situation of each country, the size of the public and the private sectors, national unemployment rates, etc. In this sense, Italy and Greece are in a more difficult economic situation, which might partly explain why more people choose self-employment – i.e. they choose it out of necessity, in the absence of other employment opportunities. According to Eurofound ⁽³⁵⁾, forms of false self-employment exist in some countries and might falsify data. Indeed, the sector in which the level of

⁽³⁴⁾ GEM, 2014, p. 38.

⁽³⁵⁾ Eurofound, 2015.

self-employment is higher in the construction sector which suggests bogus self-employment. It certainly also shows that the desire or need for self-employment differs greatly between countries. Entrepreneurship education therefore appears to be only one of the elements, which by contributing to the development of skills and hence the creation of an entrepreneurial culture, may ultimately lead to an increase in the number of business start-ups and in the level of self-employment.

CHAPTER 2: STRATEGIES AND FUNDING SCHEMES

This chapter provides an analysis of the strategic and funding environment surrounding entrepreneurship education in Europe. The investigation first focuses on the central level strategies identified as the most relevant to this policy area. For the purposes of this report, only these strategies have been analysed. It then analyses sources and use of funding for entrepreneurship education.

2.1. Strategies related to entrepreneurship education in Europe

Countries were asked to indicate the most relevant strategy explicitly related to this policy area, such as a specific strategy for entrepreneurship education or a broader strategy relating to a different policy area but including some topics and/or actions related entrepreneurship education. Within the report, the strategies are divided into the following types:

- specific strategies which focus exclusively on entrepreneurship education, often developing a common vision across government, reflecting policy priorities for a range of ministries such as education, innovation and economic development, and bringing together related actions from these policy areas;
- broader education related strategies incorporating objectives for entrepreneurship education, such as education and training, youth or lifelong learning strategies;
- broader economy related strategies featuring entrepreneurship education, such as entrepreneurship, employment or SME development strategies.

The first section explores the development of entrepreneurship education at European policy level, and maps the development of specific strategies showing how their proliferation mirrors the increased focus on entrepreneurship education at EU level. The section then describes the state of play, providing an overview of the types of current strategies in each country.

The second and third sections provide a deeper analysis of each type of strategy, firstly addressing specific entrepreneurship education strategies and secondly the different types of broader strategies in both education and economy related areas.

The fourth section delves into the approach and content to the strategies, drawing comparison between countries and highlighting interesting practices. It looks for common themes and trends, exploring how seven entrepreneurship education topics are addressed and examines strategy objectives. The last section looks at whether strategies include success factors such as cross ministerial cooperation, robust monitoring or partnerships.

2.1.1. The entrepreneurship education policy landscape

In 2003, Europe made its first reference to the importance of entrepreneurship education with the publication of the European Green Paper on Entrepreneurship in Europe ⁽³⁶⁾. At EU level, this was the first policy link between education and training and the development of entrepreneurial culture and its associated skills. This was followed by a range of expert groups, conferences and good practice documents led in the main by Directorate General Enterprise of the European Commission, including the influential Oslo Agenda ⁽³⁷⁾ in 2006. For the first time, the Oslo Agenda ⁽³⁸⁾ requested Member

⁽³⁶⁾ European Commission, 2003.

⁽³⁷⁾ European Commission, 2006.

⁽³⁸⁾ Ibid.

States to 'launch national strategies for entrepreneurship education, with clear objectives covering all stages of education'. The Agenda emphasised that these strategies should involve all relevant stakeholders (public and private), and should establish a general framework whilst also setting out definite actions to be taken. The range of actions might vary from the inclusion of entrepreneurship in national curricula to providing support to schools and teachers. The overall goal would be 'to ensure that young people can [systematically] acquire entrepreneurial competences across all stages of the education system' ⁽³⁹⁾.

Figure 2.1: Key European policy documents influencing entrepreneurship education related strategy development

YEAR	EUROPEAN POLICY MILESTONE	DESCRIPTION
2003	Entrepreneurship in Europe Green Paper	The first entrepreneurship action plan for Europe, including education as a key factor in realising progress
2006	The Oslo Agenda for Entrepreneurship Education in Europe	A set of proposals outlining how to support progress in entrepreneurship education through systematic and effective actions at EU, national, regional and institution levels
	Recommendation of the European Parliament and the Council on Key Competences for Lifelong Learning	Identified a 'sense of initiative and entrepreneurship' as one of eight key competences
2010	Towards Greater Coherence in Entrepreneurship Education	Research on the introduction of systematic strategies in entrepreneurship education, including presentation of the 'Progression Model'
2012	Entrepreneurship 2020 Action Plan	Identified entrepreneurship education as one of the three pillars to support entrepreneurial growth in Europe
	Entrepreneurship Education at School in Europe	A Eurydice study analysing the integration of entrepreneurship education into policy and practice for compulsory education in Europe
2014	Final Report Thematic Working Group on Entrepreneurship Education	Policy guidance for national and regional administrations to develop more effective entrepreneurship education strategy and practice
	European Council conclusions on entrepreneurship in education and training	Calls on European Commission and Member States to promote and embed entrepreneurship education in education and training systems
2015	Entrepreneurship Education: A Road to Success	Compilation of evidence on the impact of entrepreneurship education strategies and measures
	European Parliament Resolution on promoting youth entrepreneurship through education and training	Calls on the European Commission to support entrepreneurial skills development through its programmes, and also calls on Member States to use available funding, such as EU Structural Funds, to promote entrepreneurial skills development

Source: Eurydice.

In 2009, an innovative joint initiative between DG Enterprise and DG Education and Culture saw four High Level Reflection Panels held at regional level across Europe, bringing together ministries for both education and economic development to discuss policy and practice related to entrepreneurship education. The subsequent 2010 report ⁽⁴⁰⁾, *Towards Greater Coherence in Entrepreneurship Education*, provides a logic for policy intervention and a series of best practices, placing importance on three areas to support successful strategic approaches. It highlights firstly a move away from business focused themes towards the more holistic entrepreneurship key competence and skills-based learning model, secondly the creation of a shared vision between policymakers and stakeholders, and thirdly recognition and support for the primary role of teachers, schools and businesses. To contextualize

⁽³⁹⁾ European Commission, 2006, p. 1.

⁽⁴⁰⁾ McCoshan, 2010.

this, the report presented a framework to support development of strategic approaches called the 'Progression Model' ⁽⁴¹⁾. Within an overall conceptual framework, the 'Progression Model' allows countries to set priorities for a national strategy and identify their current stage of development on the strategy development continuum.

In 2012, DG Education and Culture, working in close collaboration with DG Enterprise, initiated the European Thematic Working Group on Entrepreneurship Education, bringing together Member State experts to develop policy guidance for entrepreneurship education. The final report ⁽⁴²⁾ from this group identifies the building blocks of a specific entrepreneurship education strategy, outlining a clear rationale and examples of good practice. These building blocks mirror the key topics and align with those explored in this study including partner engagement, curriculum, teaching methods, learning outcomes and teacher education. These studies demonstrated the policy impact potential of a specific strategy for entrepreneurship education, highlighting social inclusion and active citizenship as well as employability and venture creation.

Reports at European level have been consistent in recommending specific strategies as a route to a more coherent approach across ministries. The 2014 report of the Thematic Working Group on Entrepreneurship Education already highlighted the benefits of using a specific strategy and identified the implications of including entrepreneurship education in different types of broader strategy. However, the most recent study at European level, *Entrepreneurship Education: A Road to Success*, sought to review the evidence on the impact of both specific strategies and broader initiatives. Significantly, it concluded that where these strategies and actions had taken place, the body of existing research supported positive impact on the individual, the education institutions, the economy and society ⁽⁴³⁾.

The development of entrepreneurship education strategy in Europe

It is possible to illustrate the emergence of entrepreneurship education through a timeline detailing when specific strategies were launched. However, it is not feasible to match this by tracking entrepreneurship education within the complex network of broader strategies that may include topics or actions relating to this policy area. The diagram below is a snapshot of the developing profile of this policy area.

The United Kingdom (Northern Ireland and Scotland) pioneered the first specific entrepreneurship education strategies in 2003, mirroring the timeline for European policy recommendations ⁽⁴⁴⁾. Lithuania, the United Kingdom (Wales) and Norway followed in 2004. Figure 2.2 provides a timeline for the launch and implementation of all specific strategies where they exist.

2007-2009 saw a surge in the number of specific strategies across Europe. Numbers rose rapidly, from eight countries/regions in 2007, to 12 countries/regions in 2009. By 2011, this had increased to 14 countries/regions. A slight fall by 2015, and currently 11 countries/regions have a specific entrepreneurship education strategy. In some countries, there have been two or more consecutive specific strategies, such as in Belgium (all Communities), the United Kingdom (Wales), Montenegro and Norway.

There are six countries/regions in Figure 2.2 that have previously addressed entrepreneurship education through specific strategies, but have chosen not to develop a new strategy. Of the six

⁽⁴¹⁾ Ibid, p. 25-27. See Chapter 5 for additional analysis linked to the Progression Model.

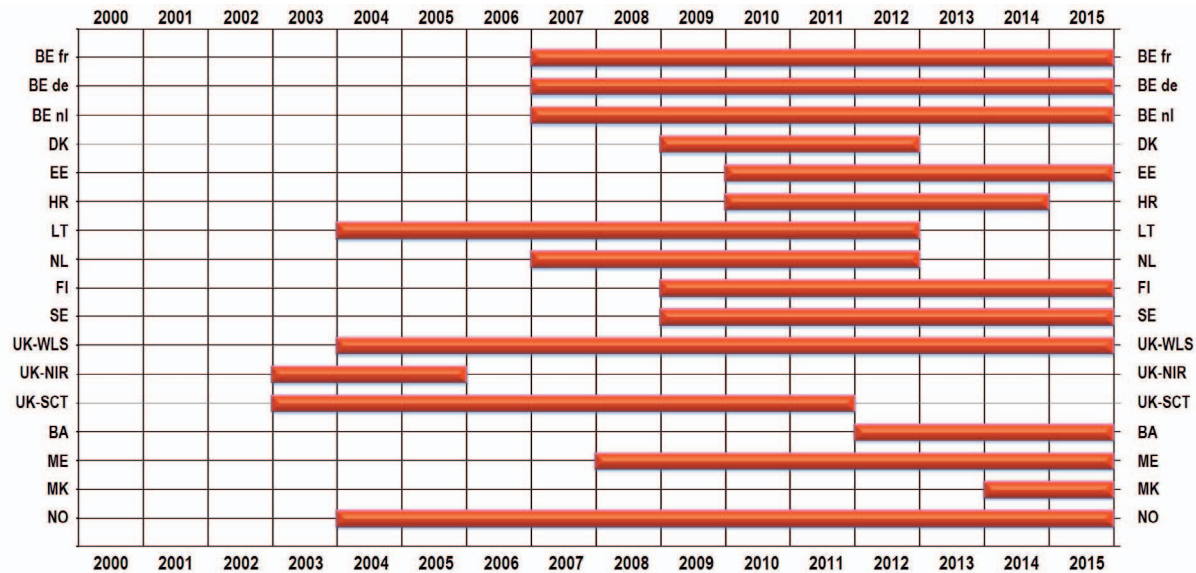
⁽⁴²⁾ European Commission, 2014b.

⁽⁴³⁾ European Commission, 2015a, p. 87.

⁽⁴⁴⁾ European Commission, 2003.

countries/regions, four now address this within the wider strategic theme of entrepreneurship and innovation (Denmark, Lithuania and the United Kingdom (Northern Ireland and Scotland)). The Netherlands have a wider strategy related to entrepreneurship and innovation, and the need to improve education and training is explicitly highlighted such as increased collaboration between education and business. Croatia has no current strategy linked to this policy area.

Figure 2.2: Implementation of specific central level entrepreneurship education strategies, 2000-2015



Source: Eurydice.

Explanatory note

This Figure illustrates the introduction and duration of specific entrepreneurship education strategies where they were implemented in Europe. It therefore does not include all countries addressed within this study.

Country-specific notes

Belgium (BE nl): The first of the two strategies in the Flemish Community of Belgium began in 2007; the specified timeframes of the two strategies was 2007-2009 and 2011-2014. On 11 December 2015, the updated action plan 'Entrepreneurial education 2015-2019' (*Ondernemend onderwijs 2015-2019*) was presented to the Flemish Government.

United Kingdom (NIR): The 'Entrepreneurship and Education Action Plan' (2003) was linked to a specific priority in the 'Programme for Government' (PfG) 2002-2005. Subsequent PfGs have not included the same explicit commitment, and the action plan was not renewed.

Norway: The 'Action Plan for Entrepreneurship in Education and Training' covers the period 2009-2014. However, current data indicates that this strategy is still in operation.

For both Croatia and the United Kingdom (Northern Ireland), the strategy was not renewed because entrepreneurship education was no longer a priority theme for the government. The United Kingdom (Northern Ireland) was the first region to discontinue its specific strategy when it expired in 2005, following it up recently with the 'Innovation Strategy for Northern Ireland 2014-2025' that includes a small number of actions supporting entrepreneurship education.

Lithuania and the United Kingdom (Scotland) mainstreamed the work of the strategy into other strategic government approaches. Lithuania's specific strategy ceased in 2012 and the country has now mainstreamed a series of relevant actions into a broader entrepreneurship strategy closely reflecting the priorities of the EU 'Entrepreneurship 2020 Action Plan' launched in 2013.

The United Kingdom (Scotland) ⁽⁴⁵⁾ discontinued their strategy in 2011 after eight years, as part of a wider shift in relationship and funding arrangements between central and local government. Entrepreneurship education was seen as having continuing importance, and was mainstreamed

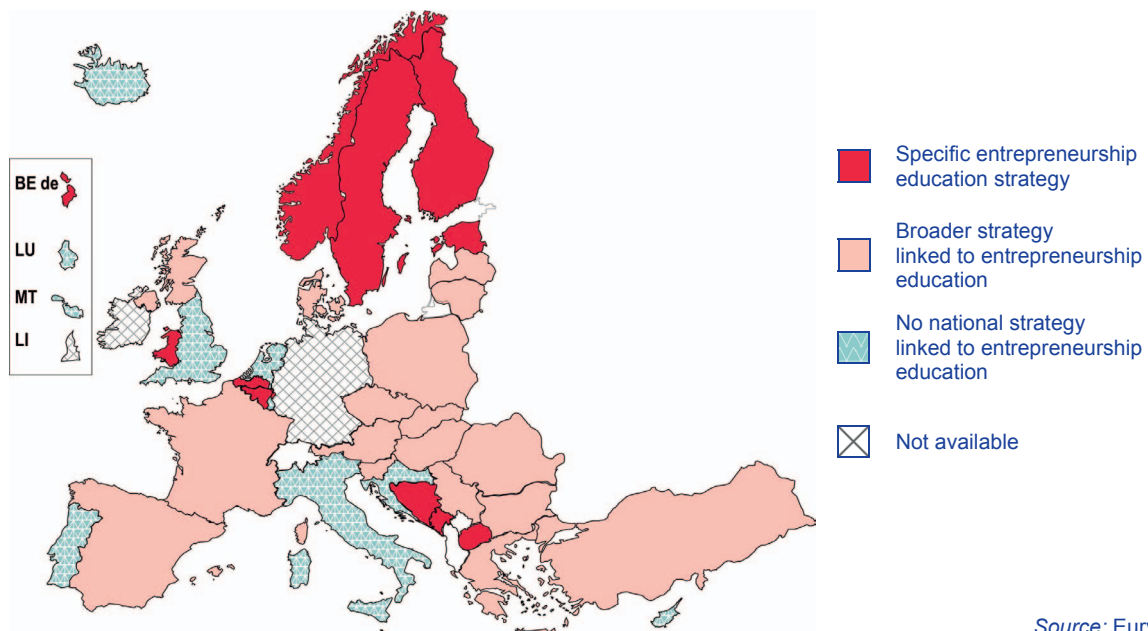
⁽⁴⁵⁾ <http://www.gov.scot/resource/doc/920/0118640.pdf>

through Scotland's 'Curriculum for Excellence' for 3-18 year olds. Scotland has now brought this policy area together with other themes within a broader entrepreneurship and innovation strategy called 'Scotland Can Do'. In Denmark, the previous specific strategy declared the formation of the Danish Foundation for Entrepreneurship (FFE), an embedded and sustainable infrastructure that supports entrepreneurship education through national coordination and support and is funded by both government and stakeholders. The entrepreneurship education strategy is still seen as valid, and is seen alongside a broader innovation strategy, 'Denmark – A nation of solutions' in 2012 which further positions FFE as the central actor for entrepreneurship in education.

The state of play

In 2014/15, 29 of 38 countries/regions surveyed have either specific or broader strategies that include specific links to entrepreneurship education. The map in Figure 2.3 demonstrates the different strategic approaches evident across Europe.

Figure 2.3: Most relevant central level strategies related to entrepreneurship education, 2014/15



Source: Eurydice.

Beyond the 11 countries/regions with a specific strategy, there are 18 with a broader strategy related to entrepreneurship education. There are no relevant national strategies in nine countries/regions (Croatia, Italy, Cyprus, Luxembourg, the Netherlands, Malta, Portugal, the United Kingdom (England) and Iceland). Cyprus has no existing strategy but has a specific strategy in development, while Slovenia already has a broader strategy linked to entrepreneurship education and is now developing a specific strategy.

2.1.2. Countries with specific entrepreneurship education strategies

It can clearly be seen in Figure 2.3 that the 11 specific strategies are found in two geographical areas, northern Europe (the most southerly country being Belgium) and the western Balkan pre-accession region. This geographical predominance in northern Europe is also consistent with the findings of the previous 2012 Eurydice report⁽⁴⁶⁾ in this policy area, as shown in Figure 1.2 illustrating the implementation of such strategies since 2000.

⁽⁴⁶⁾ EACEA/Eurydice, 2012.

The three Communities of Belgium have all had specific strategies since 2007:

There has been a recent development process covering the **French** and **German-speaking Communities**, resulting in the 'Entrepreneurship 3.15: 3 Axes and 15 Levers for an Entrepreneurial Generation', the most recent strategy launched in 2014. The region's strategy is led by the Walloon Agency for Economic Stimulation (ASE), now called the Agency for Entrepreneurship and Innovation (AEI), which has three strands of action including support for entrepreneurship education, developing future entrepreneurs and encouraging business start-ups. The actions are outlined in detail and cover practical entrepreneurial experiences, career guidance and support for teachers. There is a strong emphasis on engaging and involving business into education and training, alongside the development of more entrepreneurial schools and the importance of the wider ecosystem in supporting the objectives.

The first strategy in the **Flemish Community of Belgium** dates back to 2007. The second strategy is the 2011-2014 'Action Plan for the promotion of Entrepreneurial Spirit and Entrepreneurship'. The government has confirmed that this current strategy is still ongoing although dated to the end of 2014, while a third specific strategy has since been adopted in December 2015. The second specific strategy – analysed in this report – identifies four priorities focusing on: supporting development of the entrepreneurial spirit; creating opportunities for practical entrepreneurial learning; increasing people's motivation to become entrepreneurs; and ensuring that teachers show entrepreneurial spirit and demonstrate a balanced view of entrepreneurship. Actions address the need for a common vocabulary, support for teachers (including methods, networks and placements in industry), communicating with all partners and ensuring that learning progression takes place across education levels and phases of teacher education.

Estonia has a specific strategy, supported by links within the national lifelong learning strategy. The 'Entrepreneurship Education Development Plan: Be Enterprising!' emphasises a broad focus encompassing many key topics. Of particular importance are learning outcomes, the curriculum and teachers. It highlights the challenges facing entrepreneurship education in Estonia, and cites the Scottish 'Determined to Succeed' strategy to demonstrate the importance of integrating entrepreneurial approaches across all teaching and learning. This is interesting as an example of peer learning evident through the strategy, reflecting much work carried out by the European Commission to promote peer learning between countries such as the High Level Reflection Panels ⁽⁴⁷⁾ in 2009-2010 and the Thematic Working Group on Entrepreneurship Education ⁽⁴⁸⁾ in 2012-2014.

In the **United Kingdom (Wales)**, the 'Youth Entrepreneurship Strategy: Action Plan 2010-2015' has three delivery themes covering engagement with young people to raise awareness, empowerment through entrepreneurial learning opportunities and equipping young people to create and grow businesses. The narrative provides an interesting analysis of progress regarding attitudinal changes towards start-ups among young people and youth start-up rates, reflecting the dual focus on both skills and start-ups within the Welsh approach.

Three Nordic countries have specific strategies:

Finland issued its strategy in 2009, 'Guidelines for Entrepreneurship Education', which is supported by the YES network of 19 regional entrepreneurship education resource centres. The strategy seeks to support a more entrepreneurial culture, active citizenship and business start-ups, while the YES Centres place an emphasis on the networking, support and training for and with teachers. Strategy actions have led to large scale projects such as 'Me & MyCity', which engages high proportions of school learners ⁽⁴⁹⁾. There are no direct links to other policies, but the strategy's introduction places an emphasis on economic growth, innovation and youth start-ups, highlighting the comparatively low rate of start-ups among under-35s in Finland.

Sweden has developed the 'Strategy for Entrepreneurship in the Field of Education', launched in 2009 with no end date. It has a dual focus on developing the key competence approach in education and to encourage more people to start their own companies. There is a comparatively short list of 11 actions, including commitments to emphasising entrepreneurial skills in primary and secondary schools through a government review of curriculum steering documents, better cooperation and links to the world of work/business, provision of practical entrepreneurial experiences and a mapping of existing provision.

Norway is now implementing its second strategy, with a focus on making the country a leading force in entrepreneurship education and training and making 'entrepreneurship as natural a choice as employment' ⁽⁵⁰⁾. While both Norwegian strategies address all educational levels from primary education to higher education (ISCED 1-8), the first included a wider range of actions related to schools and school-based IVET, while the second has a stronger focus on higher education.

⁽⁴⁷⁾ European Commission, 2010.

⁽⁴⁸⁾ European Commission, 2014b.

⁽⁴⁹⁾ <http://yrityskyyla.fi/en/>. Me&MyCity engages approximately 80 % of sixth grade (ISCED 2) in practical entrepreneurial experiences every year.

⁽⁵⁰⁾ <http://www.regeringen.se/contentassets/0f6c0164196e4071a9cb27eaada1cb41/strategi-for-entreprenorskap-inom-utbildningsomradet>

The prominence of specific entrepreneurship education strategies in the Nordic countries can be linked to their commitment to innovation, evidenced through the consistently high international innovation rankings. Sweden, Finland and Denmark take the top places in the European Innovation Scorecard 2015 ⁽⁵¹⁾ and are placed in the top 10 globally through the Global Innovation Index ⁽⁵²⁾, with Norway also in the global top 20.

In the western Balkan EU candidate countries, Bosnia and Herzegovina, Montenegro and the former Yugoslav Republic of Macedonia have specific strategies for entrepreneurship education. Pre-accession negotiations include an emphasis on the development of policy and practice in line with the EU Small Business Act (SBA) led by the European Commission, which includes a pillar on entrepreneurial learning. The European Training Foundation ⁽⁵³⁾, an agency of the European Commission, has a role in supporting and monitoring progress against the SBA in both pre-accession countries and EU Neighbourhood Regions. The South East European Centre for Entrepreneurial Learning (SEECEL) ⁽⁵⁴⁾, founded in 2009 as a regional initiative and supported by the European Commission, plays an important role in entrepreneurship education work across the region including supporting strategy development as well as the wider policy priorities of the SBA.

Of the specific strategies, few make explicit links to wider government policy. The strategies in Estonia, the United Kingdom (Wales) and Norway make explicit links to both education and innovation policy, while the United Kingdom (Wales) is unique in also linking this work to school effectiveness and careers policy. Indeed, Wales includes a detailed policy map demonstrating how the entrepreneurship education strategy is a bridge between the world of education, youth, employment, inclusiveness and competitiveness policies ⁽⁵⁵⁾. The Flemish Community of Belgium and Sweden make a brief mention of economic development and education strategies respectively, while Finland refers to the wider impact of entrepreneurship education but does not mention other government policies.

Of the 11 countries/regions with a specific strategy, eight state that they have allocated financial resources for the implementation of the strategy. Further information on this can be found in Section 2.2.

Two countries state that they have a strategy in development. For Cyprus, this is the only strategic approach related to entrepreneurship education, while in Slovenia there is also a youth strategy relating to this policy area but an additional specific strategy is planned.

2.1.3. Countries with broader strategies related to entrepreneurship education

Countries were asked to identify the most relevant strategy related to entrepreneurship education for ISCED levels 1-3, of which many were not specific to entrepreneurship education. The Figure below identifies the single most relevant strategy in each country/region and demonstrates different types of strategies across Europe.

Eighteen countries/regions link entrepreneurship education explicitly to broader strategies. Ten countries have strategies that are related to areas within education, training and youth: three relate to education strategies (Greece, Latvia and Turkey), four to lifelong learning strategies (Bulgaria, Hungary, Austria and Poland) and three to youth strategies (Slovenia, Slovakia and Serbia).

⁽⁵¹⁾ http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index_en.htm

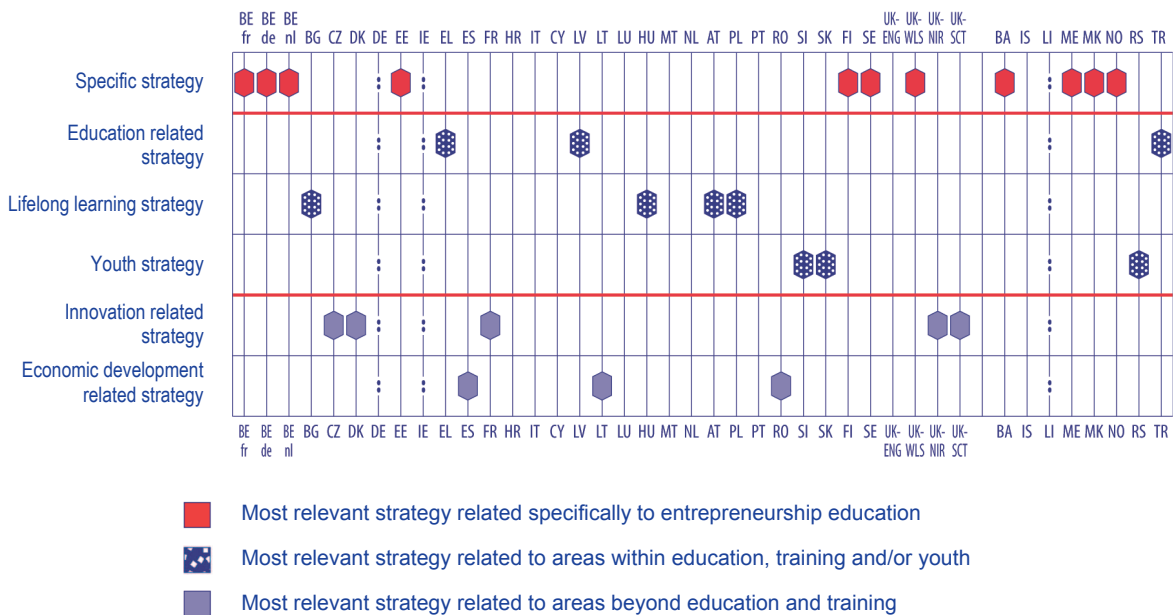
⁽⁵²⁾ <https://www.globalinnovationindex.org/content/page/data-analysis/>

⁽⁵³⁾ http://www.etf.europa.eu/web.nsf/pages/Education_and_business

⁽⁵⁴⁾ SEECEL works on entrepreneurial learning policy and practice in partnership with eight countries (AL, BA, HR, ME, MK, RS, TR and XK). See www.seecel.hr

⁽⁵⁵⁾ Welsh Government 2010, p. 6.

Figure 2.4: Types of central level strategies related to entrepreneurship education, 2014/15



Source: Eurydice.

Explanatory note

Countries were asked to identify the most relevant strategy related to entrepreneurship education for ISCED levels 1-3. The Figure uses the 'best-fit' approach, meaning that a policy document that could potentially be placed in several categories has been placed in the category that best matched its content, objectives and targets. No information is included for those countries/regions without a strategy related to entrepreneurship education.

Country-specific notes

Czech Republic: The 'Research and Innovation Strategy for Smart Specialisation' has been identified as the most relevant strategy. For the purposes of this survey, this has been classified as an innovation-related strategy.
Spain: There are a number of specific strategies at the level of Autonomous Communities in Spain, such as Andalusia, Asturias, and Galicia. Other Autonomous Communities have entrepreneurship education linked to a broader strategy including Asturias, Extremadura, Navarra, Basque Country and Murcia. See the national information sheet for more information.
Spain, Lithuania and Romania: The strategies in these countries have been identified as closely linked to an economic development theme (Spain: entrepreneurship and youth employment; Lithuania: entrepreneurship strategy; Romania: economic development strategy).
Cyprus and Slovenia: These countries are in the process of developing a specific strategy. As this is not yet in place for the reference year 2014/15, this information has not been included in the Figure. Slovenia is included because it already features entrepreneurship education in its youth strategy
Serbia: Entrepreneurship education is addressed by three strategy documents. Following additional research, the youth strategy has been identified as the most relevant and used for the Figure and chapter.

Slightly fewer countries developed a strategy outside the education and training policy area. Eight countries/regions identify economy related strategies as the most relevant, including five innovation related strategies (the Czech Republic, Denmark, France, the United Kingdom (Northern Ireland and Scotland)) and three economic development related strategies (Spain, Lithuania and Romania).

Strategies related to areas within education and training

Education and training strategies

Education and training strategies are identified as the most relevant policy document in three countries:

In **Greece**, the 'New School' strategy highlights the importance of entrepreneurship education as a key competence but does not include any actions explicitly linked to entrepreneurship education.

Turkey identifies a number of strategies linked to entrepreneurship education, with the most relevant being the 'Ministry of National Education Strategic Plan 2010-2014'. There is a brief mention within the text to an objective to organise activities to support entrepreneurship education, and it contains one action to encourage participation of successful entrepreneurs in entrepreneurship education.

Latvia's strategy approach is broader than Greece and Turkey. The Latvian 'Education Development Guidelines' mention the entrepreneurship key competence and includes supporting actions to develop teacher professional competences (including entrepreneurship), increase information about entrepreneurial professions and evaluate entrepreneurship education development measures from the previous strategy.

Lifelong learning strategies

There are four countries with a lifelong learning strategy as the most relevant document:

Bulgaria includes entrepreneurship education within the 'National Strategy for Lifelong Learning 2014-2020'. This has the most extended range of actions, focusing on improving an entrepreneurial culture among young people, with actions including the provision of training companies through Junior Achievement Bulgaria ⁽⁵⁶⁾, knowledge of intellectual property, teacher education and updating of curricula.

Hungary's strategy highlights the importance of entrepreneurship education as a key competence for all with competency-based learning outcomes, with an action plan still under development.

Poland has a 'Lifelong Learning Perspective' strategy, which includes it as part of two strategic objectives developing skills and practical learning to support employability. There is also a broader emphasis on creativity and innovation across the strategy.

Austria has the broadest approach of the four countries who have identified lifelong learning strategies. The Austrian 'LLL:2020' underlines entrepreneurship education as a cross-cutting objective, which means that although it is not explicit in individual actions, it is implicit across all actions. It places particular importance on entrepreneurship education in actions related to curricula, learning outcomes and career guidance.

Youth strategies

Three countries identify youth strategies as the most relevant strategies at national level:

Serbia's 'National Youth Strategy 2015-2020' includes a broad range of actions, addressing curriculum, new programme development, practical entrepreneurial experiences, inclusion of the 'Entrepreneurial Skills Pass' ⁽⁵⁷⁾ at national level, teacher education and non-formal learning.

The **Slovenian** 'National Programme for Youth 2013-2022' includes entrepreneurship in one of the six key areas of the strategy, emphasising the wide understanding of entrepreneurship education and references its importance to being socially responsible and developing social enterprises. In terms of specific objectives, there is a mention of the importance of encouraging entrepreneurship education through school curricula, but no actions are attached.

The most detailed strategy is the **Slovakian** 'National Youth Strategy 2014-2020', though it does not cover as many topics as the Serbian strategy. It highlights creativity and entrepreneurship as one of nine priorities, with thirteen actions linked to this. These actions are broad ranging but quantifiable, from mentoring schemes in formal and non-formal education to encouraging entrepreneurship competitions in the media, with a strong overall emphasis on curricula and involving entrepreneurs in education environments.

⁽⁵⁶⁾ Junior Achievement Bulgaria is part of JA Europe: www.jaeurope.org

⁽⁵⁷⁾ <http://entrepreneurialskillspass.eu>

Strategies related to areas beyond education and training

Innovation strategies

Five countries/regions now include entrepreneurship education as a policy priority within innovation strategies. On average, innovation strategies are the most comprehensive broader strategy, covering a wider range of themes and actions than all other types of broader strategy.

The **Czech Republic** has highlighted a number of different strategies including those relating to lifelong learning and youth, however the most relevant is the 'Research and Innovation Strategy for Smart Specialisation 2014-2020' (RIS) which strongly links to the 'International Competitiveness Strategy 2012-2020'. RIS aims to target funding activities to strengthen research and innovation, and links to entrepreneurship education are made through the introduction of tools to assess and develop entrepreneurial skills, supported by teacher education and alongside the implementation of activities to encourage practical teaching.

Denmark's innovation strategy is called 'Denmark: A Nation of Solutions'. It has three areas of actions, the third of which is 'Education is to increase the innovation capacity: A change of culture in the educational system to focus more on innovation'. This action area includes eight actions related to entrepreneurship education, though the strategy is not supported by specific targets. In particular, it seeks to strengthen the role of the Danish Foundation for Entrepreneurship (FFE) (a national knowledge centre leading and supporting entrepreneurship education policy, practice and evaluation work across Denmark and Europe), and to broaden its remit to encompass education for both entrepreneurship and innovation.

In **France**, the 'New Deal for Innovation' sets out the country's ambition to become a land of innovation. It lays out four action areas on the development of a culture of entrepreneurship and innovation, public policies, increasing the economic impact of public research transfer and supporting business growth. Under the culture area, there are a number of actions to support entrepreneurship education, including a EUR 20 million funding initiative ⁽⁵⁸⁾ to improve the culture of innovation and promote entrepreneurship among young people at all levels of education and training (for more information, see Section 2.2).

The 'Innovation Strategy for the **United Kingdom (Northern Ireland)** 2014-2025' identifies the importance of the entrepreneurial spirit in young people to the development of an innovative region. The strategy recognises the value of mini company programmes such as those run by Young Enterprise Northern Ireland ⁽⁵⁹⁾ and funded by the Department of Education, but acknowledges that more is needed. The strategy includes a single action related to entrepreneurship education to examine how to increase support for young people to engage in entrepreneurial activities, and a follow-up strategy progress report ⁽⁶⁰⁾ indicates a specific focus on increasing numbers of young people taking part in 'Young Enterprise Northern Ireland'.

'Scotland Can Do' is the new entrepreneurship and innovation framework for the **United Kingdom (Scotland)**, and aims to achieve an education system with entrepreneurship and innovation at its core. It is a broad strategy with objectives that explicitly connect to entrepreneurship education, with the accompanying Action Framework ⁽⁶¹⁾ describing specific actions to develop classroom resources and provide support for national entrepreneurship education activities. This is being implemented by Education Scotland, through collaboration with third sector partners to develop the 'Enterprising Schools Programme'. This seeks to amplify the impact of all partners involved in delivering such work, formulate a system of recognition for schools and learners and provide a platform to draw in further private sector involvement and support for this work. This work also links closely to the 'Scottish Curriculum for Excellence' framework that includes 'Enterprise in Education' as a one of five cross-cutting themes, and together they provide strong evidence of the very integrated nature of entrepreneurship education in the design and implementation of national education policy in Scotland.

The detailed nature of all five strategies is noticeable, with actions described in detail and reflecting a broad understanding of entrepreneurship education. Denmark, France and the United Kingdom (Scotland) offer the most comprehensive approaches with a wider range of actions addressing key areas such as curriculum, teacher education and learning outcomes. Of these, Denmark provides the broadest approach with actions covering all key topic areas, and a strong commitment to

⁽⁵⁸⁾ <http://www.caissedesdepots.fr/activite/domaines-daction/investissements-davenir/culture-de-linnovation-et-de-lentrepreneuriat.html>

⁽⁵⁹⁾ <http://www.yeni.co.uk/company-suite/>

⁽⁶⁰⁾ Department of Enterprise, Trade and Investment, 2015, p. 25.

⁽⁶¹⁾ Scottish Government, 2010, pp. 9-10.

strengthening FFE to support, research and monitor this work. Denmark includes actions on both the development and assessment of learning outcomes, which is unusual for a strategy of any type. France's strategic actions include a significant funding initiative alongside a commitment for teacher education at secondary level. In the United Kingdom, Scotland's strategy has actions focusing on the development of curriculum materials and activities, and there is a strong integrated approach bringing this policy together with the Curriculum for Excellence framework. This provides a strong basis for the inclusion of entrepreneurship education directly into education, supported by networks to aid implementation and sharing of practice such as the Scottish Council's Enterprise in Education Network.

In all five countries highlighted in this section, the strategies include a focus on the education system as a horizontal priority to improve the framework conditions for innovation, such as skills, knowledge creation and business innovation. This reflects a growing trend towards more integrated approaches to innovation policy ⁽⁶²⁾. Indeed Denmark acknowledges these trends within its national innovation strategy ⁽⁶³⁾.

Economic development related strategies

There are three countries that include entrepreneurship education as part of their strategies for economic development, entrepreneurship and/or employment.

Lithuania has followed up its specific strategy with a broader entrepreneurship strategy, which mirrors the structure and commitments made in the European level 'Entrepreneurship 2020 Action Plan'. It is a comprehensive approach with commitments on overall improvements to entrepreneurship education, practical entrepreneurial experiences, promoting collaboration and networking and encouraging creative initiatives by children and young people.

The **Romanian** national approach links entrepreneurship education to economic development through the 'Strategy for the Development of the Small and Medium Enterprises Sector' and for the 'Improvement of the Romanian Business Environment Horizon 2020'. Entrepreneurship education is outlined in less detail in this strategy, but with actions to support practice firms, teacher education and web platforms to promote learning opportunities including entrepreneurship education.

Finally, the '2013-2016 Strategy for Entrepreneurship and Youth Employment' of **Spain** aims to reduce the rate of youth unemployment and to deal with its structural causes. In this case, among the 15 emergency or high-impact measures expected to have an effect in the short-term, economic measures were emphasised, although measures regarding the improvement of education, training and mediation in the labour market were also included. Of the remaining 85 measures of this strategy, at least 50 % of their funding has been channelled towards actions relating to education and training. Actions specifically relating to entrepreneurship education include the commitments to expand curriculum content relating to entrepreneurship and career opportunities, to implement entrepreneurship linked training programmes and to promote a positive image of youth entrepreneurship. This is an approach that links strongly to job creation and employability, firstly complementing education acts that provide a framework to include entrepreneurship education as a key competence in the curriculum, and secondly certainly linked to the immediate and ongoing challenges that Spain is tackling regarding high youth unemployment. This national policy ecosystem supporting entrepreneurship education is complemented at regional level, where many Autonomous Communities also have well-developed strategies, including three specific entrepreneurship education strategies and five broader strategies ⁽⁶⁴⁾.

2.1.4. How entrepreneurship education is addressed in strategies across Europe

This section provides insight into how strategies address entrepreneurship education, illustrating the content and objectives of individual strategy approaches. To do this, the first part of the section analyses if and how key topics are tackled in different strategies, firstly whether topics are mentioned in the strategy text, and secondly whether they are addressed in a specific action. The second part determines the broader objectives linked to entrepreneurship education related content in each strategy.

⁽⁶²⁾ European Commission, 2011.

⁽⁶³⁾ Danish Ministry of Science, Innovation and Higher Education, 2012, p. 6.

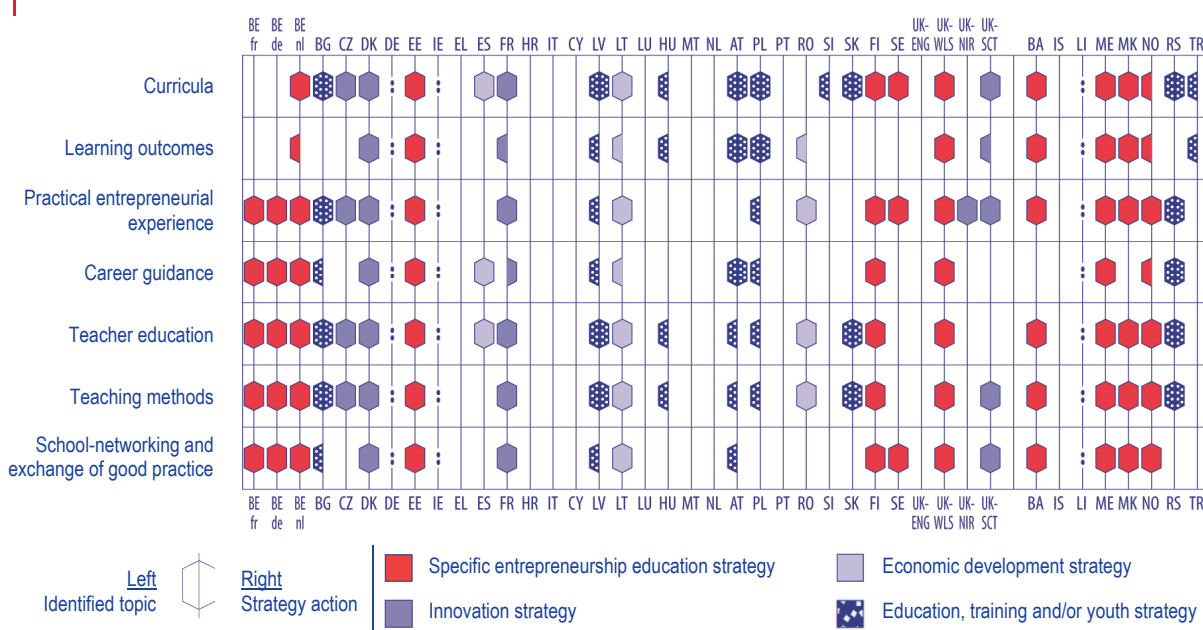
⁽⁶⁴⁾ For more information, see national information sheet for Spain.

Strategy topics and actions

Preliminary work for this report identified seven topics that should be addressed by strategies relating to entrepreneurship education. These seven areas are the building blocks to developing and sustaining effective entrepreneurship education, drawn from recent reports and studies at European level⁽⁶⁵⁾ and aligning closely with the '2010 Progression Model'⁽⁶⁶⁾. The seven areas are listed in Figure 2.5. Limited data was available on the assessment of learning outcomes, and this has been addressed as part of the wider discussion on learning outcomes, noting the importance of assessment to the successful and meaningful implementation of entrepreneurship education at curriculum level.

By definition, a strategy action is a government commitment, and is therefore seen as more significant than a topic identified in the strategy narrative with no commitment to action.

Figure 2.5: Strategy topics and corresponding actions linked to entrepreneurship education, 2014/15



Source: Eurydice.

Explanatory note

The left hand side of each bullet indicates that this topic is referred to in the narrative of the strategy. The right side of the bullet highlights that a specific strategy action is explicitly linked to the topic. No information is included for those countries/regions without a strategy related to entrepreneurship education.

Country-specific notes

Spain: The competence for education is shared between the Ministry of Education, Culture and Sports and the Autonomous Communities. A number of specific strategies by Autonomous Communities specifically refer to the topics and include related actions.

Malta: There is no national strategy related to entrepreneurship education; however, the National Curriculum Framework features actions targeting curricula, learning outcomes and teaching methods.

United Kingdom (ENG): There is no national strategy related to entrepreneurship education, however a government policy statement on enterprise education commits to actions supporting practical entrepreneurial experiences.

Four countries in Europe cover all the seven topics and include corresponding actions. These include three with specific strategies (Estonia, the United Kingdom (Wales) and Montenegro) and one broader strategy linked to innovation (Denmark). This group of countries is notable in their comprehensive strategic approach to entrepreneurship education across all areas of analysis. Of the rest, Bosnia and Herzegovina and the former Yugoslav Republic of Macedonia stand out for including all topics and actions except career guidance.

⁽⁶⁵⁾ European Commission 2014, European Commission 2014b, European Commission 2015a.

⁽⁶⁶⁾ McCoshan, 2010.

Of all strategies, specific strategies predictably have the widest range of topics overall with the best coverage in actions on practical entrepreneurial experiences and school networks. Of the broader strategies, innovation related strategies were the most comprehensive, with Denmark and France standing out. In contrast, education related strategies addressed the least topics and included significantly fewer actions than any other type of strategy.

Importantly, only six countries cover both topic and action in the four priority areas identified through this report as being of most importance for the development of entrepreneurship education: curriculum; learning outcomes; practical entrepreneurial experiences; and teacher education. These six countries are also those with the most comprehensive approach overall including Denmark, Estonia, the United Kingdom (Wales), Bosnia and Herzegovina, Montenegro and the former Yugoslav Republic of Macedonia. These four priority areas featured across the '2010 Progression Model' as indicators of a good practice strategic approach, offering the best chance of developing effective entrepreneurship education with positive impact (see Chapter 5 for more insight).

In terms of specific strategy actions, learning outcomes is the topic least addressed by countries/regions. Despite 17 countries highlighting learning outcomes as a topic, only eight commit to a specific action, which is the lowest rate of conversion from topic to action. Yet learning outcomes for entrepreneurship are of particular importance as they offer the route to assessment; without these entrepreneurial learning may not be recognised through the validation process as a valuable part of education⁽⁶⁷⁾.

Countries with a strategy action on learning outcomes include five with specific strategies (Estonia, the United Kingdom (Wales), Bosnia and Herzegovina, Montenegro and the former Yugoslav Republic of Macedonia), Denmark through its innovation strategy as well as Austria and Poland through their lifelong learning strategy. Only a handful of countries (Estonia, Bosnia and Herzegovina and Montenegro) explicitly mention the assessment of learning outcomes within their strategy, while Denmark and the United Kingdom (Wales) link to wider documents that support assessment as part of their overall commitment to entrepreneurial learning outcomes. The strategies that provide the most detailed approach, with evidence of existing development, are Denmark and Estonia.

The **Danish** innovation strategy offers a specific action on both the development and assessment of learning outcomes related to entrepreneurship and innovation, which is unique among those countries with broader strategies. Additional guidance documents are also evident in Denmark, supporting the emphasis placed on this within the strategy⁽⁶⁸⁾.

The **Estonian** strategy goes so far as to feature their learning outcomes framework as an integral part of the document, with a clear commitment to embed learning outcomes and their assessment into the education system.

Bosnia and Herzegovina's strategy should also be highlighted for providing a detailed explanation but is still in its beginning stages of development. It outlines a series of actions that aim to develop, introduce and assess learning outcomes as part of the curriculum, and links this to a need for targeted teacher education to support the process.

This report confirms that this is still an emerging area for entrepreneurship education strategy in Europe. Developing strategies address both curriculum and learning outcomes, as these are naturally aligned. More advanced strategic approaches place further emphasis on the assessment of learning outcomes (see also Section 3.3).

The most frequent strategy actions can be seen in the areas of practical entrepreneurial experiences, teacher education and teaching methods (20 strategies). All countries with a specific entrepreneurship

⁽⁶⁷⁾ For a discussion on the development and assessment of entrepreneurial learning outcomes, see European Commission 2014b, pp. 34-41, and Penaluna et al., 2014.

⁽⁶⁸⁾ See also the following links for information on the Danish progression model <http://eng.ffe-ye.dk/media/44723/Progression-model-English.pdf> and the Danish taxonomy of entrepreneurship education <http://eng.ffe-ye.dk/media/555477/taksonomi-eng-2.pdf>

education strategy included an action related to practical entrepreneurial experiences through different means such as Junior Achievement (highlighted in Estonia, Finland, Norway and Serbia) or curriculum-based practical entrepreneurial challenges (Flemish Community of Belgium and the United Kingdom (Wales)). This is significant as it is a high priority at EU level for all Member States to include at least one practical entrepreneurial experience during compulsory education, as called for in the recent 'Entrepreneurship 2020 Action Plan' ⁽⁶⁹⁾ and the *Rethinking Education* Communication ⁽⁷⁰⁾, and highlighted through a Erasmus+ funding priority for prospective initiatives in 2014 ⁽⁷¹⁾. For more information on the implementation of practical entrepreneurial experiences, see Section 3.2.

Both teacher education and teaching methods are well represented across all types of strategies. For teacher education, 20 countries/regions included an action and a further three includes it as a topic. For teaching methods, 20 countries/regions included it as an action with an additional three including it as a topic. In the Czech Republic, the innovation strategy has only few relevant actions, and one of these highlights the importance of teacher education to support the introduction of new tools for entrepreneurship education. This recognises the primary role that teachers play in the delivery of entrepreneurship education and the significant focus that is placed on their training and support. This can be done most effectively through a combination of both initial teacher education (ITE) and continuing professional development (CPD) as illustrated through strategy commitments in the French and German-speaking Communities of Belgium, Finland and Bosnia and Herzegovina (see also Chapter 4).

'School-networking and exchange of good practice' is an area that demonstrates a stark difference between specific strategies and broader strategies of all types. While all specific strategies addressed this topic and included specific actions to support it, only four broader strategies featured it as a strategy action. These broader strategies included the entrepreneurship strategy in Lithuania and three innovation strategies in Denmark, France and the United Kingdom (Scotland). Different approaches already exist in some countries and are described within strategies, such as the Flemish Community of Belgium, Finland and the United Kingdom (Wales). Finland highlights their national network of regional resource centres, while the United Kingdom (Wales) has an online communication campaign ('Big Ideas Wales') to support networking and engagement with young people, partners and stakeholders ⁽⁷²⁾. Other country strategies identify plans rather than confirming on-going implementation, such as Bosnia and Herzegovina, Montenegro and the former Yugoslav Republic of Macedonia.

Strategy objectives

For the purposes of this report, the objectives for entrepreneurship education have been grouped under the four areas of active citizenship, social entrepreneurship, venture creation and employability. These are drawn from the European Key Competence definition, as highlighted in Chapter 1, and supported by further research in EU reports ⁽⁷³⁾. This sub-section analyses whether these four objectives are highlighted in the strategy content, and related to entrepreneurship education. Twenty-six countries address employability, while the other three objectives are each equally addressed in 20 country/region strategies.

Generally, the objectives are widely profiled within strategies (see Figure 2.6), with 20 countries/regions addressing at least three or four. A high number of countries/regions acknowledge all four

⁽⁶⁹⁾ European Commission, 2013a.

⁽⁷⁰⁾ European Commission, 2012a.

⁽⁷¹⁾ Two policy experimentation projects were awarded in 2014 for large scale national pilots of practical entrepreneurial experiences, see Sections 2.2.3 and 3.2.2 for more information on Youthstart Challenges and ICEE.

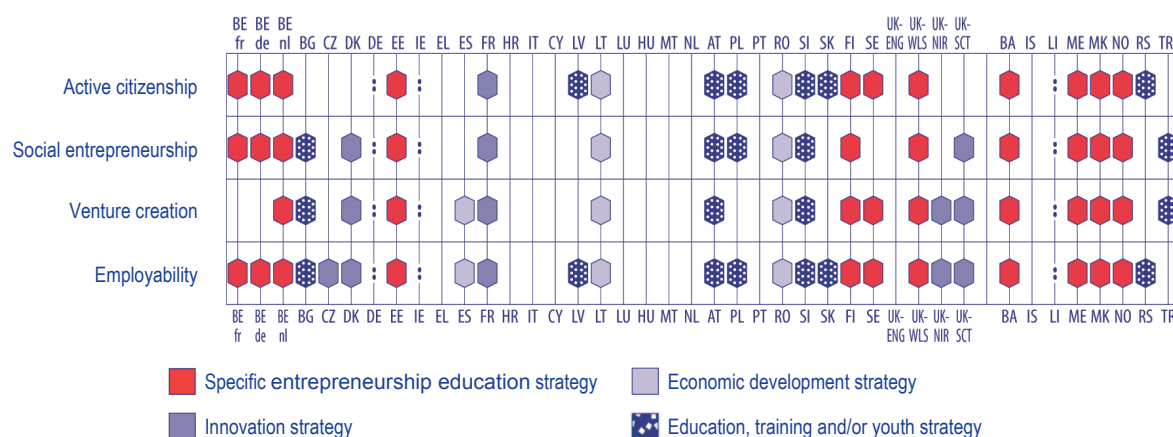
⁽⁷²⁾ www.bigideaswales.com

⁽⁷³⁾ European Commission, 2014b, p. 8; European Commission, 2015a.

objectives within the strategy. This includes eight countries/regions with specific strategies as well as France through its innovation strategy, Lithuania and Romania through their economic development strategies, as well as the youth strategy in Slovenia and the lifelong learning strategy in Austria.

For specific strategies, it would be expected that the identified objectives would closely link to those found in the European key competence. There are a few exceptions such as Sweden who has not mentioned social entrepreneurship, and the French and German-speaking Communities of Belgium that do not include venture creation as a strategy objective.

Figure 2.6: Overview of wider strategy objectives linked to entrepreneurship education, 2014/15



Source: Eurydice.

Explanatory note

Figure 2.6 relates to the wider themes or impacts for entrepreneurship education. No information is included for those countries/regions without a strategy related to entrepreneurship education.

Country-specific note

Spain: The competence for education is shared between the Ministry of Education, Culture and Sports and the Autonomous Communities. Many of the specific entrepreneurship education strategies developed by Autonomous Communities make reference to some or all of the wider themes above.

The most universally included theme is employability, mentioned by all except the education related strategies of Greece, Hungary and Turkey. This is consistent with the development of strategy to support efforts to combat high rates of youth unemployment evident across many EU Member States. Indeed for Spain, the strategy is focused on entrepreneurship and employability, reflecting the great efforts within the country to address youth unemployment. For the Czech Republic, this is the only objective identified in relation to entrepreneurship education, through an innovation related strategy that has broader objectives of competitiveness and reducing unemployment.

In broader strategies, active citizenship is more likely to be mentioned by education related strategies. Overall 20 strategies highlight this objective including all specific strategies. Estonia and Finland particularly profile active citizenship within the strategy rationale and narrative, while in the Austrian lifelong learning strategy, active citizenship and social entrepreneurship are highlighted as themes linked to community education.

In contrast, venture creation is more likely to be seen within economy related strategies and specific strategies. The strongest focus on venture creation in a specific strategy can be seen in the United Kingdom (Wales), where one of the three strategy pillars is dedicated to support for aspiring entrepreneurs. The Norwegian specific strategy also discusses the importance of supporting young entrepreneurs, and commits to support for a number of programmes to drive up levels of venture creation. Of the broader strategies highlighting this objective, it is most prominent within the Spanish

'Strategy for Entrepreneurship and Youth Employment' that offers a very specific set of one hundred short and longer term actions.

Of the 20 countries stressing the importance of social entrepreneurship within their strategy narrative, there are 10 with specific strategies and 10 with broader strategies. From the different types of broader strategies, it is more likely to be seen in economy related strategies. The United Kingdom (Scotland) places a strong emphasis on the social as well as economic benefits of entrepreneurship throughout the 'Scotland Can Do' innovation strategy, through both case studies and specific actions relating to social entrepreneurship.

2.1.5. Success factors for strategies related to entrepreneurship education

Beyond the thematic content of strategies, there is also a wider range of factors affecting the success of strategies. As the key competence definition illustrates, entrepreneurship education offers an approach that cuts across normal policy divisions, and requires different areas of government and different types of stakeholders to work together to deliver and monitor actions that are both relevant to and important for different wider policy agendas. This section will explore if the strategies in each country/region achieve this cross-cutting nature, by exploring if and how strategies address all levels of education, feature cross-government commitment, engage in different types of partnerships and establish robust approaches to monitoring the strategy.

Working at all levels of education

All European Commission entrepreneurship education studies since 2006 have emphasized the importance of addressing all levels of education. Recent research ⁽⁷⁴⁾ supports this focus, demonstrating the significant impact of including entrepreneurship education from the earliest level, i.e. primary school.

It is positive then that 26 out of the 29 countries/regions with an entrepreneurship education related strategy address all levels of education (ISCED 1-8). The three exceptions are Estonia's specific strategy which does not include tertiary education, Slovenia where only upper secondary and above is addressed and Greece whose education strategy addresses primary and secondary education but does not include school-based IVET.

Including cross-ministerial cooperation

The cross-ministerial nature of an entrepreneurship education related strategy is a success factor because entrepreneurship education supports objectives across a number of policy areas particularly education, innovation and economic development. To achieve this, it must effectively engage a wide range of stakeholders from within government ministries. From this report, the results overwhelmingly show that strategy development is firmly cross-ministerial with 27 of the 29 strategies stating that they have the involvement of more than one government ministry. The two exceptions are the 'New School' strategy in Greece and the Ministry of National Education 'Strategic Plan' in Turkey. Particularly broad engagement can be seen in Poland involving six ministries as well as the Chancellery of the Prime Minister, and in the development of a regional entrepreneurship education strategy engaging ministry representatives from both the French and German-speaking Communities of Belgium. In Denmark, there is a Danish Ministerial Partnership for Entrepreneurship Education bringing together four government ministries. This group established, partly funds and now oversees the work of the Danish Foundation of Entrepreneurship as part of a wider management structure ⁽⁷⁵⁾.

⁽⁷⁴⁾ Rosendahl Huber et al, 2014, pp. 76-97.

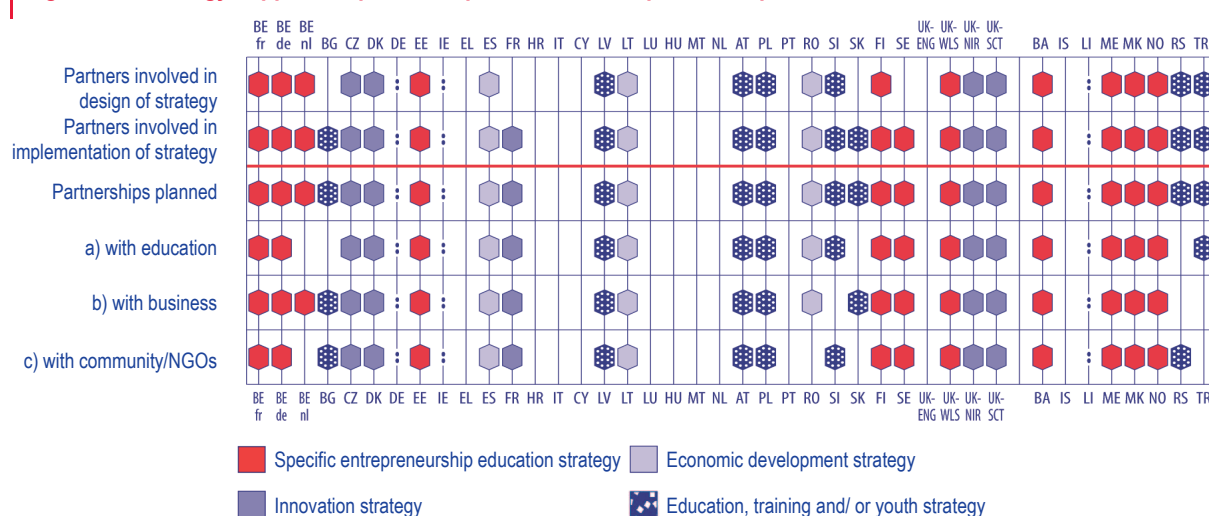
⁽⁷⁵⁾ <http://eng.ffe-ye.dk/media/536328/partnerskab20nyversion.pdf>

Building partnerships

Partnerships and stakeholder engagement are regarded as a pre-requisite for entrepreneurship education strategy, because of the link to real life that entrepreneurship education aims to achieve and the priority it places on experiential learning. This report offers insight into whether these partnerships are foreseen as part of the strategy, as well as into engagement with different types of partners and involvement of partners in the design and/or implementation of the strategy.

Nearly all countries/regions include partnerships as an integral part of the strategy approach, featured in 27 out of 29 strategies. In all countries/regions except Greece and Hungary, strategies include planned partnership and state that partnerships will be involved in the implementation of strategy actions.

Figure 2.7: Strategy support for partnerships linked to entrepreneurship education, 2014/15



Source: Eurydice.

Explanatory note

No information is included for those countries/regions without a strategy related to entrepreneurship education.

Countries/regions are slightly more likely to involve partners in the implementation of the strategy (27), rather than engage at an earlier stage and include their input in the design of the strategy (23). Twenty-three countries/regions have partners involved in strategy design, which includes all specific strategies except Sweden, and all broader strategies except those in Bulgaria, Greece, France, Hungary and Slovakia.

Partnerships with business are mentioned by 24 countries/regions, closely followed by partnerships with wider education and with community/NGOs which are mentioned by 23 countries/regions. Education related strategies are less likely to have comprehensive partnership approaches, with less frequency of partner engagement at both design and implementation stages and proportionally fewer partnerships planned with education, business and community/NGOs.

More extensive evidence of partnership and stakeholder engagement can be found in the north of Europe:

In **Denmark**, the Danish Foundation of Entrepreneurship (FFE) is managed by a partnership board of government and supported by external stakeholders from business, community and education.

In **Estonia**, the partnership approach supporting the specific strategy encourages cooperation at multiple levels from schools, county development centres and national initiatives such as Junior Achievement. At national level, there is an 'Entrepreneurship Education Think Tank' made up of practitioners working for diverse organisations in the field of entrepreneurship education, whose purpose is to raise the profile of entrepreneurship education and ensure that the education system is both connected and informed.

Finland has involved a significant range of stakeholders (e.g. government, education, regional authorities, business organisations, sector organisations, trade unions and youth organisations) in broad-based cooperation to design, develop and implement the national entrepreneurship education guidelines.

In the western Balkans, more detailed partnership approaches are seen in those countries with a specific strategy.

Bosnia and Herzegovina has set up working groups to involve a wide range of stakeholders in the design and implementation of the specific strategy.

Montenegro has a 'National Partnership for Entrepreneurial Learning' with representatives from government, business, education and community. The role of the partnership is to manage and coordinate strategy implementation. It involves those partners who were directly engaged in the design and development of the current strategy.

The former Yugoslav Republic of Macedonia has an 'Interagency Board for the Implementation of the Entrepreneurial Learning Strategy' involving a range of government and external stakeholders from business, education and community, and it is responsible for monitoring and supporting the effective implementation of the specific strategy.

Monitoring progress and impact

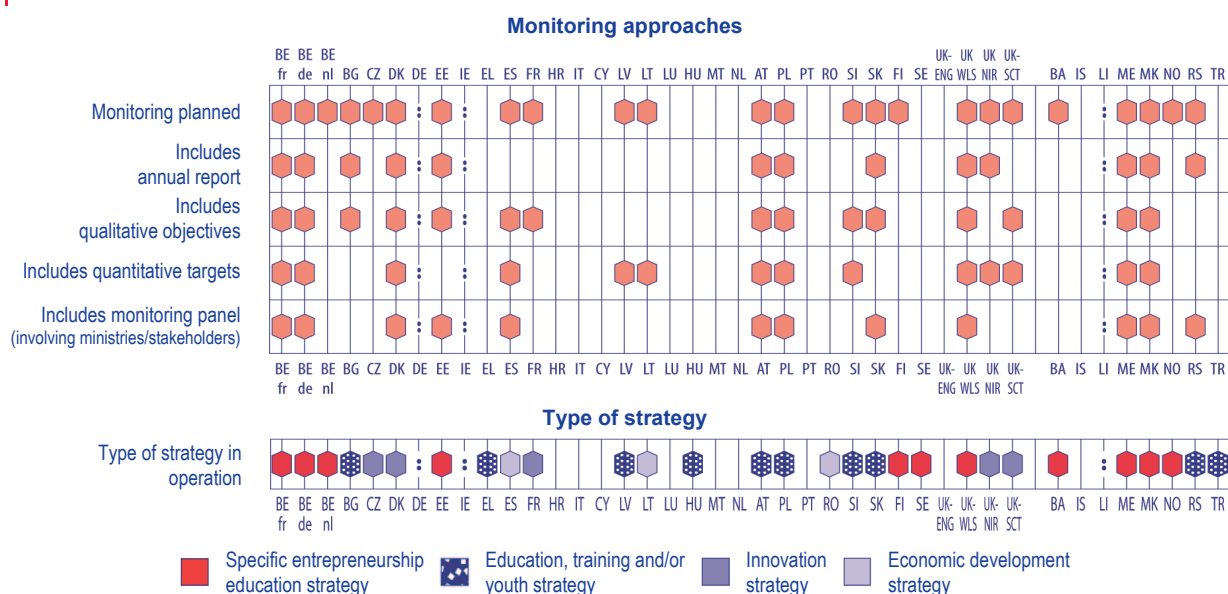
European policy guidance has stressed the importance of assessing strategy progress and identifying national indicators for entrepreneurship education ⁽⁷⁶⁾. A recent European expert group on indicators for entrepreneurship education made a range of recommendations for monitoring entrepreneurship education at national level, including that it should be clearly integrated into the education system and built into a specific strategy or action plan ⁽⁷⁷⁾. Where strategies are not regularly monitored or at the very least evaluated on completion, there is no possibility to assess or learn from progress, inform new policy developments nor profile achievements and success.

However, detailed information is not often found across the strategies surveyed. Monitoring frameworks are more likely to be identified in countries with specific strategies; however they may not be accompanied by specific information on measuring and assessing progress, or a clear approach to feeding results back into national policy development. They may include either qualitative or quantitative measures or a mix of both, and data collected may be specific to the actions being implemented or linked to macro level indicators such as employment or self-employment rates. Figure 2.8 illustrates in which countries/regions monitoring approaches are planned and their different features.

Monitoring approaches vary significantly across the EU countries. No monitoring is planned in Greece, Hungary, Romania, Sweden and Turkey, while in three countries the monitoring framework is yet to be established (Flemish Community of Belgium, the Czech Republic and Bosnia and Herzegovina). Four countries state that they will plan interim or post strategy evaluation reports, including Latvia, Slovenia, Finland and Norway. In Serbia, individual ministries are responsible for the monitoring of relevant actions for their policy area, with no central monitoring of strategy actions.

⁽⁷⁶⁾ European Commission, 2014a.

⁽⁷⁷⁾ Ibid., pp. vii-ix.

Figure 2.8: Planned monitoring approaches of entrepreneurship education related strategy actions, 2014/15

Source: Eurydice.

Explanatory note

No information is included for those countries/regions without a strategy related to entrepreneurship education.

Country-specific notes

Spain: In addition to the national strategy highlighted in the Figure, a number of specific and broader strategies by Autonomous Communities also include monitoring and evaluation approaches.

Latvia: An interim and a final report are planned.

Poland: The quantitative targets concern early school leavers and young people not in further learning or those with low levels of basic skills. The benchmarks have been defined in parallel to the European ones but are often more ambitious.

Slovenia: The government will submit a report every three years on the progress and implementation of the 'National Programme for Youth 2013-2022', followed by a final report at the end of the strategy lifetime.

A significant number of countries/regions involve an inter-ministerial or stakeholder panel in the monitoring process, as the means of engaging partners to support and guide implementation, as well as collect or reviewing information and commonly contribute to an annual report on strategy progress. These include Estonia (a national think-tank involving a range of experts), Spain (Inter-Ministerial Monitoring Committee), Austria (Taskforce LLL:2020), Poland (inter-departmental team for lifelong learning), Slovakia, the United Kingdom (Wales) (Entrepreneurship Action Plan Panel involving entrepreneurs), Bosnia and Herzegovina (partnership panel is planned but not yet implemented), Montenegro (national partnership involving ministries, agencies and stakeholders) and the former Yugoslav Republic of Macedonia (national steering committee involving ministries, agencies and stakeholders).

Of those countries with a strategy panel, all have explicitly mentioned annual reports on strategy progress. Other countries also feature the use of an annual report (the French and German-speaking Communities of Belgium, Bulgaria and the United Kingdom (Northern Ireland)). Indeed, the recent innovation strategy from Northern Ireland has already issued a first six month progress report to demonstrate progress against actions ⁽⁷⁸⁾.

Some countries add the use of qualitative and/or quantitative data into the monitoring process, analysing the progress of actions as well as carrying out surveys to provide additional insight, measuring progress against statistically based indicators or setting targets to be achieved.

⁽⁷⁸⁾ https://www.detini.gov.uk/sites/default/files/publications/deti/innovation_strategy_-_6_month_update_report_to_31_march_2015.pdf

In the **French** and **German-speaking Communities of Belgium**, the strategy covering these areas will monitor two sets of indicators, the first focused on implementation of actions and the second tracking wider attitudinal change amongst education professionals and young people using surveys. The types of quantitative targets used are relatively broad, including measures from students engaged in entrepreneurship education activities to numbers of young people starting business.

Spain includes targets based on employment and entrepreneurial activity of young people.

Poland uses macro targets such as early school leavers, numbers of young people not in further learning and young people with low levels of basic skills.

The **United Kingdom (Scotland)** focuses on high level economic indicators, including number of businesses, research and development spending and level of knowledge exchange from universities.

Bosnia and Herzegovina, Montenegro and the former Yugoslav Republic of Macedonia, along with Serbia and Turkey, are supported with both knowledge and expertise by the South East European Centre for Entrepreneurial Learning (SEECEL). SEECEL led the signing of a regional 'Charter for Entrepreneurial Learning' ⁽⁷⁹⁾ with ministers of education and economy across the eight SEECEL partner countries. As European pre-accession candidate countries, strategy implementation related to entrepreneurship education contributes and is monitored within the Small Business Act assessment process ⁽⁸⁰⁾ and the achievement of the 2015 Riga deliverables.

Some strategies provide a significant amount of detail about the monitoring process and indicators used.

From those countries/regions with specific strategies, the **United Kingdom (Wales)** offers the most information, detailing immediate activity outputs, impacts measured through national and international surveys and identifies key milestones with dates. Annual reports since 2010 are published on the strategy website, which illustrate the progress made and the different means used to gather the data ⁽⁸¹⁾. Measures include links with international partners, engagement of young people and teacher education. Wales also seeks to benchmark against international targets or other countries, and is the only country to highlight this.

From the broader strategies, the '**Danish** Innovation Strategy' commits to a continued and strengthened role for the Danish Foundation for Entrepreneurship (FFE), with the continued responsibility to monitor and evaluate the implementation of entrepreneurship education in Denmark. Although additional detail is not provided within the strategy, links are made to the wider FFE work which demonstrates the depth of the approach using annual impact surveys based on longitudinal data ⁽⁸²⁾.

For **Austria's** 'LLL:2020 strategy', there is a comprehensive monitoring approach agreed by the Council of Ministers and implemented by external institutes. The implementation and results of the 10 action lines in the strategy are monitored, and entrepreneurship education as a key competence is implicit as a cross cutting theme across all action lines.

2.1.6. Developments in countries without a current strategy

Nine countries/regions (Croatia, Italy, Cyprus, Luxembourg, the Netherlands, Malta, Portugal, the United Kingdom (England) and Iceland) do not have a strategy with an explicit link to entrepreneurship education.

Of these, **Cyprus** states that a specific strategy is being planned. This is a recent development and it is intended to be part of the new strategic framework of the Ministry of Education and Culture.

Malta has no strategy related to entrepreneurship education, but in 2012 launched a 'National Curriculum Framework' that proposes a whole school approach to fostering entrepreneurial mindsets. Concrete actions include an increased guidance on the cross curricular theme 'Education for Entrepreneurship, Creativity and Innovation', encouraging strategies to acknowledge informal and non-formal activities linked to entrepreneurship education and improved entrepreneurial skill development for primary to upper secondary education (ISCED 1-3). Malta's intention is to have entrepreneurial learning outcomes embedded in all subjects at all levels.

⁽⁷⁹⁾ SEECEL, 2012.

⁽⁸⁰⁾ <http://www.oecd.org/globalrelations/smallandmedium-sizedenterprisessmepolicyindex.htm>

⁽⁸¹⁾ <http://business.wales.gov.uk/bigideas/youth-entrepreneurship-strategy>

⁽⁸²⁾ <http://eng.ffe-ye.dk/knowledge-centre/knowledge-analysis/impact>

Portugal has no current relevant strategy, although the country was highlighted as having a strategy in development in the 2012 report. However, there is a well-established network of government departments and external organisations that work collaboratively on this policy area, as well as high profile European policy experimentations led by Portugal, such as 'Youth Start – Entrepreneurial Challenges' coordinated by the Portugal Entrepreneurship Education Platform (PEEP)⁽⁸³⁾. There is also a government-led action called the 'Strategic Programme for Entrepreneurship and Innovation'⁽⁸⁴⁾, a support programme with a focus on business and start-ups rather than actions in the area of education.

A further two countries previously had specific strategies, which have now ceased:

In **Croatia**, the government has recently established a working group to develop entrepreneurial learning outcomes for ISCED 0-3 including IVET. The learning outcomes will be mapped across three domains: think entrepreneurially, act entrepreneurially, economic and financial literacy, and this work is supported by the 'South East European Centre for Entrepreneurial Learning' (SEECEL) that is based in the country.

In the **Netherlands**, the strategy has been completed and is now discontinued. There is both local practice that is now mainstreamed and national initiatives that support this work. For example, the Cooperation Organisation for Vocational Education, Training and the Labour Market (SBB – *Stichting Samenwerking Beroepsonderwijs Bedrijfsleven*)⁽⁸⁵⁾, a cooperation foundation for VET and industry, has the legal duty for focus on the development and maintenance of the qualification structure for VET. In this process, education and business work together to design qualifications in VET, integrating business.

The remaining four countries/regions illustrate very different levels of development in entrepreneurship education. There are low levels of activity in Italy and Luxembourg. However, the latter is currently participating in the European policy experimentation project 'Youth Start – Entrepreneurial Challenges' led by Portugal. Moreover, there are previous national approaches present in the United Kingdom (England) and Iceland.

In the **United Kingdom (England)**, the Government made a policy statement on entrepreneurship education in 2012 as well as publishing reports⁽⁸⁶⁾ exploring the efficacy of the approach. There were commitments to actions made by the previous coalition government that held office until 2015, but actions are not integrated into education policy nor is the key competence reflected in curriculum. Actions that have been taken forward include the creation (in February 2015) of the Careers and Enterprise Company⁽⁸⁷⁾, which aims to inspire young people and help them to prepare for and take control of their future in part by filling gaps in the provision of careers and enterprise activities across the country and by increasing employer engagement.

In **Iceland**, the situation is more complex, with no specific strategy linked to entrepreneurship education and no significant mention of it in curriculum documents despite a previous commitment to innovation education which is seen as closely aligned. However, National Curriculum Guidelines in Iceland outline six pillars of curricula, and the fundamental content is aligned with broad entrepreneurial competences such as creativity and critical thinking.

2.2. Funding schemes

This section investigates the financing of entrepreneurship education in European countries and looks at both national and European sources of funding. As described in the previous section, most countries/regions have either a specific or broader strategy related to entrepreneurship education. The section will examine whether funding is linked to these strategies or whether it is provided in other ways.

⁽⁸³⁾ Youthstart Entrepreneurial Challenges: www.youthstartproject.eu

⁽⁸⁴⁾ <http://www.iapmei.pt/iapmei-leg-03.php?lei=7992>

⁽⁸⁵⁾ <https://www.s-bb.nl/en>

⁽⁸⁶⁾ These include a report on evaluation <https://www.gov.uk/government/publications/evaluation-of-enterprise-education-in-england>, a report on the relevance of enterprise education https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/338749/EnterpriseforAll-lowres-200614.pdf, and 'Education fit for an Entrepreneur' <http://www.enterprise.ac.uk/index.php/news/item/402-entrepreneurs-and-educators-agree-new-report-calls-for-better-integration-of-entrepreneur-skills-at-all-levels-of-education>

⁽⁸⁷⁾ <https://www.careersandenterprise.co.uk>

A general overview of the sources of funding allocated to entrepreneurship education is given, together with the type of strategy in operation, if any. This is followed by a more detailed analysis of funding sources, firstly at national level and secondly at EU level.

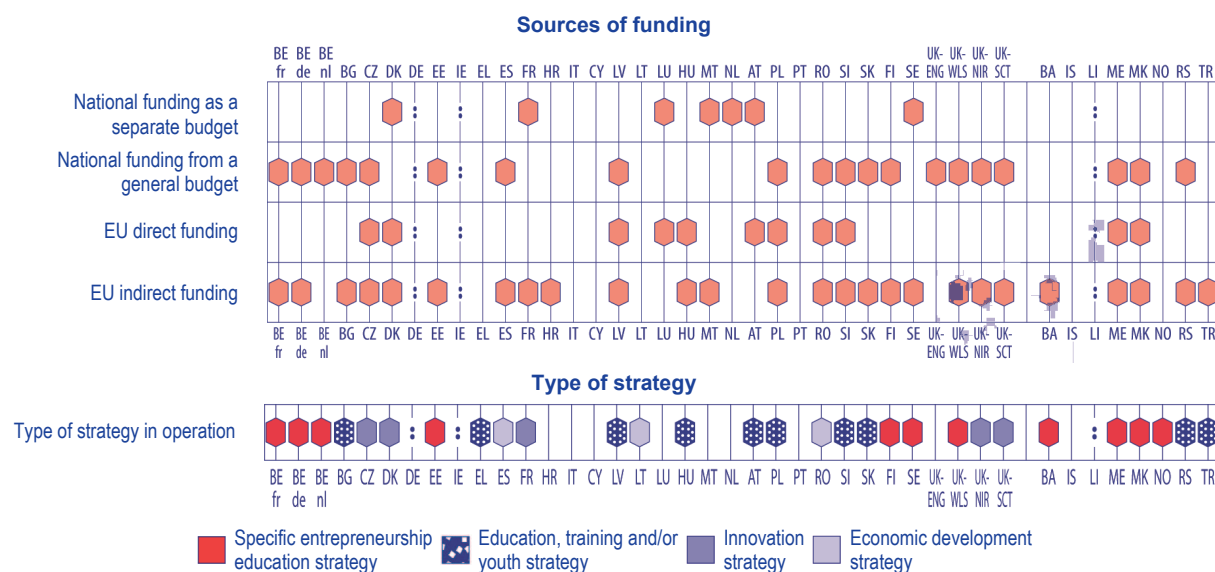
2.2.1. Sources of funding for entrepreneurship education

Countries have different ways of providing funding for entrepreneurship education. A separate budget may be allocated for the implementation of a specific or broader strategy for entrepreneurship education, and where this is the case, it is a good indicator of the importance of the strategy in a given country. Moreover, countries may also allocate a separate budget for entrepreneurship education even where they do not have a strategy.

In contrast, regardless of whether there is a specific or broader strategy for entrepreneurship education in a country, national funding for this subject may be provided from a general budget, for example from a ministry budget, in which case the funds are not earmarked specifically for this purpose.

In some countries, apart from national funding, EU funding may also be made available to support entrepreneurship education. EU funding may be direct or indirect. In the first case, financial support is provided directly by the European institutions to the final beneficiaries. In the second case, an intermediate authority between the EU institutions and the final beneficiaries is responsible for managing the allocation of funds.

Figure 2.9: Sources of (national and EU) funding for entrepreneurship education and type of strategy in operation, 2014/15



Source: Eurydice.

Explanatory note

The Figure shows countries which use national or EU funding for supporting the implementation of entrepreneurship education, and it also shows their most relevant strategy related to entrepreneurship education.

Country-specific note

Spain: The information in this Figure reflects the national situation. In addition, the Spanish Autonomous Communities have different financing mechanisms for entrepreneurship education, including in some cases a separate budget.

Figure 2.9 shows which countries provided national funds for entrepreneurship education in 2014/15, either via a separate budget or as part of a general budget. It also highlights which countries used EU (direct or indirect) funding and indicates the type of entrepreneurship education strategy in operation in each country/region.

Twenty-seven countries/regions allocate part of their national budget to entrepreneurship education (either via a specific budget or via a general budget). Of these, 24 also allocate EU (direct or indirect) funding for entrepreneurship education. In a few countries (Croatia, Hungary, Bosnia and Herzegovina and Turkey), on the other hand, only EU funding exists for entrepreneurship education.

Almost all the countries with a specific entrepreneurship education strategy (except Norway) provide some funding to implement it, often from both national and EU sources. Only Sweden has allocated national funds via a separate budget to its specific strategy. Of the rest, five use part of a general budget at national level as well as EU indirect funding (French and German-speaking Communities of Belgium, Estonia, Finland and the United Kingdom (Wales)); two use national funding via a general budget in addition to EU direct and indirect funding (Montenegro and the former Yugoslav Republic of Macedonia); and the Flemish Community of Belgium only uses national funds from a general budget. Bosnia and Herzegovina does not allocate any national funds to their specific entrepreneurship education strategy but instead uses EU indirect funding.

Interestingly, three of the countries that allocate a separate budget for entrepreneurship education – Luxembourg, Malta and the Netherlands – do not have any strategy in this area, yet they still target this work with national funds.

Several other countries, although they currently have a strategy related to entrepreneurship education, do not allocate any funding. This is the case of Norway, despite its specific strategy, Greece (education strategy) and Lithuania (economic development strategy).

2.2.2. National funding

A deeper analysis of the countries/regions shows that only seven have a separate budget allocated to the development and implementation of entrepreneurship education, while for 20 countries/regions the funding of entrepreneurship education is included in a more general budget. Conversely, 11 countries do not allocate national funding to entrepreneurship education.

Most countries/regions with national funding for entrepreneurship education (either as a separate budget or as part of a general budget) assign funding for the implementation of a specific or broader strategy related to entrepreneurship education. Denmark, France, Austria and Sweden, for example, are all countries which earmark a separate budget for the implementation of their specific or broader entrepreneurship education strategy.

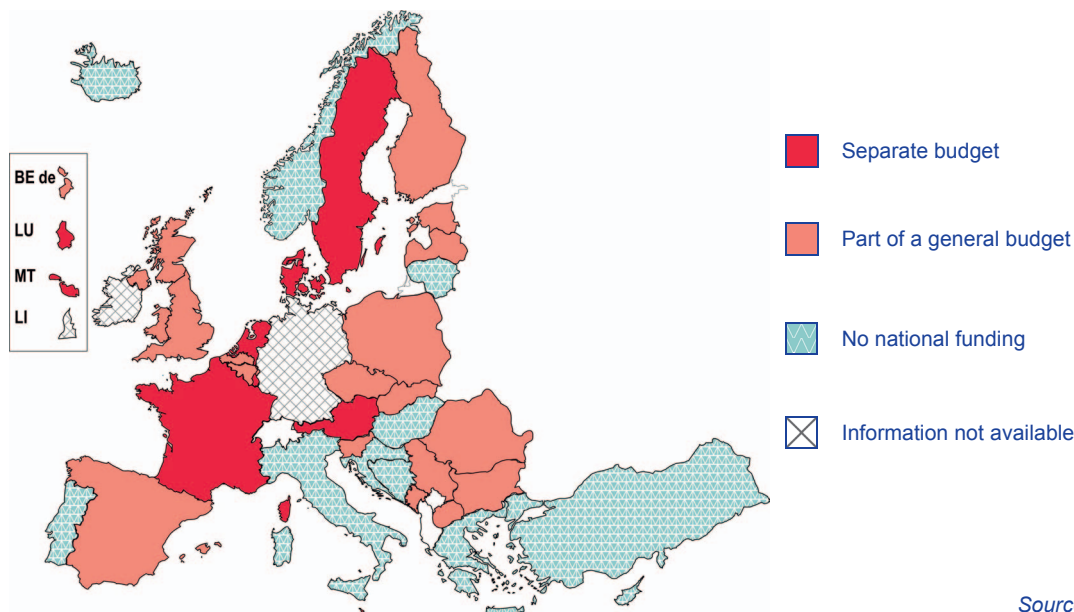
In **Denmark**, the Danish Foundation for Entrepreneurship receives 20-25 DKK million from the Ministry of Higher Education and Science and Ministry of Business and Growth Denmark every year, for entrepreneurship education, plus additional external funding. The 'Innovation Strategy Initiative' promotes cooperation with enterprises on practice-oriented innovation. This was funded with 20 million DKK in 2013 and 20 million DKK in 2014. Although not mentioned in the innovation strategy, 10 million DKK were provided in 2015, as a continuation of funding.

France includes entrepreneurship education as an action within its innovation strategy, allocating EUR 20 million to entrepreneurship education from 2014 to 2019 for various projects financed up to 50 % by *Caisse des dépôts et Consignation* and co-financed by corporate partners, public institutions (including funds from the Ministry of National Education, Higher Education and Research), and/or EU programmes. This funding stream supports projects that run for either three or five years from July 2015. The aim is to identify and support the most strategic initiatives to improve the culture of innovation and entrepreneurship among young people at all levels, significantly increasing the number of students experiencing entrepreneurship education. The lead is taken by the General Commissioner for Innovation, under the authority of the Prime Minister, working with the Ministry of Education, Higher Education and Research and the Ministry of Economy.

In **Austria**, national funding covers different activities that are part of the Austrian lifelong learning strategy, including a mix of labour costs and entrepreneurship education budgets such as the EESI-Impulse Centre (Entrepreneurship Education for School Innovation) with regional nodes for its entrepreneurship concept in each federal province; the Competition '*Jugend Innovativ*'⁽⁸⁸⁾, a competition for pupils' and students' innovative ideas in business, design, engineering and science and the thematic fields of ICT and climate protection; and lastly, the Business plan 'Next Generation'.

In **Sweden**, entrepreneurship education is addressed through a specific strategy. The budget for the implementation of the 'Strategy for entrepreneurship in the field of education' amounts to SEK 33.5 million. It is divided between ISCED 1-3 and school based IVET (SEK 29.5 million); and ISCED 5-8 (SEK 4 million). In addition to the specific national budget, funding for entrepreneurship education in higher education (ISCED 5-8) is provided indirectly through government foundations and public authorities.

Figure 2.10: National funding for entrepreneurship education in 2014



Source: Eurydice.

Country-specific note

Spain: The national entrepreneurship education related strategy is financed amongst others as part of a general national budget. At regional level, the Autonomous Communities have different financing mechanisms for their entrepreneurship education related strategies, including in some cases a separate budget.

The remaining 19 countries allocate national funds to their specific or broader entrepreneurship education strategy and its implementation via a general rather than a separate budget⁽⁸⁹⁾.

In **Belgium (French and German-speaking Communities)**, for example, where a specific entrepreneurship education strategy is in place, around EUR 1.5 million have been allocated in 2014 to the Agency for Economic Stimulation (ASE), now called the Agency for Entrepreneurship and Innovation (AEI)⁽⁹⁰⁾, for promoting an entrepreneurship spirit.

In the **United Kingdom (Wales)**, where a specific strategy has also been established, enterprise and entrepreneurship activity is embedded into three key strands of education policy and delivery (Careers and the World of Work; Life Pathways; and the Welsh Baccalaureate) and available to all young people in schools. Primary responsibility for the delivery of these strands lies with schools and is included in schools' core funding. The Welsh Government also provides hypothecated grants (specific grants to support Welsh Government priorities) for entrepreneurial learning, for example, the 'Young Enterprise Bursary' (part of 'Jobs Growth Wales'⁽⁹¹⁾).

In **Spain**, a country with one of the broader entrepreneurship education strategy, the state – through the Ministry of Education, Culture and Sport and with the collaboration of other ministries (Industry, Energy and Tourism, Employment and Social Security,

⁽⁸⁸⁾ www.jugendinnovativ.at

⁽⁸⁹⁾ Belgium (all three Communities), Bulgaria, the Czech Republic, Estonia, Spain, Latvia, Romania, Slovenia, Slovakia, the United Kingdom (Wales, Northern Ireland and Scotland), Montenegro, the former Yugoslav Republic of Macedonia and Serbia

⁽⁹⁰⁾ <http://as-e.be/>

⁽⁹¹⁾ <http://gov.wales/topics/educationandskills/skillsandtraining/jobsgrowthwales/?lang=en>

Economy and Competitiveness) – provides funding for some educational actions in the area of entrepreneurship. Besides, in most of the Autonomous Communities which implement entrepreneurship education strategies and/or actions, those are financed at regional level with the specific budgetary lines allocated to that purpose. The Communities have specific budgetary lines ranging from EUR 0.1 to EUR 0.5 million each year.

In the **United Kingdom (Scotland)**, entrepreneurship is embedded within the curriculum framework ('Building the Curriculum 4: Skills for learning, skills for life and skills for work') as part of wider enterprise and employability skills. In addition, Education Scotland is, through the 'Scotland Can Do' framework⁽⁹²⁾, supporting third sector partners towards the development of the 'Enterprising Schools Programme'. This will amplify the impact of all partners involved in delivering such work, formulate a system of recognition for schools and learners and provide a platform to draw-in further private sector involvement and support for this work. GBP 0.327 million funding has been allocated for this work. Previously, as part of the 'Determined to Succeed' strategy⁽⁹³⁾, local authorities were allocated approximately GBP 20 million funding per year to develop enterprise education – this funding is no longer ring-fenced and is now part of local authorities' general spend.

In the **former Yugoslav Republic of Macedonia**, a budget for the implementation of entrepreneurial education for the period 2014-2020 is part of the wider budgets of ministries, agencies and municipalities.

In contrast, three countries have separate budgets for entrepreneurship education, but no national strategy linked to entrepreneurship education:

In **Luxembourg**, the government finances the *Jonk Entrepreneuren Asbl*⁽⁹⁴⁾ in charge of promoting entrepreneurship education. The funding totals EUR 0.165 million, and the biggest part comes from the budget of the Ministry of Education, Children and Youth.

Similarly, although **Malta** does not have an entrepreneurship education strategy, it is currently developing a National Curriculum Framework which includes entrepreneurship education. In Malta, funding of EUR 0.05 million is allocated to support entrepreneurship education. Colleges and schools can use this money (up to EUR 5 000 per school) to finance educational projects. The scheme aims to address the promotion of entrepreneurship and entrepreneurial qualities through education, by sponsoring projects submitted by educational institutions through a competitive call for proposals. The Ministry for Economy, Investment and Small Business in collaboration with the Ministry for Education and Employment is making this grant available to all Maltese primary and secondary education institutions (including Public, Church and Independent Schools) to fund projects related to entrepreneurship education.

Finally, in the **Netherlands**, although there is no national entrepreneurship education strategy a budget is available to promote entrepreneurship in education. The organisation 'Young Enterprise'⁽⁹⁵⁾, member of Junior Achievement Europe, receives a budget of EUR 0.9 million from the Ministry of Economic Affairs (for a period of three years with a maximum of EUR 0.3 per year for the following school years: 2013/14, 2014/15 and 2015/16).

Private funding is also an important component of financing entrepreneurship education. However, given the difficulties in collecting reliable and accurate data, the issue is not included in the current analysis.

2.2.3. EU funding

Apart from national budgets, funding for entrepreneurship education may also be available from EU sources, both via direct funding (managed directly by the EU programmes, for example Erasmus+) or via indirect funding (shared management between national/regional authorities and EU institutions). The main source of indirect funding is the European Social Fund (ESF), which is one of the European Structural and Investment Funds (ESIF)⁽⁹⁶⁾.

The ESF is the main EU instrument for supporting jobs, helping people get better jobs and ensuring fairer job opportunities for all EU citizens. It works by investing in Europe's human capital – its

⁽⁹²⁾ <http://www.cando.scot/>

⁽⁹³⁾ http://www.educationscotland.gov.uk/Images/CommunicationsLAGuidancephase2_tcm4-492583.pdf

⁽⁹⁴⁾ <http://jonk-entrepreneuren.lu/>

⁽⁹⁵⁾ <http://www.jongondernemen.nl/>

⁽⁹⁶⁾ http://ec.europa.eu/contracts_grants/funds_en.htm

workers, its young people and all those seeking a job. The European Commission and EU countries, working in partnership, set the ESF's priorities and determine how it spends its resources. One priority is to boost the adaptability of workers with new skills, and support enterprises with new ways of working. Other priorities focus on improving access to employment by helping young people make the transition from school to work or by training less-skilled job-seekers to improve their job prospects⁽⁹⁷⁾. EU countries administer the funds on a decentralised basis through shared management.

Operational Programmes (OP) break down the overarching strategic objectives agreed between the Commission and EU countries into investment priorities, specific objectives and further into concrete actions.

EU funding for the period 2007-2013

Two-thirds of the European countries/regions reported the use of ESF for financing entrepreneurship education during the period 2007-2013.

It is the case, for example, in **Belgium (French and German-speaking Communities)**, where a budget of EUR 292 423 was allocated by the ESF for entrepreneurship education. This funding predates the current specific strategy for entrepreneurship education launched in 2014, and support will be continued into the next funding period from 2014-2020.

In the **Czech Republic**, entrepreneurial education has been developed, amongst others, via the activities of the OP 'Education for Competitiveness'. One of the priority areas of the OP was the enhancement of the quality of initial education, under which schools receive support for developing and implementing innovative education programmes at school level, with the emphasis on the development of pupils' key competences.

In **Spain**, and reaching almost half of the Autonomous Communities, the use of European Funding, mainly through ESF, has also been reported.

In **France**, ESF contributes to the activities of the *Pôle Étudiant pour l'Innovation, le Transfert et l'Entrepreneuriat* (PEPITE).

In **Hungary**, entrepreneurship education is part of the overall youth strategy and is partially embedded in the 'Social Renewal Operational Programme'⁽⁹⁸⁾ for the period 2007-2013, financed via ESF.

In **Malta**, the ESF funded project 'Design of Learning Outcomes Framework' has the remit to design a Learning Outcomes Framework for the eight Learning Areas and the six Cross-Curricular Themes as described in the National Curriculum Framework⁽⁹⁹⁾ (2012). As part of the framework, an 'Entrepreneurship through Education Scheme', which is open for state and non-state schools, encourages heads of schools to submit projects intended to promote entrepreneurial qualities among students and to provide practical experience in entrepreneurial activity.

In **Poland**, entrepreneurship education was included in the OP 'Human Capital' for the period 2007-2013⁽¹⁰⁰⁾. One of its strategic objectives was to strengthen the link between the educational and training offer and the needs of the labour market, in particular by adjusting teaching programmes and teaching materials (including textbooks) and introducing new forms of in-service teacher training in enterprises.

In **Slovenia**, the National Institute for Vocational Education and Training is leading the 'Opening Doors' project (*Vrata odpiram sam*)⁽¹⁰¹⁾, funded by ESF. This project is a continuation of previous efforts to facilitate social partnership as well as the implementation of the key competence self-initiative and entrepreneurship. By establishing a contact between the students, teachers and entrepreneurs, the students were given an opportunity to test their ideas in the real work process, thus forging links between the employment needs and education.

In **Finland**, two projects currently receiving funding from ESF, implemented mainly in the period which ended in 2013, continue in 2014. The first one, 'YVI – The Entrepreneurship Education Service for Teachers Project'⁽¹⁰²⁾ was a national project for promoting

⁽⁹⁷⁾ <http://ec.europa.eu/esf/main.jsp?catId=35&langId=en>

⁽⁹⁸⁾ http://palyazat.gov.hu/new_hungary_development_plan

⁽⁹⁹⁾ <https://www.gov.mt/en/Government/Publications/Documents/Annual%20Reports/2013/MEDE.pdf>

⁽¹⁰⁰⁾ <http://www.efs.2007-2013.gov.pl/english/Stromy/Introduction.aspx>

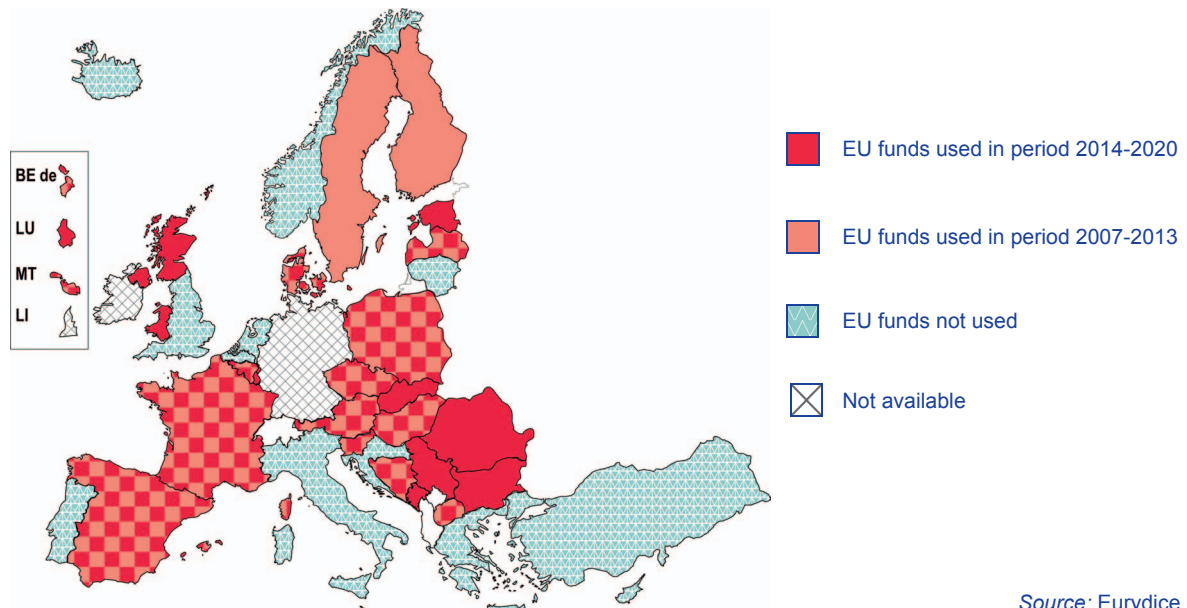
⁽¹⁰¹⁾ <http://www.vrataodpiramsam.si/>

⁽¹⁰²⁾ <http://www.yvi.fi/intro-english>

entrepreneurship education especially in vocational and academic teacher education in Finland. The second one, the 'YES goes to lukio Project' ⁽¹⁰³⁾ aimed to strengthen the entrepreneurial culture of general upper secondary schools by building and modelling practical connections and cooperation between upper secondary schools and the world of work. It provides training in entrepreneurship education and services for developing entrepreneurship in schools and establishing school-business networks.

In **Sweden**, which like Finland also has a specific entrepreneurship education strategy, several projects in this field were supported during the funding period 2007-2013 ⁽¹⁰⁴⁾.

Figure 2.11: Use of EU funding to promote entrepreneurship education, over 2007-2013 and 2014-2020



Source: Eurydice.

Explanatory note

Two periods of European funding are shown: 2007-2013 and 2014-2020. This distinction is in line with the multi-annual financial framework (MFF) of the EU budget. The MFF lays down maximum amounts ('ceilings') for each broad category of expenditure for a clearly defined number of years. The current MFF covers the period 2014-2020 while the previous one covered the period 2007-2013. Countries/regions may have received funding during the previous MFF period (2007-2013) or may receive it during the current one (2014-2020), or during both.

The South Eastern Europe Centre for Entrepreneurial Learning (SEECEL) ⁽¹⁰⁵⁾ provides support for entrepreneurship education across eight countries in the South East European region, including Croatia, Bosnia and Herzegovina, Montenegro, the former Yugoslav Republic of Macedonia, Serbia and Turkey (and in other countries in the region). It is funded via EU funding, donor agencies and contributions from the SEECEL member countries. SEECEL's overall goal is to further work on a systematic approach to developing entrepreneurially literate societies across the region and to support alignment of national policies with EU recommendations and policy essentials related to lifelong entrepreneurial learning. SEECEL coordinated three projects co-funded by the EU Instrument for Pre-Accession Assistance (IPA) involving all these countries:

Between 2009 and 2013, **Croatia, Bosnia and Herzegovina, Montenegro, the former Yugoslav Republic of Macedonia, Serbia and Turkey** participated in the project 'Support to the South East European Centre for Entrepreneurial Learning (SEECEL)', with a total budget of EUR 2 million. The project involved four lower secondary schools and two higher education institutions in each country with the aim to develop and implement the key competence approach to entrepreneurial learning in national education systems. Each institution received EUR 3 000 for piloting the framework and EUR 2 000 for peer learning activities.

⁽¹⁰³⁾ <http://www.yes-keskus.fi/yes/?lang=en>

⁽¹⁰⁴⁾ <http://unilink.se/Content/41062/SyntesRapport-Tillvaxtverket-mars-2012.pdf>

⁽¹⁰⁵⁾ <http://www.seecel.hr/>

Between 2013 and 2016, two additional projects were conducted with the same countries, building on the first one and expanding it to more activities and education levels. They adapt the framework to the needs of primary and upper secondary education and enable regional peer-learning as well as teacher mentoring schemes. They involve four primary schools, four lower secondary schools – five for Serbia – four upper secondary schools, two higher institutions and one teacher training authority by participating country, with a total budget of EUR 4 million.

In **Serbia**, entrepreneurship education activities that were initially developed in the context of SEECEL projects receive funding from the Business Innovation Programme (BIP), financed by the Norwegian Government and the European Union, with the main goal of improving student and youth entrepreneurship in Serbia and promoting an entrepreneurial spirit among teachers, students, youth and other relevant stakeholders. From 2006-2014, BIP has been implementing the 'Pupil Entrepreneurship programme' in Serbia with a total budget of EUR 0.6 million. During eight years, a total of 212 secondary schools from all over Serbia participated in the programme, with 441 teachers and 6 456 students who formed 1 387 student companies. During the programme advocacy initiatives were launched to improve the legal framework for entrepreneurship education.

Several European countries are also developing entrepreneurship education at school through the Lifelong Learning Programme (which has now become the ERASMUS+ programme) aiming to enable people, at any stage of their life, to take part in stimulating learning experiences.

In **Denmark**, for example, the Danish Foundation for Entrepreneurship was involved in the Lifelong Learning Programme/Leonardo da Vinci 2013-2016.

In **Poland**, entrepreneurship education projects were funded through the Comenius and Leonardo da Vinci strands within the Lifelong Learning Programme (2007-2013) which included the promotion of an entrepreneurial spirit as one of its specific objectives.

EU funding for the period 2014-2020

For the period 2014-2020, EU funds continue to be available via the Structural Funds and the Erasmus+ programme. Partnership agreements between the European Commission and individual EU countries set out the national authorities' plans on how to use funding from the European Structural and Investment Funds (ESIF) between 2014 and 2020. They outline each country's strategic goals and investment priorities, linking them to the overall aims of the Europe 2020 ⁽¹⁰⁶⁾ strategy for smart, sustainable and inclusive growth.

Also for the period 2014-2020, the main contribution to entrepreneurship education is linked to ESF. However, there is not much information available on projects in the funding period 2014-2020 since not many of these projects have started yet. From the information available, 24 countries/regions, many of which have a specific or broader entrepreneurship education strategy, plan to utilise this funding for entrepreneurship education. This represents a significant proportion of the countries that have placed a high strategic priority on entrepreneurship education, which will now be supported by ESF.

In **Belgium (French and German-speaking Communities)**, for example, a contribution from the ESF is expected for the period 2014-2020.

In **Belgium (Flemish Community)**, the objective 'Promotion of entrepreneurship' is included in the OPs of both the ESF and the European Regional Development Fund (ERDF). They contain specific objectives and investment priorities with regard to the promotion and support of entrepreneurship, the stimulation of an entrepreneurial mind-set and the creation of an entrepreneurial culture. This implies the possibility of financing actions on these themes with funds from both ESF and ERDF.

In **Bulgaria**, the OP 'Science and education for smart growth' ⁽¹⁰⁷⁾ 2014-2020 has set a specific target of 'Providing learning opportunities tailored to the individual needs of children and students, stimulating innovation and entrepreneurship'.

⁽¹⁰⁶⁾ http://ec.europa.eu/europe2020/index_en.htm

⁽¹⁰⁷⁾ http://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/bulgaria/2014bg05m2op001

For **Latvia**, ESF funding is available to support measures planned by the 'Education Development Strategy', including promotion of students' entrepreneurial skills. Non-formal education activities are part of the same strategy, focusing on the development of youth entrepreneurial skills, research of future professions, acquisition of first work experiences, involvement in activities of NGOs and youth centres, idea development for students' own future business, motivation to continue to learn and volunteering experiences. Moreover, there are several Erasmus+ projects related to entrepreneurship education with direct EU funding, for example, 'Social entrepreneurship development in Baltic Sea region' ⁽¹⁰⁸⁾, 'Erasmus for young entrepreneurs' and 'Student innovation labs – a way to sustainable and socially responsible growth'.

In **Poland**, a source of funding in 2014-2020 for entrepreneurship education is the ESF OP 'Knowledge Education Development'. It aims at activating young unemployed people under 30, supporting higher education, developing social innovations, mobility and transnational cooperation as well as the reforms in the area of employment, social inclusion, education, health and good governance. Poland also participates in 'Erasmus for Young Entrepreneurs', a cross-border exchange programme which gives new or aspiring entrepreneurs the chance to learn from experienced entrepreneurs running small businesses in other participating countries.

Entrepreneurship education is part of the **Slovenian** OP 'Implementation of the EU Cohesion Policy' ⁽¹⁰⁹⁾ in the period 2014–2020. Under the Priority Axis 10 – 'Knowledge, skills and lifelong learning to enhance employability', there is a Specific Objective 3 – 'Promote flexible learning pathways and support high-quality career orientation for school-age youth at all levels of the education system', directly linked to entrepreneurship education.

Similarly, in **Slovakia**, entrepreneurship education is funded through the 'Strategy for Youth 2014-2020', which is subsidised through the OP 'Human Resources' under the Priority Axis 1 'Education'.

Moreover, in **Finland**, entrepreneurship education is embedded in the national measure 'Creative Skills for Finland'; while the **United Kingdom's** Partnership Agreement ⁽¹¹⁰⁾ includes an objective to increase the competitiveness of SMEs and support entrepreneurship.

Finally, a specific call for proposals ⁽¹¹¹⁾ of the EU programme Erasmus+ was launched in 2014 under Key Action 3 – 'Prospective initiatives' to support European partnerships in piloting and scaling up practices. One of the call's priorities was 'including the practical entrepreneurial experience at school'. Two projects on this topic were selected (see Section 3.2 for more information on their objectives):

The 'Youth Start – Entrepreneurial Challenges' project ⁽¹¹²⁾, led by the Portugal Entrepreneurship Education Platform (PEEP), involves partners from five countries – Denmark, Luxembourg, Austria, Portugal and Slovenia –, including several ministries of education. It received a grant of around EUR 2 million over three years.

The 'Innovation Cluster for Entrepreneurship Education' project ⁽¹¹³⁾, coordinated by Junior Achievement – Young Enterprise Europe – also involving some ministries of education – gathers partners from eight countries (Belgium, Denmark, Estonia, Croatia, Italy, Latvia, Finland and Norway). It received a grant of circa EUR 1.8 million over three years.

⁽¹⁰⁸⁾ <http://socialinnovation.lv/en/project-social-entrepreneurship-development-in-baltic-sea-region-granted/>

⁽¹⁰⁹⁾ http://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/slovenia/2014si16maop001

⁽¹¹⁰⁾ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/368808/bis-14-1179-united-kingdom-partnership-agreement-part-one.pdf

⁽¹¹¹⁾ http://eur-lex.europa.eu/legal-content/en/TXT/PDF/?uri=OJ:JOC_2014_051_R_0017_01&from=EN

⁽¹¹²⁾ <http://www.youthstartproject.eu>

⁽¹¹³⁾ <http://icee-eu.eu/about.html>

CHAPTER 3: SCHOOL CURRICULUM

This chapter analyses three aspects of embedding entrepreneurship education in the school curriculum. It first examines central level documents to determine to what extent entrepreneurship education is recognised in the curriculum. It looks at whether the approach is cross-curricular, or whether entrepreneurship education is taught either as a separate subject, or integrated into other subjects and whether it is a compulsory or optional subject in the curriculum. Delving more deeply into how entrepreneurship education is delivered, the guidance issued by central authorities on the teaching and learning methods to be used in entrepreneurship education are then explored.

Different types of practical entrepreneurial experiences, as one of the specific learning methods are investigated, assessing to what extent they are mainstreamed in the curriculum. These experiences include project-based work, practical challenges, community challenges and the setting up of mini-companies or micro-financed initiatives.

Finally, this chapter looks at the specific learning outcomes of entrepreneurship education under three areas:

- attitudes (self-confidence and sense of initiative);
- skills (creativity, planning, financial literacy, managing resources, managing uncertainty/risk, teamwork); and
- knowledge (knowing how to assess opportunities, understanding the role of entrepreneurs in society and awareness of entrepreneurial career options).

3.1. Approaches to entrepreneurship education in the curriculum

The question whether entrepreneurship education had been explicitly recognised in central level steering documents was examined in detail in the 2012 Eurydice report ⁽¹¹⁴⁾ on the subject within primary, general lower and upper secondary level. Steering documents are defined as official documents containing curricula, guidelines, obligations, and/or recommendations. The current report again covers these levels as well as the core curriculum of school-based, initial vocational education (IVET), but it does not extend to specialised courses in school-based IVET such as business studies, as the focus is on what all pupils in IVET learn.

For each level of general education and for the phase of initial vocational education, the following sub-sections analyse to what extent, and how entrepreneurship education is integrated into curricula. Three broad approaches have been identified:

- a cross-curricular approach, where entrepreneurship education objectives are expressed as being transversal and horizontal across different subjects;
- entrepreneurship education is taught as a compulsory separate subject, or as part of (a) compulsory subject(s);
- entrepreneurship education is taught as an optional subject, or as part of (an) optional subject(s).

The approaches are not mutually exclusive, so countries may have all three approaches.

A European Commission report proposes a progression model which envisages: 'a shift away from entrepreneurship education as an 'add-on' to the curriculum, most commonly available in the later stages of the compulsory phase of education, to entrepreneurship education as an integral part of the

⁽¹¹⁴⁾ EACEA/Eurydice, 2012.

curriculum at all levels. In such a scenario, entrepreneurship education in the early years of education – from primary through lower secondary – provides a foundation for students to take entrepreneurship as a separate subject in their later years, e.g. upper secondary and beyond' (McCoshan, et al., 2010, p. 29).

3.1.1. Primary and general lower secondary education

As Figure 3.1a shows, in primary education, about half of the countries have a cross-curricular approach to entrepreneurship education with an emphasis on transversal and horizontal objectives, without it being tied to particular subjects. In 14 education systems, entrepreneurship education is integrated into compulsory subjects. It is quite rare for it to be an optional subject or integrated into optional subjects. This is the case only in five countries. This is not surprising, as optional subjects are not common in primary education. Altogether about three quarters of countries report at least one of the above-mentioned approaches.

In four countries (Spain, Slovenia, Finland and Norway), cross-curricular objectives are combined with compulsory subjects, and four countries (the Czech Republic, Latvia, Malta and Romania) have all three approaches (cross-curricular, compulsory and optional).

In **Estonia**, a country with a specific strategy for entrepreneurship education (see Chapter 2), in primary education, the entrepreneurship competence forms part of the general competences that should be developed throughout the whole learning process through cross-disciplinary activities. Furthermore, entrepreneurship is included in the National Curricula for Basic Schools through the cross-curricular topic 'Civic Initiative and Entrepreneurship'.

In **Spain**, the new Act on Education (LOMCE), states that 'without prejudice to their specific treatment in some areas of this education level (...) entrepreneurship and civics and constitutional education must be delivered in all subject areas'.

In **Slovenia**, the Basic School Act of 2007 introduced the objective 'development of entrepreneurial attitudes in terms of effectiveness, innovation, and creativity' into the curriculum at both primary and lower secondary level.

According to Figure 3.1b, at lower secondary level, 21 countries refer to cross-curricular objectives for entrepreneurship education. In lower secondary education, 17 countries report that entrepreneurship is either compulsory, either as a separate subject, or integrated in another subject. The main difference with primary education is that entrepreneurship is much more common as an optional element in the curriculum, with 15 countries reporting this practice. This is, of course, largely due to the fact that optional subjects are much more common at secondary level. Only eight countries make no reference at all to entrepreneurship education.

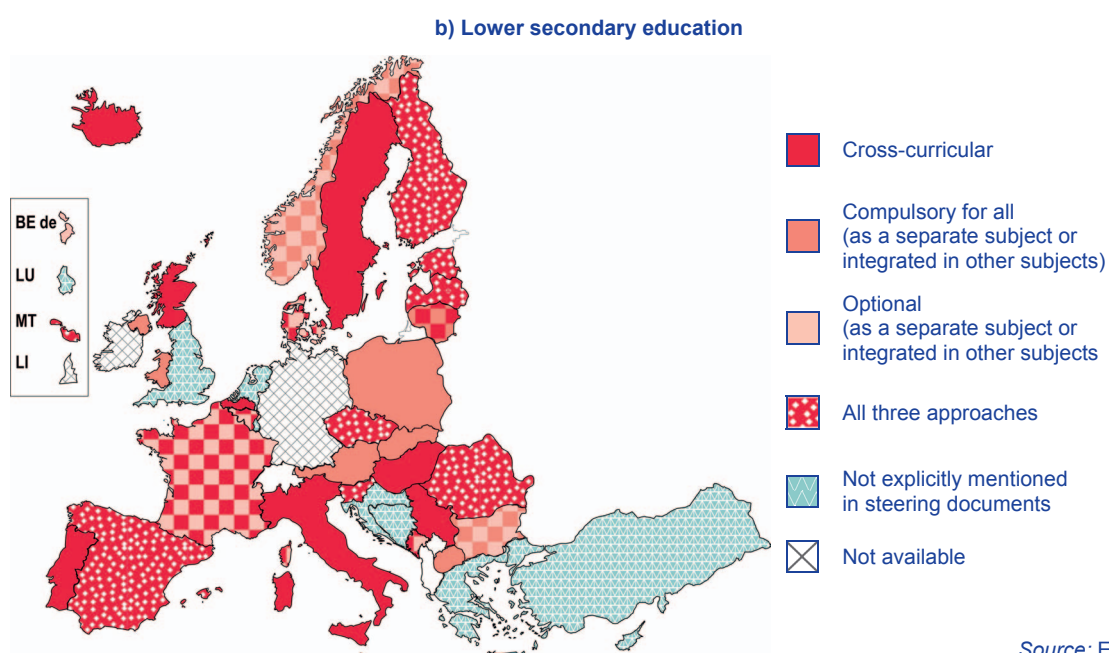
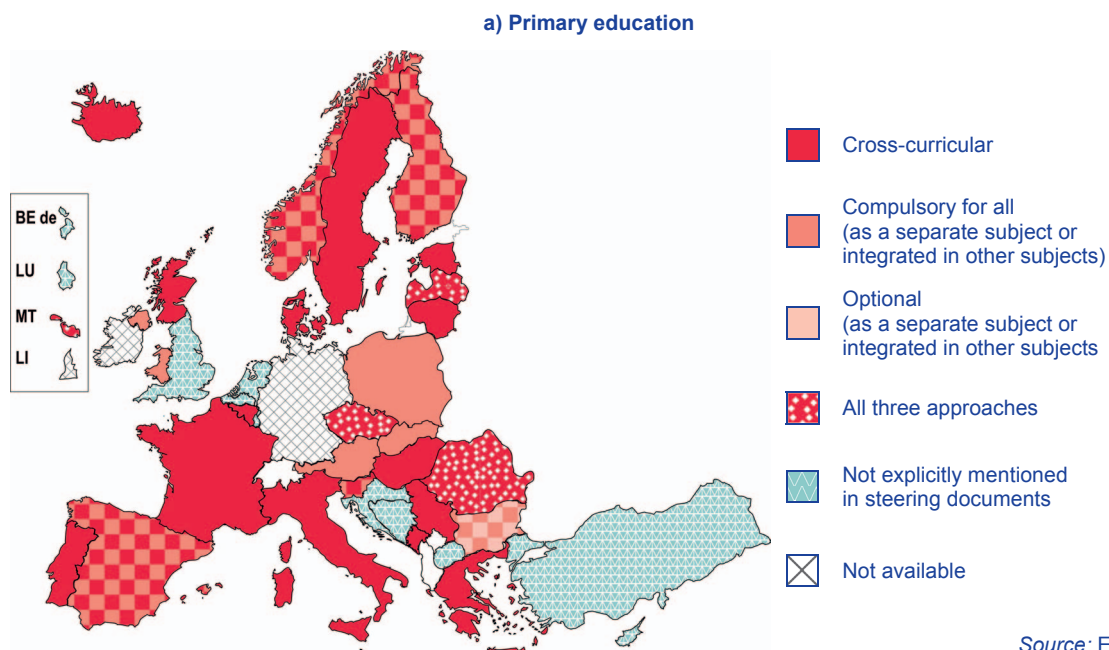
In **Bosnia and Herzegovina**, a country with a specific strategy for entrepreneurship education, the integration of the subject into curricula is in the pilot phase in primary education, while it is at the implementation stage in about half of lower and upper secondary schools.

In **Lithuania**, where entrepreneurship education is currently being addressed as part of an entrepreneurship strategy, there is a national programme to introduce economics and entrepreneurship into basic education. The programme is based on key competences such as entrepreneurship, communication, learning to learn and citizenship.

Another difference with primary education is that, at lower secondary level, more countries combine different approaches. Eight countries have all three approaches mentioned in Figure 3.1b (cross-curricular, compulsory and optional) at lower secondary level. In two countries (Bulgaria and Norway), there is a combination of compulsory and optional subjects, without any reference to cross-curricular objectives. In four countries/regions (Belgium (French Community), Denmark, France and Montenegro), cross-curricular objectives are combined with optional subjects.

In 17 countries entrepreneurship education is compulsory either as a separate subject or integrated in other compulsory subjects (see Figure 3.2).

Figure 3.1: Curricular approaches to entrepreneurship education, 2014/15



Explanatory note

Optional refers both to subjects that students are free to choose (non-compulsory) and to compulsory subjects foreseen in some study pathways only as opposed to subjects that are compulsory for all students.

Country-specific notes

Belgium (BE de): There is no cross-curricular approach in entrepreneurship education in the curriculum at ISCED 1-3. Nevertheless, a skill guide which incorporates entrepreneurship education does exist. The skill guide for Career Choice Preparation and Career Guidance which was adopted in 2008 is a cross-curricular guide for all subjects from ISCED 1 to ISCED 3. It seeks to explore the work of all professions and is a link between school and the world of work.

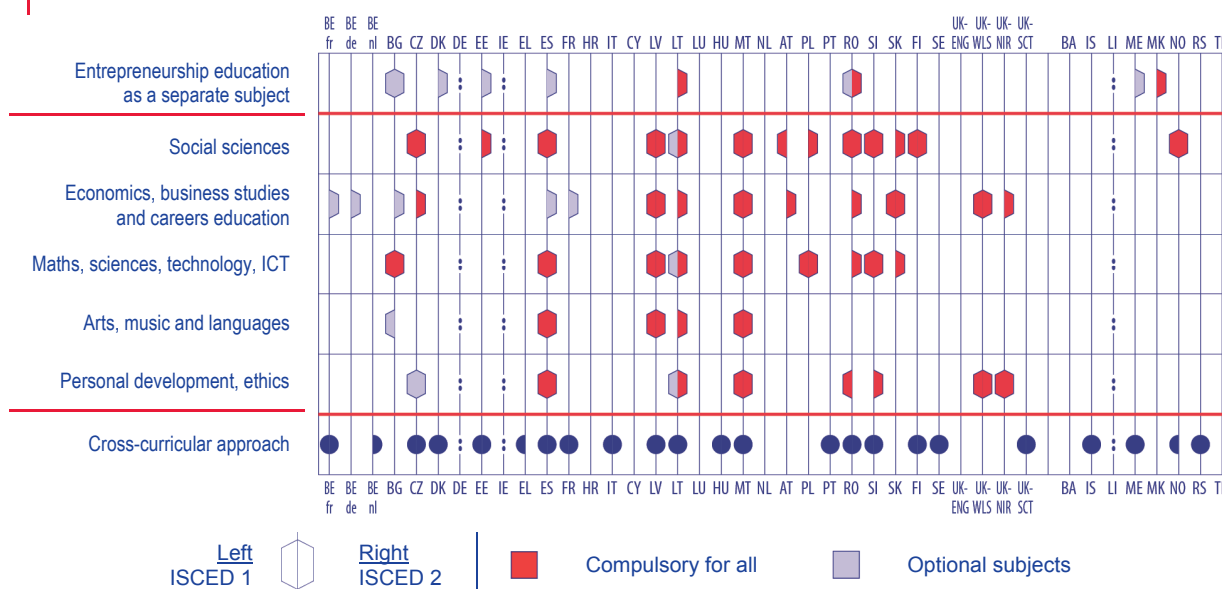
Croatia: The National Framework Curriculum (NFC) stipulates that entrepreneurship education should be integrated in ISCED 0-3 curricula as a cross-curricular topic. However, the development of actual school curricula to implement this requirement of the NFC has not yet been completed.

Netherlands: Schools are autonomous and they are free to decide whether to include entrepreneurship education and how to manage it. Many schools do cover the subject, although there is no strategy at national level.

Bosnia and Herzegovina: The integration of entrepreneurship education into curricula is now in progress, supported by an EU IPA project and through the regional SEECEL project in pilot institutions.

When examining the subjects that incorporate elements of entrepreneurship education, certain differences emerge between primary and lower secondary level. There are more subjects that incorporate entrepreneurship education at lower secondary level than at primary level. This is consistent with the fact that at primary level the emphasis is on a cross-curricular approach (see Figure 3.1a). At this level, entrepreneurship is taught as a separate optional subject only in Bulgaria and Romania. At lower secondary level, this is the case in six countries/regions (Belgium (German-speaking Community), Bulgaria, Denmark, Estonia, Spain and Montenegro). Lithuania, Romania and the former Yugoslav Republic of Macedonia are the only countries with entrepreneurship as a compulsory separate subject. Both at primary and lower secondary levels, entrepreneurship education is usually integrated into social science subjects, and into economics and business studies.

Figure 3.2: Subjects integrating entrepreneurship education (ISCED 1 and 2), 2014/15



Source: Eurydice.

Explanatory note

If there are both compulsory and optional subjects on the same education level and subject category, this figure only shows the compulsory subjects. Optional refers both to subjects that students are free to choose (non-compulsory) and to compulsory subjects foreseen in some study pathways only as opposed to subjects that are compulsory for all students.

The objectives of entrepreneurship education at primary and lower secondary levels are formulated differently in different countries, and the focus is sometimes on the narrower understanding of entrepreneurship, which emphasises the skills necessary for setting up and running businesses, sometimes on the wider one.

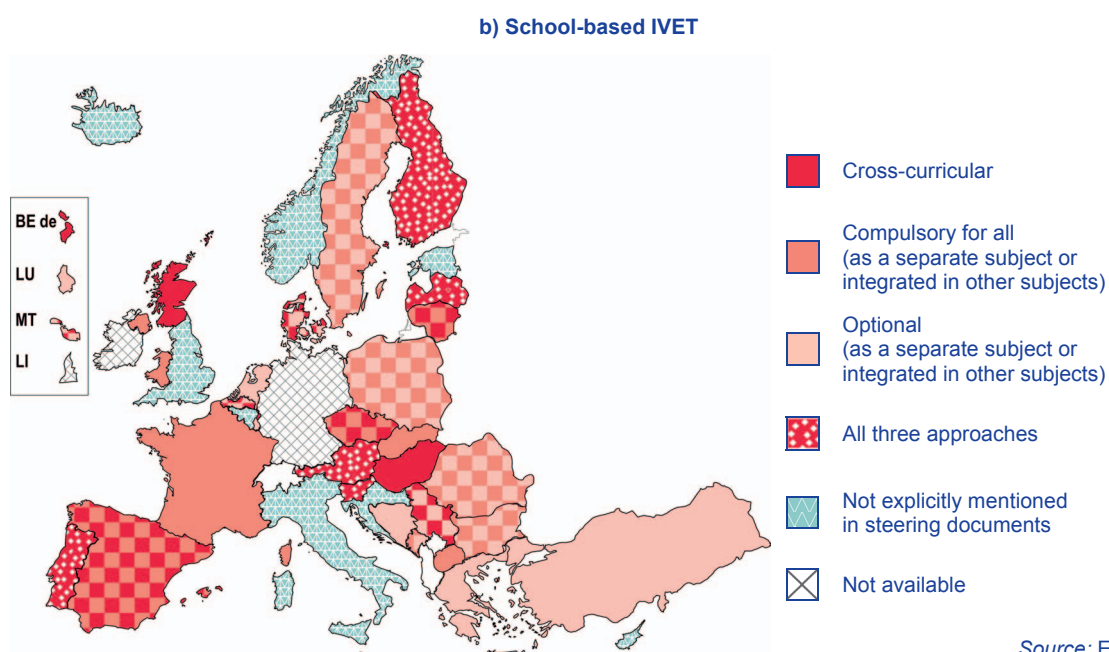
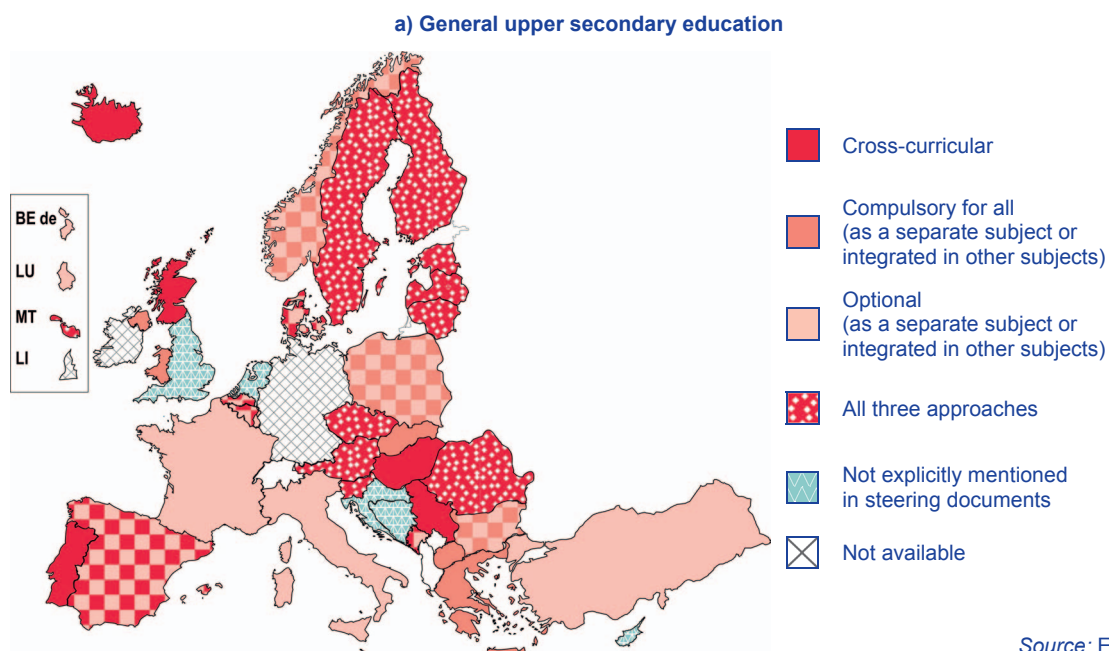
In **Bulgaria**, the main goal is the development of entrepreneurial thinking through practical activities that include training in setting up businesses.

In **Spain**, where the objectives for compulsory subjects covering entrepreneurship include developing creativity and entrepreneurship by improving information skills, developing ideas and presenting innovative findings (social sciences), developing autonomy and entrepreneurial skills to reach personal goals and taking responsibility for the common good (civic and social values).

3.1.2. General upper secondary education and school-based IVET

At general upper secondary level, entrepreneurship education is a cross-curricular objective in 20 countries/regions. Compared to both primary and lower secondary education, there is wider coverage of entrepreneurship education in curricula. Also, 10 countries combine all three approaches.

Figure 3.3: Curricular approaches to entrepreneurship education, 2014/15



Explanatory note

Optional refers both to subjects that students are free to choose (non-compulsory) and to compulsory subjects foreseen in some study pathways only as opposed to subjects that are compulsory for all students.

Country-specific notes

Belgium (BE de): There is no cross-curricular approach in entrepreneurship education in the curriculum at ISCED 1-3. Nevertheless, a skill guide which incorporates entrepreneurship education does exist. The skill guide for Career Choice Preparation and Career Guidance which was adopted in 2008 is a cross-curricular guide for all subjects from ISCED 1 to ISCED 3. It seeks to explore the work of all professions and is a link between school and the world of work.

Croatia: The National Framework Curriculum (NFC) stipulates that entrepreneurship education should be integrated in ISCED 0-3 curricula as a cross-curricular topic. However, the development of actual school curricula to implement this requirement of the NFC has not yet been completed.

Netherlands: Schools are autonomous institutions and they are free to decide whether to include entrepreneurship education and how to manage it. Many schools do cover the subject, and there is governmental funding available for entrepreneurship education (in school-based IVET), although currently there is no strategy at national level.

Slovakia: Each upper secondary school has the autonomy to decide whether to offer entrepreneurship as an optional subject.

Bosnia and Herzegovina: The integration of entrepreneurship education into curricula is now in progress, supported by an EU IPA project and through the regional SEECEL project in pilot institutions.

Moreover, entrepreneurship education can be found as a compulsory component in 18 countries/regions, and it is an optional subject or integrated into optional subjects also in 23 countries/regions. Only five countries/regions have no references to entrepreneurship education.

The following examples describe how some countries formulate the objectives of cross-curricular themes related to entrepreneurship education.

In **Hungary**, a 'sense of initiative and entrepreneurship' is addressed explicitly as a cross-curricular key competence in the national core curriculum at all school levels; there are also some implicit references in subject-related framework curricula. Entrepreneurship education is implicitly or briefly mentioned in three out of twelve educational aims in the national core curriculum.

In **Malta**, 'Education for Entrepreneurship, Creativity and Innovation' is one of the six cross-curricular themes established in the National Curriculum Framework for primary and secondary education and is integrated across all eight learning areas.

In **Finland**, the theme 'Participatory citizenship and entrepreneurship' aims to help pupils perceive society from different points of view, to develop the capabilities needed for civic involvement, and to create a foundation for entrepreneurial methods. A school's methods and learning culture must support pupils in their development as independent, initiative-taking, goal-conscious, cooperative citizens, and it should help them gain a realistic idea of the ways they can influence society.

As explained in the introduction, this report covers the core curriculum of school-based vocational education (IVET), but not the specialised courses, such as business studies. Entrepreneurship education is mentioned as a cross-curricular objective in 15 countries/regions for school-based IVET, which is fewer than in primary and general secondary education. It is possible that specialised courses in IVET have more emphasis on entrepreneurship than the core curriculum. However, entrepreneurship education fares well in terms of its position in the curriculum as a compulsory subject or as an element integrated into compulsory subjects (18 countries), and as an optional subject or element integrated into optional subjects (19 countries). Entrepreneurship is not mentioned at all in eight countries/regions.

Figure 3.4 shows the subjects which integrate entrepreneurship education in general upper secondary education and school-based IVET. Entrepreneurship education is most often taught as a separate subject at general upper secondary level (ISCED 3); it is optional in 12 countries and compulsory in five. Thus, almost half of the countries teach entrepreneurship education as a separate subject. In school-based IVET, entrepreneurship education is common as a separate subject. Nine countries offer it as a compulsory subject and ten countries/regions offer it as an optional subject. As in primary and lower secondary education, social sciences and economic and business studies are the other subject areas which usually include entrepreneurship education.

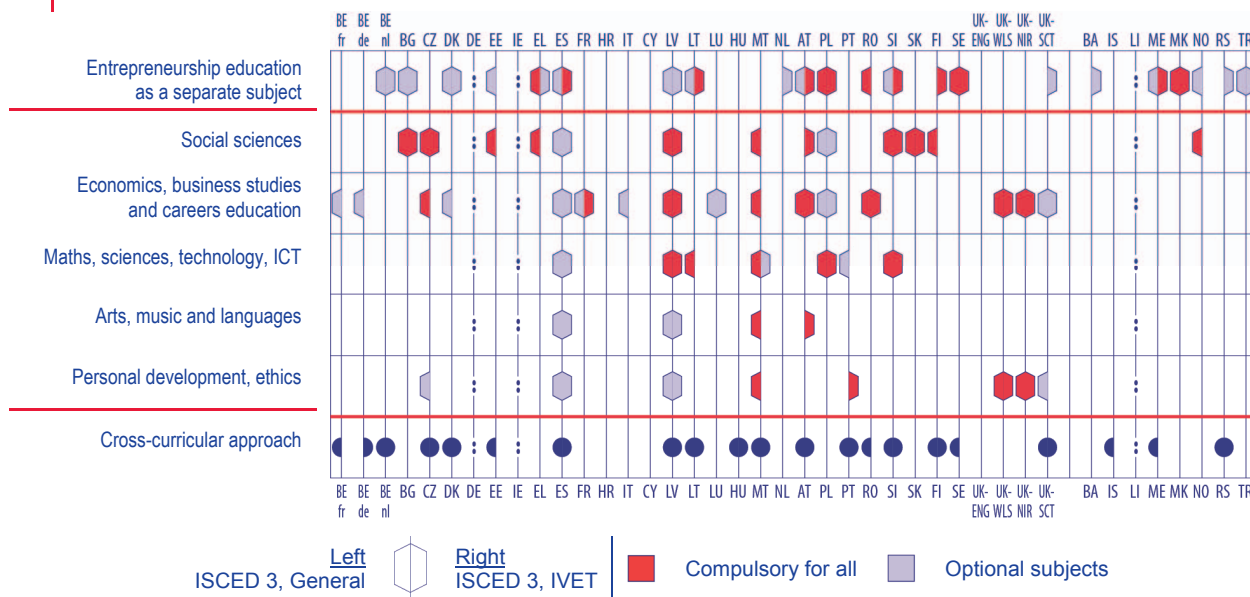
The objectives for entrepreneurship education vary between countries.

In **Sweden**, a country with a specific strategy for entrepreneurship education, there are six objectives in the separate subject for entrepreneurship education reflecting both the focused business-related objectives as well as the broader skillset of value to entrepreneurs. They include, among other things, the ability to turn ideas into practical and goal-oriented activities to start a project or mock company, to carry out a project or run a mock company, and the ability to complete and evaluate a project or a mock company.

In **Serbia**, there is a narrower understanding of entrepreneurship: the subject Entrepreneurship in school-based IVET aims to develop entrepreneurial and business knowledge, skills, behaviours and values as well as an entrepreneurial way of thinking. It also covers the knowledge and skills necessary for professional development, job-hunting and self-employment (including the development of a simple business plan). The subject has a multidisciplinary approach and a focus on practical work; there is also an emphasis on preserving natural resources and ecological sustainability.

In **Poland**, the objectives of the subject 'Introduction to Entrepreneurship Education' include, for example, both verbal and non-verbal communication and decision-making, making a simple business plan, and learning how market institutions function.

Figure 3.4: Subjects integrating entrepreneurship education (ISCED 3 and school-based IVET), 2014/15



Source: Eurydice.

Explanatory note

If there are both compulsory and optional subjects on the same education level and subject categories, this figure only shows the compulsory subject. Optional refers both to subjects that students are free to choose (non-compulsory) and to compulsory subjects foreseen in some study pathways only as opposed to subjects that are compulsory for all students.

3.1.3. Guidance on teaching and learning methods for entrepreneurship education

This section analyses the provision of general guidance on teaching and learning methods for entrepreneurship education by central authorities. Additional information on support to teachers can be found in Chapter 4.

As with subject content, teaching and learning methods need to be appropriate if entrepreneurship education is to be delivered effectively. Research in this field emphasises the importance of this point. Hoffmann et al. (2012, pp. 102-103), for example, explain that the skills needed for entrepreneurship change and are different at the idea stage from those needed at the growing organisation or project stage, and hence entrepreneurship cannot be taught effectively using traditional pedagogical methods. Practical dimensions, student participation, interdisciplinary and international elements in teaching are all important. Moreover, they argue that 'formal teaching is not the only activity that affects students' ability to become great entrepreneurs' (Hoffmann et al., 2012, p. 105). The non-curriculum activities at educational institutions also have a great impact but these are again very difficult to measure as students participating in such activities are often not registered. Hence, we can only observe part of the picture: what is included in the formal curriculum.

According to Coduras Martinez et al. (2008, pp. 11-12), new teaching methods and cross-disciplinary content present challenges for teachers and institutions alike. Sorgman and Parkison (2008) state that many schoolteachers are unprepared for these new challenges (see Chapters 1 and 4). Multidisciplinary business content and experiential approaches need to be integrated into the basic training that teachers receive. They conclude that 'training the trainers' may be as great an effort as developing the curriculum.

This analysis of central guidelines is based on the four types of teaching and learning method commonly, but not exclusively, associated with entrepreneurship education:

- Active learning
- Project-based learning
- Experiential learning
- Activities outside the classroom/school linking students with the local community or businesses

Practical entrepreneurial experiences, as a specific one-time experience, will be examined later in this chapter (see Section 3.2). This section looks only at central level recommendations on general teaching and learning methods for entrepreneurship education.

The methods listed above are not always linked only to entrepreneurship education, and they can form part of the common pedagogy for other subjects. However, in order to be relevant here, they need to be applied in the context of the learning objectives related to entrepreneurship education. Teachers may also need support in order to use them when teaching entrepreneurship, an issue that will be examined in the following chapter.

Even though there are no central level recommendations or guidelines on using the above teaching and learning methods with respect to entrepreneurship education in some countries, this does not necessarily mean that such methods are not used at all, as schools and teachers often have significant autonomy to make their own decisions about teaching methods. However, where such guidelines do exist, it suggests that entrepreneurship is well established and embedded in the curriculum. The current report indicates that guidelines, referring to the above methods exist in only a dozen countries/regions in primary and/or lower secondary education (German-speaking Community of Belgium, Denmark, Spain, Estonia, France, Latvia, Lithuania, Poland, Romania, Bosnia and Herzegovina, Montenegro and the former Yugoslav Republic of Macedonia). Not surprisingly, five of these countries/regions (German-speaking Community of Belgium, Estonia, Bosnia and Herzegovina, Montenegro and the former Yugoslav Republic of Macedonia) promote entrepreneurship education through a specific strategy (see Chapter 2).

In **Estonia**, central level recommendations for teaching methods to be used in the development of general skills and cross-curricular learning, including entrepreneurship skills, have been described in the national curricula for basic schools and general upper secondary schools. New curricula for basic schools and general upper secondary schools include themes on venture creation, employability and social entrepreneurship. Teachers' professional standards describe the skills to be used in teaching entrepreneurship. 'Be enterprising!', the Estonian strategy for entrepreneurship education, gives recommendations on teaching methodology.

In **Spain**, Order ECD/65/2015 states that teaching methods which contextualise learning and include project-based learning, focus on interests, case studies or problem solving [and] contribute to active participation, experimentation and functional learning, which will, in turn, promote the development of competences, as well as [improve] student motivation by means of knowledge transference. Project-based learning is especially relevant for the acquisition of competences. It requires an action plan to be drafted in order to attain a specific goal. The aim of this methodology is to allow students to organise their thoughts and contribute to research, reflection, critical thinking, and hypothesis-building, through a process in which every person assumes responsibility for their learning, applying their knowledge and abilities to real life tasks.

Guidelines for learning in entrepreneurship education in **Bosnia and Herzegovina** include interactive teaching methods where students are active participants in the learning process.

Guidelines are more common for general upper secondary and school-based IVET (about a third of countries/regions) than for the lower education levels. This is in line with the fact that entrepreneurship education is more common in general upper secondary education than at lower educational levels. Active learning and activities outside the classroom are the most common teaching methods for which guidelines exist. The entire teaching process should be based on the application of active methods and forms of work. Activities outside the classroom often include visits to businesses (for example in Latvia, Austria and Serbia).

Figure 3.5: Central guidelines on teaching and learning methods in entrepreneurship education, 2014/15



Source: Eurydice.

Country-specific notes

Belgium (BE de): The guidelines (which are updated regularly) for teaching methods in entrepreneurship education are not compulsory as the Belgian constitution guarantees the freedom of education. Hence, every school authority is free to use the pedagogical methods of their choice in their school. All teachers are free to use the methods suitable for their class within the scope of any guidelines given by the school authority.

Spain: In addition to the above methods, there is also 'cooperative learning'. Under Order ECD/65/2015, active methodologies must build on cooperative learning structures. By working together, team members should be able to solve problems, understand the strategies used by others and employ them in similar situations.

Bosnia and Herzegovina: All curricula are mainly content-based with very few guidelines on methods. Teachers are obliged to follow the curriculum in respect of content, but they are free to choose the teaching methods.

In **Greece**, case studies are widely used in order to understand better the concepts of unemployment, inflation, laws of supply and demand and so on. In particular, when entrepreneurship education is taught within the framework of the subject called 'Project', students learn how to bring a business idea from concept to reality.

In **Montenegro**, active teaching is a basic starting point for the implementation of all subjects at all levels of education, and experiential learning and research has assumed special importance, with practical work being used to learn subject content and knowledge.

Some of the countries that state having subjects integrating entrepreneurship education do not report any central level guidelines for teaching and learning methods. In many cases, the reason for this is the autonomy given to schools and teachers.

For example, in the **United Kingdom (England, Wales and Northern Ireland)**, teaching methods and learning materials are decided by the teacher, in consultation with the head teacher and the head of department (a teacher who has responsibility for a particular subject area and who gives help and guidance to other teachers). Each teacher is responsible for planning lessons and drawing up schemes of work to ensure that the curriculum meets statutory requirements.

Some countries have, however, mechanisms to facilitate the teaching of entrepreneurship education.

For example in the **Czech Republic**, teachers can share their experience, as well as their practice-based teaching methods, using a special internet forum, the 'Methodological portal', which also covers other subject areas.

3.2. Practical entrepreneurial experiences

The 2012 European Commission Communication *Rethinking education: Investing in skills for better socio-economic outcomes* ⁽¹¹⁵⁾ calls on Member States to provide at least one practical entrepreneurial experience for all learners before they complete compulsory education.

'A practical entrepreneurial experience is understood as an educational experience where the learner has the opportunity to come up with ideas, identify a good idea and turn that idea into action. It should be a student led initiative either individually or as part of a small team, involve learning-by-doing and should produce a tangible outcome. The aim of such an opportunity is for learners to develop the skills, confidence and capability to spot opportunities, identify solutions and put their own ideas into practice' ⁽¹¹⁶⁾.

To support countries' efforts in implementing this approach, the European Commission launched in 2014 a call for proposals under Key Action 3 – 'Prospective initiatives', with 'Including the practical entrepreneurial experience at school' as one of its priority themes (see Section 2.2.3). The aim of the call is to pilot and scale up these practices. One of the selected projects, 'Youth Start – Entrepreneurial Challenges', led by the Portuguese association PEEP (*Plataforma para a Educação do Empreendedorismo em Portugal*), aims to create a new method of teaching entrepreneurial skills, to scale it up and implement it in primary, lower, and upper secondary schools. The second project, 'Innovation Cluster for Entrepreneurship Education', led by Junior Achievement – Europe, aims to analyse the impact of entrepreneurship education and understand what is needed to reach the European goal of every young person having a practical entrepreneurial experience before leaving compulsory education.

⁽¹¹⁵⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions on Rethinking Education: Investing in skills for better socio-economic outcomes, COM/2012/0669 final.

⁽¹¹⁶⁾ First mentioned in the Rethinking Education Communication. Current definition elaborated in the EACEA call for tender for policy experimentations on practical entrepreneurial experiences to be found at https://eacea.ec.europa.eu/sites/eacea-site/files/documents/ka3-14-guidelines-for-applicants-final_en.pdf

There are many examples of practical entrepreneurial experiences. What they have in common is a genuine entrepreneurial approach in their content and method, thus combining entrepreneurial learning objectives and entrepreneurial methods. Where such experiences are mainstreamed within the school curriculum, this provides evidence that entrepreneurship education is genuinely embedded rather than just an add-on.

3.2.1. Practical entrepreneurial experience in the school curriculum

Examples of practical entrepreneurial experiences differ in their focus, but also in the degree to which they involve changes or adjustments in the educational approach. For this report, countries have been asked to describe whether or not the types of experiences listed below are included in their school curricula, and if so, at which educational level, and whether on a compulsory or optional basis:

- doing project-based work – where there is a clear idea generation process and a specific end product;
- being given a practical challenge – projects set by business or community organisations to address a problem they face at work;
- taking part in a community challenge – using innovative ideas to develop solutions to tackle local or community problems;
- creating a mini/junior company – having an idea for a business or social enterprise, and setting up and running it for a set period of time;
- micro-financing student initiatives – concrete ideas and crowd-funded projects to make a profit and/or have a social impact.

It is important to note that in the context of a practical entrepreneurial experience, the first experience mentioned ('doing project-based work') is different from the general project-based teaching methodology discussed in Section 3.1.3. Project-based teaching is already, in various degrees and forms, quite common in most European education systems. But what is explored here is different, as it puts the student at the centre of an actual process to generate ideas for a specific end product. General project-based teaching methods certainly might also be used to develop entrepreneurial skills, but they are not a comprehensive practical entrepreneurial experience, as defined here. Likewise, practical learning and work-based learning in IVET and the dual system cannot be equated with what is understood here as a practical challenge, although they too may develop young people's entrepreneurial skills.

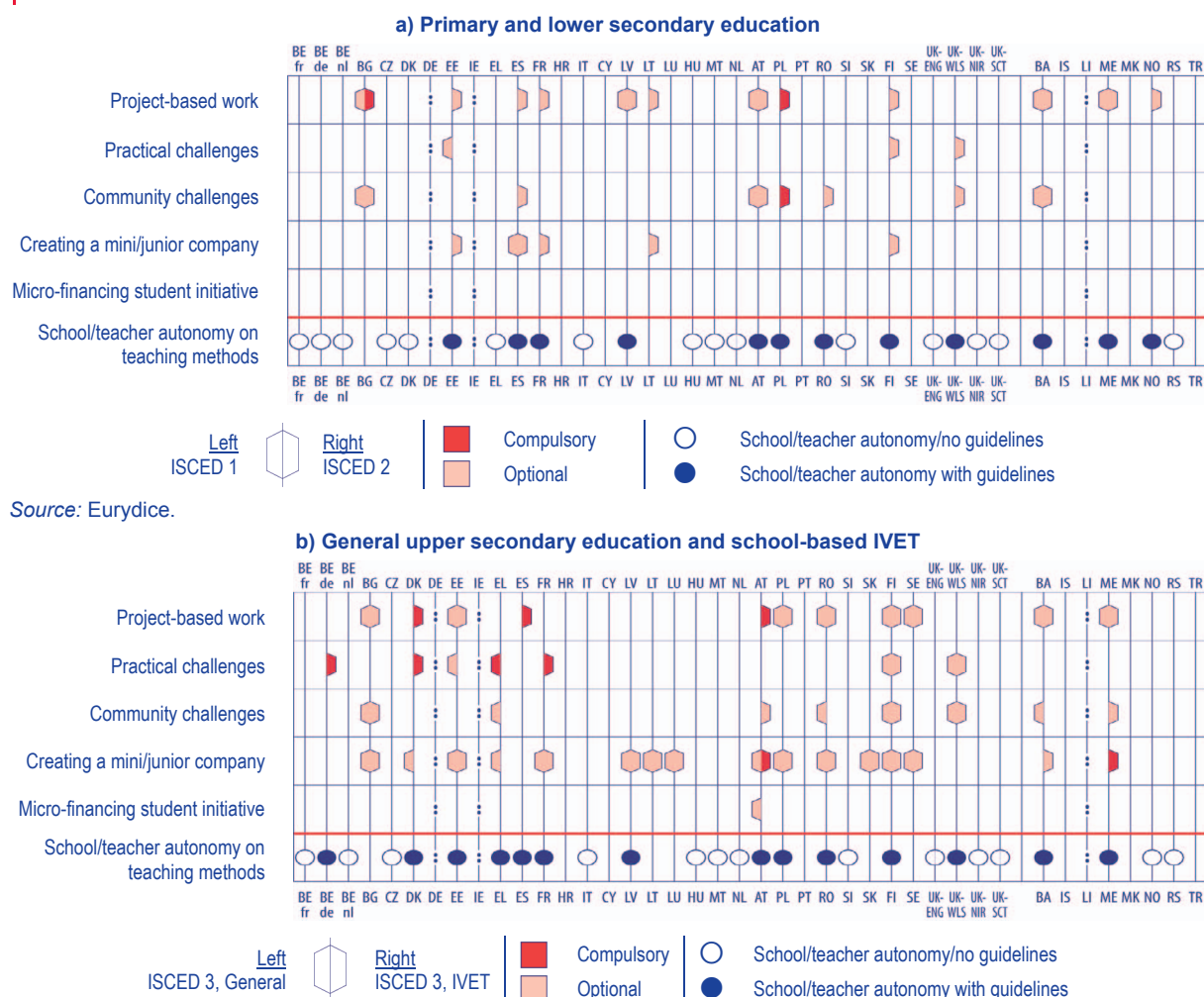
A practical entrepreneurial experience in the form of project-based work is included in the curricula of around a dozen countries in all. Bulgaria, Bosnia and Herzegovina and Montenegro provide this at all levels; Estonia, Austria, Poland and Finland at three levels; Spain, Latvia, Romania and Sweden at two levels; France, Lithuania and Norway only at lower secondary level and Denmark in school-based IVET only. Project-based work is thus one of the most common examples of practical entrepreneurial experience, but is still only to be found in less than a third of European countries.

An interesting example at lower secondary level can be found in **Finland**: 'Me & MyCity' addresses the topics society, working life and entrepreneurship and takes the form of a miniature city where students, sixth-graders aged 12 to 13, work in a profession and function as consumers and citizens. It also includes teacher training, learning materials for 10 lessons and a day-long visit to the 'Me & MyCity' learning environment. Each programme is implemented in close cooperation with the region's municipalities and businesses. It is not compulsory, but practically all 6th-graders participate.

At the same level of education, in **Norway**, pupils may choose between optional subjects, some of which involve an entrepreneurial experience. One, called 'Working life skills', involves pupils creating a product as part of the subject. Another optional subject is 'Design and redesign', which also involves creating a specific end product.

In **Montenegro**, for all levels of school education, the curriculum of each subject includes two projects a year. Teachers receive training to learn how to implement projects related to entrepreneurship education. These activities are recognised in schools' and teachers' annual work plans.

Figure 3.6: Practical entrepreneurial experiences in the curriculum, 2014/15



Source: Eurydice.

Source: Eurydice.

Explanatory note

A **practical entrepreneurial experience** is understood to be an educational experience where the learner has the opportunity to come up with ideas, identify a good idea and turn that idea into action. It should be a student-led initiative either individually or as part of a small team, involve learning-by-doing and should produce a tangible outcome. The aim of these opportunities is to allow learners to develop the skills, confidence and capability to spot opportunities, identify solutions and put their own ideas into practice. Figure 3.6 shows where such an experience is included within the normal curriculum on a compulsory or optional basis. Information on those countries where the experience is encouraged but not embedded in the curriculum can be found in Section 3.2.2.

Country-specific notes

- Denmark:** The project assignment at 9th grade can also have an entrepreneurial approach.
- Spain:** 'Project-based work' is provided in some Autonomous Communities (Andalusia, Canarias) and 'Community challenge', in Asturias, Castilla y León, La Rioja, Cataluña and Extremadura. 'Creating mini/junior companies' concerns some Autonomous Communities that have been offering optional subjects in lower secondary education under different names. In many cases, the core of the subject is the creation and management of a mini-company/student cooperative during the school year (e.g. 'Empresa Joven Europea' (EJE) in Asturias, Extremadura and La Rioja).
- Italy:** A new law (No.107/2015) has defined the minimum standard for the 'alternanza scuola-lavoro' programme (a programme in which learners alternate school and practical experiences e.g. apprenticeships, internships or practical learning activities, officially introduced in 2005) in the last three years of upper secondary education: a minimum of 200 hours in *Licei* and a minimum of 400 hours in technical and vocational schools. This can also include 'simulated training business', particularly in technical schools for economy and finance.
- Malta:** The Learning Outcomes Framework, which is currently being developed and has not yet been published, will provide suggestions of practical entrepreneurial experiences, but decisions are taken at school and/or college level.
- United Kingdom (Wales):** The optional Welsh Baccalaureate offers practical entrepreneurial experiences, corresponding to both practical and community challenges and available to 14- to 19-year-old learners in secondary education including school-based IVET. This revised qualification is being piloted in the 2014/15 academic year and will be available for assessment as from September 2015.
- Bosnia and Herzegovina:** Practical entrepreneurial experiences are applied on pilot basis. They are more common in IVET.

The second most widespread example of a practical entrepreneurial experience is creating a mini/junior company. As this is more appropriate for older pupils, there is only one example, Spain, where it may be included in primary education already. It is included in curricula from lower secondary level, in only five countries (Estonia, Spain, France, Lithuania and Finland). However, in general upper secondary education and/or school-based IVET, this type of experience can be found in 16 countries.

The participation of students in mini-companies is often supported by specialised organisations. In Denmark, the government established the Danish Foundation for Entrepreneurship in 2010 to help ensure that creativity and innovation becomes a fundamental part of education for pupils at all levels.

In some countries, practical entrepreneurial experiences in the form of mini-companies are already widespread practice. In Sweden, for example, in the 2014/15 school year, 24 415 students (representing more than 20 % of secondary school leavers) participated in the 'Company Programme'. In Finland, during 2013/14, about 1 300 student companies were founded and about 4 100 students participated in the programmes. In Austria, in the field of vocational education, there are more than 1 000 mini-companies. In 2014/15, there were 42 mini-companies in Estonia at lower secondary level, and in upper secondary the programme was used in 62 schools (200 student companies), i.e. in 32 % of Estonian schools.

Practical and community challenges are less common. Very few countries have practical challenges in primary or lower secondary education and not more than seven countries/regions have community challenges at those levels. Similarly, a dozen countries/regions have practical and/or community challenges in general upper secondary education and/or school-based IVET. Micro-financing student initiatives are even rarer in European curricula; the only example found within normal curricula is in Austria, in general upper secondary education, where it operates as part of the project competition 'Innovative Youth' (*Jugend Innovativ*). It is also available in IVET but not as part of the curriculum; it operates through crowd funding platforms catering specifically for student projects.

3.2.2. Practical entrepreneurial experience encouraged within initiatives

In countries where practical entrepreneurial experiences are not yet a part of the normal curriculum, they are being offered through extra-curricular activities, national programmes and initiatives with the participation and support of external partners. Given the nature of a practical entrepreneurial experience, evidence shows that the involvement of external partners in the design and/or delivery is key, as this ensures its link with and relevance to the 'real world', outside the educational setting⁽¹¹⁷⁾. This report confirms the importance of external providers in delivering this type of experience as an extra-curricular activity.

The work of the international non-governmental organisation Junior Achievement and its member organisations in many European countries is very relevant in this context, as it is based on sound experience and close links between education and the business sector. In some countries, Junior Achievement has received an accreditation for its programmes by ministries of education (in the Czech Republic, France, Malta, Slovakia and Serbia) and/or is receiving government funding in others (Bulgaria, Denmark, Luxembourg, Norway, Poland, Sweden and Serbia). In the Flemish Community of Belgium – in the context of teacher autonomy for teaching methods –, Bulgaria, Estonia, Greece and Latvia, the practical entrepreneurial programmes developed by the national member organisations of Junior Achievement are already offered as part of the normal curriculum (see Figure 3.6).

⁽¹¹⁷⁾ TWG on EE, 2014, p. 32.

In the **Czech Republic**, for example, the Centre for Practice Enterprises (*Centrum fiktivních firem*), a member of the international network *Europen-PEN International* ⁽¹¹⁸⁾, receiving government funding, offers students in upper secondary vocational education the opportunity to manage a 'practice enterprise' in order to develop their entrepreneurial skills. These companies are set up by students under the supervision of the teacher and in co-operation with the Centre.

In other countries, practical entrepreneurial experiences are developed as extra-curricular activities or in the framework of wider initiatives at regional, national or European level.

In **Spain**, many Autonomous Communities have developed programmes which include practical extra-curricular activities. These are often promoted by regional authorities but are not always large scale. In some regions and programmes, banks and other financial institutions take part in the development and/or funding of these actions (e.g. *Equilicúa* programme, co-financed by the Caja Navarra Foundation, or the loans that Cajastur provides to set up school micro-companies in Asturias). In other cases, the Autonomous Communities establish partnerships with public agencies or private companies/NGOs. There are other initiatives promoted by the private sector and developed directly in educational settings, either at national level (e.g. 'ThinkBig' Project from Telefónica Foundation) or at regional level (e.g. the Project 'Startinova' supported by six regional newspapers from the communications group Vocento in six Autonomous Communities). As regards methodology, all programmes are committed to active and meaningful learning connected to the real world. They are often structured as educational micro-companies (involving youth associations, cooperatives, production companies, businesses, etc.) or are organised as competitions for projects. Participation in these programmes is optional for educational institutions.

In the **Netherlands**, practical (and theoretical) entrepreneurial experiences are not specified in the curriculum, as schools are autonomous, but some do offer these. For example, through the programmes of *Jong Ondernemen*, pupils in primary and secondary education and in school-based IVET can create a mini/junior company. The organisation works together with different institutions and they receive a financial contribution from the government. The programme 'BizWorld' in primary education allows children to lead their own company. An example in upper secondary education is 'Junior Company'. For primary education, the focus is primarily on 'enterprising behaviour': encouraging character building, creativity, solution-oriented thinking (problem solving), commercial/economic thinking and action, and developing social skills. Through short-term projects (lasting weeks or months), children are encouraged to develop their own initiative. Some schools specialise and present themselves as an 'Entreprenasium' – in which students can run their own enterprise and teachers learn to develop entrepreneurial attitudes and behaviours ⁽¹¹⁹⁾ – or as a 'Technasium' in which technology is often combined with innovative entrepreneurship, e.g. by working with external clients. Besides, school themselves can also offer different programmes to stimulate entrepreneurship among students.

An extensive range of practical entrepreneurial experiences is available across the **United Kingdom**. MyBnk – a UK-wide charity – teaches young people how to manage their money and set up their own business ⁽¹²⁰⁾. Young Enterprise is a not-for-profit business and enterprise charity which helps young people learn about business and the world of work through a range of programmes ⁽¹²¹⁾. Young Enterprise works in England and Wales ⁽¹²²⁾ whilst in Scotland ⁽¹²³⁾ and Northern Ireland ⁽¹²⁴⁾ there are independent organisations which work in partnership with it. In Northern Ireland, its programmes are mapped to the Northern Ireland curriculum. During primary education, they culminate in the 'Business Beginnings' programme which allows pupils aged 8 to 11 years to get real business experience by setting up and running their own company. Similar projects exist in secondary education. In England, one of the first tasks of the Careers and Enterprise Company ⁽¹²⁵⁾, established in February 2015, with the aim of transforming the provision of careers education and advice for young people and inspire them about the opportunities offered by the world of work, will be to develop an enterprise passport (a student owned digital record of extra-curricular and enterprise-related activities).

National calls for proposals aiming to raise pupils' entrepreneurial skills also exist, such as in Estonia, where Enterprise Estonia publishes an annual national call for proposals for improving entrepreneurial attitudes among young people. Several NGOs apply and organise student workshops at national or regional level.

Another means through which pupils can get the chance to participate in a practical entrepreneurial experience are 'best ideas' or business competitions. They are already being run in many European

⁽¹¹⁸⁾ <http://www.penworldwide.org/>

⁽¹¹⁹⁾ www.entreprenasium.nl

⁽¹²⁰⁾ <http://mybnk.org/>

⁽¹²¹⁾ <http://www.young-enterprise.org.uk/>

⁽¹²²⁾ <http://www.young-enterprise.org.uk/>

⁽¹²³⁾ <http://www.yes.org.uk/>

⁽¹²⁴⁾ <http://www.yeni.co.uk/>

⁽¹²⁵⁾ <https://www.careersandenterprise.co.uk/>

countries, in a variety of ways. Of course, this is clearly an extra-curricular activity which is limited in scope and in terms of participation numbers, as it generally involves a pupil selection process. Another limitation is that rather than attracting the average pupil, there is bias to 'self-selection', meaning that the pupils with the most developed entrepreneurial skills are probably the ones who apply. Nevertheless, these competitions can be interesting in terms of the methods used and in motivating pupils, as the following examples show.

In **Austria**, the objective of the idea competition 'Next Generation' is that students in vocational education work on their own ideas but they are put in contact with business coaches. At the 'Festivals of Ideas', students and teachers learn about other students' ideas.

In the **United Kingdom**, there are a number of national initiatives which provide pupils with entrepreneurial activities. They include, amongst others: 'Tycoons in Schools' – a national enterprise challenge in schools. The competition allows students to start and run a business whilst at school or college, thereby allowing them to gain valuable hands-on experience of what is involved in running a business⁽¹²⁶⁾. Other examples are the 'Enterprise Challenge Programme', giving schools the opportunity to set up and manage a business⁽¹²⁷⁾; the 'Tenner Challenge'⁽¹²⁸⁾ is a business competition and micro-financing initiative for young people aged 11-19 who want to get a taste of what it's like to be an entrepreneur. It gives them a chance to think of a new business idea and make it happen, using real money (GBP 10), thus to take calculated risks in the business field, make a profit – and use this to make a difference to the community⁽¹²⁹⁾; the 'Fiver Challenge'⁽¹³⁰⁾ provides similar opportunities for primary school pupils (aged 5-11 years). Both programmes operate across all four part of the United Kingdom. In Wales, 'Enterprise Troopers'⁽¹³¹⁾ is a national primary school competition to encourage enterprise in primary schools.

In **Iceland**, the 'Entrepreneurial Student's Competition' (*Nýsköpunarkeppni grunnskólanemenda*) is for 10 to 12 year-olds and is run all year round. The main goal of the competition is to activate children's creativity across the country. Each spring, a workshop takes place where all ideas that made it to the finals are produced with the assistance of an instructor. The workshop ends with a grand final celebration.

Several countries (Portugal, Austria, Denmark, Luxembourg and Slovenia) are currently implementing a European Erasmus+ project, called 'Youth Start – Entrepreneurial Challenges'⁽¹³²⁾. The programme aims to promote entrepreneurship education through a challenge programme and to evaluate its impact on students (assessment tools and indicators for entrepreneurship education – ASTEE⁽¹³³⁾). The objective is to create a new method of teaching entrepreneurial skills, to implement it in primary, lower and upper secondary schools and to scale it up. Strong stakeholder engagement, effective teacher training and research in the field of entrepreneurial schools are some of its main actions. The final objective is to gather evidence that the entrepreneurial skills taught through this kind of programme are effective in strengthening students' transversal skills.

Finally, there are regional initiatives supported by the South Eastern Europe Centre for Entrepreneurial Learning (SEECLE) in Bosnia and Herzegovina, Montenegro, the former Yugoslav Republic of Macedonia and Serbia to encourage entrepreneurial experiences and entrepreneurial schools (see Section 2.2.3).

⁽¹²⁶⁾ <http://www.tycooninschools.com/>

⁽¹²⁷⁾ <http://www.nationalenterprisechallenge.co.uk/>

⁽¹²⁸⁾ <http://www.tenner.org.uk/>

⁽¹²⁹⁾ <http://www.tenner.org.uk/>

⁽¹³⁰⁾ <http://www.fiverchallenge.org.uk/>

⁽¹³¹⁾ <http://enterprisetroopers.com/homepage/>

⁽¹³²⁾ <http://www.youthstartproject.eu/#>

⁽¹³³⁾ <http://asteeproject.eu/assessment-tools>

3.3. Learning outcomes related to entrepreneurship education

There is a strong rationale for ensuring that explicit learning outcomes are established for entrepreneurship education. Firstly, it helps to distinguish it as a clear area of teaching and learning. Secondly, it allows pupils to know what is expected of them, which will enable them to develop the required skills. Finally, it helps teachers to structure and organise their teaching and paves the way for formalised assessment.

However, entrepreneurship education is a complex area. As a key competence it is broad and multi-faceted and therefore linked to a whole array of specific learning outcomes. As discussed earlier (see Chapter 1), there are differences in the national definitions and understanding of entrepreneurship education, consequently, it is to be expected that these differences are reflected in how learning outcomes are formulated and which areas they cover.

Previous surveys, among which the 2012 Eurydice report on *Entrepreneurship Education at School in Europe* ⁽¹³⁴⁾, but also the outcomes of the Thematic Working Group on Entrepreneurship Education ⁽¹³⁵⁾, show that learning outcomes linked to entrepreneurship are still in development in most European countries. This means that while some elements can be found at certain education levels, a comprehensive and coherent approach is still lacking.

A European reference framework for the key competence 'a sense of initiative and entrepreneurship' is currently being developed ⁽¹³⁶⁾; therefore, there was no common framework on which to draw for the present report. Still, there are several examples of national/regional reference frameworks for entrepreneurship as well as European organisations and projects ⁽¹³⁷⁾, which have developed their own framework ⁽¹³⁸⁾. At European level, the Thematic Working Group has paid special attention to this area and has developed reference frameworks for some areas of entrepreneurship education. Finally, the European project ASTEE has developed an assessment tool for entrepreneurial skills, which also proposes categories of learning outcomes ⁽¹³⁹⁾.

Based on these existing tools, European countries have been asked to identify learning outcomes according to three categories:

- entrepreneurial attitudes (self-confidence and a sense of initiative);
- entrepreneurial skills (creativity, planning, financial literacy, managing resources, managing uncertainty/risk, teamwork); and
- entrepreneurial knowledge (how to assess opportunities, the role of entrepreneurs in society and entrepreneurial career options).

⁽¹³⁴⁾ EACEA/Eurydice, 2012.

⁽¹³⁵⁾ European Commission, 2014.

⁽¹³⁶⁾ This project as well as additional research in the field is being conducted on behalf of the DG EMPL by DG JRC IPTS. <https://ec.europa.eu/jrc/en/entrecomp?search>

⁽¹³⁷⁾ <http://www.seecel.hr/UserDocsImages/isced-1>

⁽¹³⁸⁾ For example Denmark, Austria and the United Kingdom (Wales).

⁽¹³⁹⁾ http://archive.ja-ye.org/Download/jave/ASTEE_REPORT.pdf

Entrepreneurial attitudes: self-confidence

Learning outcomes related to the entrepreneurial attitude of self-confidence are quite widespread across European school curricula. As an element of socialisation, fostering self-confidence is also a general educational objective, not only applicable to entrepreneurship. It can be expressed in a number of other ways, ranging from self-knowledge, to self-awareness, self-esteem, self-affirmation, assertiveness, or a feeling of mastering a skill. To be more specifically related to entrepreneurship, it should be expressed and understood in relation to tasks or actions.

As an illustration, in primary education in the German-speaking Community of Belgium, this is formulated as 'Identifying and describing own interests, strengths and weaknesses', which is closer to self-awareness than actual self-confidence, whereas in Spain it is more concretely stated that 'the pupil shows self-confidence (...) which allows him/her to take action according to the circumstances'.

Entrepreneurial attitudes: a sense of initiative

A 'sense of initiative' is at the core of entrepreneurship education as defined in the European recommendation on key competences. Therefore, it is often found in curriculum areas explicitly referring to entrepreneurship education, whether in the curricula of compulsory or optional subjects or in cross-curricular themes. When looking at it from the angle of learning outcomes, it is closely related to problem-solving, as well as to taking responsibility, or it is simply formulated as 'being enterprising' or 'pro-active'. In primary education in France for example, this means that each pupil needs 'to be able to identify a problem and work out steps to solve it'. In upper secondary, in the Czech Republic, the pupil is expected to 'apply a proactive approach, his/her own initiative and creativity, and to embrace and support innovation'.

Entrepreneurial skills: creativity

Creativity, understood as the ability to think in new and imaginative ways, is an essential ingredient and a motor for the idea generation and innovation process involved in any entrepreneurial activity. It can also be understood to mean a creative approach to problem-solving. Unlike the more usual understanding of creativity, it is not understood in this context to be just a personal trait or gift, but as something that can also be learned and developed⁽¹⁴⁰⁾. Creativity in the curriculum is more closely associated with entrepreneurial skills where it is expressed in the sense of developing useful ideas.

However, it seems more difficult to find clearly stated learning outcomes linked to creativity. Sometimes it is rather a general aim of school education, promoted across the curriculum, as in Latvia, Lithuania and Romania, for example. In other countries, a more practical understanding of creativity is reflected in the formulation of learning outcomes, such as in primary education in Slovenia, where pupils 'learn to plan, sketch, create and test products and recommend improvements'. In general upper secondary education in Montenegro, the curriculum states that students 'should apply creative techniques to solving problems and developing innovative solutions'.

Entrepreneurial skills: planning

The ability to plan and structure tasks can be seen as a skill that keeps the idea generation and innovation process going. It enables ideas to be turned into actions, taking into account actual circumstances and resources. However, taken out of the context of entrepreneurship education, it can also have a narrower meaning, where it is linked only to organisational changes.

⁽¹⁴⁰⁾ CF De Bono (1992), Redecker et al. (2011) and Runco (1991).

In lower secondary education in Estonia, for example, a pupil should be 'capable of planning and evaluating his or her activities and, to attain the [desired] result, [should] select and implement the necessary actions'. In initial vocational education in Spain, there is a direct link with business, as 'the student is able to draft a company plan for production, organisation and human resources, together with a relevant [business] plan'. In the Slovak Republic, the understanding is broader, and general upper secondary students should be able to 'plan and manage new projects in order to achieve objectives, not only in work, but also in everyday life'.

Entrepreneurial skills: financial literacy

Understood as the ability to understand financial statements and budgets, financial literacy relates to skills for managing personal finance as well as providing the basis for managing business operations. It is often part of the learning outcomes related to the narrower definition of entrepreneurship education, focusing on business skills. It appears to be one of the skills that is easier to translate into observable and measurable learning outcomes than other aspects of entrepreneurship education. This may pose a danger for the effective implementation of entrepreneurship as a key competence, as it may be tempting for curriculum authorities to focus on the elements that are easy to teach and assess, to the detriment of other essential skills. A survey run by the Thematic Working Group on Entrepreneurship Education in 2013 showed that financial literacy was the most prominent aspect of the subject covered by participating countries⁽¹⁴¹⁾. This confirms a certain bias towards the narrower, business-oriented learning outcomes, which is somewhat contradictory to the general trend in Europe, which points to a broader understanding of entrepreneurship education. However, the focus in delivering financial literacy can either be more theoretical (focusing on financial knowledge) or more practical (focusing on financial skills). The latter is the case in Norway where, at general upper secondary level, pupils should 'calculate financing costs; [and] prepare recommendations for the financing of different projects'.

Entrepreneurial skills: managing resources

Managing resources is the ability to assemble and organise resources for a particular purpose, such as a business, or other opportunity. This seems to be quite specific and is therefore less visible in European school curricula as an explicit learning outcome. It is rarely tackled in the context of pursuing a business idea. The more common understanding of managing resources in curricula seems to be related to the responsible use of (natural) resources and sustainable development, which on its own, does not equate to entrepreneurship education. However, some examples of this learning outcome in the context of entrepreneurship education can be found.

In Romania, for example, at lower secondary level, the managing resources learning outcome involves 'describing the main elements of family income and expenditure and for carrying out a family business'. In Estonia, at general upper secondary level, pupils should 'understand how people make decisions to allocate limited resources and consider the financial cost of any business opportunity'. In initial vocational education in Spain, 'the student is able to identify business ideas and recognise opportunities for the creation of new companies, assessing probabilities and available resources, as well as understanding the possible impact on the community from an ethical perspective'.

⁽¹⁴¹⁾ European Commission, 2014, p. 36.

Entrepreneurial skills: managing uncertainty/risk

The ability to cope with uncertainty and risk in the process of implementing and exploiting an idea is a skill commonly associated with entrepreneurs and is another essential ingredient of entrepreneurship education. It is also a difficult one in terms of teaching and learning, as it is not easy to acquire or develop this skill on a theoretical basis. Instead it needs exposure to and experience of uncertain situations, which may be provided through educational projects.

Some concrete examples from European curricula include the German-speaking Community of Belgium, where initial vocational education students are asked to 'identify the different investment opportunities and their risks and learn to implement them depending on the situation'. Similarly, in the Czech Republic, at general upper secondary level, a student 'judges and critically evaluates the risks related to making decisions in real-life situations and is ready to bear these risks if necessary'; in Austria, a pupil in vocational education should be able to 'assess and interpret the opportunities and risks of entrepreneurial independence, and identify and evaluate the risks of business decisions and use suitable risk-management methods'; in Poland, 'while preparing their own project' students 'gather market information [and] find and analyse threats and risks to their own project'. This last example shows how this can be formulated as an essentially practical activity.

Entrepreneurial skills: teamwork

As with learning outcomes related to self-confidence, teamwork is a broader objective that can be embedded in any area of the curriculum, not only as a learning outcome, but also as a mode of learning. It is important not to confuse these two aspects. In this sense, on its own, it is not specific to entrepreneurship education. But, within context, it is an essential skill, to be developed alongside all the others. It also involves other related skills such as communication, negotiation and decision-making.

In Montenegro, for example, a student in primary and lower secondary education should 'possess the ability to work individually and in teams' and 'demonstrate the ability to make decisions with others'. In general upper secondary education, a student also should 'be a proactive member of a group, demonstrate an ability to communicate with a group, discuss ideas and negotiate with others'. In lower secondary education in Spain, 'the student is able to organise group work and to establish operational rules which promote participation, motivate group members and contribute to the attainment of the group's goals'.

Entrepreneurial knowledge: how to assess opportunities

Generally speaking, there is a longer tradition within education systems of teaching and assessing entrepreneurial related knowledge rather than entrepreneurial skills or attitudes. The issue has usually been addressed through the subject of economics or through specific entrepreneurship subjects in secondary and vocational education. As a result, the learning outcomes in this area may be considered easier to embed in curricula and teaching methods than those relating to entrepreneurial skills and attitudes, which require a more innovative and practical teaching approach. Within the European ASTEE project, one of the areas identified as being important is knowing how to identify and assess opportunities, and understanding how the economy functions.

As an illustration, the Austrian curriculum on career guidance states that students should be able to 'identify and seize opportunities'. In Spain, in school-based IVET, students 'evaluate different business opportunities on the basis of possible ideas, taking into consideration the situation and evolution of the sector [in order] ...to respond to market demands'. In Finland, students 'find sources of financing for their business idea and carry out a cost benefit analysis'.

Entrepreneurial knowledge: role of entrepreneurs in society

Another area identified within the ASTEE project is knowledge of the role and function of entrepreneurs in society, including an understanding of ethics in business. This is not the same as understanding what an enterprise is, or the rights and obligations of an entrepreneur. There are very few examples of explicit learning outcomes related to the role of entrepreneurs but where they do exist, as with 'assessing opportunities', they are often attached to the subject of economics or to specific entrepreneurship subjects in secondary and vocational education.

Some examples at lower secondary level can be found in Poland, where students have to present 'how entrepreneurship helps to meet economic needs', and Slovenia, where 'pupils are aware of the importance of enterprises for the development of society'. In Estonia, at general upper secondary level, students 'understand the responsibility of private individuals, companies and the state in the context of solving global issues'. In Spain, at the same level, the student is 'able to examine business activity as an element of progress, and appreciate its capacity to generate value for society and for its citizens'. In Turkey, students 'explain the social responsibilities of entrepreneurs'. Students 'explore the attributes of entrepreneurs and the role of enterprise in wealth creation' across the curriculum, in the United Kingdom (Wales).

Entrepreneurial knowledge: entrepreneurial career options

Finally, another area of knowledge covers entrepreneurial career options. In terms of learning outcomes, this means understanding that there are different reasons why people start a business, e.g. to make money, to help others or to do something different. This is a first step in enabling students to eventually identify, for themselves, career options in business/social entrepreneurship. Often this is addressed within the area of preparation for the world of work, which on its own, however, is not specific enough for the purposes of this report. Therefore, there are very few examples in European school curricula of explicit learning outcomes related to entrepreneurial career options.

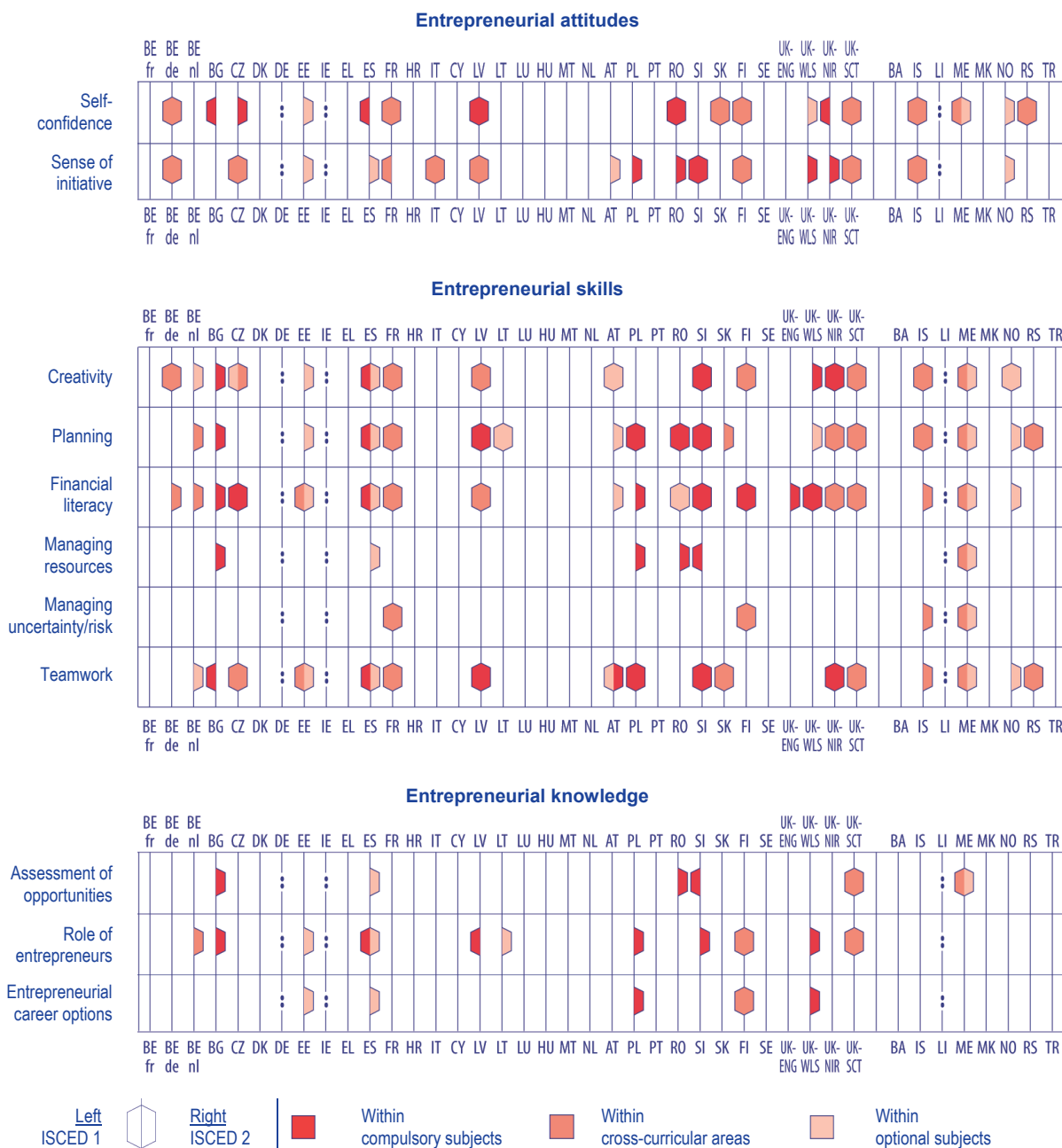
In general upper secondary and initial vocational education, however, in Poland, students 'prepare a draft of their business plan'. In Montenegro, students should 'identify various forms of entrepreneurship, determine priorities at personal and social level, and explain the role of social entrepreneurship in creating a sustainable society'. In initial vocational education in the German-speaking Community of Belgium, students 'create a life plan and identify the reasons for going into business for themselves and [understand] the regulations involved'.

3.3.1. Learning outcomes in primary and lower secondary education

Figure 3.7 shows, by category, the distribution of learning outcomes for entrepreneurship education in primary and lower secondary education. It also indicates whether the outcomes are linked to compulsory, optional or cross-curricular areas of the curriculum.

The data show that entrepreneurial learning outcomes are explicitly referred to in around half of European countries/regions in primary and lower secondary education. Learning outcomes related to entrepreneurial attitudes, as well as to the skills of creativity, planning, financial literacy and teamwork are present in nearly half of the countries/regions. Among these, financial literacy seems to be the most common, particularly in lower secondary education. In contrast, learning outcomes related to the skills of managing resources and managing uncertainty/risk, as well as those related to entrepreneurial knowledge, especially assessing opportunities and entrepreneurial career options, are much rarer. Within the area of entrepreneurial knowledge, only the role of entrepreneurs in society stands out as a theme which occurs in slightly more countries/regions.

Figure 3.7: Learning outcomes for entrepreneurship education in primary and lower secondary education, 2014/15



Source: Eurydice.

Country-specific notes

Denmark: In 2014, learning outcomes for entrepreneurship education are not explicitly expressed in curricula. They are more implicitly embedded as part of the main objectives of subjects. The new school reform expresses entrepreneurship education as a cross-curricular approach throughout all grades with clear progression.

Croatia: The National Framework Curriculum (NFC) stipulates that entrepreneurship education should be integrated in ISCED 0-3 curricula as a cross-curricular topic and include specific objectives. However, the development of actual school curricula to implement this requirement of the NFC has not yet been completed.

Malta: A Learning Outcomes Framework is currently being developed, including learning outcomes for entrepreneurship education.

Portugal: A curriculum guidance document for entrepreneurship education is under development; it will contain performance descriptors such as entrepreneurial knowledge, skills and attitudes that will apply from pre-school to upper secondary education.

Bosnia and Herzegovina: Learning outcomes are defined for lower secondary education, but they are not integrated officially in curricula. Learning outcomes for primary education are defined through the regional SEECEL project and are being used in four pilot schools.

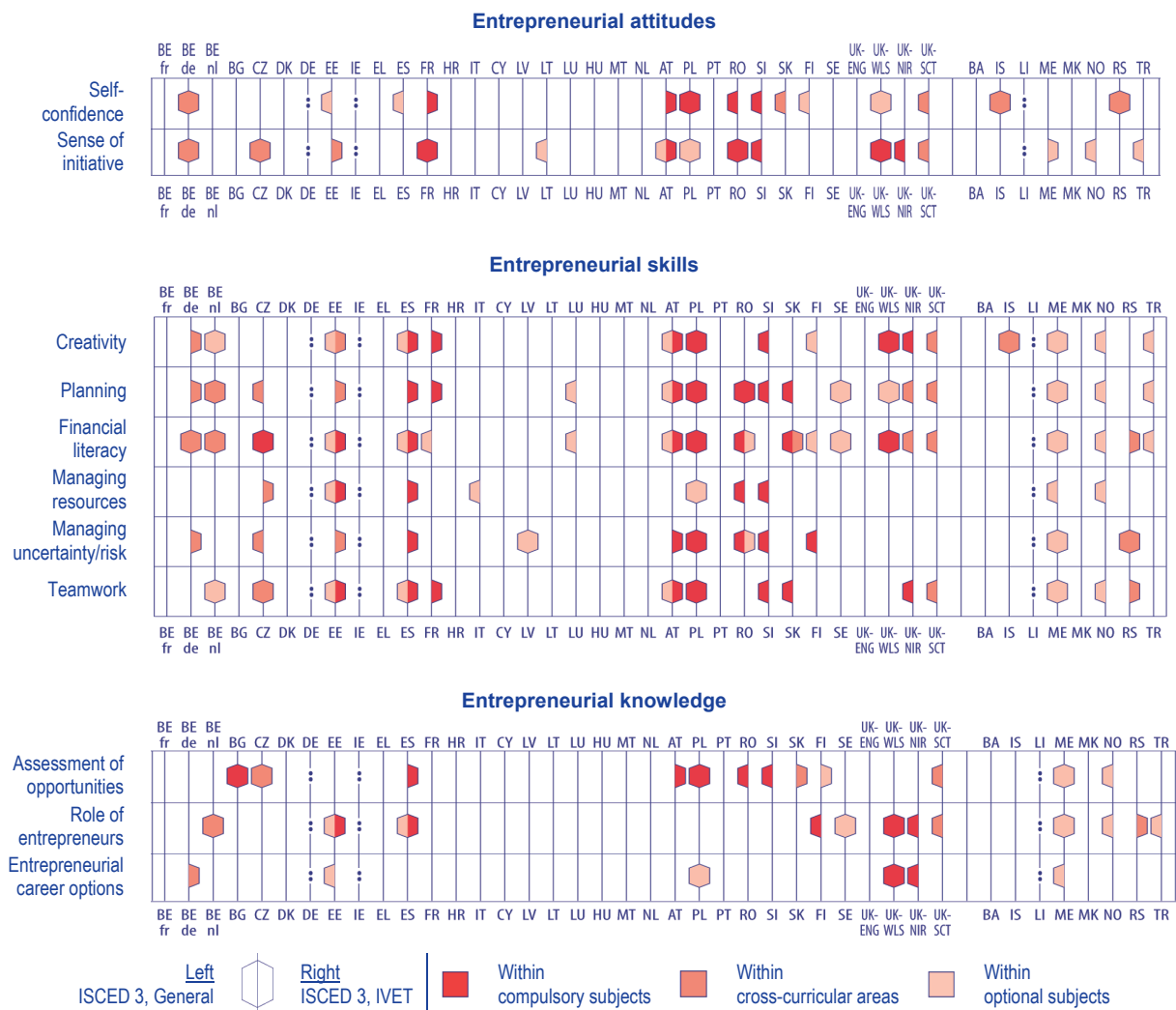
Countries differ in the degree to which learning outcomes for entrepreneurship education have been adopted. Many countries have a few examples of related learning outcomes, but they do not cover the whole range, nor do they cover all three categories of attitudes, skills and knowledge. Few countries/regions have a broader range of entrepreneurial learning outcomes. Where this does occur, it is in countries which have entrepreneurship as a specific subject, as in Estonia, Spain and Montenegro (optional in lower secondary education) and in Romania (compulsory in lower secondary). In addition, countries where entrepreneurship is a cross-curricular theme also have a greater number of learning outcomes linked to entrepreneurship, as in Estonia, France, Finland, the United Kingdom (Scotland), Iceland, Montenegro and Norway. Finally, some of the countries/regions that teach entrepreneurship within wider compulsory subjects also address a substantial number of the entrepreneurial learning outcomes (Bulgaria, Spain, Latvia, Poland, Slovenia and the United Kingdom (Wales and Northern Ireland)).

3.3.2. Learning outcomes in general upper secondary education and school-based IVET

Figure 3.8 examines the distribution of entrepreneurial learning outcomes in general upper secondary education and school-based IVET. Overall, curricula at these higher levels of education do not contain significantly more learning outcomes related to entrepreneurship education than at the lower levels. There are, however, differences when looking at individual categories. Around 20 countries/regions have learning outcomes related to entrepreneurial attitudes at both primary and/or lower secondary education as well as in general upper secondary education and/or school-based IVET. However, there are slightly more examples of learning outcomes related to one or both categories of entrepreneurial attitudes at the lower education levels. Regarding skills, for the first three listed in the figure (creativity, planning and financial literacy), the number of countries with learning outcomes is roughly the same, while fewer countries include the last one, namely, teamwork, at higher levels of education. In contrast, learning outcomes linked to some skills, i.e. managing resources and managing uncertainty/risk, as well as to the area of knowledge encompassing the assessment of opportunities, none of which are very common in primary and lower secondary education curricula, can be found in twice as many countries at the upper level. For the remaining types of knowledge and skills, i.e. creativity, planning, financial literacy, the role of entrepreneurs in society and entrepreneurial career options, the picture is broadly the same.

Looking more closely at individual countries, some stand out for having incorporated many different entrepreneurial learning outcomes. Estonia, Spain, Poland, Romania, Slovenia, Finland, the United Kingdom (Wales, Northern Ireland and Scotland), Montenegro and Norway fall into this bracket at upper secondary as well as at the lower educational levels. In terms of establishing continuity and progression across educational levels and into lifelong learning, this is rather a good indication. In Estonia and Montenegro, these learning outcomes are again linked to cross-curricular objectives and optional subjects. In the German-speaking Community of Belgium (school-based IVET), the Czech Republic and the United Kingdom (Scotland) (general upper secondary education), they are linked to its cross-curricular approach to entrepreneurship education. In Estonia, Spain, Austria, Poland, Romania, Slovenia, Finland, the United Kingdom (Wales and Northern Ireland), Montenegro and Norway, a broader range of entrepreneurial learning outcomes are embedded in the curricula as they are both integrated within separate entrepreneurship subjects and/or other subjects.

Figure 3.8: Learning outcomes for entrepreneurship education in general upper secondary education and school-based IVET, 2014/15



Source: Eurydice.

Country-specific notes

Denmark: In 2014, learning outcomes for entrepreneurship education are not explicitly expressed in curricula. They are implicitly embedded as part of the main objectives of subjects, and as part of compulsory cross-curricular projects.

Croatia: The National Framework Curriculum (NFC) stipulates that entrepreneurship education should be incorporated in ISCED 0-3 curricula as a cross-curricular topic, including specific objectives. However, the development of actual school curricula to implement this requirement of the NFC has not yet been completed.

Malta: A Learning Outcomes Framework is currently being developed, including learning outcomes for entrepreneurship education.

Portugal: A curriculum guidance document for entrepreneurship education is under development; it will contain performance descriptors such as entrepreneurial knowledge, skills and attitudes, which will apply from preschool to upper secondary education level.

Slovenia: Data on learning outcomes in school-based IVET are not available.

Bosnia and Herzegovina: Learning outcomes are defined for upper secondary education, but they are not officially integrated into curricula.

In general, as discussed in Section 3.1.2, there are more specific entrepreneurship courses at general upper secondary level and in school-based IVET, often optional but sometimes compulsory. Where these are optional, as in Estonia, Montenegro and Norway, only the students choosing these specific optional subjects will achieve the related learning goals. Where they are compulsory, as in Spain (school-based IVET), Austria (school-based IVET), Poland, Romania and Slovenia, it is likely to have an impact on more students.

3.3.3. Coherence and progression in learning outcomes

As well as identifying which learning outcomes are linked to entrepreneurship education in European school curricula, evidence has also been gathered as to how these outcomes are structured to ensure continuity and progression. Entrepreneurship education as a key competence is understood to be part of a lifelong learning process that encompasses transversal skills. Consequently, learning outcomes need to be arranged horizontally, across the curriculum, and vertically, to ensure progression throughout all levels of education.

This report confirms previous research in that it shows that learning outcomes linked to entrepreneurship education are still fragmented in most education systems. Progression may have been achieved in one category of learning outcomes, but not in others. In general, curricula include elements of entrepreneurial learning, but very few show a more structured, lifelong learning approach.

For example, when taught as a cross-curricular theme, there are very few connections between subjects which link the learning outcomes to provide a more meaningful learning experience. Whether these do exist largely depends on the willingness of (subject) teachers to cooperate with one another. Several subjects may contribute to the attainment of entrepreneurship related learning outcomes, but often there is no clear indication on how these may be developed simultaneously and in a coordinated way across different subjects at the same level or during the school year.

Also, as discussed in Section 3.2, offering practical entrepreneurial experiences such as through the setting up of mini-companies, can be a good way to ensure that all entrepreneurial learning outcomes are covered during the learning process. They combine entrepreneurial learning objectives with an entrepreneurial teaching methodology.

Progression through the successive levels of education is often inherent to the (age-appropriate) logic of curricula, where subjects, content and tasks start at the most basic level and progress to the more complex. In Bulgaria and Austria, for example, this is called the 'spiral approach'. Consequently, when learning outcomes for entrepreneurial skills are included in subjects with continuity in the curriculum, progression is natural. The following examples show this:

In **Estonia**, the cross-curricular topic 'Civic Initiative and Enterprise' shows a clear progression from one level to the other. At primary level, years 1-3, learning focuses on cooperation and joint decision-making. The learning process can take place through pupils' voluntary activities, such as neighbourhood clean-ups, the organisation of community events, etc. In years 4-6, learning is intended to support the development of pupils' initiative and to offer them opportunities for and assistance with joint initiatives. Pupils are directed towards finding creative solutions to problems they are able to tackle and they are helped to learn from experience that there is a need for and benefit to be gained by joint effort. At lower secondary level, learning focuses on how the different sectors in society (public, private and non-profit) function and how they are connected. Pupils are encouraged to participate in local community activities so that they can understand the notion of 'citizens' initiative', experience volunteer work, become motivated and develop enterprise skills. At general upper secondary level, learning is focused on developing the knowledge and skills to participate effectively in the political and economic decision-making process at the local and national level. Therefore, through classroom and extra-curricular activities as well as through project work, pupils' awareness of political and economic systems is being developed.

In **Spain**, many Autonomous Communities offer a variety of programmes on the personal, social, cultural and business dimensions of entrepreneurship education for students as they progress through the various years and stages of the education system. There is a progressive change in the focus of objectives from the development of personal entrepreneurial competences in the first stages of education, towards the acquisition of specific skills related to the creation and running of companies in lower and upper secondary education (both general and vocational).

In the **United Kingdom (Scotland)**, learning experiences and outcomes describe progress in learning through levels and may apply to learners at various stages of their educational development. For example in the social studies curriculum area, the aim to 'develop an understanding of concepts that stimulate enterprise and influence business' demonstrates progression through five levels. At early level, usually associated with pre-school years and early primary education or later for some, it says: 'In real-life settings and

imaginary play, I explore how local shops and services provide us with what we need in our daily lives'. At first level (usually primary 2 to 4 but earlier or later for some) pupils should have 'developed an understanding of the importance of local organisations in providing for the needs of [my] local community'. At lower secondary level, the curriculum continues with: 'through exploring ethical trading, [I can] understand how people's basic needs are the same around the world, discussing why some societies are more able to meet these needs than others'. In lower and upper secondary education ('Third level'), there is progression to: 'when participating in an enterprise activity, [I can] explore ethical issues relating to business practice and gain an understanding of how businesses help to satisfy needs.' And finally, at the Fourth level: 'I can critically examine how some economic factors can influence individuals, businesses or communities.'

In **Norway**, the subject 'Entrepreneurship and Business development' (EBD), for example, builds up skills progressively: in year 1 of upper secondary education, a competency target under 'Running a business' requires pupils to 'describe the development process for creating a product'; and in year 2 the competency target under 'Business development' asks pupils to: 'evaluate the further development of a business idea'.

Also in some countries, especially where entrepreneurship education is taught within specific separate subjects, the progression follows a 'subject logic', where the same subject evolves over several educational levels.

In **Poland**, for example, in the core curriculum for 'Knowledge of society', it is laid down that among six main learning outcomes, five are repeated in a more developed and in-depth form at consecutive educational levels. The sixth learning outcome is linked to the specific teaching content of the given level.

There are some examples of a more strategic approach towards building entrepreneurial skills in a coherent and lifelong way. The actual state of implementation still needs to be proven.

The Action Plan of the **Flemish Community of Belgium**, a specific strategy for entrepreneurship education, indicates how schools could design their curriculum to accommodate this subject: 'Entrepreneurial education must be incorporated in all courses of study and all education levels. However, it is important to clearly set which objectives of entrepreneurial education must be dealt with in which phase of life. (...) Entrepreneurship should be developed progressively (...). Nursery education (should develop an entrepreneurial spirit and positive imaging); primary education (should build on earlier work adding basic economic awareness and the importance of enterprises for society). Secondary education (should build on earlier work, adding entrepreneurship: the individual choice of each pupil)'.

In **Denmark**, the Danish Foundation for Entrepreneurship (FFE) has set up a framework for a possible model of progression throughout the education system. It has been used in the national guidelines that apply to primary and lower secondary education, and has also provided the basis for the development of entrepreneurship education in general upper secondary and school-based IVET.

In **Austria**, there is a clearly defined model of entrepreneurship education in use, called the 'TRIO Model for Entrepreneurship Education'. It was developed by the EESI-Impulse Centre (Entrepreneurship Education for School Innovation) and funded by the Ministry for use in schools, particularly in vocational education. This model advocates a gradual development of the entrepreneurship competence, where pupils start by undertaking a basic entrepreneurial experience and gain a basic understanding of the issues before an entrepreneurial culture and mind-set can emerge. The model comprises three levels: Level 1 is concerned with establishing a basic understanding of entrepreneurial learning and familiarisation with developing ideas and putting them into practice; Level 2 deepens the core education through more advanced activities seeking to consolidate/encourage an entrepreneurial culture; Level 3 is about encouraging a culture that promotes maturity, autonomy, personal responsibility and solidarity (value basis). The ultimate goal is to create a sustainable and dynamic civil society of citizens.

In the **United Kingdom (Wales)**, the framework for Careers and the World of Work (CWW) is a compulsory part of the curriculum for 11-19 year olds and an element of the 'learning core' for 16-19 year olds. It includes range statements at each stage of learning which include entrepreneurial skills and awareness.

Not surprisingly, the last three examples are drawn from countries/regions (Denmark, the United Kingdom (Wales), and Austria) that have already developed a reference framework for entrepreneurial skills, while the first example comes from a region with a specific strategy (the Flemish Community of Belgium).

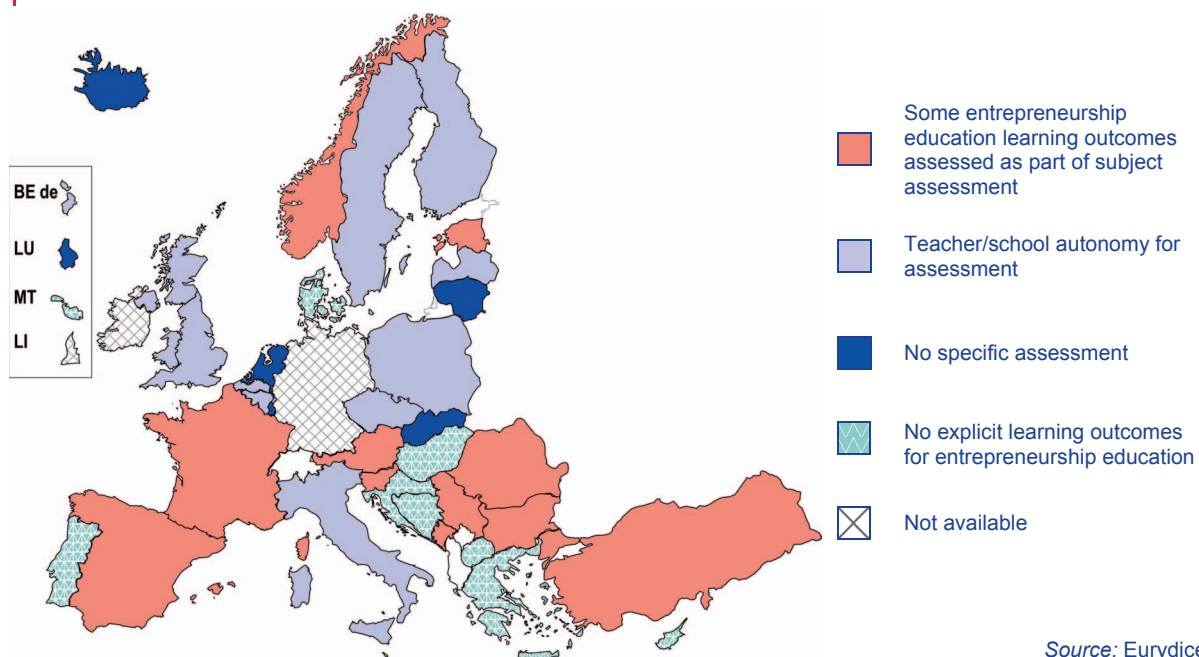
3.3.4. Assessment of learning outcomes related to entrepreneurship education

Finally, countries have been asked whether the identified learning outcomes related to entrepreneurial skills are being assessed, and if so, how this is being carried out. In fact, the assessment of transversal skills is still in its early stages of development in Europe and only a few countries/regions (Denmark, Austria, the United Kingdom (Wales), and the South East European region through the South East Europe Centre for Entrepreneurial Learning (SEECEL)) have so far produced a reference framework for the key competence 'A sense of initiative and entrepreneurship'. Indeed, the definition of learning outcomes is the first step towards assessment.

However, if this key competence is to be recognised as an important learning experience for all pupils and students, assessment is essential. Moreover, as entrepreneurship is a broad and multi-faceted key competence, it not only requires innovative teaching but also innovative methods of assessment.

The findings of this report seem to confirm previous research, showing that entrepreneurial attitudes, skills and knowledge are not specifically assessed. Assessment is usually linked to specific subjects that may or may not include learning outcomes related to entrepreneurship education. It is therefore difficult to track which specific learning outcomes are being assessed.

Figure 3.9: Assessment of learning outcomes related to entrepreneurship education, 2014/15



Source: Eurydice.

Country-specific notes

Malta: A new Learning Outcomes Framework and Learning Assessment Programmes are being developed and are planned to be implemented by 2016/17.

Austria: The assessment examples are taken from the curriculum of a vocational school. Not all curricula are competence-oriented yet, but in 2014, many competence-oriented curricula became law and others are going to follow.

In countries which have a separate entrepreneurship subject, a number of learning outcomes are obviously being assessed as part of the assessment of the subject itself. But when entrepreneurship is taught as a cross-curricular topic, it is difficult to find evidence of the assessment of specific entrepreneurship-related learning outcomes.

In a dozen education systems, while there are general regulations on assessment, teacher and school autonomy means that decision-making and actual practices vary on the ground and, consequently, it is more difficult to gather information on the matter.

There are only a few examples of more specific recommendations or guidance on assessing entrepreneurial learning.

In Spain, at **central level**, a regulation issued in January 2015 advises the use of portfolios '[...] since they provide comprehensive information regarding student learning, they contribute to on-going evaluation and allow for the sharing of relevant learning outcomes. The portfolio is a motivating tool for students, since it fosters their autonomy and develops their critical thinking'.

In **Cantabria**, one of Spain's Autonomous Communities, for example, the curriculum for the optional subject 'Entrepreneurship Culture' (4th year of lower secondary education) proposes to 'diversify the assessment methods used and the situations in which it takes place, with a view to promoting its formative character, and taking into account, amongst other things: observation of students, individual and group work, assessment of cooperation and participation in activities, as well as oral or written exams, which should guarantee that not only concepts, but also values, attitudes and procedures are being evaluated'.

In **France**, the common base of knowledge and skills, which includes autonomy and a sense of initiative, is evaluated through a personal skills booklet (*Livret Personnel de Compétence*). Furthermore, supervised individual work, which also includes entrepreneurial learning outcomes, runs for one year, and is presented to teachers and to a panel at the end.

In other countries, although there is no direct reference to entrepreneurial learning, more innovative assessment methods are recommended, besides the traditional ones. Several countries, namely the three Communities of Belgium, Austria, Portugal, Romania, the United Kingdom and Turkey, have already been using e-portfolio assessment in schools, others are piloting it (Bulgaria, France, Greece and Iceland) (European Commission, 2012b).

Moreover, in **Romania**, the syllabus for the subject 'Personal Development' in primary education specifies that 'the evaluation represents an important component of the learning process; (...) it is carried out from several perspectives: the teacher, pupils themselves (self-evaluation) and colleagues (peer evaluation). (...) Several evaluation methods are recommended, such as: practical activities, individual and group projects, posters/drawings/collages, portfolios'. Evaluation is understood as an evaluation of the learning process. In addition to cognitive development, it takes into consideration other indicators such as personality, conduct, attitudes, practical application of what has been learnt and relationships. Various evaluation techniques are used. The evaluation process focuses on positive aspects instead of negative ones, and transforms the pupil into a partner in the evaluation process, by using self-evaluation, peer evaluation and controlled evaluation.

In **Montenegro**, besides oral and written assessments, students are also evaluated on their participation in group work, in terms of their engagement, motivation, form of participation, cooperation with others, problem solving and, lastly, on the results of group work.

CHAPTER 4: TEACHER EDUCATION AND SUPPORT

In order to implement entrepreneurship education effectively at school level, teachers have a key role to play. In entrepreneurship education, attitudes and behaviours are probably more important than knowledge. 'Such competencies are best acquired through people-led enquiry and discovery that enable students to turn ideas into action. They are difficult to teach through traditional teaching and learning practices in which the learner tends to be a more or less passive recipient. They require active, learner-centred pedagogies and learning activities that use practical learning opportunities from the real world. [...] These changes will require significant changes in the way teachers themselves are educated' (European Commission, 2011a, pp. 2-3).

This chapter therefore focuses on the education and support to help them convey entrepreneurship knowledge, skills and attitudes to their pupils.

The chapter looks firstly at how entrepreneurship is covered in initial teacher education (ITE) before examining entrepreneurship education in continuing professional development (CPD). The last section investigates the types of resources and other support offered by central authorities to help teachers educate their students in an entrepreneurial way. All useful links and references can be found in the annexe.

4.1. Initial teacher education

Entrepreneurship education as a compulsory topic in ITE

As the European Commission emphasises, 'Teacher education institutions should [...] provide rich contexts for learning about, through and for entrepreneurship. They should enable student teachers to explore and develop a range of pedagogical techniques which are underpinned by active learning approaches, a willingness to experiment and 'to try new things' and to draw upon a wide range of learning contexts both within, but particularly outside the institution' (European Commission, 2011a, p. 23). This section focuses on entrepreneurship education in initial teacher education.

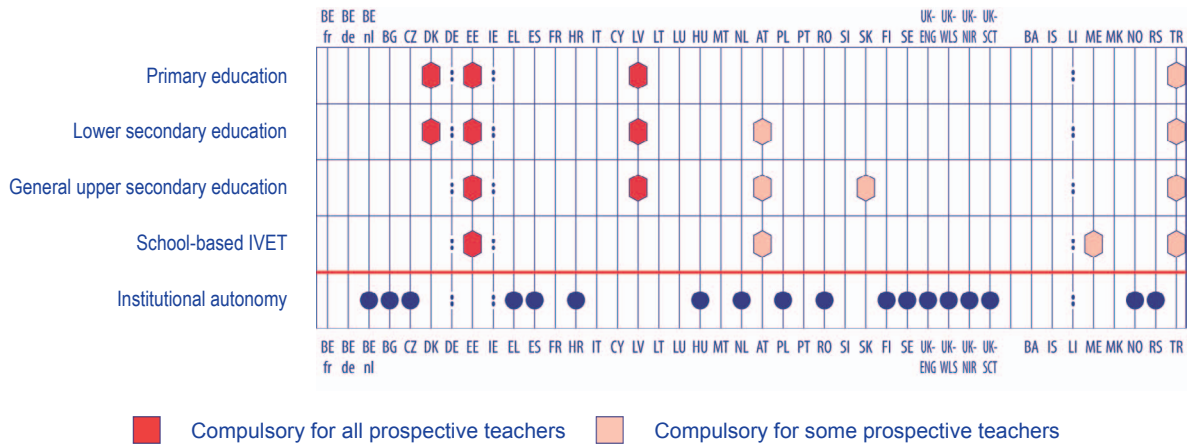
Figure 4.1 shows that in almost half of the education systems, teacher training institutions have the autonomy to decide whether to include entrepreneurship education in their programmes, and if they decide to do so, they are free to determine how it should be delivered. Furthermore, the integration of entrepreneurship education into ITE curricula is not subject to regulation in over one-third of the countries/regions. For this reason, very little additional information is available at central level for over three-quarters of the countries/regions covered.

Despite the absence of central regulations on entrepreneurship education, some teacher training institutions may include the teaching of this topic in their programmes. For example:

In **Finland**, where there is institutional autonomy for integrating entrepreneurship education into ITE curricula, 'YVI – The Entrepreneurship Education Service for Teachers Project' (2010-2014) brought together more than 30 organisations to develop an entrepreneurship programme for teacher education. Curricula for ITE were developed jointly, as were new pedagogical models and tools.

In the **former Yugoslav Republic of Macedonia**, where the pedagogical faculties have made entrepreneurship education compulsory for prospective teachers of maths and science in lower secondary education. Similarly, prospective teachers of economics and mechanical engineering for general upper secondary education and school-based IVET are also required by their respective faculties to study entrepreneurship education.

Figure 4.1: Entrepreneurship education as a compulsory topic in the initial education of teachers in primary and secondary education, according to central level recommendations/guidelines, 2014/15



Source: Eurydice.

Explanatory note

ITE curricula for prospective teachers working in a specific area essentially devoted to entrepreneurship as a career path (e.g. business studies) are not considered.

In the Figure, institutional autonomy relates only to entrepreneurship education as a compulsory topic. Standards may exist concerning other aspects of ITE.

Country-specific notes

Belgium (BE de): ITE is only organised for prospective primary teachers.

United Kingdom (WLS/NIR, SCT): Official central documents stipulate that new teachers must be able to deliver the full curriculum – of which entrepreneurship education is part – to all pupils but do not explicitly mention entrepreneurship education. In the Figure, these jurisdictions are therefore considered as having institutional autonomy.

Only seven education systems treat entrepreneurship education as a compulsory topic in ITE, at least for some prospective teachers.

In three countries, all prospective teachers for the levels concerned must be trained to teach entrepreneurship education. This applies to all prospective teachers in Estonia, primary and general secondary teachers in Latvia, and only to teachers in basic education (primary and lower secondary education) in Denmark.

In four countries, only prospective teachers of some subjects must be trained in entrepreneurship education. In Austria, it is a compulsory topic only for prospective teachers of geography and economics in general secondary education and school-based IVET. ITE is undergoing reform in this country, and most of the new ITE curricula for secondary education (starting in 2016/17) have not yet been issued. In Slovakia, only prospective teachers of technical/vocational subjects in general upper secondary education are trained for teaching entrepreneurship education. In Montenegro, the obligation is limited to prospective teachers of entrepreneurship education in school-based IVET. Finally, in Turkey, entrepreneurship education is a compulsory topic only for prospective teachers training via the Social Sciences Undergraduate Teaching Programme.

In Serbia, the recently adopted 'Action Plan for the Implementation of the Strategy for Supporting the Development of Small and Medium-sized Enterprises' (see also Section 2.1) envisages the introduction of entrepreneurship education into ITE programmes.

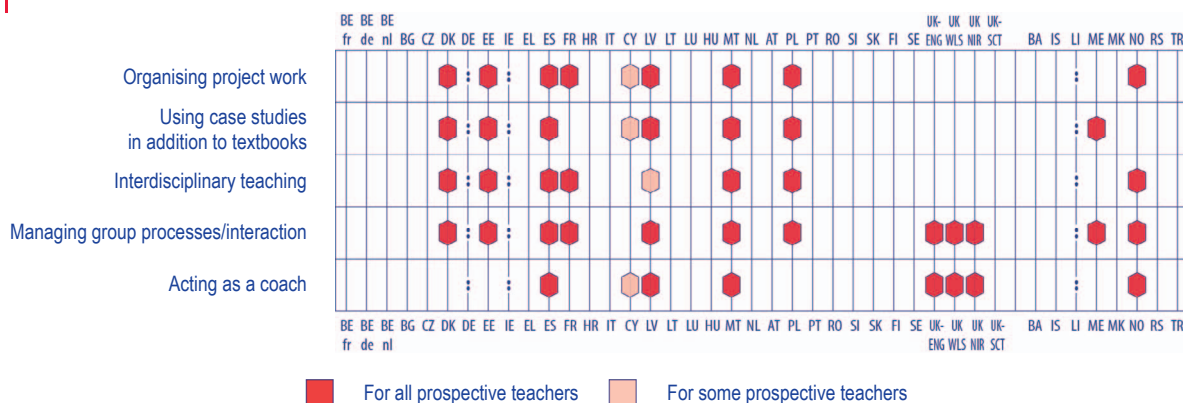
Entrepreneurial teaching approach

According to research and considering the broad definition of entrepreneurship education adopted by the European Commission Thematic Working Group on the topic (see Section 1.1), five main skills may be considered necessary for an 'entrepreneurial teacher', meaning a teacher who acts as a coach and helps students turn ideas into actions and be the determining force in their own lives. These are the ability to:

- use a project-based approach;
- work on case studies in addition to using text books;
- take an interdisciplinary approach;
- manage group processes and interaction within groups;
- act as a coach (as opposed to a lecturer).

These skills are not necessarily directly connected to entrepreneurship education in the ITE curriculum and may be applied to a variety of subjects taught. However, mastering these skills is crucial in order to be able to engage students in an entrepreneurial approach to learning.

Figure 4.2: Key skills for an entrepreneurial approach to teaching in the initial education of teachers for primary and secondary education, according to central level recommendations/guidelines, 2014/15



Source: Eurydice.

Explanatory note

Entrepreneurial teaching approach: A teaching approach where the teacher acts as a coach and helps students turn ideas into actions and become the determining force in their own lives. This type of approach may apply to any subject teacher.

Country-specific note

Belgium (BE de): ITE is only organised for prospective primary teachers.

As shown in Figure 4.2, the central authorities in only 13 countries/regions have referred in central guidelines to the need to support teachers in the development of at least some of these skills during their initial education. At least four of these skills should be taught to all teachers in Denmark, Estonia, Spain, Latvia, Malta, Poland and Norway. In Spain and Malta, this even applies to all five skills. In most cases, the recommendations apply to all subject teachers at both primary and secondary levels. This is the case in Denmark, Estonia, Spain, France, Malta, Poland, the United Kingdom (England, Wales and Northern Ireland), Montenegro and Norway. Almost the same situation applies in Latvia, but experience of interdisciplinary teaching must be acquired by all prospective teachers, except those in school-based IVET. In Cyprus, the development of the skills to organise project work and use case studies is limited to school-based IVET in the central recommendations, whereas acting as a coach is limited to general upper secondary education.

As already mentioned, teacher training institutions have significant autonomy in defining the curricula, and, more specifically, the teaching approaches to be used. Therefore, the fact that these skills are not mentioned in many central documents does not necessarily mean that training institutions do not provide teachers with activities to develop these skills. For example:

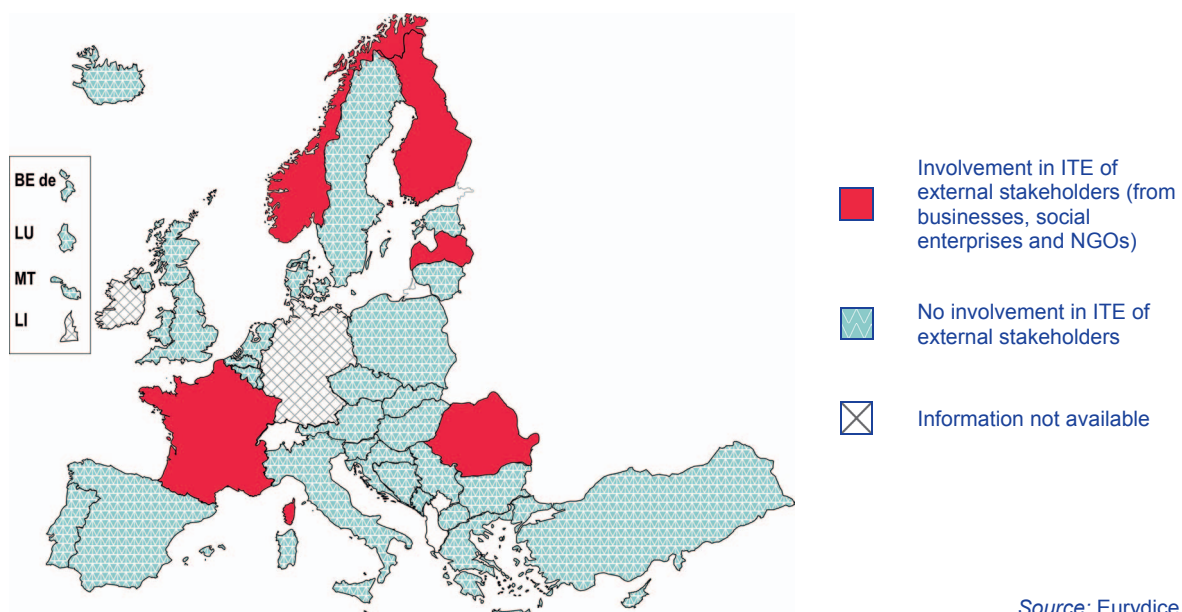
In **Hungary**, where no central guidelines exist concerning these skills, the Institute for Educational Research and Development has conducted research showing what is taught in ITE institutions. The ability to organise projects is part of ITE for all school teachers, whereas managing processes/interactions is only part of the curriculum for prospective primary teachers, and how to use cases studies in addition to textbooks is restricted to prospective secondary teachers of humanities, languages and arts.

Links between initial teacher education and entrepreneurial stakeholders

There are two main ways in which prospective teachers can be exposed to the reality of the entrepreneurial world:

- by inviting external stakeholders from the entrepreneurial world to contribute to ITE;
- by arranging visits, as part of the curriculum, to businesses, social enterprises and NGOs and thus allow teachers to become familiar with entrepreneurial challenges, methods and skills.

Figure 4.3: Involvement of external stakeholders in initial teacher education of primary and secondary education, according to central level recommendations/guidelines, 2014/15



Source: Eurydice.

Country-specific note

Belgium (BE de): ITE is only organised for prospective primary teachers.

As shown in Figure 4.3, **the involvement of external stakeholders** – from businesses, social enterprises and NGOs – is only mentioned in the central recommendations or guidelines of five countries: France, Latvia, Romania, Finland and Norway. In Latvia, these recommendations do not concern the preparation of prospective primary teachers.

In the United Kingdom (Scotland), the latest recommendations on teacher career standards, which should be released in the 2015/16 academic year, will also provide guidance on this issue.

However, several countries report that external stakeholders are involved in ITE despite the absence of central recommendations. For instance, in Belgium (French and German-speaking Communities),

the Agency for Entrepreneurship and Innovation (AEI – *Agence pour l'entreprise et l'innovation*; formerly called *Agence de stimulation économique*) is involved in some pilot teacher training institutions, especially through providing grants to prospective teachers to develop entrepreneurial projects. In Estonia and Latvia, Junior Achievement also promotes an entrepreneurial approach in ITE by providing support to teacher training institutions both in terms of lecturers and project-related activities. In Montenegro, the involvement of external stakeholders is one of the evaluation criteria for all higher education institutions.

Visits to businesses/social enterprises and NGOs represent opportunities for prospective teachers to become familiar with this world and better understand its issues. However, this approach is currently not mentioned in any of the central recommendations issued by central level authorities, although in Romania and Bosnia and Herzegovina, central authorities have plans to incorporate the need for such visits into their recommendations for prospective teachers. In Austria, no recommendations or guidelines exist for initial teacher education but teachers have the opportunity to visit companies as an option within some courses (e.g. 'Teachers go economy').

4.2. Continuing professional development for teachers

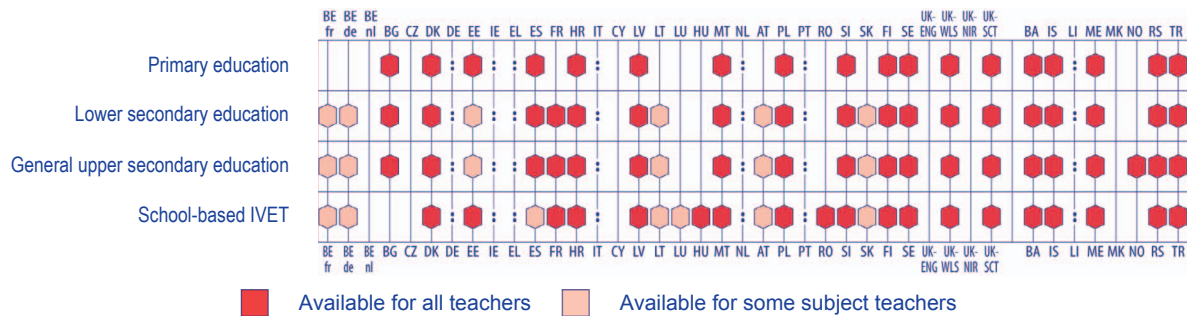
In order to develop entrepreneurship education at school, it is important not only to train prospective teachers but also to provide opportunities for teachers already in service to be introduced to this topic or to develop their knowledge and skills in the field. 'Whilst initial teacher education will develop a cohort of newly trained educators in entrepreneurship, the right continuing professional development is essential in order to develop the requisite competences in all educational staff, and to further support the growth of those teachers who have been able to benefit from the initial teacher education' (European Commission, 2011a, p. 51). This section therefore focuses on continuing professional development (CPD).

CPD courses

As shown in Figure 4.4, 28 countries/regions organise CPD courses on entrepreneurship education. In 15 of these, provision is available for all teachers from primary to upper secondary education, including school-based IVET teachers (Denmark, Croatia, Latvia, Malta, Poland, Slovenia, Finland, Sweden, the United Kingdom (Wales and Scotland), Bosnia and Herzegovina, Iceland, Montenegro, Serbia and Turkey). In Bulgaria and Spain, CPD is available for all teachers in general education. However, CPD courses for school-based IVET teachers exist in some Spanish Autonomous Communities. In France, provision is available for all teachers, except those in primary education. In Estonia, CPD activities are available to all teachers, except in general secondary education where they are restricted to those working in the field of social studies, economics and mathematics.

In five further countries/regions, CPD opportunities for entrepreneurship education are available for all general secondary teachers and school-based IVET teachers but they are restricted to specific subject teachers. In the French and German-speaking Communities of Belgium, CPD in entrepreneurship education is restricted to teachers of economics and social studies and to technical and vocational teachers; in Austria, it is available only to teachers of economics and entrepreneurship; and in Lithuania to teachers of geography and economics. In Slovakia, CPD in entrepreneurship education is only available to lower and upper secondary teachers of mathematics, civics, ethics, computer science, and to teachers of technical professional subjects in upper secondary education.

Figure 4.4: Availability of CPD courses specifically related to entrepreneurial education for teachers in primary and secondary education, 2014/15



Source: Eurydice.

Explanatory note

CPD courses related to some limited aspects of entrepreneurial education (e.g. financial literacy, collaborative learning, student-centred approach, project-based learning) are not taken into account in the Figure.

Country-specific notes

Czech Republic: CPD courses limited to financial literacy are available for all teachers.

Greece, Italy, Netherlands and Portugal: Information not available at central level.

Spain: CPD courses are available in some Autonomous Communities for teachers in school-based IVET.

In three countries/regions, this type of CPD is restricted to school-based IVET teachers. In Hungary and Romania, all school-based IVET teachers receive this type of CPD, but only economics and communication teachers do so in Luxembourg.

In Norway, only teachers in general upper secondary education are offered CPD activities related to entrepreneurship education.

Provision may be organised in different ways. Training programmes often vary from year to year. CPD provision may be organised by the ministry in charge of education, by its delegated body or by universities. In some countries/regions, CPD activities are organised by institutions dedicated to promoting entrepreneurship education.

For instance, the Centre for Study and Research on Partnerships with Businesses and the Professions (CERPEP – *Centre d'études et de recherches sur les partenariats avec les entreprises et les professions*) is a key player in providing CPD in entrepreneurship education in France and is currently developing its provision. The same applies to the Social Enterprise Academy in the United Kingdom (Scotland). In the French and German-speaking Communities of Belgium, the Agency for Entrepreneurship and Innovation plans to develop CPD within its 2014-2020 strategy. In Bulgaria, Estonia, France, Lithuania, Malta, Poland, Portugal, Slovenia, Finland and Serbia, Junior Achievement, also plays a role in the development of CPD in the field. In Romania, training is carried out by former projects (e.g. the 'Practice Enterprise' project (*Firma de exercitiu*)). In the United Kingdom (Wales), the University of South Wales has developed the 'Youth Entrepreneurship National CPD Framework' on behalf of the Welsh Government.

The former Yugoslav Republic of Macedonia made plans for the training of school-based IVET teachers in entrepreneurship education, within the work programme of the Centre for Vocational Education and Training. Due to a lack of financial resources, this activity could not be implemented. However, in 2012/13 and 2013/14, as part of the Bureau for the Development of Education's participation in the project for the development of in-service training courses run by the South East European Centre for Entrepreneurial Learning (SEECLE), mandatory training on entrepreneurship education was provided for secondary teachers.

In Croatia, Bosnia and Herzegovina, Montenegro, the former Yugoslav Republic of Macedonia, Serbia and Turkey, CPD courses have been developed with the support of SEECEL, co-funded by the EU Instrument for Pre-Accession Assistance (IPA). They are currently being piloted in some primary and secondary schools in each country (see Section 2.2.3).

Company visits

In some countries, visits to companies are organised as a CPD option. The objective is to provide teachers with first-hand experience to gain a better understanding of the skills employers need from future employees and to reinforce the links between education and work. Teachers are also given the opportunity to observe the way companies operate, and thus get ideas for innovative teaching and guidance.

In the **Czech Republic**, in August 2014, the Further Education Fund (FDV), an organisation of the Ministry of Labour and Social Affairs, launched the project 'Internships in Companies – Education Practice 2' (*Stáže ve firmách – vzdělávání praxí 2*). One of the results of this project, which ended in September 2015, is the National Catalogue of Internships, an online freely accessible platform, which aims to offer internship opportunities for potential candidates.

In **Estonia**, job-shadow days are organised by Junior Achievement Estonia, mainly for teachers of economics and entrepreneurship.

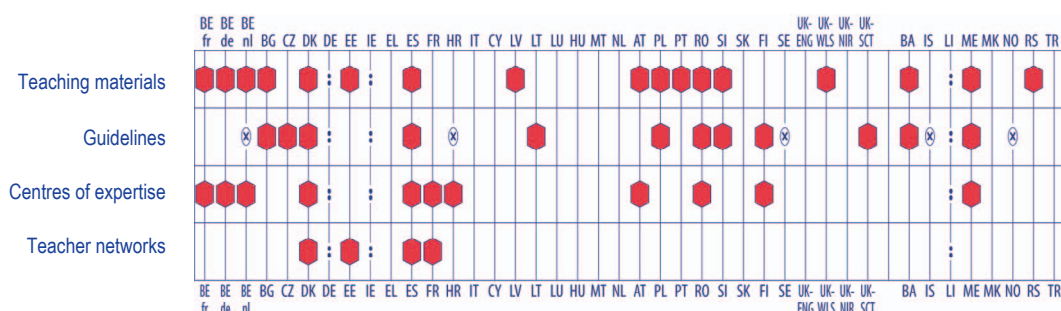
In **France**, the CERPEP organises visits for education staff, which last at least one day and a maximum of five for teachers.

In the **United Kingdom (Scotland)**, Excellence in Education through Business Links (EEBL) organises visits for all primary and secondary teachers lasting at least two days.

4.3. Support for teachers

Central authorities may also support the implementation of entrepreneurship education by developing or contributing to the development of guidelines, teaching materials, centres of expertise and/or teacher networks, which can help teachers in their work. All useful links concerning teacher resources – supported or not by the central authorities – are available in the annexe.

Figure 4.5: Support for teachers in primary and secondary education provided (or supported) by central level authorities, 2014/15



⊗ The central level does not provide guidelines for any curriculum area

Source: Eurydice.

Explanatory notes

Guidelines focusing on specific aspects (e.g. financial literacy) are not considered in the Figure.

Centres of expertise: General teaching resource centres are not considered in the Figure.

All useful links to teaching resources or references to printed publications are available in the annexe.

Country-specific notes

Portugal: Curriculum guidelines and teaching materials for entrepreneurship education are currently under development.

Teaching materials

Central authorities most often support the development of teaching materials. They do so in 17 countries/regions, although in different ways. Some have set up structural partnerships for this purpose with associations specialised in the field of entrepreneurship. The French and German-speaking Communities of Belgium thus cooperate with the Agency for Entrepreneurship and Innovation. The same happens in the Flemish Community of Belgium with VLAJO and the UNIZO, the Foundation for Education and Entrepreneurship. In Austria, central authorities also provide funds to the EESI-Impulse Centre (Entrepreneurship Education for School Innovation) for the development of teaching materials. Bosnia and Herzegovina supported the 'Entrepreneurial Learning Education Systems' (ELES) project (2014-2016), co-funded by the EU Instrument for Pre-Accession Assistance, which developed teaching materials.

The Institute of the Republic of Slovenia for Vocational Education and Training implemented the 'Opening Doors' project (*Vrata odpiram sam*), co-funded via the European Structural Funds and the state budget. This project included development of teaching materials.

In Denmark and Montenegro, the central authorities have themselves produced teaching materials, which are available on their web-site. The Bulgarian central authorities have also developed materials which are provided only to teachers participating in CPD activities on entrepreneurship education. In Estonia, the Ministry of Education participated in the revision of the Entrepreneurship Theatre methodology.

In the United-Kingdom (Wales), part of the budget for the 'Youth Entrepreneurship Strategy' (see Section 2.1) was devoted to the production of teaching materials.

Finally, central authorities assist in the dissemination of teaching materials in different ways. In Denmark, entrepreneurship education teaching materials are made available in a specific section of the National Resource Centre portal, directly managed by the government. In Estonia, the School Life Portal (*Koolielu*) created by the government and the Information Technology Foundation for Education, provides access to various resources on entrepreneurship education. In Poland, Portugal, Romania and Serbia, central authorities provide an official list of approved textbooks for the curricula, including on entrepreneurship education, thus attributing a certain quality label to the selected teaching materials. The Spanish National Centre for Educational Innovation and Research encourages the production of teaching materials. In Latvia, the school education portal provides access to existing materials. In Slovenia, some teaching materials and guidelines developed by the Institute for Vocational Education and Training and co-funded by central authorities are available on the Slovenian Education Network web portal.

Of course, the development of teaching materials also happens independently of central authorities. For instance, Denmark, Spain, Lithuania and Norway mention the growing number of teaching resources developed by private publishers. Several NGOs and associations also develop teaching materials and often distribute them free of charge. This is for instance the case of Junior Achievement. SEECCEL, of which Croatia, Bosnia and Herzegovina, Montenegro, the former Yugoslav Republic of Macedonia, Serbia and Turkey are members, also develops teaching materials.

Teaching guidelines for entrepreneurship

Teaching guidelines complement the information included in the core school curriculum and may provide more detailed support such as schemes of work, lesson plans, examples of good practice, case studies, etc. (see also Section 3.1.3 on guidance on teaching and learning methods).

Guidelines for teaching entrepreneurship are available in 12 countries/regions. In six of these, they are a separate publication, either printed (the Czech Republic) or available online (Denmark, Finland, the United Kingdom (Scotland), Bosnia and Herzegovina, and Montenegro). In Lithuania, Poland, Romania and Slovenia, they are integrated within curricula. In Spain, the national legislation defines the seven key competences for primary and secondary education, including a 'sense of initiative and entrepreneurship', by specifying the links between competences, content and assessment criteria. Guidelines also exist at the level of the Autonomous Communities. In Bulgaria, the guidelines are integrated in the guidance for ITE.

In five countries/regions, as a rule, no central guidelines are provided for any curriculum area (in the Flemish Community of Belgium, Croatia, Sweden, Iceland and Norway).

Central authorities usually develop these guidelines in cooperation with other stakeholders. For instance, Education Scotland worked together with their third sector partners in the 'Enterprising Schools Programme' (Curriculo Solution, Young Enterprise Scotland, etc.). Their guidelines provide Scottish case studies that aim to highlight the positive impact that developing entrepreneurial skills has had on the confidence and self-esteem of young people, and demonstrate the opportunities to develop these skills across the curriculum.

Within the framework of the national entrepreneurship strategy (see Section 2.1), the Bureau for the Development of Education and the Centre for Vocational Education and Training of the former Yugoslav Republic of Macedonia will encourage schools and teachers to design guidelines by training teachers to develop guidelines for educational process in primary and secondary education and by providing financial support to schools.

Centres of expertise

Besides traditional teaching resource centres, which provide access to teaching materials on a range of curriculum subjects including entrepreneurship, 11 countries/regions have institutions dedicated to entrepreneurship which act as centres of expertise on the teaching of this topic. Most of these also provide access to resources through a website or online portal and are financially supported by central authorities.

In the **French and German-speaking Communities of Belgium**, since 2007 the Agency for Economic Stimulation has operated as a centre of expertise dedicated to the development of entrepreneurship education. A new role has been created – the Officer for Raising Awareness and Promoting the Spirit of Enterprise (*Agent de sensibilisation à l'esprit d'entreprendre* – ASEE) – who is tasked with meeting school heads and their staff on a regular basis. The objective is to raise awareness of regional strategies for entrepreneurship, to promote entrepreneurship education, and to advise on the resources available.

In the **Flemish Community of Belgium**, VLAJO and UNIZO act as centres of expertise on entrepreneurial education. Both these organisations receive structural funds from the Flemish government.

In **Denmark**, the National Resource Centre is in charge of developing new resources to transfer knowledge to schools, including for entrepreneurship education, as it is part of the curriculum. Its learning consultants, employed by the Ministry for Children, Education and Gender Equality, also provide support and guidance to schools and municipalities on various topics, including entrepreneurship education. The regional resource centres work in close cooperation with the Danish Foundation for Entrepreneurship (FFE) created in 2010, in order to inform teachers about available materials on this topic.

In **Spain**, where Autonomous Communities are the top-level education authorities, public, private and non-governmental organisations have been commissioned to act as centres of expertise helping to bridge the gap between policy and practice and increase the uptake of entrepreneurship education. The number of these bodies has steadily increased in recent years. In some Communities, they are embedded in the regional government structure (e.g. Xarxa d'emprenadora in Cataluna, Cultura Emprededora in Extremadura). In others, they are run by organisations/associations supported by the Communities.

In **France**, the Observatory for Teaching Practices in Entrepreneurship Education (OPPE – *Observatoire des pratiques pédagogiques en entrepreneuriat*) was created in 2001 to gather information and experiences on entrepreneurship education in upper secondary education. The observatory was originally conceived as a collaborative initiative of the former Ministry for Youth, Education and Research; the Ministry for Economy, Finances and Industry; the Agency for the development of Enterprises (APCE – *Agence pour la création d'entreprises*); and the Entrepreneurship Academy. Hosted by the APCE, the OPPE portal has now become a resource bank for entrepreneurship education. The OPPE also organises annual conferences on the subject.

In **Croatia**, the Ministry of Education collaborates with SEECEL through the Education and Teacher Training Agency.

In **Austria**, the EESI-Impulse Centre (Entrepreneurship Education for School Innovation), supported by the Ministry of Education and Women's Affairs, is the centre of expertise for entrepreneurship education in the country. It provides access to online teaching materials developed in cooperation with the Initiative for Teaching Entrepreneurship (IFTE) and other stakeholders and, since 2011, has run the 'EESI Entrepreneurship Certification for Schools' programme. EESI coordinators are available at regional level to coordinate and manage project groups on entrepreneurship.

In **Romania**, 15 regional centres have been established to disseminate the teaching materials and methodology developed within the 'Practice Enterprise' Project (*Firma de exercitiu*) co-funded by the European Social funds between 2007 and 2013. Central authorities support the activities of this regional network by organising competitions on entrepreneurial topics and monitoring how these activities can support the development of the entrepreneurial spirit.

In **Finland**, YES – The Virtual Learning Environment for Entrepreneurship Education, a free entrepreneurship education service created in 2001 with funds from the European Social Funds, acts as a centre of expertise for the regions. The National Board of Education contributed to its initial development and still finances the training activities of this centre. The main national contributors (except for CPD) are now regional and local stakeholders.

In **Montenegro**, the Entrepreneurial Centre (*Preduzetnički centar*) – created in December 2013 in three towns (Bijelo Polje, Berane, Mojkovac) and in October 2015 in Bar – is supported by the central authorities. It provides expert support for the development of innovative entrepreneurial ideas and organises CPD activities.

In the United Kingdom, there is no such centre of expertise. However, Wales and Scotland have developed specific websites to provide not only information on entrepreneurship but also to encourage exchange of experience with the support of specialised institutions:

In the **United Kingdom (Wales)**, the University of South Wales is the delivery arm for the Welsh Government's Youth Entrepreneurship National CPD hub. The aim of the hub is to create a sustainable pan-Wales hub of educators sharing expertise and exchanging knowledge to embed enterprise and entrepreneurship into teaching and learning provision.

In September 2015, the **United Kingdom (Scotland)** launched the 'Scotland's Enterprising Schools' website. This website has been developed by Young Enterprise Scotland as part of the 'Scotland Can Do' agenda led by the Scottish Government. It provides a platform for sharing good practice and makes resources available for teaching staff to support enterprise activity and encourage entrepreneurial thinking. It also encourages schools to develop a whole-school approach to enterprise and entrepreneurial thinking.

Teacher networks

Teacher networks are the least developed type of support. However, they could be a very important and efficient tool to exchange good practices, facilitate access to the topic and offer networking opportunities between more experienced teachers and those new to the area.

Only four teacher networks supported by central authorities exist.

In **Denmark**, the Danish Foundation for Entrepreneurship (FFE) has created a specialised teacher network for entrepreneurship education, called the 'Network for Entrepreneurship in Schools and Education' (NEIS), which is open to all teachers of entrepreneurship education whatever the education level and the specific subject taught.

In **Estonia**, a network of teachers from primary and secondary education has been organised by Junior Achievement Estonia. They meet once a year to discuss problems and improve their skills and knowledge. In addition, the Association for Teachers of Economics, which involves mainly upper secondary teachers, as well as some lower secondary teachers, works closely with Junior Achievement Estonia on issues linked to entrepreneurship education.

In **Spain**, some Autonomous Communities have created teacher networks. For instance, in Extremadura, schools may join the 'Network for Entrepreneurial Schools' (*Red Extremeña de Escuelas Emprendedoras*), created in 2011, providing they submit a three-year development plan outlining goals, actions to be undertaken, stakeholders and assessment methodology. The schools and teachers involved go through an accreditation process.

In **France**, the 'Exchange Network on Professional Knowledge in Innovation, Research and Experimentation' (RESPIRE – *Réseau d'échange de savoirs professionnels en innovation, en recherche et en expérimentation*) aims to support the development of collaborative work and to create communities of practice, including on the issue of 'enterprise in schools'. This network was created in 2012 by the Ministry of Education and has more than 3 600 active members.

In addition, it is worth mentioning an independent Spanish grass-roots initiative, which does not benefit from central support – the 'Entrepreneurial Teachers' (*Profesores emprendedores*) network was started by a group of IVET entrepreneurship teachers. It is an open community on Google+ where teachers can share resources and exchange opinions on entrepreneurship education.

CHAPTER 5: STATE OF ENTREPRENEURSHIP EDUCATION IN FOUR KEY AREAS

For entrepreneurship education to be considered mainstreamed in European school curricula, many different features need to be present. This final chapter presents a subset of indicators, to demonstrate the priority areas that support a comprehensive approach to entrepreneurship education across policy and practice. While the report analyses these one by one, this chapter and accompanying tables provide an overview of the main factors analysed in this report.

The 'Progression Model' (see Figure 5.1) provides an overview of the different elements contributing to the mainstreaming of entrepreneurship education. It illustrates the evolution of key features that are important to its overall development, mapped across a continuum of related strategy from the pre-strategy through to the final mainstream stage.

Figure 5.1: Progression model for analysing the stage of development of entrepreneurship education (2010)

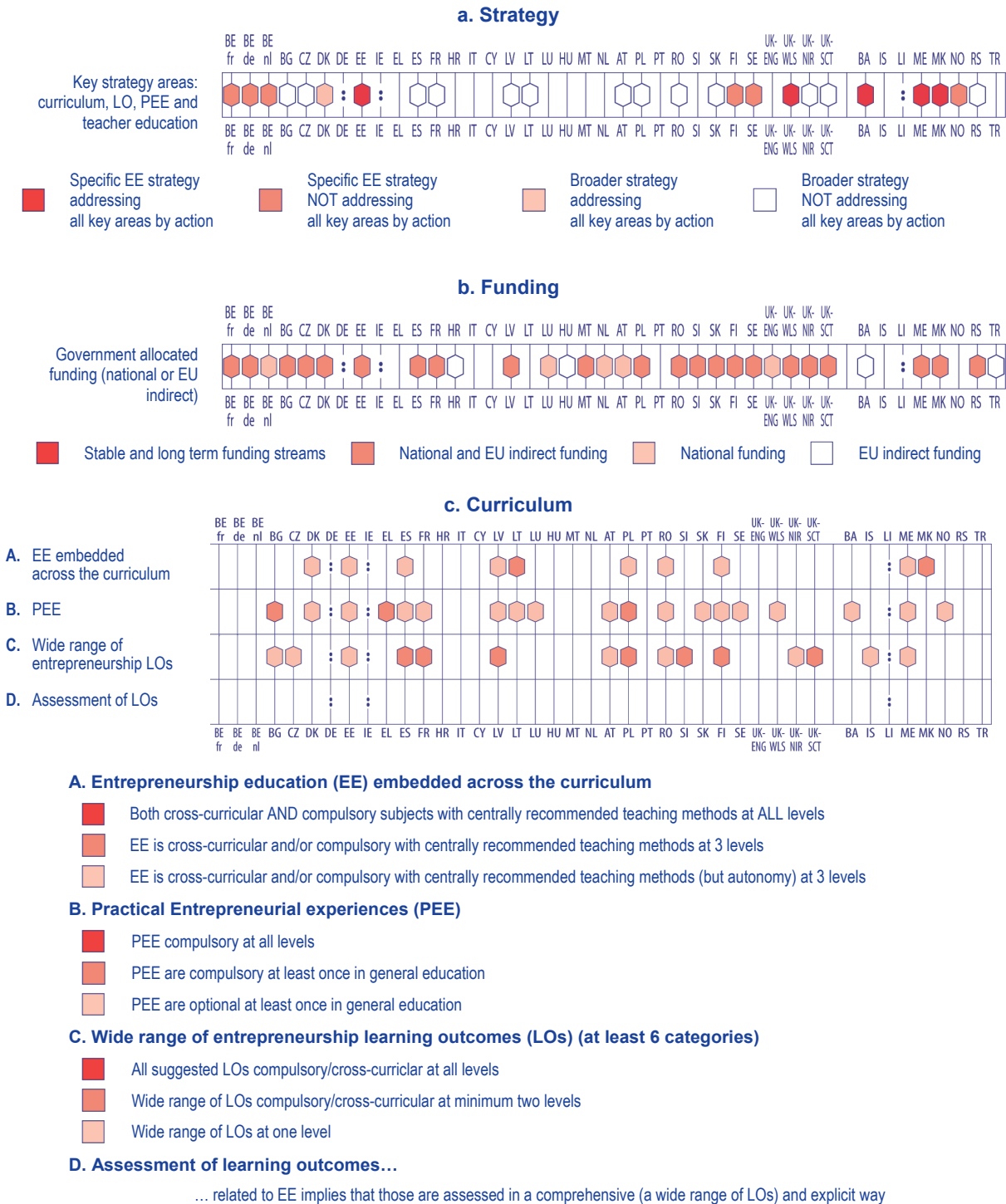
Stage	Timeline	Key features
Pre-strategy (based on individual initiative)	Starting	<ul style="list-style-type: none"> • No strategy • Little or no effective inter-ministerial cooperation • No allocated funding • Little evidence of strategic approaches to entrepreneurship education in curriculum • Tends to be focused in secondary education and in specific subjects • Often delivered outside core school hours as extra-curricular activity • Reliance on individual teacher's enthusiasm • Limited evidence of entrepreneurship education learning outcomes or assessment • Limited teacher training, resources or networks
Strategy Development	0-2 years	<ul style="list-style-type: none"> • Identification and agreement of entrepreneurship education objectives • Strategic approach either planned or recently launched • Mechanisms established for cooperation between key ministries • Mapping and analysis of entrepreneurship education. Good practice examples are identified. • National/EU funding streams being sourced/established • Entrepreneurship education in process of being embedded in curriculum as set of competences • Some good practice identified in initial teacher training and CPD • Some information & resources available for teachers e.g. guidelines/teaching methods
Strategy Consolidation – Progressive implementation and development of Practice	2-5 years	<ul style="list-style-type: none"> • Learning outcomes specified • Entrepreneurship education objectives, indicators and targets identified • National and/or EU funding allocated • Entrepreneurship education is embedded in curriculum as part of the overall teaching concept and also as a separate subject. • Teacher training may be available in ITE and CPD, with increasing numbers being trained. • Networks & support resources available for teachers
Mainstreaming	5 years +	<ul style="list-style-type: none"> • Specific/broader strategy is well-established with range of actions for entrepreneurship education • On-going monitoring and regular evaluation of entrepreneurship education, to assess quality of activity and learning outcomes being achieved • Robust funding mechanisms established • High quality entrepreneurship education available to all students at every level/type of education • All teachers receiving entrepreneurship education as an integral part of initial training and CPD • Stronger networks and comprehensive information on effective teaching methods resources

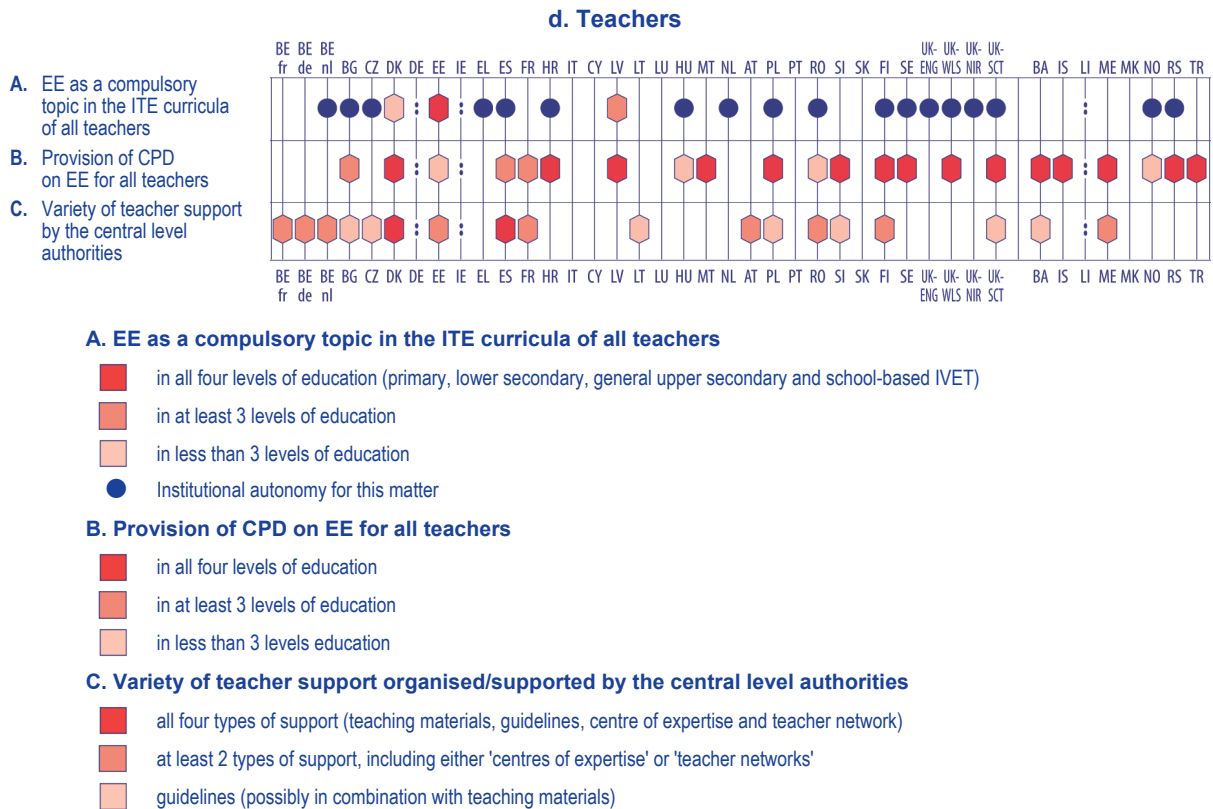
Explanatory note

This indicator subset has been drawn from those priorities identified in the '2010 Progression Model', developed by government representatives and experts through a series of High Level Reflection Panels.

Countries/regions have different starting positions with respect to the development of entrepreneurship education, and they may equally be at different stages of maturity in specific aspects of policy or practice. Figure 5.2 builds on the evidence found in the previous chapters related to strategies, funding, curriculum and teachers.

Figure 5.2: Summary of the state of entrepreneurship education in four key areas 2014/15





Explanatory note

Key areas addressed by strategies have been identified based on the 'Progression Model' (2010) (see Figure 5.1) and the more recent recommendations of the Thematic Working Group on Entrepreneurship Education, namely curriculum, learning outcomes, practical entrepreneurial experience and teacher education.

5.1. Strategy

Some countries/regions have had consecutive strategies building on each other (the three Communities of Belgium, Lithuania, the United Kingdom (Wales), Montenegro and Norway). The former Yugoslav Republic of Macedonia has just launched its first strategy for entrepreneurship education, and is in the initial strategy development phase.

When strategies have been running for several years, countries may have reached the consolidation stage, with the progressive implementation of strategic actions and development of practice. Important features of this consolidation stage are the specification of learning outcomes, the development of funding streams, the application of effective teaching methods and the existence of support mechanisms for teachers, such as teaching materials and centres of expertise. In some countries, entrepreneurship education has not yet been addressed through any strategic approach, while in others strategies have been discontinued.

Using the 'Progression Model' (see Figure 5.1) and the more recent research carried out within the Thematic Working Group for Entrepreneurship Education ⁽¹⁴²⁾, the most important areas to be tackled as specific actions within strategies related to entrepreneurship education have been identified as curriculum, learning outcomes, practical entrepreneurial experience and teacher education. Figure 5.2a illustrates whether these are addressed, showing that very few include actions for all four key areas: five out of eleven specific entrepreneurship education strategies do so, and one broader strategy.

⁽¹⁴²⁾ European Commission, 2014b.

While at first glance there are a great number of countries which have strategies linked to entrepreneurship education (see Figure 5.2.a), there are two factors to take into account. Firstly, some broader strategies do not include more than one or two commitments to actions and thus cannot demonstrate a broad impact. Further objectives either may not be evident, or may be addressed in different strategies causing challenges for monitoring. Secondly, while specific entrepreneurship education strategies include more actions across more topics, this does not always translate into evidence of activity; the majority of strategies highlight an action on practical entrepreneurial experiences yet nearly half of these have little or no evidence of activity.

However, from the data presented, the overall level of activity remains higher in those countries with specific entrepreneurship education strategies and lowest in those who do not have a strategy. This supports the widespread conclusion across European policy recommendations that a single strategy provides a more coherent and comprehensive approach, supporting successful implementation.

5.2. Funding

Regarding funding for entrepreneurship education, Figure 5.2b shows that most European countries are advancing well according to the 'Progression Model'. However, stable and long-term funding streams, ensuring a comprehensive approach to funding for entrepreneurship education, including for strategy implementation, the curriculum, teacher education and support, building partnerships with stakeholders, etc., still need to be developed across Europe.

The majority of countries/regions (most of which also have a specific or broader strategy) allocate funding to entrepreneurship education through national and indirect EU funding sources, the latter further ensuring the availability of resources for the support of entrepreneurship education in school over prolonged periods of time. Five countries/regions (Flemish Community of Belgium, Luxembourg, the Netherlands, Austria and the United Kingdom (England)) allocate only national funding to entrepreneurship education; while another four other countries (Croatia, Hungary, Bosnia and Herzegovina and Turkey) fund the development and implementation of entrepreneurship education, and their strategy in particular, only from EU (indirect) funding.

5.3. Curriculum

In terms of school curricula, as shown in Figure 5.2c, the countries/regions at the starting stage of entrepreneurship development might typically introduce the subject as an 'add-on' to the mainstream curriculum. The focus would tend to be on the narrower understanding of entrepreneurship education, putting emphasis on learning how to run a business. Entrepreneurship would mainly be taught through specific, separate subjects at secondary level. Later stages in the development of the strategy would lead to entrepreneurial skills being increasingly embedded across the curriculum rather than being taught only as a separate subject. This also means that the development of these skills would also start in primary education. The results of this report show a positive trend in this respect, as entrepreneurship education seems to be increasingly integrated into the curriculum from primary level onwards. However, further implementation and consolidation of entrepreneurship education would also imply that it is embedded as a cross-curricular objective or overall teaching concept and also as a separate subject. Figure 5.2c on the curriculum above, therefore, highlights the countries/regions where entrepreneurship education is already embedded as a cross-curricular objective and/or compulsory subject at three education levels at least, and where corresponding teaching methods are recommended by central level guidelines.

It is difficult to determine whether the appropriate teaching and learning methods are being used in the classroom, limiting the assessment of whether entrepreneurship education is embedded, or is an

add-on to the curriculum. Indeed, in many countries, schools and teachers have autonomy in deciding which teaching methods to use. While a reference to entrepreneurship education in official steering documents is an indication of its being taught, the extent to which it is being taught and the teaching and learning methods applied in the classroom may vary considerably. Nevertheless, if entrepreneurship education is explicitly mentioned in curricula and teaching methods are centrally recommended, this provides an indication that education authorities have made a substantial effort to promote entrepreneurship education.

The embedding of entrepreneurship education in national curricula also links to the issue of strategies for entrepreneurship education and how they might be implemented. In Chapter 2, both specific and broader strategies were identified: specific strategies focus exclusively on entrepreneurship education, while broader strategies are linked to, for example, education and training, youth, innovation and economic development. In general, specific entrepreneurship education strategies are more likely to include an action relating to the curriculum, and the implementation of these actions may require curriculum reform. Reforms supporting entrepreneurship education may still take place where there is no strategy commitment, such as the National Curriculum Framework in Malta that contains extensive proposals to embed entrepreneurship education into the curriculum.

In addition to curricular approaches and guidelines for teaching and learning methods, another important factor in assessing how well entrepreneurship education is embedded in the curriculum is whether there are also explicitly defined learning outcomes related to entrepreneurial skills. To analyse these three aspects, and to understand how deeply embedded or comprehensive entrepreneurship education is in the curriculum, the following criteria have been examined:

- whether there is either a cross-curricular approach and/or compulsory subjects integrating entrepreneurship education in the curriculum of at least three education levels (primary, lower secondary, general upper secondary, school-based IVET);
- whether specific central guidelines on teaching and learning methods in entrepreneurship education exist for at least three education levels;
- whether a wide range of learning outcomes within cross-curricular areas and/or compulsory subjects are defined for at least two education levels and are specifically assessed.

No country/region would currently fulfil all these criteria. A few countries meet the first two criteria (curricular approach and teaching methods). In Lithuania and the former Yugoslav Republic of Macedonia, these guidelines need to be used by all teacher, while in many other countries teachers can decide which ones to use (Denmark, Estonia, Spain, Latvia, Poland, Romania, Finland and Montenegro).

Practical entrepreneurial experiences are still rarely integrated in mainstream school curricula. In about half of the countries/regions, these are optional. Therefore, it is difficult to know how widespread they are.

With respect to learning outcomes some countries have a wide range at least at two education levels (Spain, France, Latvia, Poland, Slovenia, Finland and the United Kingdom (Scotland)). The lack of comprehensiveness is shown by the fact that while some entrepreneurial skills might be included at a certain education level in some countries, the full spectrum is not covered, and a systematic approach to progression across education levels is still the exception. Finally, a specific assessment of the learning outcomes related to entrepreneurship education has not yet been implemented in any European education system, which is a considerable limitation if entrepreneurship education is to become effectively embedded.

The evidence thus suggests that the majority of countries/regions have not yet embedded entrepreneurship education in a truly systematic and comprehensive way. It appears that countries currently differ in the emphasis given to its provision: the focus can be on some levels of education only, especially in terms of the subjects integrating entrepreneurship education. There seems to be more provision in lower and general upper secondary education, while transversal/cross-curricular skills are emphasised in primary school. Entrepreneurship as a separate subject, on the other hand, is most common in school-based IVET.

For the time being, no country has mainstreamed entrepreneurship education in the curriculum in the sense of making it available to every student at every level of education, ensuring high quality teaching and assessment of learning outcomes.

5.4. Teachers

The analysis shows that many countries are still in a starting position with respect to the integration of entrepreneurship education into teacher education (see Figure 5.2d). According to central recommendations, the integration of entrepreneurship education in ITE curricula as a compulsory subject for all prospective teachers exists only in Estonia. However, almost half of countries/regions allow institutional autonomy to ITE institutions in this respect, which may give a slightly distorted picture.

Countries/regions which are in the phase of strategy development do, however, recognise the central role of teachers within their strategy and have started to offer some CPD activities and to develop teaching materials. CPD activities are available for all school teachers in 15 countries/regions. The most widespread type of teacher support provided by central authorities is, in fact, the provision or funding of teaching materials. Only in two countries (Denmark and Spain) do top-level authorities provide (or support) all four types of support defined in the report (teaching materials, guidelines, centres of expertise and teacher networks – see Figure 4.5). Figure 5.2d shows only the provision supported by central level authorities. However, private providers also play an important role in some countries/regions.

The strategy consolidation stage implies that training on entrepreneurship education has been extended to all interested teachers through ITE and CPD, and that guidelines and a centre of expertise or a teacher network would support teachers in the implementation of entrepreneurship education in the curriculum. This is currently not the case in any country/region. Provision for teachers, therefore, seems to be the least advanced area in terms of entrepreneurship education development, as no country/region offer ITE and CPD provision for all teachers and offer a varied range of types of support.

5.5. Conclusion

For entrepreneurship education to be fully mainstreamed this would imply that a strategy has been in operation for several years, is being monitored systematically, that robust funding mechanisms exist, that learning outcomes are assessed, and that it is fully integrated into ITE and CPD for all teachers. Progress is most needed in two areas – learning outcomes and teacher education. The development of comprehensive and consistent learning outcomes, applied across several levels of education and specifically assessed is essential. Furthermore, the integration of entrepreneurship education into ITE and CPD for all teachers, irrespective of the subject and the level of education at which they teach, is crucial if high quality provision is to be made for students.

ANNEXE: TEACHER SUPPORT LINKS

This table provides links to the main organisations, programmes and publications that provide teachers with support at supra-national and national levels.

Name/Title	Link
BIP – 'Business Innovation Programs'	www.bips.no
EUROPEN-PEN International	www.penworldwide.org
JA – Junior Achievement	www.jaeurope.org
SEECEL – The South East European Centre for Entrepreneurial Learning (supported by the EU IPA Programme)	www.seecel.hr
Entrepreneurship Education – A Guide for Educators (supported by the EU Competitiveness and Innovation Framework Programme)	http://ec.europa.eu/DocsRoom/documents/7465
Entrepreneurship and Schools – A Resource for improving Practices (School Education Gateway)	www.schooleducationgateway.eu/en/pub/resources/entrepreneurship_and_schools.htm

Country	Name/Title	Link
BE fr & BE de	ASE – Agency for Economic Stimulation (specific sections for primary and secondary teachers), now called Agency for Entrepreneurship and Innovation	http://as-e.be
BE fr & BE de	ASE, 2013. ENTREPRENEURSHIP 3.15 – 3 axis and 15 levers for an entrepreneurial generation.	http://as-e.be/sites/default/files/public/documents/2262_13dossier_entrepreneuriat_3_15_mef_version_def.pdf
BE fr	ABE – Brussels Enterprise Agency: 'Boost your Talent'	www.boostyourtalent.be
BE nl	VLAJO	www.vlajo.org
BE nl	UNIZO – Foundation for Education and Entrepreneurship	www.ondernemendeschool.be
BE nl	KlasCement (including resources for entrepreneurship education)	www.klascement.be
BG	The Ministry of Education and science (list of textbooks including on entrepreneurship education)	www.mon.bg/?go=page&pagelId=10&subpagelId=70
BG	Junior Achievement Bulgaria	www.jabulgaria.org
CZ	How to support entrepreneurship – Source of inspiration (guidelines)	http://clanky.rvp.cz/clanek/k/o/4646/PODPORA-PODNIKAVOSTI--INSPIROMAT.html
CZ	The Methodology Portal (including resources for entrepreneurship education)	http://rvp.cz
CZ	The 'Internship in Companies' Project	www.narodnikatalogstazi.cz/component/com_staze/temid,195/view,karty_staze_list
DK	EMU – The Education Portal (Guidelines for Innovation and Entrepreneurship)	http://www.emu.dk/modul/innovation-og-entrepren%C3%B8rskab-vejledning-0
DK	FFE – Danish Foundation for Entrepreneurship	www.ffe-ye.dk
DK	NEIS – Network for Entrepreneurship in Schools and Education	www.ffe-ye.dk/undervisning/netvaerk-for-undervisere/om-neis
EE	Junior Achievement Estonia	www.ja.ee/Eng
EE	School Life Portal (teaching materials)	http://koolielu.ee/groups/profile/141733/ettevluspe
EE	'Entrepreneurship Theatre' (methodology)	http://en.ettevotlusteater.eu

Country	Name/Title	Link
EE	'Dreams Become Reality'	www.unistusedellu.ee
EL	–	–
ES	Order ECD/65/2015 of 21 January	www.boe.es/boe/dias/2015/01/29/pdfs/BOE-A-2015-738.pdf
ES	The Foundation Princess of Girona & the Trilema Foundation	competenciaemprededora.org
ES	Resolution of 30 August 2013 by the Directorate General of School Policy for Castilla and León (guidelines)	http://www.educa.jcyl.es/es/resumenbocyl/resolucion-30-agosto-2013-direccion-general-politica-educ-1
ES	Educational Portal of the Technological City of Nalón Valley	www.valnaloneduca.com/cont/publicaciones
ES	KitCaixa (teaching material)	https://www.educaixa.com/-/kitcaixa-jovenes-emprededores
ES	Innoescuela (teaching material)	http://blog.educalab.es/cniie/2014/10/13/innoescuela-programa-educativo-para-la-asignatura-de-tecnologia-de-la-eso
ES	XTEC – The Online Education Network of Catalonia	www.xtec.cat/web/recursos/emprededoria
ES	Network for Entrepreneurial Schools	http://culturaemprededora.extremaduraempresarial.es/wp-content/uploads/2012/09/Orden-31-de-Mayo-de-20111.pdf
ES	Entrepreneurial Teachers (Google+ Community)	https://plus.google.com/communities/118125140870333154777
ES	The TALOS Programme for the Development of Entrepreneurial Initiative in Education Sciences	www.octaedro.com/OCTart.asp?libro=16080&id=es&txt=Educaci%F3n%20emprededora
FR	OPPE – Observatory for Teaching Practices in Entrepreneurship Education	www.apce.com/pid11493/qu-est-ce-que-l-oppe.htmlC=173&espace=5
FR	RESPIRE – The Exchange Network on Professional Knowledge in Innovation, Research and Experimentation	http://eduscol.education.fr/cid60290/respire-le-reseau-social-de-l-innovation.html
FR	CERPEP – Centre for Study and Research on Partnerships with Businesses and the Professions	http://eduscol.education.fr/pid31668/l-offre-stages-courts-cerpep.html
FR	EPA – Undertake to Learn (Junior Achievement in France)	www.entreprendre-pour-apprendre.fr
HR	SEECCEL	www.seecel.hr
IT	–	–
CY	–	–
LV	Junior Achievement Latvia	www.jal.lv
LV	School Education Gateway	www.schooleducationgateway.eu/lv/pub/practices/virtual_guide_for_entrepreneur.htm
LT	Education Portal (guidelines)	http://portalas.emokykla.lt/bup/Puslapiai/default.aspx
LT	Junior Achievement Lithuania	www.lja.lt
LU	–	–
HU	–	–
MT	Junior Achievement – Young Enterprise Malta	www.youngenterprise.org.mt
NL	The 'EDISON' Project	www.edisonentrepreneurship.eu
AT	EESI – Entrepreneurship Education for School Innovations	www.eesi-impulszentrum.at
AT	IFTE – Initiative for Teaching Entrepreneurship	www.ifte.at

Country	Name/Title	Link
AT	Junior Achievement Austria	www.junior.cc
AT	ACT (member of EUROOPEN-PEN International)	www.act.at
AT	'Start Your Project'	www.startedeinprojekt.at
PL	Ministry of Education: List of approved textbooks (including titles on entrepreneurship education)	http://men.gov.pl/podreczniki/wykaz_dopuszczone_lista1.php
PL	ORE – Centre for Education Development (teaching materials)	www.ore.edu.pl/wydzialy/rozwoju-kompetencji-spoecznych-i-obywatelskich
PL	CEO – Civic Education Centre (online teaching materials)	www.ceo.org.pl/pl/biblioteka-materialow/przedsiębiorczość-i-ekonomia
PL	Junior Achievement Poland	www.junior.org.pl
PT	General Direction for Education (teaching materials)	www.dge.mec.pt/educacao-para-o-emprededorismo/recursos-educativos
PT	Junior Achievement Portugal	www.japortugal.org
PT	The 'Youth Start – Entrepreneurial Challenges' Project	www.youthstart.eu
RO	Syllabi for compulsory core curriculum school subjects, including 'Entrepreneurial Education' (guidelines)	www.edu.ro/index.php/articles/16038
RO	Ministry of Education: List of approved textbooks (including titles on entrepreneurship education)	www.edu.ro/index.php/articles/c152
RO	Practice Enterprise – The Best Practice (teaching materials of a project co-funded by the European Social Funds)	http://firmaexercitiu.tvet.ro/index.php/achizitii
RO	Practice Enterprise (regional resource centres)	http://firmaexercitiu.tvet.ro/index.php/selectie-experti
RO	ROCT – Coordinating Department for Practice Enterprise in Secondary Education (member of EUROOPEN-PEN International)	www.roct.ro
SI	Junior Achievement	http://jaslovenija.si/
SI	Virtual Classroom on Self-Initiative and Entrepreneurship	https://skupnost.sio.si/course/view.php?id=8668
SK	Centre for Training Firms (member of EUROOPEN-PEN International)	www.sccf.sk/o-nas-4.html
FI	The Ministry of Education (guidelines)	www.minedu.fi/export/sites/default/OPM/Julkaisut/2009/liitteet/opm09.pdf?lang=en
FI	YES Centres – Virtual Learning Environment for Entrepreneurship Education Centres (resource centres)	www.yes-keskus.fi
FI	Junior Achievement – Young Enterprise Finland	http://nuoriyrittajyys.fi
FI	'YVI – The Entrepreneurship Education Service for Teachers' Project	www.yvi.fi
SE	–	–
UK-ENG	–	–
UK-WLS	Big Ideas Wales	https://business.wales.gov.uk/bigideas/youth-entrepreneurship-services-primary-and-secondary-schools
UK-WLS	Youth Entrepreneurship National CPD Hub	www.yesnationalcpdhub.com/#!home/mainPage
UK-NIR	–	–
UK-SCT	Education Scotland (guidelines and teaching materials)	www.educationscotland.gov.uk/learningandteaching/learningacrossthecurriculum/themesacrosslearning/enterprise/index.asp

Country	Name/Title	Link
UK-SCT	YES – Young Enterprise Scotland	www.yes.org.uk
UK-SCT	Curriculo Solutions (training materials)	www.curriculosolutions.com/educational-resources
UK-SCT	EEBL – Excellence in Education through Business Links	www.educationscotland.gov.uk/resources/e/eebl.asp?strReferringChannel=learningandteaching&strReferringPageID=tcm:4-628701-64&class=l4+d139792
UK-SCT	The Social Enterprise Academy	www.socialenterprise.academy/scot/programmes/understanding-social-enterprise-in-schools-63
UK-SCT	Scotland's Enterprising Schools	https://blogs.glowscotland.org.uk/glowblogs/enterprising-schools/
BA	ELES – Entrepreneurial Learning Education Systems in Bosnia and Herzegovina (online resource centre co-funded by the EU IPA programme)	www.eles.ba/index.php?lang=en
BA	ELES (guidelines)	http://eles.ba/images/Projekt/RG1/Programme_and_Guidelines.pdf
IS	–	–
ME	The Education Department (guidelines and teaching material)	www.zzs.gov.me/rubrike/preduzetnicko_ucenje
ME	Service Centre of Training Firms (guidelines)	www.serviscentarpzv.me/images/download/prirucnici/prirucnik_EKONOMIJA_I_PREDUZETNISTVO_web.pdf
ME	The Service Centre for Practice Enterprise (member of EUROOPEN-PEN International)	www.serviscentarpzv.me
ME	The Entrepreneurial Centre	www.preduzetnickicentri.me
MK	The National Centre for the Development of Innovation and Entrepreneurial Learning	www.ncdiel.mk
NO	–	–
RS	Junior Achievement Serbia	www.ja-serbia.org
TR	–	–

[All web sites accessed on 8 December 2015]

REFERENCES

Coduras Martinez, A. et al., 2008. *Global Entrepreneurship Monitor Special Report: A Global Perspective on Entrepreneurship Education and Training*. [pdf] Available at: <http://www.babson.edu/Academics/centers/blank-center/global-research/gem/Documents/gem-2010-special-report-education-training.pdf> [Accessed 01 October 2015].

Danish Ministry of Science, Innovation and Higher Education, 2012. *Denmark: A Nation of Solutions*. [pdf] Available at: <http://ufm.dk/en/publications/2012/denmark-a-nation-of-solutions> [Accessed 01 December 2015].

De Bono, E., 1992. *Serious Creativity: A Systematic Approach to Take You Beyond the Power of Lateral Thinking*. New York. NY Harper Business.

Department of Enterprise, Trade and Investment, 2015. *Innovation Strategy for Northern Ireland (2014-2025) First 6 Month Progress Update - September 2014 to 31st March 2015*. [pdf] Available at: https://www.detini.gov.uk/sites/default/files/publications/deti/innovation_strategy_-_6_month_update_report_to_31_march_2015.pdf [Accessed 01 December 2015].

EACEA/Eurydice, 2012c. *Entrepreneurship Education at School in Europe: National Strategies, Curricula and Learning Outcomes*. Brussels: EACEA/Eurydice.

Eurofound, 2015. *Youth entrepreneurship in Europe: Values, attitudes, policies*. Luxembourg: Publications Office of the European Union.

European Commission, 2003. *Green Paper Entrepreneurship in Europe*. COM(2003)27. Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2003:0027:FIN:EN:PDF> [Accessed 01 December 2015].

European Commission, 2006. *The Oslo Agenda for Entrepreneurship Education in Europe*. [pdf] Available at: http://ec.europa.eu/enterprise/policies/sme/files/support_measures/training_education/doc/oslo_agenda_final_en.pdf [Accessed 04 December 2014].

European Commission, 2009. *Final report of the Expert group: Entrepreneurship in Vocational Education*. [pdf] Available at: <http://ec.europa.eu/DocsRoom/documents/10446/attachments/1/translations/en/renditions/native> [Accessed 01 December 2015].

European Commission, 2011a. *Entrepreneurship Education: Enabling Teachers as a Critical Success Factor*. [pdf] Available at: <http://ec.europa.eu/DocsRoom/documents/9272/attachments/1/translations/en/renditions/native> [Accessed 15 January 2016].

European Commission, 2011b. *Innovation Competitiveness Report 2011*. [pdf] Available at: http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=home§ion=competitiveness-report&year=2011 [Accessed 1 December 2015].

European Commission, 2012a. *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Rethinking Education: Investing in skills for better socio-economic outcomes*. COM(2012) 669 final. SWD(2012) 371-377 final.

European Commission. 2012b. *Assessment of Key Competences in initial education and training. Policy Guidance*. [pdf] Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SWD:2012:0371:FIN:EN:PDF> [Accessed 28 September 2015].

European Commission, 2013a. *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Entrepreneurship 2020 Action Plan. Reigniting the entrepreneurial spirit in Europe*. COM(2012) 795 final. [pdf] Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:EN:PDF> [Accessed 04 December 2014].

European Commission. DG Enterprise and Industry, 2013b. *Entrepreneurship Education: A Guide for Educators*. [pdf] Available at: http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/files/education/entredu-manual-fv_en.pdf [Accessed 04 December 2014].

European Commission, 2014a. *Expert Group on Indicators on Entrepreneurial Learning and Competence: Final Report*. [pdf] Available at: http://ec.europa.eu/education/library/reports/2014/entrepreneurial-expert-report_en.pdf [Accessed 06 January 2016].

European Commission, 2014b. *Thematic Working Group on Entrepreneurship Education: Final report*. [pdf] Available at: http://ec.europa.eu/education/policy/strategic-framework/archive/documents/entrepreneurship-report-2014_en.pdf [Accessed 02 September 2015].

European Commission, 2015a, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs. *Entrepreneurship Education: a Road to Success. A compilation of evidence on the impact of entrepreneurship education strategies and measures*. [pdf] Available at: <http://ec.europa.eu/enterprise/policies/sme/promotingentrepreneurship/education-training-entrepreneurship> [Accessed 11 September 2015].

European Commission/EACEA/Eurydice, 2015b. *The Teaching Profession in Europe: Practices, Perceptions, and Policies*. Eurydice Report. Luxembourg: Publications Office of the European Union.

European Commission, 2015c. *Entrepreneurship Competence: An Overview of Existing Concepts, Policies and Initiatives - Final Report*. [pdf] Available at: <https://ec.europa.eu/jrc/en/publication/entrepreneurship-competence-overview-existing-concepts-policies-and-initiatives-final-report> [Accessed 1 December 2015].

European Parliament, 2015. *Report on promoting youth entrepreneurship through education and training*. [pdf] Available at: <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+REPORT+A8-2015-0239+0+DOC+XML+V0//EN> [Accessed 18 January 2016].

Global Entrepreneurship Monitor, 2014. *2014 Global Report*. [pdf] Available at: <http://www.gemconsortium.org/report> [Accessed 04 September 2015].

Hoffmann et al., 2012. Measuring Entrepreneurship Education. In: European Commission. *Entrepreneurship determinants: culture and capabilities*. Luxembourg: Publications Office of the European Union. [pdf] Available at: <http://ec.europa.eu/eurostat/documents/3217494/5748437/KS-31-12-758-EN.PDF> [Accessed 01 October 2015].

Lackéus, M., 2015. *Entrepreneurship in Education. What, Why, When, How. Entrepreneurship360 Background Paper*. [pdf] Available at: http://www.oecd.org/cfe/leed/BGP_Entrepreneurship-in-Education.pdf [Accessed 03 December 2015].

McCoshan, A. et al, 2010. *Towards Greater Cooperation and Coherence in Entrepreneurship Education*. Report and Evaluation of the Pilot Action *High Level Reflection Panels on Entrepreneurship Education* initiated by DG Enterprise and Industry and DG Education and Culture. [pdf] Available at: http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/education-training-entrepreneurship/reflection-panels/files/entr_education_panel_en.pdf [Accessed 04 December 2014].

Moberg, K. et al, 2014. *How to assess and evaluate the influence of entrepreneurship education. A report of the ASTEE project with a user guide to the tools*. [pdf] Available at: http://archive.ja-ye.org/Download/jaye/ASTEE_REPORT.pdf [Accessed 30 January 2015].

OECD/European Commission, 2012. *Policy Brief on Youth Entrepreneurship. Entrepreneurial Activities in Europe*. Luxembourg: Publications Office of the European Union. [pdf] Available at: http://www.oecd.org/cfe/leed/Youth%20entrepreneurship%20policy%20brief%20EN_FINAL.pdf [Accessed 31 August 2015].

OECD, 2015. *Entrepreneurship at a glance*. [pdf] Available at: <http://www.oecd-ilibrary.org/docserver/download/3015021e.pdf?expires=1454079856&id=id&accname=guest&checksum=79E78F620DA4180D5C9018510A311E1>

Penaluna K., Penaluna A., Jones C. and Matlay H., 2014. When did you last predict a good idea? Exploring the case of assessing creativity through learning outcomes. *Industry & Higher Education*, Vol. 28, No 6, December 2014, pp. 399-410.

Redecker, C. et al., 2011. *The future learning. Preparing for Change*. Institute for Prospective Technological Studies.

Rosendahl Huber, L., Sloof, R. & van Praag, C.M., 2014. The Effect of Early Entrepreneurship Education: Evidence from a Field Experiment. *European Economic Review*, Vol. 72, 11.2014, pp. 76-97.

Runco, M.A. (1991). *Divergent Thinking*. New Jersey: Norwood.

Scottish Government, 2014. *Scotland Can Do Action Framework*. [pdf] Available at: <http://www.gov.scot/Resource/0044/00449131.pdf> [Accessed 28 January 2016].

SEECEL (South East Europe Centre for Entrepreneurial Learning), 2012. *A Charter for Entrepreneurial Learning: the Keystone for Growth and Jobs*. [pdf] Available at: <http://www.seecel.hr/UserDocImages/Charter%20text%20scan.pdf> [Accessed 1 December 2015].

Sorgman, M. and Parkison, K., 2008. The Future is Now: Preparing K-12 Teachers and Students for an Entrepreneurial Society. *Journal of Entrepreneurship Education* 11: 75–86.

Welsh Government, 2010. *Youth Enterprise Strategy: An Action Plan for Wales 2010-15*. [pdf] Available at: http://businesswales.gov.wales/bigideas/sites/bigideas/files/documents/pdf/YES-%20An%20Action%20Plan%20for%20Wales%202010-15%20Eng_1.pdf [Accessed 28 January 2016].

Young enterprise, 2015. Outcomes map: Enterprise education and employability. [pdf] Available at: http://www.young-enterprise.org.uk/wp-content/uploads/2015/01/Outcomes-map_Jan-2014.pdf [Accessed 06 October 2015].

GLOSSARY

I. Classification

The International Standard Classification of Education (ISCED) has been developed to facilitate comparisons of education statistics and indicators across countries on the basis of uniform and internationally agreed definitions. The coverage of ISCED extends to all organised and sustained learning opportunities for children, young people and adults, including those with special educational needs, irrespective of the institutions or organisations providing them or the form in which they are delivered. The first statistical data collection based on the new classification (ISCED 2011) takes place in 2014 (text and definitions adopted from UNESCO, 1997, UNESCO/OECD/Eurostat, 2013 and UNESCO/UNESCO Institute for Statistics, 2011).

ISCED 0: Pre-primary education

Programmes at level 0 (pre-primary), defined as the initial stage of organised instruction, are designed primarily to introduce very young children to a school-type environment, i.e. to provide a bridge between the home and a school-based atmosphere. Upon completion of these programmes, children continue their education at level 1 (primary education).

Pre-primary education is defined as the initial stage of organised instruction. It is school-based or centre-based and is designed for children aged at least 3 years.

ISCED 1: Primary education

Primary education provides learning and educational activities typically designed to provide pupils with fundamental skills in reading, writing and mathematics (i.e. literacy and numeracy). It establishes a sound foundation for learning, a solid understanding of core areas of knowledge and fosters personal development, thus preparing pupils for lower secondary education. It provides basic learning with little specialisation, if any.

This level begins between 5 and 7 years of age, is compulsory in all countries and generally lasts from 4 to 6 years.

ISCED 2: Lower secondary education

Programmes at ISCED level 2, or lower secondary education, typically build upon the fundamental teaching and learning processes which begin at ISCED level 1. Usually, the educational aim is to lay the foundation for lifelong learning and personal development that prepares students for further educational opportunities. Programmes at this level are usually organised around a more subject-oriented curriculum, introducing theoretical concepts across a broad range of subjects.

This level typically begins around the age of 11 or 12 and usually ends at age 15 or 16, often coinciding with the end of compulsory education.

ISCED 3: Upper secondary education

Programmes at ISCED level 3, or upper secondary education, are typically designed to complete secondary education in preparation for tertiary or higher education, or to provide skills relevant to employment, or both. Programmes at this level offer students more subject-based, specialist and in-depth programmes than in lower secondary education (ISCED 2). They are more differentiated, with an increased range of options and streams available.

This level generally begins at the end of compulsory education. The entry age is typically age 15 or 16. Entry qualifications (e.g. completion of compulsory education) or other minimum requirements are usually needed. The duration of ISCED level 3 varies from two to five years.

ISCED 4: Post-secondary non-tertiary education

Post-secondary non-tertiary programmes build on secondary education to provide learning and educational activities to prepare students for entry into the labour market and/or tertiary education. It typically targets students who have completed upper secondary (ISCED level 3) but who want to improve their skills and increase the opportunities available to them. Programmes are often not significantly more advanced than those at upper secondary level as they typically serve to broaden rather than deepen knowledge, skills and competencies. They are therefore pitched below the higher level of complexity characteristic of tertiary education.

ISCED 5: Short-cycle tertiary education

Programmes at ISCED level 5 are short-cycle tertiary education, and are often designed to provide participants with professional knowledge, skills and competencies. Typically, they are practice-based and occupation-specific, preparing students to enter the labour market. However, these programmes may also provide a pathway to other tertiary education programmes.

Academic tertiary education programmes below the level of a Bachelors programme or equivalent are also classified as ISCED level 5.

ISCED 6: Bachelors or equivalent level

Programmes at ISCED level 6 are at Bachelors or equivalent level, which are often designed to provide participants with intermediate academic and/or professional knowledge, skills and competencies, leading to a first degree or equivalent qualification. Programmes at this level are typically theory-based but may include practical elements; they are informed by state of the art research and/or best professional practice. ISCED 6 programmes are traditionally offered by universities and equivalent tertiary educational institutions.

ISCED 7: Masters or equivalent level

Programmes at ISCED level 7 are at Masters or equivalent level, and are often designed to provide participants with advanced academic and/or professional knowledge, skills and competencies, leading to a second degree or equivalent qualification. Programmes at this level may have a substantial research component but do not lead to the award of a doctoral qualification. Typically, programmes at this level are theory-based but may include practical components and are informed by state of the art research and/or best professional practice. They are traditionally offered by universities and other tertiary educational institutions.

ISCED 8: Doctoral or equivalent level

Programmes at ISCED level 8 are at doctoral or equivalent level, and are designed primarily to lead to an advanced research qualification. Programmes at this ISCED level are devoted to advanced study and original research and are typically offered only by research-oriented tertiary educational institutions such as universities. Doctoral programmes exist in both academic and professional fields.

II. Definitions

Active citizenship: Citizens participation in the political, social and civil life of society or the exercise of citizens' powers and responsibilities in policy-making.

Active learning: A model of instruction that places the responsibility of learning on learners themselves. To learn, students must do more than just listen: they must read, write, discuss, or be engaged in solving problems. Active learning relates to the three learning domains referred to as knowledge, skills and attitudes.

Assessment of learning outcomes: The process of evaluating individual achievements of learning objectives, using a variety of assessment methods (written, oral and practical/examinations, projects and portfolios) during or at the end of an education programme.

Central level/top level authorities: The central level is the top education level. It is located at national (state) level in the vast majority of countries. In some countries, the regions (Communities, *Länder*, etc.) have responsibility for all matters relating to education. In Belgium, Germany and the United Kingdom, the different jurisdictions have their own education ministry.

Continuing professional development: comprises formal and non-formal professional development activities, which may, for example, include subject-based and pedagogical training. In certain cases, these activities may lead to further qualifications.

Cross-curricular: Under this approach, rather than being explicitly mentioned as part of a particular subject, entrepreneurship education objectives are expressed as being transversal, horizontal or cross-curricular. They form part of the values and competences to be developed throughout all subjects and curriculum activities.

Curricula: are interpreted in a wide sense, to mean any official steering documents containing programmes of study or any of the following: learning content, learning objectives, attainment targets, guidelines on pupil assessment or syllabuses. Specific legal decrees in some countries have also been taken into account. Several types of document which allow different degrees of flexibility in the way they are applied may exist at the same time and apply to the same level of education in a country or state. However, they all establish the basic framework in which teachers are required (or advised, where mandatory requirements do not exist) to develop their own teaching to meet their pupils' needs.

Direct funding: Co-financing for projects in policy fields defined by the Commission (and managed directly by the Commission or other appointed authorities).

Entrepreneurship (key competence): The 2006 Recommendation of the European Parliament and the Council on Key Competences for Lifelong Learning identified a sense of initiative and entrepreneurship as one of eight key competences. This key competence refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. It supports individuals, not only in their everyday lives at home and in society, but also in the workplace. It helps them to be aware of the context of their work and to be able to seize opportunities, and it is a foundation for the more specific skills and knowledge needed by those establishing or contributing to social and commercial activity. This key competence should cover an awareness of ethical values and promote good governance.

Entrepreneurship education: is about learners developing the skills and mindset to be able to turn creative ideas into entrepreneurial action. This is a key competence for all learners, supporting personal development, active citizenship, social inclusion and employability. It is relevant across the

lifelong learning process, in all disciplines of learning and to all forms of education and training (formal, non-formal and informal) which contribute to an entrepreneurial spirit or behaviour, with or without a commercial objective. (Definition used by the Thematic Working Group on Entrepreneurship Education.)

Experiential learning: The process of learning through experience, more specifically defined as learning through reflection on doing. Experiential learning is distinct from rote or didactic learning, in which the learner plays a comparatively passive role.

General education: Education programmes designed to develop learners general knowledge, skills and competencies, as well as literacy and numeracy skills, often to prepare participants for more advanced education programmes at the same or a higher ISCED level and to lay the foundation for lifelong learning. These programmes are typically school- or college-based. General education does not include education programmes designed to prepare for an occupation or trade, or class of occupations or trades, nor do they lead directly to a labour market-relevant qualification (source: UNESCO – ISCED 2011).

Guidelines for implementing entrepreneurship education: Non-mandatory documents providing support for teachers to implement entrepreneurship education in their practice. They describe in a more concrete and detailed form how to implement objectives set in steering documents on entrepreneurship education. They can include practical examples and/or teaching materials.

Indirect funding: EU funds allocated to financial intermediaries to help final beneficiaries find seed money, start up, expand and transfer their business using equity financing and guarantees, or allocated to national/regional authorities via the Structural Funds.

Initial teacher education (ITE): A programme leading to a qualification as a teacher. It usually includes a general and a professional component. The general component refers to general education courses and mastery of the subject(s) that candidates will teach when qualified. The professional part provides prospective teachers with both the theory and practical skills needed for teaching and includes in-class placements.

Intrapreneurship: refers to employee initiatives in organisations to undertake something new, without being asked to do so. Hence, the intrapreneur focuses on innovation and creativity, and transforms an idea into a profitable venture, while operating within the organisational environment (source: Wikipedia).

Learning outcomes: According to the European Qualifications Framework (EQF), learning outcomes are statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competences (European Parliament and Council, 2008). Learning outcomes provide concrete attainment levels while learning objectives define more generally the competences to be developed.

Learning outcomes for entrepreneurship education: The examples below build on the dimensions identified by the European project ASTEE, Assessment Tools and Indicators for Entrepreneurship Education (Moberg et al., 2014), showing outcomes at beginner and advanced level for each category.

Entrepreneurial attitudes:

A1 Self-confidence

Beginner level: Begin to feel confident about oneself and to have higher aspirations for the future.

Advanced level: Feel confident in one's own values.

A2 Sense of initiative

Beginner level: Begin to search for solutions to a simple problem.

Advanced level: Suggest a solution to a problem and act on it.

Entrepreneurial skills:

S1 Creativity

The ability to think in new and imaginative ways. It enables pupils/students to generate ideas, solve problems, learn to innovate and create opportunities.

Beginner level: Develop creative ideas and recognise their value.

Advanced level: Develop creative ideas which solve problems and recognise opportunities in business and/or society.

S2 Planning

The ability to plan and structure tasks.

Beginner level: Apply simple planning skills and show an understanding for limited resources.

Advanced level: Plan goals and implement a supervised project.

S3 Financial literacy

The ability to understand financial statements and budgets.

Beginner level: Explain and compare the price and value of products.

Advanced level: Explain different possibilities to finance ideas.

Or:

Use appropriate financial and digital tools to address difficult or non-routine problems relating to a project.

S4 Organising resources

The ability to assemble and organise resources in order to exploit a(n) (business) opportunity.

Beginner level: Begin to develop a simple understanding of resources.

Advanced level: Generate added value from available resources.

S5 Managing uncertainty/risk

The ability to manage and cope with uncertainty in the process of implementing and exploiting a(n) (business) idea.

Beginner level: Begin to be aware of risk and to take responsibility for one's actions.

Advanced level: Identify risk and take responsibility for actions and decisions.

S6 Teamwork

The ability to reach goals and achieve assignments through collaboration, communication, as well as building effective relationships with others.

Beginner level: Begin to work with others.

Advanced level: Work together with agreed responsibilities, deal with possible problems and negotiate solutions.

Entrepreneurial knowledge:

K1 Assessing opportunities

Beginner level: Recognise products and services supplied at local level.

Or:

Understand that some (business) ideas work and others don't.

Advanced level: Compare benefits and costs.

K2 Role of entrepreneurs in society

Beginner level: Understand the particular role of an entrepreneur.

Advanced level: Explain the particular role of an entrepreneur.

K3 Entrepreneurial career options

Beginner level: Understand that there are different reasons why people start a business (making money, helping others, or doing something different).

Advanced level: Identify entrepreneurial career options among business and social entrepreneurship.

Partnership agreements: are between the European Commission and individual EU countries and set out national authorities plans on how to use funding from the European Structural and Investment Funds between 2014 and 2020. They outline each country's strategic goals and investment priorities, linking them to the overall aims of the Europe 2020 strategy for smart, sustainable and inclusive growth.

Practical entrepreneurial experience: is an educational experience where the learner has the opportunity to come up with ideas, identify a good idea and turn that idea into action. It should be a student led initiative either individually or as part of a small team, involve learning-by-doing and should produce a tangible outcome. The aim of such an opportunity is for learners to develop the skills, confidence and capability to spot opportunities, identify solutions and put their own ideas into practice. (First mentioned in the Rethinking Education Communication.) Current definition developed for the EACEA call for proposals for policy reforms, EACEA, 2014.)

Project-based learning: is a teaching method, in which students gain knowledge and skills by working for an extended period of time to investigate and respond to a complex question, problem, or challenge.

School-based IVET: In line with the objectives of entrepreneurship education as a transversal key competence for all students, in this report the coverage of school-based initial vocational education is limited to the curriculum common to ALL students (the core curriculum), and to optional subjects available to ALL students, regardless of the particular vocational branch they are following. Branches that are essentially devoted to entrepreneurship as a career path, such as business studies, are not considered, as this moves away from the concept of entrepreneurship as a transversal key competence.

Social enterprises: seek to serve the community's interest (social, societal, environmental objectives) rather than profit maximisation. They often have an innovative nature, through the goods or services they offer, and through the organisation or production methods they use. They often employ society's most fragile members (socially excluded persons). They thus contribute to social cohesion, employment and the reduction of inequalities.

Steering documents/recommendations/guidelines: Official documents establishing the central-/top-level framework which govern the learning and development of young people in education and training institutions. They may include any or all of the following: learning content, objectives and outcomes, attainment targets as well as guidelines on pedagogical approaches, learning activities and assessment methods. Several types of documents, which allow different degrees of flexibility in the way they are applied, may exist at the same time and apply to the same age range in a country or state (e.g. educational legislation, central-/top-level curriculum, central guidelines and official agreements). Alternatively, there may be only one main central-/top-level framework for the curriculum in a country/region within a country, although this may be divided into several sub-documents.

Strategy: The Expert Group on Indicators on Entrepreneurial Learning and Competence defines strategies as official policy documents ... from competent central authorities (national or regional) that discuss a significant area of policy making and draw a general and detailed outline of steps to be taken for a specific (usually meso/macro) period of time. Strategies can comprise a vision, identify objectives and goals (qualitative and quantitative), describe processes, authorities and people in charge, identify funding sources, make recommendations, etc. A strategy also determines the partnerships that need to be constructed: between authorities and stakeholders, among stakeholders themselves, etc., and how these affect the way the strategy is developed and its goals achieved.

Strategy for entrepreneurship education: One of the objectives of the Oslo Agenda for Entrepreneurship Education in Europe (European Commission, 2006) was to launch national strategies for entrepreneurship education, with clear objectives covering all stages of education. Such strategies should call for the active involvement of all relevant actors (public and private), and establish a general framework while defining concrete actions. These will range from the inclusion of entrepreneurship into the national curricula to providing support to schools and teachers. The overall goal will be to ensure that young people can progress coherently in acquiring entrepreneurial competences across all stages of the education system.

Subject-integrated approach: The integration of entrepreneurship education into other subjects that usually form part of the compulsory curriculum. In most cases, entrepreneurship is taught as part of social sciences, which may include history, geography, government and politics or civics education as well as other related areas such as community studies.

Teaching methods: used as a synonym for pedagogy, this term refers to the set of techniques and strategies which enable learning to take place, and thus provide opportunities for the acquisition of knowledge, skills, attitudes and dispositions within a particular social and material context. They refer to the interactive processes between educational staff and pupils/students and to the learning environment (which includes the school, the family and community) (based on Siraj-Blatchford, Sylva, Muttock, Gilden & Bell, 2002).

Venture creation: The process of turning a new idea or technology into a business that can succeed and will attract investors (Cambridge dictionary) .

Vocational education: allows learners to acquire the knowledge, skills and competencies specific to a particular occupation or trade or class of occupations or trades. Vocational education may have work-based components (e.g. apprenticeships). Successful completion of such programmes leads to labour-market relevant vocational qualifications acknowledged as occupationally-oriented by the relevant national authorities and/or the labour market. (Source: UNESCO – ISCED 2011.)

Widespread practice: Where central level recommendations/guidelines do not cover an area of entrepreneurship education, this report provides information on widespread practice where it is evidence-based, i.e. supported by references to representative surveys, analyses and reports.

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Belgium – French Community

Definition of entrepreneurship education

In the place of a national definition, the French Community of Belgium refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽¹⁴³⁾.

Related strategy

There is a specific national strategy for entrepreneurship education (EE) ⁽¹⁴⁴⁾ for the French and German-speaking Communities of Belgium.

After a first strategic plan, from 2007 to 2013, the Walloon Agency for Economic Stimulation – now called the Agency for Entrepreneurship and Innovation (AEI) – created a second plan covering a programme for entrepreneurship from 2014 to 2020. 'ENTREPRENEURSHIP 3.15: 3 Axes and 15 Levers for an Entrepreneurial Generation' covers ISCED levels 1-8 and is led by AEI, with stakeholders that include the Ministry of the French Community, the Ministry of the German-speaking Community, education institutions, expert networks and business organisations.

Main objectives

The general aim of the strategy, developed by the Walloon region, is to support collaboration between partners and increase the number of entrepreneurs, but it also seeks to make future generations more enterprising in their professional lives and improve regional performance.

Concrete actions

There are three strategy areas, each with five actions to support change.

1. To support entrepreneurship education:

- help schools become familiar with the entrepreneurship spirit – ensuring a minimum commitment to EE from each primary, secondary and higher education institution;
- involve teachers – supporting all those wishing to invest in entrepreneurship through coaching, training, networking, and the provision of tools;
- prepare prospective teachers, – providing appropriate support to those embarking on a teaching career, so they have a basic knowledge of business and entrepreneurship, and above all a positive mind set;
- involve the world of enterprise – allowing it to work with education to enhance the impact of these measures;
- ensure that an experience of entrepreneurship reaches all young people – so that each pupil (before the end of his education career) has a realistic understanding of both business and the Walloon economy in a global context, and has participated in a minimum number of activities to develop entrepreneurial attitudes and skills.

⁽¹⁴³⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽¹⁴⁴⁾ http://as-e.be/sites/default/files/public/documents/2262_13dossier_entrepreneuriat_3_15_mef_version_def.pdf

2. To invest in the next generation of entrepreneurs:
 - support entrepreneurial schools – identify, recognise, support and encourage networking between 'entrepreneurial schools', providing a suitable definition for primary, secondary and higher education;
 - intensify entrepreneurial programmes – encourage entrepreneurial schools to develop more intensive programmes targeting economic and entrepreneurial knowledge, attitudes and skills for young people enrolled in entrepreneurial start-ups or entrepreneurship-linked programmes. If necessary, to support programmes whose purpose is centred on entrepreneurship;
 - challenge young people – provide facilities that enable young people interested in entrepreneurship to meet, network and work on real or virtual projects;
 - promote self-confidence – value the development of entrepreneurial attitudes and skills of young people;
 - network with and involve the entrepreneurial ecosystem – involve the public and private regional and sub-regional entrepreneurial ecosystems, and enable the business world to collaborate to enhance the impact of these measures.
3. To translate investment into businesses with high growth potential, and fan the entrepreneurial flame during the first 10 years of professional life:
 - incubate real projects in academic environments – create the conditions in higher education for the development of real projects led by students, researchers or doctoral students;
 - support young entrepreneurs – improve resources and advice support for young graduates developing their own projects;
 - train young entrepreneurs – offer entrepreneurial training or propose sources of support from the wider community;
 - demonstrate entrepreneurial success – inspire and promote entrepreneurship through publicising success stories and testimonials e.g. through the *Grand prix Wallon de l'Entrepreneuriat*;
 - fan the entrepreneurial flame – attract new potential entrepreneurs through the existing support system, sustaining their entrepreneurial drive by making them part of the network and giving them the opportunity to discover the available support.

Monitoring Framework

In the Walloon Region, two sets of indicators are planned – indicators of actions and indicators of impact on attitudes. All actions implemented in axes 1 and 2 will be recorded. An assessment of the changing attitudes of educational professionals and young people is planned and will update the results of surveys conducted in 2011 and 2013.

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is a cross-curricular objective at all school levels. However, schools have autonomy in determining curricula and teaching methods.

In ISCED 1, there are some examples of schools that particularly encourage attitudes and abilities linked to entrepreneurship, e.g. initiative, creativity, autonomy and responsibility.

In ISCED 2-3, entrepreneurship education is part of the optional subject 'Economic Sciences'. Implementation guidelines and teaching materials for this subject are available ⁽¹⁴⁵⁾.

Learning outcomes

In ISCED 3, the learning outcomes of 'Economic Sciences' (an optional subject) are defined as assessment criteria ⁽¹⁴⁶⁾, identifying transversal skills (such as analysis and solving problems) within the context of the business specific aspects such as contracts or accounting. Each network/school develops its own curricula, so there is limited guidance.

For example, in schools organised by the French Community, ISCED 3 students should:

- gather and interpret the information necessary for solving economic problems;
- apply economic concepts to problem situations;
- become aware of the opportunities and constraints of consumer and producer behaviour;
- prepare to be a responsible adult – a responsible consumer and producer adult as well as a responsible citizen;
- become aware of the need to manage and rationally organise the business;
- conduct simple market research and develop a product through a mini-company, or conduct market research for the financing of an extra-curricular activity.

Teacher education and support

Entrepreneurship education is not integrated into the core curriculum for ITE. However, AEI would like to support initiatives in higher education to promote research and teaching innovation, particularly to develop entrepreneurial projects by prospective teachers e.g. through scholarships. For CPD, AEI plans to organise training for teachers on entrepreneurial education.

The Institute for In-Service Training (IFC) provides CPD courses on entrepreneurship for teachers of economics and social sciences, teachers of technical and vocational subjects in general secondary education and school-based IVET. Last year, the IFC together with the Foundation for Education and Education Networks started a project called '*Entr'apprendre*'. In 2015/16, 16 enterprises will take part in this project.

Moreover, in the Walloon Region, the AEI aims to support all teachers interested in entrepreneurship, opening the minds of teachers to the world of business, and training teachers in entrepreneurial/creative pedagogy and methods. It runs a network of pedagogical advisors (*agents de sensibilisation à l'esprit d'entreprendre* – ASEE) to promote EE at all levels and runs networking workshops for teachers on EE. So far, it has developed eight tools to support teachers ⁽¹⁴⁷⁾.

In the Brussels region, the 'Boost Your Talent' ⁽¹⁴⁸⁾ initiative is managed by the Brussels Enterprise Agency (ABE) ⁽¹⁴⁹⁾. It has been running since 2008 with the aim of fostering an entrepreneurial spirit in schools. One of its objectives is to provide support to teachers integrating this dimension at school level.

⁽¹⁴⁵⁾ <http://www.enseignement.be/index.php?page=24399>
<http://www.enseignement.be/index.php?page=25137&type=3&annee=13,14,15,16,17,18&discipline=10&act=search>

⁽¹⁴⁶⁾ <http://www.enseignement.be/index.php?page=24924&navi=592>

⁽¹⁴⁷⁾ See p. 11 of the strategy.

⁽¹⁴⁸⁾ <http://www.boostyourtalent.be/enseignants/programmes/?lang=fr>

⁽¹⁴⁹⁾ <http://www.abe-bao.be/fr>

Belgium – German-speaking Community

Definition of entrepreneurship education

In the place of a national definition, the German-speaking Community of Belgium refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽¹⁵⁰⁾.

The official education website in the German-speaking Community says the following on the entrepreneurial spirit:

'The entrepreneurial spirit must be cultivated from an early age and can only be developed through experience. The imagination, creativity and entrepreneurial spirit of its citizens are essential assets for the region in which they live. Entrepreneurial spirit means the ability to adapt to the demands of a world that is changing, and helps to create jobs and strengthen the economic development of a region' ⁽¹⁵¹⁾.

Related strategy

There is a specific national strategy for entrepreneurship education (EE) ⁽¹⁵²⁾ for the German-speaking and French Communities of Belgium. After a first strategic plan from 2007 to 2013, a new programme for EE was developed. 'ENTREPRENEURSHIP 3.15: 3 Axes and 15 Levers for an Entrepreneurial Generation' spans 2014-2020 and covers ISCED 1-8. It is led by the Walloon Agency for Economic Stimulation (ASE), now called the Agency for Entrepreneurship and Innovation (AEI) – with a range of stakeholders from government, education and business.

Main objectives

The general aim of the strategy is to support collaboration between partners and increase the number of entrepreneurs, but it also seeks to make future generations more enterprising in their professional lives and improve regional performance.

Concrete actions

There are three strategy areas, each with five actions to support change.

1. To support entrepreneurship education:

- help schools become familiar with the entrepreneurship spirit – ensuring a minimum commitment to EE from each primary, secondary and higher education institution;
- involve teachers – supporting all those wishing to invest in entrepreneurship through coaching, training, networking, and the provision of tools;
- prepare prospective teachers – providing appropriate support to those embarking on a teaching career, so they have a basic knowledge of business and entrepreneurship, and above all a positive mind set;

⁽¹⁵⁰⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽¹⁵¹⁾ http://www.bildungserver.be/desktopdefault.aspx/tabid-2459/4428_read-31787/

⁽¹⁵²⁾ http://as-e.be/sites/default/files/public/documents/2262_13dossier_entrepreneuriat_3_15_mef_version_def.pdf

- involve the world of enterprise – allowing it to work with education to enhance the impact of these measures;
 - ensure that an experience of entrepreneurship reaches all young people – so that each pupil (before the end of his education career) has a realistic understanding of both business and the Walloon economy in a global context, and has participated in a minimum number of activities to develop entrepreneurial attitudes and skills.
2. To invest in the next generation of entrepreneurs:
- support entrepreneurial schools – identify, recognise, support and encourage networking between 'entrepreneurial schools', providing a suitable definition for primary, secondary and higher education;
 - intensify entrepreneurial programmes – encourage entrepreneurial schools to develop more intensive programmes targeting economic and entrepreneurial knowledge, attitudes and skills for young people enrolled in entrepreneurial start-ups or entrepreneurship-linked programmes. If necessary, to support programmes whose purpose is centred on entrepreneurship;
 - challenge young people – provide facilities that enable young people interested in entrepreneurship to meet, network and work on real or virtual projects;
 - promote self-confidence – value the development of entrepreneurial attitudes and skills of young people;
 - network with and involve the entrepreneurial ecosystem – involve the public and private regional and sub-regional entrepreneurial ecosystems, and enable the business world to collaborate to enhance the impact of these measures.
3. To translate investment into businesses with high growth potential, and fan the entrepreneurial flame during the first 10 years of professional life:
- incubate real projects in academic environments – create the conditions in higher education for the development of real projects led by students, researchers or doctoral students;
 - support young entrepreneurs – improve resources and advice support for young graduates developing their own projects;
 - train young entrepreneurs – offer entrepreneurial training or propose sources of support from the wider community;
 - demonstrate entrepreneurial success – inspire and promote entrepreneurship through publicising success stories and testimonials;
 - fan the entrepreneurial flame – attract new potential entrepreneurs through the existing support system, sustaining their entrepreneurial drive by making them part of the network and giving them the opportunity to discover the available support.

Monitoring framework

In the German-speaking Community of Belgium and the Wallon region, two sets of indicators are planned – on actions taken and on the impact on attitudes. All actions implemented in axes 1 and 2 will be recorded. An assessment of the changing attitudes of educational professionals and young people is planned and will update the results of surveys conducted in 2011 and 2013.

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is integrated in the curricula of school-based IVET as a cross-curricular objective but is not integrated into ISCED levels 1-3. However, the *Skills Guide for Career Choice and Career Guidance Preparation* ⁽¹⁵³⁾ is a cross-curricular skills guide for all subjects in ISCED 1-3. This makes strong links between school and work, defining some learning outcomes connected to EE.

Learning outcomes

Curricula for school-based IVET, the cross-curricular skill for ISCED 1-3 and some subject curricula (ISCED 1-3) include some EE-related learning outcomes. These mainly link to entrepreneurial attitudes (self-confidence and sense of initiative). In school-based IVET, a wide range of entrepreneurial learning outcomes (attitudes, skills and knowledge) are integrated into curricula ⁽¹⁵⁴⁾.

Teacher education and support

Entrepreneurship education is not yet integrated into mandatory ITE programmes for ISCED 0-1 in the Community (NB: ITE is only organised at these levels in the Community). However, AEI would like to support initiatives in higher education to promote research and teaching innovation, particularly to develop entrepreneurial projects by prospective teachers e.g. through scholarships.

The Institute for In-Service Training (IFC) provides CPD courses on entrepreneurship for teachers of economics and social sciences and teachers of technical and vocational subjects in general secondary education and school-based IVET. Last year, the IFC together with the Foundation for Education and Education Networks started a project called 'Entr'Apprendre'. In 2015/16, 16 enterprises will take part in this project.

The AEI is responsible for a network of pedagogical advisors to promote EE (93 % of secondary and HE institutions are covered). It runs networking workshops on entrepreneurship education for teachers and has developed eight teaching tools e.g. 'Kids Attitudes' and 'Crealoie' (to be expanded in coming years).

In 2014, a guide ⁽¹⁵⁵⁾ was developed by the study group School and Economy in the German-speaking Community (*Studienkreis Schule und Wirtschaft in der DG*) to promote activities where teachers and students at ISCED 1-3 can connect with the world of work.

⁽¹⁵³⁾ http://www.bildungsserver.be/PortalData/21/Resources/downloads/schule_ausbildung/schulische_ausbildung/rahmenplaene_neu/RP_Schulische_Berufswahlvorbereitung_und_Berufsorientierung_PRIM_SEK.pdf

⁽¹⁵⁴⁾ <http://www.iawm.be/de/ausbildung/Lehrprogramme/Allgemeinkenntnisse.pdf>

⁽¹⁵⁵⁾ http://www.schulewirtschaft.be/Studienkreis_Schule_Wirtschaft/PDF/Leitfaden_Endversion-1504.pdf

Belgium – Flemish Community

Definition of entrepreneurship education

In Flanders, entrepreneurship education (EE) is used as the generic term describing education which fosters an entrepreneurial spirit and/or entrepreneurship.

'When referring to an entrepreneurial spirit we mean the ability to take initiatives, to develop ideas in a certain context, to show perseverance, a sense of responsibility, pluck, creativity and self-direction, i.e. the personal qualities which enable people to convert ideas into actions. It is also about designing and managing projects to achieve objectives. The entrepreneurial spirit delivers added value to each individual in his or her daily life at home and in society and, in addition, helps him or her contribute to and seize opportunities within the working environment.

The term entrepreneurship relates to all stages an entrepreneur may go through when developing an enterprise, both in the private sector and in the non-profit sector. This requires a good understanding of the operation of the economy and of the possibilities and challenges an entrepreneur or an organisation will be confronted with. The entrepreneurial spirit is considered here as a condition sine qua non for entrepreneurship. Moreover, it is of importance to be fully aware of the responsibility enterprises have in playing an ethical role, and of the positive influence they can have both on themselves and on their environment, for example, through fair trade or corporate social responsibility' ⁽¹⁵⁶⁾.

Related strategy

There is a specific strategy addressing entrepreneurship education in Belgium – Flanders. The 'Entrepreneurship Education Action Plan' covers ISCED 1-8 and runs from 2011-2014. An updated action plan for 2015-2019 was presented to the Flemish Government on 11 December 2015.

Main objectives

The Action Plan 2011-2014 was established for the purpose of realising four strategic objectives. These objectives are of equal importance, but may not be equally present at all times:

- pupils, students and course participants have the necessary entrepreneurial spirit when leaving education;
- before leaving education, pupils, students and course participants have had the opportunity to prepare themselves for entrepreneurship;
- pupils, students and course participants are motivated to become entrepreneurs;
- teachers show entrepreneurial spirit and have a balanced view of entrepreneurship.

Concrete actions

Specific actions are defined for each strategic objective.

Ministries and stakeholders involved

This Action Plan was created in collaboration with all the policy actors involved:

- government departments: Department of Education and Training; Department of Economy, Science and Innovation; Department of Work and Social Economy; Department of Agriculture and Fisheries;

⁽¹⁵⁶⁾ <http://www.ondernemendonderwijs.be/Proefproject%20stages/actieplan%20ondernemerschapsonderwijs%202011-2014%20versie%20bijgestuurd%20na%20adviezen.doc>

- ministerial offices: Office of the Minister-President of the Government of Flanders and the Flemish Minister for the Economy, Foreign Policy, Agriculture and Rural Policy; the Office of the Flemish Minister for Finance, Budget, Work, Town and Country Planning and Sport; Office of the Flemish Minister for Education, Youth, Equal Opportunities and Brussels Affairs;
- government agencies: Enterprise Flanders Agency, Flemish Agency for Entrepreneurship Training SYNTRA Vlaanderen.

The Action Plan was submitted for advice to the Flemish Education Council, the Socio-Economic Council of Flanders and the network for EE providers.

Monitoring Framework

Flanders is currently working on a monitoring framework related to the Action Plan.

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is explicitly recognised as a cross curricular objective for ISCED 2-3 including school-based IVET, and included as an optional separate subject for ISCED 3.

Freedom of education is a constitutional right in Belgium and so schools have autonomy in determining the curriculum and teaching methods. However, to be funded by the government, they must meet attainment targets, which incorporate entrepreneurial skills and knowledge. The Action Plan outlines how schools can design a curriculum for EE, with a central message that it must be incorporated in all courses and levels, and that the entrepreneurial spirit is provided and gradually developed throughout the Entrepreneurial Education line of learning.

Learning outcomes

In nursery school, the Action Plan proposes a focus on actions to foster the entrepreneurial spirit. From primary school onwards, the focus is on promoting an entrepreneurial spirit, but also a positive image of enterprises and raising awareness about the importance to society. A first real step to connecting with entrepreneurs must be taken here.

Secondary and higher education continue to work on the promotion of the entrepreneurial spirit and a realistic image of enterprises and entrepreneurship should be translated into the curriculum, pedagogy and evaluation. Every interested pupil should have the opportunity to learn about running a business. In secondary education, it is crucial that it is integrated and establishes a link with other areas; for example, languages, sciences and technology. Finally, within career guidance, it is also important to include starting up a new business as a valid career choice.

Teacher education and support

There is no specific national provision for ITE or CPD related to entrepreneurship education. Teacher training institutes have autonomy in terms of what they include in ITE. VLAJO (linked to Junior Achievement) and UNIZO act as expertise centres on EE, conducting ad hoc teacher training and organising numerous extra-curricular activities and competitions. They are both partly funded by the government of Flanders.

Bulgaria

Definition of entrepreneurship education

In the place of a national definition, Bulgaria refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽¹⁵⁷⁾.

Related strategy

There is no specific national strategy for entrepreneurship education (EE) in Bulgaria. Entrepreneurship education is addressed in the 'National Strategy for Lifelong Learning 2014-2020' ⁽¹⁵⁸⁾, which covers each stage of education and training.

Main objective

The primary objective related to entrepreneurship education is section 3.3.4, 'Promoting education and training aligned to the needs of the economy and changes in the labour market'. This is related to building partnerships between business and all sectors of education, training and research, in order to develop better labour market skills as well as promote innovation and enterprise. The main text suggests that this can be achieved through a focus on curricula at all levels, as well as through career guidance policy and practice at all levels; it also suggests the introduction of a learning outcomes validation system. The text highlights the importance of the key competences including entrepreneurship, as well as the development of soft skills.

Concrete actions

There is an Action Plan for the implementation of the strategy ⁽¹⁵⁹⁾. The EE related actions include:

- expanding the network of training companies;
- providing the conditions for motivating pedagogical staff to improve their skills by organising training courses for the development of competences in priority areas;
- training teachers in the development of entrepreneurial competencies;
- updating curricula and programmes involving business representatives in higher education (this action is also relevant to VET).

Ministries and stakeholders involved

The main partners of the Ministry of Education and Science in implementing the National Strategy for Lifelong Learning are the Ministry for the Economy and the Ministry of Labour and Social Policy. The main NGO partner is Junior Achievement Bulgaria.

⁽¹⁵⁷⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽¹⁵⁸⁾ <http://www.mon.bg/?h=downloadFileandfileId=5701>

⁽¹⁵⁹⁾ <http://www.mon.bg/?go=pageandpageId=74andsubpageId=143>

Monitoring framework

There is no specially designed monitoring framework. Strategy implementation will be monitored through an annual report, which will contain the level of implementation of the set of indicators included in the Action Plan. An electronic platform will be built for monitoring and reporting on the implementation of the strategy. Indicators are also included in learning outcomes in curriculum.

In the curriculum

Explicit integration in the curriculum

Building skills for initiative and entrepreneurship is one of the key competences in the Bulgarian education system, and features as a recommendation to be developed through all compulsory subjects in school education. From this general recommendation, specific learning outcomes are defined in two subjects linked to cultural education: 'Home Lifestyle and Technologies' (ISCED 1-2) and 'Social Sciences and Religion' (ISCED 3).

Elements of entrepreneurship education are generally integrated into all subjects at an early stage. At ISCED 2, the 'Home Techniques and Economics' subject includes core content on organisation and economics. At ISCED 3, the 'World and Personality' subject includes core content on citizens and the economy, while in 'Geography and Economics', elements of entrepreneurship education are included in all its core content areas.

At ISCED 2 (4th year) and ISCED 3 each school can choose from different branches. In 'Technology – Entrepreneurship and Business', EE is compulsory and integrated into all subjects in 50 schools. The implementation covers both theory and practice (through online simulation games and student mini-enterprises), with support from business and parents. This is based on programmes from Junior Achievement Bulgaria.

Learning outcomes

Learning outcomes are included at all levels of curricula. In 'Home Lifestyle and Technologies', the following learning outcomes are specified: 'Development of skills and competences for teamwork, taking different roles and responsibilities and striving for success and self-affirmation'.

'Home Technology and Economics' at ISCED 2 includes:

- understanding of economic indicators – expenditure, cost price, pricing and revenue;
- knowledge of the use of money and other incentives in a familiar manufacturing activity;
- knowledge of some basic differences between money and the capital needed to carry out an activity;
- knowledge of the budget needed for the implementation of an activity;
- knowledge of establishing an organisation as a requirement for performing manufacturing activities and public utility services;
- ability to compare, reproduce, analyse old and new ways of working in some crafts such as baking, bricklaying, upholstery, millinery, footwear, hairdressing and jewellery.

In 'Geography and Economics' at eighth grade, the theme 'Economy of Bulgaria' is an embedded activity where students study market research and business location. The curriculum of 'Geography and Economics' includes the theme 'National Holding Structure, Factors and Indicators'. By studying

this topic, students study cases and substantiate with evidence the problems of the regions. The students work with legal documents such as the Law on Economic Development and the Law on Regional Development. In the 'World and Personality' subject, a separate area called 'Citizens and the Economy' is included as core content. The learning process in this subject includes the development of student projects.

Teacher education and support

There is institutional autonomy concerning the integration of entrepreneurship education into ITE curricula. Guidelines for EE are integrated in the guidance for ITE.

The Ministry of Education and Science strive to provide the teacher training to support development of entrepreneurial skills in students through a national programme 'Qualification'. These CPD courses aim to change work approaches in schools, strengthen practical activities and introduce the design principle of work in EE. They target primary and general secondary teachers. The Bulgarian central authorities have also developed materials which are provided only to teachers participating in CPD activities on entrepreneurship education and publishes a list of approved textbooks (including on EE) on their web site ⁽¹⁶⁰⁾.

⁽¹⁶⁰⁾ www.mon.bg/?go=pageandpagelid=10andsubpagelid=70

Czech Republic

Definition of entrepreneurship education

In the place of a national definition, some experts in the Czech Republic refer to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽¹⁶¹⁾.

Related strategy

In the Czech Republic, there are several national strategies that link to entrepreneurship education (EE); however none of these have EE as the principal theme. These include:

- the 'Research and Innovation Strategy for Smart Specialisation 2014-2020' ⁽¹⁶²⁾ – Ministry of Education, Youth and Sports, which addresses a range of EE actions;
- the 'National Innovation Strategy of the Czech Republic 2012-2020' ⁽¹⁶³⁾ – Ministry of Education, Youth and Sports, Ministry of Industry and Trade Strategy, which includes a part devoted to changes in education content with respect to creativity, entrepreneurship and key competences. It stresses the importance of cooperation between schools and employers and the link between the system of vocational education and the labour market, and underlines the need to respect these elements during curricular reform and the establishment of the guidance system. ISCED levels 1, 2 and 3 are considered;
- the 'Strategy for Lifelong Learning in the Czech Republic 2007' ⁽¹⁶⁴⁾, which emphasises increasing the functional literacy of students and the development of key competences;
- the 'Youth Support Strategy 2014-2020' ⁽¹⁶⁵⁾ – Ministry of Education, Youth and Sports, which includes commitments for the transition of young people between school and work and creating conditions for their smooth integration into the labour market;
- 'Back to the Top: the International Competitiveness Strategy for the Czech Republic 2012-2020' ⁽¹⁶⁶⁾, which includes a chapter on education, with emphasis on the need for education to address independent creative thinking, the ability to continue learning and the ability to cooperate.

The promotion of EE is most effectively included in the 'Research and Innovation Strategy for Smart Specialisation' led by the Ministry of Education, Youth and Sports and covering the period 2014-2020. This is a broader strategy addressing effective targeting of financial resources – European, national, regional and private – on activities to strengthen research and innovation capacities in promising priority areas. This aims at supporting the full exploitation of knowledge potential at national and regional levels, resulting in a reduction of unemployment and stronger economic competitiveness. The strategy is relevant to ISCED 1-3, school-based IVET and ISCED 5-8. An implementation plan is being developed where partnerships with both education and business are included.

⁽¹⁶¹⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽¹⁶²⁾ <http://www.vyzkum.cz/FrontClanek.aspx?idsekce=753765andad=1andattid>

⁽¹⁶³⁾ <http://databaze-strategie.cz/cz/mpo/strategie/narodni-inovacni-strategie-ceske-republiky>

⁽¹⁶⁴⁾ http://www.msmt.cz/uploads/Zalezitosti_EU/strategie_2007_EN_web_jednostrany.pdf

⁽¹⁶⁵⁾ <http://www.msmt.cz/file/33599/>

⁽¹⁶⁶⁾ <http://www.vlada.cz/assets/media-centrum/aktualne/Strategie-mezinarodni-konkurenceschopnosti-Ceske-republiky.pdf>

Concrete actions

- The general introduction of validated tools for the diagnosis and development of entrepreneurship and soft skills, as defined by the National System of Occupations, at all educational levels, including teacher training to work with these tools.
- Implementation of practice-based learning activities.

Ministries and stakeholders involved

Ministry of Education, Youth and Sports, business, universities, research institutions, public sector and NGOs.

Monitoring framework

The strategy is new and no monitoring framework is currently in place.

In the curriculum

Explicit integration in the curriculum

In the Czech Republic, entrepreneurship education is integrated as cross-curricula themes (CCTs) for ISCED levels 1-2 ('Morals, Character and Social Education' and 'Civic Education for Democracy') and 3 ('Morals, Character and Social Education').

Schools have full autonomy to decide on how to implement CCTs in their teaching. They can be included in general subjects (such as civics, social studies), but schools can also arrange special courses, projects, excursions, etc. Nevertheless, CCTs form a compulsory part of curriculum at ISCED 1, 2 and 3 levels, although they need not be present in each grade. Although there are no separate specific subjects on entrepreneurship at ISCED levels 1-3, entrepreneurship is included in several compulsory or optional subjects:

- ISCED 1: 'Humans and their World' (compulsory) and 'Ethical Education' (optional);
- ISCED 2: The educational areas 'Humans and Society: Civics', 'The World of Work' (compulsory at grades 8 and 9). Creative thinking and self-evaluation are included in 'Ethical Education' (optional subject);
- ISCED 3: 'Humans and Society: Basics of Civics' and 'Social Sciences' (compulsory at grades 10 and 11), 'Man and the World of Work' (compulsory subject, includes e.g. procedures for setting up a pupil's own business), and 'Ethical Education' (optional).

In school-based IVET, entrepreneurship education is integrated into the compulsory subject 'Basics of Civic Education'. It is also part of the cross-curricular themes 'Citizens in a Democratic Society' and 'Man and the World of Work'.

Learning outcomes

In the national curricula, the following learning outcomes are defined.

- Entrepreneurial attitudes:
 - self-confidence (ISCED 2)
 - sense of initiative (ISCED 1-3).
- Entrepreneurial skills:
 - creativity (ISCED 1-2)
 - financial literacy (ISCED 1-3)
 - planning (general ISCED 3)
 - organising resources (school-based IVET)
 - managing/uncertainty risk (general ISCED 3)
 - teamwork (ISCED 1-3).

Learning outcomes for EE, as well as educational areas, are defined in particular framework educational programmes. How the development of the individual outcomes is linked during the learning process is based on the decision of the individual school.

Teacher education and support

Higher education institutes are autonomous and can choose whether to include entrepreneurship education in ITE study programmes.

CPD courses focused on financial literacy are available to all teachers. In August 2014, the Further Education Fund (FDV), an organisation of the Ministry of Labour and Social Affairs, launched the project 'Internships in Companies – Education Practice 2' (*Stáže ve firmách – vzdělávání praxí 2*)⁽¹⁶⁷⁾. One of the results of this project, which ended in September 2015, is the National Catalogue of Internships, an online freely accessible platform, which aims to offer internship opportunities for potential candidates.

Guidelines for entrepreneurship education have been developed. The most extensive resource repository is the Methodology Portal⁽¹⁶⁸⁾, which aims to inspire teachers to teach in innovative ways and share experience with colleagues.

⁽¹⁶⁷⁾ <http://www.stazevefirmach.cz>

⁽¹⁶⁸⁾ <http://clanky.rvp.cz/clanek/k/o/4646/PODPORA-PODNIKAVOSTI---INSPIROMAT.html/>

Denmark

Definition of entrepreneurship education

The national definition of entrepreneurship is (¹⁶⁹):

'Entrepreneurship is when you act upon opportunities and ideas and transform them into value for others. The value that is created can be financial, cultural or social'.

Related strategy

In Denmark, entrepreneurship education (EE) is specifically addressed within a broader strategy, the Danish innovation strategy: 'Denmark – a Nation of Solutions' (¹⁷⁰). This was launched in 2012 and covers the period to 2020. It includes a range of actions addressing all education levels. A previous specific strategy for EE remains relevant (¹⁷¹). The innovation strategy states that young people are an overlooked resource with respect to innovation and should play a bigger part in the innovation policy.

Main objectives

The innovation strategy focuses on three areas: innovation is to be driven by societal challenges, more knowledge is to be translated to value, and education is to contribute to increasing the capacity for innovation.

Concrete actions

A series of EE initiatives are incorporated into actions 18-27 of the innovation strategy:

18. promote cooperation with enterprise on practice-oriented innovation;
19. increase practice elements at all education levels to support innovation (includes career guidance);
20. support innovation in the education of teachers and educators;
21. support initiatives for talented students;
22. create a cohesive primary school system to promote talented and independent students;
23. strengthen innovation and entrepreneurship in vocational education;
25. ensure new learning objectives, ways of teaching and forms of examinations;
26. implement an innovation competition for students in primary and secondary education;
27. strengthen the integration of innovation and entrepreneurship in education programmes.

(¹⁶⁹) <http://eng.ffe-ye.dk/knowledge-centre/entrepreneurship-education/entrepreneurship-in-the-teaching>
http://www.cise.es/wp-content/uploads/2013/03/5.-impact_of_entrepreneurship_education_in_denmark_2011.pdf

(¹⁷⁰) <http://ufm.dk/en/publications/2012/denmark-a-nation-of-solutions/innovation-strategy>

(¹⁷¹) <http://ufm.dk/en/publications/2010/strategy-for-education-and-training-in-entrepreneurship>

Ministries and stakeholders involved

The strategy was developed by the Ministry of Higher Education and Science and the Ministry of Business and Growth, based on comprehensive dialogue with national and international experts and stakeholders. A main stakeholder for the implementation of the education related actions is the Danish Foundation for Entrepreneurship⁽¹⁷²⁾ (FFE). Founded in 2010 by the government and Junior Achievement – Young Enterprise, the foundation is supported by a permanent inter-ministerial Partnership and extensive engagement from the educational sector and the business community. It participates in different European projects where EE approaches are tested. One of these is the European Erasmus+ funded 'Youth Start – Entrepreneurial Challenges'⁽¹⁷³⁾ policy experimentation led by the Portuguese entrepreneurship education Platform⁽¹⁷⁴⁾. This is a major initiative across six countries to pilot and support the introduction of practical entrepreneurial experience into compulsory education.

Monitoring framework

Each EE initiative of the innovation strategy has its own objectives and is individually assessed. On-going initiatives are part of the annual performance contract between FFE and the inter-ministerial Partnership.

In the curriculum

Explicit integration in the curriculum

The curriculum at all levels of school education explicitly refers to EE. Entrepreneurship knowledge is covered in different subjects, and entrepreneurship is taught as an optional separate subject from the 10th grade (ISCED 2) and in upper secondary education (ISCED 3), depending on the school. Skills and attitudes are taught in a cross-curricular way and often with a specific pedagogical approach, beginning at primary level (ISCED 1) and continuing throughout the education system.

FFE has published a geographic map of the municipalities using FFE support with materials, training or other help, showing that approx. 40 % of all primary and lower secondary schools are offering entrepreneurship education to pupils⁽¹⁷⁵⁾.

Learning outcomes

In 2014, learning outcomes for EE are not explicitly formulated as part of curricula. Instead they are implicitly embedded as part of the main subject objectives, through didactic subject principles and finally in the outcomes of compulsory cross-curricular projects. For example, guidelines for learning outcomes in the compulsory subject 'Technology A-level'⁽¹⁷⁶⁾ at ISCED 3 include the requirement to independently carry out a problem-based project addressing a societal problem, with students selecting, analysing and documenting results. Based on the analysis, the student develops a product following the various phases of the product development process including design, production and market implementation. The student shows evidence of the skills used through a report.

⁽¹⁷²⁾ www.ffe-ye.dk

⁽¹⁷³⁾ www.youthstartproject.eu

⁽¹⁷⁴⁾ <http://www.peep.pt>

⁽¹⁷⁵⁾ <http://www.ffe-ye.dk/videncenter/kortlaegning-effektmaaling/kortlaegning>

⁽¹⁷⁶⁾ <https://www.uvm.dk/~media/UVM/Filer/Udd/Gym/PDF/12/Vejledning/120821%20HTX%20Teknologi%20A%20juli%202012.pdf>

Teachers in Denmark have a high degree of autonomy in relation to the organisation of teaching, including incorporating entrepreneurship education. At primary and lower secondary school level, it is primarily the municipalities that have the authority to put EE on the agenda. However, at upper secondary level and in school-based IVET, it is the individual schools' choice.

The new school reform expresses entrepreneurship education as a cross curricular approach ⁽¹⁷⁷⁾ throughout all grades with clear progression.

Teacher education and support

Entrepreneurship education is a compulsory topic in the initial training of prospective teachers in basic education (primary and lower secondary education).

The Ministry for Children, Education and Gender Equality supports teachers by offering continuing development and dissemination of inspirational courses in innovation and entrepreneurship through a national learning portal targeting teachers, which is provided free of charge. The municipalities are responsible for the ongoing skills development of teachers, including competences in relation to innovation and entrepreneurship.

The Ministry for Children, Education and Gender Equality provides national guidelines to teachers in innovation and entrepreneurship, which is a cross-cutting element in primary and lower secondary education.

EMU ⁽¹⁷⁸⁾ is the common portal for the educational world in Denmark, which provides access to a vast amount of resources and information relating to education. The portal is a unique collection of virtual entries targeted at specific user groups such as teachers and pupils in basic school, upper secondary school, vocational education, and teacher training colleges. In each entry, there are themes on different topics, including entrepreneurship education, containing educational sequences, resources, best practice, news and much more.

The National Resource Centre learning consultants, employed by the Ministry for Children, Education and Gender Equality, also provide support and guidance to schools and municipalities on various topics, including EE. The regional resource centres work in close cooperation with the Foundation for Entrepreneurship (FFE), in order to inform teachers about available materials on this topic.

FFE has created a specialised teacher network for EE, called the 'Network for Entrepreneurship in Schools and Education' (NEIS) ⁽¹⁷⁹⁾, which is open to all teachers of EE whatever the education level and the subject taught. The network is a platform for exchanging knowledge and experience as well as to find collaborators. The network has a virtual platform and also hosts annual conferences.

⁽¹⁷⁷⁾ <http://www.emu.dk/modul/innovation-og-entrepren%C3%B8rskab-vejledning-0>

⁽¹⁷⁸⁾ www.emu.dk

⁽¹⁷⁹⁾ <http://www.ffe-ye.dk/undervisning/netvaerk-for-undervisere/om-neis>

Estonia

Definition of entrepreneurship education

There is a national definition of entrepreneurship education (EE) set down in the Estonian national curriculum for upper-secondary schools:

'Entrepreneurship competence is the ability: to create ideas and implement them using the acquired knowledge and skills in different areas of life and activity; to see problems and the opportunities that lie within them, to contribute to solving problems; to set goals and carry them out, to make short-term and long-term plans, introduce and execute them; to organise joint activities and take part in them, to show initiative and take responsibility for the results; to react creatively, innovatively and flexibly to changes; to take judicious risks; to think critically and creatively; and to develop and value one's own and others' ideas' ⁽¹⁸⁰⁾.

Related strategy

There are two relevant strategies in Estonia, a specific EE strategy and a strategy for lifelong learning that also features entrepreneurship education:

- the 'Entrepreneurship Education Development Plan: Be Enterprising!' ⁽¹⁸¹⁾ (the most relevant);
- the 'Estonian Lifelong learning Strategy 2020' ⁽¹⁸²⁾ includes five strategic goals, of which two are related to entrepreneurship education:
 - change in the approach to learning (the goal is to implement an approach towards learning that supports each learner's individual and social development, learning skills, creativity and entrepreneurship in the work at all levels and in all types of education);
 - consistency between lifelong learning opportunities and the needs of labour market.

Entrepreneurship Education Development Plan: Be Enterprising!

This is a specific strategy for EE ⁽¹⁸³⁾ signed at the Estonian Chamber of Commerce and Industry in 2010, which addressed ISCED 1-3 including school-based IVET. It was a product of the EE Think Tank, which came together in 2008 on the initiative of the Estonian Chamber of Commerce and involved a wide range of stakeholders. Its main objectives include awareness-raising of EE, teacher training, teaching materials, and allocation of resources. It includes a map of entrepreneurial learning outcomes across the educational levels, with a strong focus on integrating these into curricula.

Concrete actions

- Awareness raising via events, social networks and new communication channels;
- development of courses for initial and continuing teacher training based on ICT;
- development of materials and instructions;
- development of an evaluation system, consistent with national curricula and strategies.

⁽¹⁸⁰⁾ https://www.hm.ee/sites/default/files/est_upper_secondary_nat_cur_2014_general_part_0.pdf (see p. 4)

⁽¹⁸¹⁾ http://www.koda.ee/public/Ettevotlusoppe_edendamise_kava_Olen_ettevotlik_koos_lisadeqa.pdf

⁽¹⁸²⁾ https://www.hm.ee/sites/default/files/estonian_lifelong_strategy.pdf

⁽¹⁸³⁾ http://www.koda.ee/public/Ettevotlusoppe_edendamise_kava_Olen_ettevotlik_koos_lisadeqa.pdf

Ministries and stakeholders involved

Government: Ministry of Education and Research, Ministry of Economic Affairs and Communications.
External organisations: Estonian Chamber of Commerce and Industry, National Examinations and Qualifications Centre, Enterprise Estonia Foundation, wide range of EE experts e.g. from universities and youth organisations.

Monitoring framework

The Chamber of Commerce collects annual information from stakeholders about completed and on-going activities, with meetings to discuss results and how further progress can be made towards achieving objectives.

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is explicitly referred to in the curricula as follows:

In ISCED 1-3, new national curricula explicitly recognise EE as a general competence and a cross-curricular objective. It is also included as the cross-curricular topic 'Civic Initiative and Entrepreneurship' ⁽¹⁸⁴⁾.

In ISCED 2-3, it is taught in the optional separate subjects 'Entrepreneurial Studies' (ISCED 2) and 'Economic and Entrepreneurship Studies' (ISCED 3), and in the compulsory subject 'Civics and Citizenship Education' (ISCED 2-3).

Central level recommendations for teaching methods are available through the new curricula for basic schools and upper secondary schools. Teachers' professional standards describe the skills for teaching EE, and the EE strategy gives recommendations for teaching entrepreneurship education.

Learning outcomes

Learning outcomes for EE are defined in the general part of the National Curricula for Basic Schools and Upper Secondary Schools as well in subject syllabi. Some examples are:

- in ISCED 1, students are expected, for example, to understand that money pays for things and is earned by working, and to know how to cooperate with others;
- in ISCED 2, students are expected, for example, to have an understanding of labour market opportunities for those with different educational levels, as well as know what it means to be an owner, entrepreneur, employer, employee or unemployed person;
- in ISCED 3, students are expected, for example, to understand entrepreneurship as a career choice and understand that it is possible for them to become entrepreneurs.

The mini-company programme carried out by Junior Achievement Estonia is a good example of the use of entrepreneurship competences.

⁽¹⁸⁴⁾ <https://www.hm.ee/en/national-curricula> (Appendix 5, Social Studies)

Teacher education and support

Entrepreneurship education is included in all initial teacher education curricula in Estonia. The universities and other providers – Foundation Innove, NGO Junior Achievement Estonia (JA) and Association of Teachers of Economics (ATE) – have provided CPD programmes for all teachers in primary education and school-based IVET, but only for teachers of social studies, economics and mathematics in general secondary education. JA Estonia and ATE have also organised Job Shadow Days for teachers.

National ministries and the Foundation Innove have supported the development of learning and teaching materials such as textbooks, videos and model teacher work plans with a focus on the integration of EE ⁽¹⁸⁵⁾. The Ministry of Education and Research has financially supported the development of the assessment tool ⁽¹⁸⁶⁾ for the cross-curricular topic 'Civic Initiative and Entrepreneurship' at lower secondary education level, as well as workshops, summer and winter schools organised by the Association of Teachers of Social Studies and ATE. The Chamber of Commerce organises twice yearly entrepreneurial think tank meetings to support the collaboration between schools and stakeholders. The networking initiative, 'Dreams Become Reality,' ⁽¹⁸⁷⁾ encompasses organisations that contribute to the promotion of an entrepreneurial mind-set, supporting different school level activities.

A network of teachers from primary and secondary education has been organised by JA Estonia. They meet once a year to discuss problems and improve their skills and knowledge. In addition, ATE, which involves mainly upper secondary teachers, as well as some lower secondary teachers, works closely with JA Estonia on issues linked to entrepreneurship education.

⁽¹⁸⁵⁾ <http://koolielu.ee/groups/profile/141733/ettevtluspe>

⁽¹⁸⁶⁾ Assessment tool for cross-curricular topic 'Civic initiative and entrepreneurship', see Appendix 5, social studies at <https://www.hm.ee/en/national-curricula>

⁽¹⁸⁷⁾ <http://unistusedellu.ee/content/entrepreneurship-education>

Greece

Definition of entrepreneurship education

In the place of a national definition, Greece refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽¹⁸⁸⁾.

Related strategy

There is no current national strategy for entrepreneurship education (EE) in Greece.

Entrepreneurship education is part of the strategy for the 'New School' ⁽¹⁸⁹⁾ covering ISCED 1-3, and follows the educational strategic objectives common across Europe. It highlights the importance of enhancing innovation, creativity and the entrepreneurial spirit, but does not offer any concrete objectives or actions linked to EE.

In the curriculum

At ISCED 1, teachers take into consideration pupil experiences and use their own knowledge to implement actions that aim to develop the competences related to entrepreneurship education.

At ISCED 3, EE is taught in the separate compulsory subject 'Innovation and Entrepreneurship' for third year students in school-based initial vocational upper secondary education following the Management-Economy strand. It is also integrated into the compulsory subject 'Civics Education' for first and second year students.

In some schools, entrepreneurship education is included in the compulsory subject 'Project', which is delivered in both general and vocational education. Where relevant, students may be awarded the international Entrepreneurial Skills Pass ⁽¹⁹⁰⁾.

Learning outcomes

There are no defined learning outcomes for any courses in Greece, because the curricula are objective-oriented.

Teacher education and support

There is institutional autonomy for the integration of entrepreneurship institution in initial teacher education. Information concerning possible CPD provision is not available at central level.

Central authorities do not provide guidelines for entrepreneurship education.

⁽¹⁸⁸⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽¹⁸⁹⁾ <http://www.minedu.gov.gr/home/neo-sxoleio?showall=1andlimitstart>

⁽¹⁹⁰⁾ <http://entrepreneurialskillspass.eu/national-focus-groups/greece>

Spain

Definition of entrepreneurship education

In Spain, the definition of entrepreneurship education (EE) follows the description of the competence in the European Reference Framework for Key Competences in Lifelong Learning ⁽¹⁹¹⁾.

Building on this, the Act 8/2013 ⁽¹⁹²⁾ for the Improvement of Quality in Education (LOMCE) states that 'this competence implies the ability to turn ideas into action. This requires awareness of the situation to be solved, as well as the capacity to select, plan and manage the knowledge, skills, abilities and attitudes required to attain the intended goals'.

Order ECD/65/2015 ⁽¹⁹³⁾ includes a further definition of EE: ' entrepreneurship education must include knowledge and skills related to career and job opportunities, together with financial education, awareness of business organisation and processes, entrepreneurial attitudes and mind-set, the ability to think creatively as well as to manage risk and uncertainty'. It also describes the relationships between the skills, content and evaluation criteria of primary education, compulsory and non-compulsory and (*Bachillerato*) secondary education (Spanish Official Gazette 29/1/2015).

Related strategy

There is no specific strategy for entrepreneurship education at national level, although a number of Autonomous Communities have well-developed EE strategies at regional level.

A) National level

There is a series of interconnecting strategies and legal Acts at national level related to EE. Within the education area, two Acts confirm entrepreneurship as a basic skill. The first is the Education Act 2006 (LOE) which includes a priority for the development of entrepreneurship in objectives for ISCED 2-3 (not primary level). The second is the Act 08/2013 for the Improvement of Quality in Education (LOMCE), which is a recent Act which establishes a general framework to reference and promote EE in non-university education. There is also the Act 14/2013 for the Support of Entrepreneurs and their Internationalisation. This states that curricula for primary and compulsory and non-compulsory (*Bachillerato*) secondary education, and vocational training should reflect EE. This is to include objectives, skills, content and evaluation criteria to develop and strengthen the entrepreneurial spirit, acquire skills for business start-up, business ethics and the promotion of equal opportunities and respect for entrepreneurs and employers ⁽¹⁹⁴⁾.

However, the 'Strategy for Entrepreneurship and Youth Employment 2013-2016', a broader national strategy linked to economic development, is the most relevant. It includes 85 short- and long-term measures designed to reduce the rate of youth unemployment and deal with its structural causes.

⁽¹⁹¹⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽¹⁹²⁾ http://www.boe.es/diario_boe/txt.php?id=BOE-A-2013-12886

⁽¹⁹³⁾ http://www.boe.es/diario_boe/txt.php?id=BOE-A-2015-738

⁽¹⁹⁴⁾ <https://www.boe.es/boe/dias/2013/09/28/pdfs/BOE-A-2013-10074.pdf>

Main objectives

The main objectives are to improve the employability of young people, increase the quality and stability of youth employment, promote equal opportunities and promote entrepreneurship.

Concrete actions

Of the 85 measures within the strategy, four are explicitly relevant to EE:

1. to expand on the curriculum content that relates to entrepreneurship and career opportunities, as well as knowledge of labour relations and the job market;
23. to implement training programmes with specific differential funding for young people to acquire skills in certain activities and employment opportunities that may involve the creation of jobs and opportunities for entrepreneurship;
32. to facilitate entrepreneurship among university and vocational training students through incentives to help them undertake their training alongside self-employment;
47. to encourage the media to communicate a positive outlook on young people's entrepreneurship.

Ministries and stakeholders involved

The strategy is led by the Ministry of Employment and Social Security and is the result of collaboration ⁽¹⁹⁵⁾ with a wide range of Ministries and dialogue with social partners. There is a section in the strategy dedicated to building partnerships, with clear channels for stakeholders to engage and contribute.

Monitoring framework

There is a monitoring framework within the strategy that includes measures on entrepreneurial activity among young people.

B) Autonomous Communities level

At the regional level, there are the following specific and broader strategies in place.

- Specific strategies:
 - Andalucía – 'Plan for the Development of an Entrepreneurial Culture in the Public Education System' ⁽¹⁹⁶⁾ (2011-2015);
 - Cantabria – 'Plan for the Development of an Entrepreneurial Spirit in Vocational Education and Training' ⁽¹⁹⁷⁾ (2011-2015);
 - Galicia – 'Plan for Entrepreneurship in the Education system' ⁽¹⁹⁸⁾ (2010 onwards).
- Broader strategies:
 - Asturias – 'III Integral Programme to Promote Entrepreneurship' ⁽¹⁹⁹⁾ (2013-2015);

⁽¹⁹⁵⁾ For full list of stakeholders, see <http://www.empleo.gob.es/es/estrategia-empleo-joven/logos/index.htm>

⁽¹⁹⁶⁾ <http://www.juntadeandalucia.es/boja/2011/137/1>

⁽¹⁹⁷⁾ http://educantabria.es/docs/fp/Emprendimiento/Fomento_del_esp%C3%ADritu_emprendedor_en_la_FP_Inicial_V03.pdf

⁽¹⁹⁸⁾ https://www.edu.xunta.es/fp/webfm_send/1929

⁽¹⁹⁹⁾ https://www.asturias.es/Asturias/descargas/PDF%20DE%20PARATI/emprendedores/Programa_cultura_emprendedora_2_013.pdf

- Extremadura – 'General Action Plan: Employment, Entrepreneurs, Business' ⁽²⁰⁰⁾ (2012-2015).
- Navarra – 'Entrepreneurship Plan' ⁽²⁰¹⁾ (2013-2015);
- Basque Country – 'Institutional Plan for the Support of Entrepreneurial Activity' ⁽²⁰²⁾ (2013-2016);
- Murcia – 'Entrepreneurship Plan' ⁽²⁰³⁾ (2014-2017).

There are substantial variations among Communities regarding structure, implementation and budget. All education levels are covered, although some Communities focus mainly on VET (e.g. Cantabria). They are the result of the collaboration between two or more departments (usually between Education and Economy/Employment), and in most cases, they are entirely funded at regional level. Other stakeholders include Chambers of Commerce, associations and private providers. Regional actions focus on entrepreneurship in the curriculum at all education levels and in teacher training provision, as well as establishing networks and partnerships with external stakeholders. So far, there is limited evidence of assessment of the impact of regional strategies with only quantitative evaluations related to the attainment of the intended goals and to participation ⁽²⁰⁴⁾.

In the curriculum

Explicit integration in the curriculum

Through LOMCE, EE is explicitly integrated as a cross-curricular component at all levels. In addition, specific EE subjects have been introduced. They can be compulsory, as is the case in school-based IVET ('Business and Entrepreneurial Activity') or optional, as happens in lower secondary education ('Introduction to Business and Entrepreneurial Activity') and upper secondary education (e.g. 'Business Economy'). EE is also embedded in other subjects, such as economics or philosophy. The recent Order ECD/65/2015 provided a description of the links between competences, contents and assessment criteria in primary, lower and general upper secondary education. Annex II includes a series of guidelines to contribute to classroom strategies to develop the competences; however, these are not specific to the entrepreneurship competence.

Learning outcomes

These feature in Order EDC 65/2015 ⁽²⁰⁵⁾, which establishes that entrepreneurship related learning outcomes should be specified for each key competence, one of which is 'Personal Initiative'. Learning standards have already been defined. In primary education, the focus is on the development of attitudes, such as personal initiative, while in later stages they refer to the consolidation of entrepreneurial attitudes or business-related actions.

⁽²⁰⁰⁾ http://extremaduratrabaja.gobex.es/webfm_send/1528

⁽²⁰¹⁾ http://www.navarra.es/NR/rdonlyres/086EEE10-E162-4855-A0D8-5B96BB77EB3F/309913/PlandeEmprendimiento2013_2015.pdf

⁽²⁰²⁾ http://www.euskadi.eus/contenidos/noticia/xleg_plan_departamento/es_p_depart/adjuntos/plan%20apoyo%20actividad%20emprededora%202014.pdf

⁽²⁰³⁾ <http://www.institutofomentomurcia.es/web/emprende/plan-emprendemos-region-de-murcia1>

⁽²⁰⁴⁾ Some articles on the impact of specific programmes have been accepted for publication in international or national peer-reviewed journals (e.g. Research undertaken to assess the impact of 'Vitamin-E' programme (Castilla y León). Reference: Sánchez, J. C. (2013). The impact of an entrepreneurship education program on entrepreneurial competencies and intention. *Journal of Small Business Management*, 51(3), 447-465.

⁽²⁰⁵⁾ For more information on the reforms in the education system: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Espa%C3%B1a:Reformas_en_Educaci%C3%B3n Primaria_y_secundaria#Relaci.C3.B3n_entre_las_competencias_clave_en_el_Sistema_educativo_esp.C3.B1ol.2C_los_contenidos_y_los_criterios_de_evaluaci.C3.B3n_de_la_educaci.C3.B3n_obligatoria_y_el_Bachillerato

Teacher education and support

A) National level

Act 14/2013⁽²⁰⁶⁾ (addressing support for entrepreneurs) places a priority on EE for teachers. Firstly, via initial teacher education (ITE) and continuing professional development (CPD), where 'teaching staff must acquire competences and skills linked to entrepreneurship, business initiative, equal opportunities and creation and development of companies'. Secondly, the Ministry of Education, Culture and Sport, in cooperation with the Autonomous Communities, must promote the inclusion of entrepreneurship education in teacher CPD.

In practice, ITE falls under the responsibility of the different universities who have the autonomy to establish their own programmes on the basis of the national core curriculum. There are no specific subjects dealing with EE methodological approaches. However, the University of Sevilla recently published a book to develop entrepreneurship education in ITE⁽²⁰⁷⁾.

For CPD, there is a wide range of courses on key competences, but very few deal exclusively with EE. The National Strategic Framework for Teacher Professional Development from INTEF⁽²⁰⁸⁾ offers five online courses that explicitly refer to a 'sense of initiative and entrepreneurship'. In 2014, the number of participants was 3 602.

B) Autonomous Community level

Teacher professional development plans are defined at regional level, and many refer explicitly to EE (e.g. Andalusia, Cantabria, Catalonia, Castilla La Mancha, Extremadura, Galicia and Madrid). For example:

- In Galicia, 'EduEmprende' includes the objective 'to enable teachers to gain qualifications in order to promote students' acquisition of entrepreneurship competences'.
- In Cantabria, the 'Regional Plan for Teacher Professional Development 2014-2015' specifies the goal: 'To promote employability and entrepreneurship skills among students'.

CPD training opportunities are available in most regions, whether or not they explicitly mention EE. Some courses focus on a narrow definition of EE (business start-up, mini-company programmes). Others have a broader perspective, touching upon cross-curricular approaches, methodological aspects and, more importantly, equipping teachers with the skills they need to design, craft and implement their own entrepreneurship projects.

Some Autonomous Communities have created teacher networks. For instance, in Extremadura, schools may join the 'Network for Entrepreneurial Schools' (*Red Extremeña de Escuelas Emprendedoras*), created in 2011, providing they submit a three-year development plan outlining goals, actions to be undertaken, stakeholders and assessment methodology. The schools and teachers involved go through an accreditation process.

⁽²⁰⁶⁾ https://www.boe.es/diario_boe/txt.php?id=BOE-A-2013-10074

⁽²⁰⁷⁾ <http://www.octaedro.com/OCTart.asp?libro=16080andid=esandtxt=Educaci%F3n%20emprendedora>

⁽²⁰⁸⁾ <http://formacion.educalab.es/>

France

Definition of entrepreneurship education

In France, there is a common understanding of entrepreneurship education (EE) rather than a commonly accepted definition. It is understood in the context of the broad meaning of general education, to develop pupils' responsibility, autonomy, creativity, curiosity and initiative. The entrepreneurial spirit is defined as the ability to 'turn ideas into action, the desire to take initiative, anticipate, be independent and inventive in private life, in public life and later at work'. This can support young people to 'design, implement and carry out individual or group projects in the arts, sports, heritage and socio-economic fields' ⁽²⁰⁹⁾.

Related strategy

There is no specific national strategy for entrepreneurship education in France. Broader strategies and laws refer to the development of EE such as:

- The Guidance and Planning for the Reconstruction of the School in the Republic ⁽²¹⁰⁾ – Law 2013-595 of 8 July 2013. States that it is the school's responsibility to promote a sense of initiative and to encourage engagement with external partners via initiatives such as business visits, internships and discovery of enterprise, and relevant projects for skills development.
- The Common Basis of Knowledge and Skills (*Socle commun*) ⁽²¹¹⁾ – Decree No 2015-372 of 31 March 2015. This identifies the link with the competence 'Autonomy and Sense of Initiative', which requires students to learn to take the initiative, be entrepreneurial, and implement projects after assessing the possible outcomes of their actions.

However, the most relevant strategy is the national innovation strategy 'A New Deal for Innovation', launched in 2013. The lead for this strategy is the General Commissioner for Innovation, under the authority of the Prime Minister, working with the Ministry of National Education, Higher Education and Research and the Ministry of the Economy.

Objectives

There are four action areas:

- organisation and evaluation of public policies in favour of innovation;
- development of a culture of entrepreneurship and innovation;
- increasing the economic impact of public research transfer;
- supporting business growth through innovation.

Concrete actions

Under the second action area, there are commitments to:

- launch a funding initiative (through the *Programme d'Investissement d'Avenir*) for projects to develop a culture of entrepreneurship and innovation (€ 20 million over five years);

⁽²⁰⁹⁾ <http://www.education.gouv.fr/cid2770/le-socle-commun-de-connaissances-et-de-competences.html>

⁽²¹⁰⁾ <http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000027677984andcategorieLien=id>

⁽²¹¹⁾ http://www.education.gouv.fr/pid25535/bulletin_officiel.html?cid_bo=87834

- encourage teaching staff in secondary education to develop an entrepreneurial spirit;
- strengthen interaction between school classrooms and public research laboratories for the development of scientific and technological culture;
- support student entrepreneurship by setting up student centres for innovation, knowledge transfer and entrepreneurship;
- establish a National Innovation Weekend;
- mobilise public media to promote a culture of entrepreneurship and innovation.

Significant progress has been made with the following specific actions currently being implemented:

- The *Programme d'Investissement d'Avenir*, partially funded and followed annually by the *Caisse des Dépôts et Consignations*: Projects aim to significantly increase the number of students experiencing EE and will be supported for three or five years from July 2015.
- Student hubs for innovation, knowledge transfer and entrepreneurship (PEPITE) have been set up to support student entrepreneurship. These hubs support national initiatives such as the creation of a student entrepreneur status and diploma, national entrepreneurship awards, and entrepreneurship advisors in higher education institutions.
- The Ministry of National Education, Higher Education and Research has launched (December 2015) 12 measures to strengthen the relationship between schools and businesses. Several are relevant to entrepreneurship education:
 - strengthening level ISCED 2 traineeships in order to reinforce the 'Route Forward' Course (*Parcours Avenir*);
 - creating a specific EE continuing professional development course for teachers;
 - encouraging active citizens to engage in National Education's 'Citizen Reserve' to transmit their experiences to youth;
 - implementing a nationwide steering committee on school-business relations.

In the curriculum

Explicit integration in the curriculum

In France, entrepreneurship education is part of the seventh key competence 'Autonomy and Initiative', which makes up the common basis for all students.

At ISCED 1, the acquisition of autonomy and initiative in primary schools is cross-curricular.

At ISCED 2, a new common core provides inter-disciplinary practice teaching specifying two projects per year. This will involve the principle of 'active steps', to develop self-reliance, initiative and collaboration. Examples are a company visit or creation of a micro-enterprise.

Specific activities are carried out which are also relevant to EE. These include project work (used in ISCED 1-3 and school-based IVET), Vocational Discovery sessions of three hours – an option in ISCED 2, Entrepreneurship week, Women's Entrepreneurship Awareness week, a School-Enterprise week, national innovation days and experimental pedagogical approaches. The 'Route Forward' course (*Parcours Avenir*) will be implemented in September 2015. This is intended to provide a programme to 'develop students' sense of initiative and entrepreneurial competence, and to introduce them to the creative process'; it will be for lower and upper secondary levels.

Learning outcomes

In France, the 'Common Basis of Knowledge and Skills' defines what should be achieved by the end of compulsory schooling.

In the area of attitudes, this includes self-confidence, a sense of initiative, responsibility, and autonomy. For entrepreneurial skills, this includes creativity, time management, work planning, uncertainty/ risk management, teamwork and financial literacy.

These attitudes and skills are implemented particularly through project-based teaching at all levels of education (educational support in ISCED 1-3 and school-based IVET, Vocational Discovery in ISCED 2, exploration teachings or supervised personal work in ISCED 3, multidisciplinary vocational project (PPCP) in school-based IVET). This pedagogy involves entrepreneurial skills: initiative, teamwork, planning and organising work, and developing a product or service in line with a market study.

Teacher education and support

The initial education of teachers is based on a benchmark of professional skills for teaching staff. The teacher must be able to promote the integration of cross-cutting skills (creativity, responsibility and cooperation) and the transfer of learning through appropriate teaching approaches. The introduction of EE into the initial teacher education (ITE) curriculum is a matter for institutional autonomy.

CPD provision in EE is currently being revised for teachers in secondary education. The new programme came into force in September 2015 in all departmental academies, and will shortly be available on M@gistères, the online platform for teacher training ⁽²¹²⁾.

The Centre for Study and Research on Partnerships with Businesses and the Professions (CERPEP – *Centre d'Études et de Recherches sur les Partenariats avec les Entreprises et les Professions*) ⁽²¹³⁾ offers a range of opportunities for teacher training based on education-business links. Its role is expected to grow. In some academies, training is offered to teachers involved in mini-companies. Additional projects are funded through the national strategy for EE, to support actions aimed at the training of leaders or teachers:

- The Observatory for Teaching Practices in entrepreneurship education (OPPE – *Observatoire des pratiques pédagogiques en entrepreneuriat*) ⁽²¹⁴⁾ is a tool for sharing, promoting and exchange on entrepreneurial pedagogy.
- The RESPIRE network ⁽²¹⁵⁾ (The Exchange Network on Professional Knowledge in Innovation, Research and Experimentation – *Réseau d'échange de savoirs professionnels en innovation, en recherche et en expérimentation*) fosters collaboration with peer sharing networks and experts around the theme 'Entrepreneurship in Schools'.

⁽²¹²⁾ <https://magistere.education.fr>

⁽²¹³⁾ <http://eduscol.education.fr/pid31668/l-offre-stages-courts-cerpep.html>

⁽²¹⁴⁾ <http://www.apce.com/pid11493/qu-est-ce-que-l-oppe.htmlC=173andespace=5>

⁽²¹⁵⁾ <http://eduscol.education.fr/cid60290/respire-le-reseau-social-de-l-innovation.html>

Croatia

National definition

In Croatia, the description of the entrepreneurship key competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽²¹⁶⁾ is used as the national definition.

Related strategy

There is no current national strategy for entrepreneurship education (EE) in Croatia. The previous national strategy specifically addressing entrepreneurship education ran from 2010-2014, and there is no current plan to develop a new strategy.

Entrepreneurship education is addressed in the National Framework Curriculum (NFC), developed by the Ministry of Science, Education and Sports and adopted in 2010. This work is supported by the South East European Centre for Entrepreneurial Learning ⁽²¹⁷⁾ (SEECEL) based in Zagreb. SEECEL supports strategic collaboration between eight countries across the western Balkans and Turkey, supporting work on entrepreneurial learning and other entrepreneurship related areas. It is funded via EU funding, donor agencies and contributions from the SEECEL member countries.

In the curriculum

Explicit integration in the curriculum

The National Framework Curriculum (NFC) stipulates that EE should be incorporated in ISCED 0-3 curricula as a cross-curricular topic. However, the development of actual school curricula to implement this requirement of the NFC has not yet been completed.

However, some schools have developed and implemented a number of experimental or non-compulsory educational activities in their actual school curricula, which can be considered as fully-fledged EE. These are schools involved in the pilot programmes for entrepreneurship education led and supported by SEECEL.

Learning outcomes

EE objectives are identified in the National Framework Curriculum, and state that students will:

- be trained to set, evaluate and fulfill personal goals;
- know how to make and implement plans;
- develop initiative and perseverance;
- be trained to adapt to new situations, ideas, and technologies;
- develop a creative approach towards challenges, changes, stresses, conflicts, and competition;

⁽²¹⁶⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽²¹⁷⁾ www.seecel.hr

- develop skills to evaluate themselves and others, and to constructively criticise their own success or lack thereof;
- develop independence, self-confidence, and personal integrity;
- get to know the professional landscape of the community and wider society;
- acquire basic knowledge regarding economics and business administration;
- become aware of the importance of and opportunities for self-employment.

However, as the NFC has not yet been implemented in subject curricula, no concrete examples are available.

In 2015, the Ministry of Education announced a Parliament-approved Working Group to develop entrepreneurial learning outcomes for ISCED 0-3 including school-based IVET ⁽²¹⁸⁾. The experts for this group were recruited in summer 2015, and are tasked with developing learning outcomes by the end of 2015. These will be piloted in September 2016 with full implementation planned for September 2017. The learning outcomes will be mapped across three domains: thinking entrepreneurially, acting entrepreneurially, and economic and financial literacy.

Teacher education and support

The introduction of entrepreneurship education into the initial teacher education curriculum is a matter for institutional autonomy. Continuing professional development (CPD) is available for all teachers from primary to secondary education, including school-based IVET. Starting from school year 2014/15, the Education and Teacher Training Agency (ETTA) initiated a series of CPD seminars and workshops for school staff (school heads, teachers and others) focusing on EE. These activities are financed from the regular funds for general CPD activities conducted by ETTA.

There are no central guidelines for entrepreneurship education. The Ministry of Education collaborates with SEECEL, which acts as a centre for expertise, through ETTA. Croatia is leading a transnational pilot, coordinated by SEECEL in cooperation with the national teacher training authority, supporting CPD. This pilot concerns eight primary and four secondary schools. It includes direct funding, curriculum support (including practical entrepreneurial experiences), teacher training and networking, alongside teacher mentoring schemes between schools that have implemented EE and those new to the SEECEL pilot.

⁽²¹⁸⁾ <http://www.kurikulum.hr/wp-content/uploads/2015/05/Poduzetništvo.pdf>

Italy

Definition of entrepreneurship education

In the place of a national definition, Italy refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽²¹⁹⁾. This has been used in the National Curriculum Guidelines for pre-primary, primary and lower secondary education, in the section dedicated to student profiles at the end of lower secondary school.

Related strategy

There is no current national strategy related to entrepreneurship education (EE) in Italy.

In the curriculum

Explicit integration in the curriculum

At ISCED 1 and 2, EE (defined as a 'sense of initiative and entrepreneurship') is a cross-curricular competence. It is introduced through the Experimental Certification of Competences ⁽²²⁰⁾ issued at the end of the fifth grade of primary education and at the end of the third grade of lower secondary education.

At ISCED 3 and IVET, a 'sense of initiative and entrepreneurship' is included in the specific content of a subject called 'Law and Economics' and within *alternanza scuola-lavoro* ⁽²²¹⁾ (alternating school and practical experiences, either through apprenticeships or internships, or through activities in the classroom with the support of external expertise such as Junior Achievement ⁽²²²⁾).

Alternating school/work is a means of introducing elements of work-based learning into school curricula (dual learning). It was introduced officially in 2005 and can be found in all upper secondary pathways, as well as post-secondary technical pathways and in academic and non-academic tertiary technical education (ITS). The shape it takes may vary significantly due to school autonomy in curriculum design. For example, it can take the form of a simulated training business set up in the school and be run by the students, particularly in technical schools to support economics and finance. It can also take the form of contract-based apprenticeships (company-based). In these cases, the amount of the curriculum developed on the job goes up to 50 % in upper secondary education and training pathways. Each pathway is planned, implemented, assessed and evaluated under the responsibility of the learning organisation on the basis of a specific agreement (memorandum of understanding) signed with the partner enterprise or business association, chambers of commerce, public bodies.

⁽²¹⁹⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽²²⁰⁾ National guidelines for the Curriculum of Pre-primary, Primary and Lower Secondary Education, issued through Ministerial decree no. 254/2012
http://www.indicazioninazionali.it/documenti/Indicazioni_nazionali/indicazioni_nazionali_infanzia_primo_ciclo.pdf

⁽²²¹⁾ This was introduced in 2003 through decree 2005/77, into the 4th and 5th grades of both technical and vocational institutes and of general upper secondary schools. The school reform of 2010/11 (Decree 87/2010) specifically recognises alternance training as a teaching methodology for learning pathways in all technical, vocational and general upper secondary schools. http://www.istruzione.it/allegati/2015/Guida_Operativa.pdf

⁽²²²⁾ <http://www.jaitalia.org>

A new law ⁽²²³⁾ has now defined the minimum standard for the *alternanza scuola-lavoro* programme in the last three years of upper secondary education: a minimum of 200 hours in schools and a minimum of 400 hours in technical and vocational schools. These standards are mandatory, though a transition period is expected to take place.

Learning outcomes

At ISCED 1 and 2, learning outcomes are not defined as such, but there is a cross-curricular competence. At primary school level, the pupil should be able to demonstrate originality and sense of initiative and carry out simple projects. At lower secondary school level, the pupil should be able to demonstrate originality and a sense of initiative, take responsibility, ask for help when in difficulties and give aid to those who ask for it. The pupil should be able to analyse themselves, and deal with new developments and unexpected events.

At ISCED 3, in the subject 'Law and Economics', there is a skill which refers to EE. In the first two years of the technical institute (economic and technological sectors), the acquisition of entrepreneurial competences is also fostered through project management, management of production processes related to business functions and implementation of national and European regulations, in particular in the field of environment safety and protection. One of the skills that students should acquire is 'to recognise the legal and economic aspects that characterise entrepreneurial activity'.

Teacher education and support

In 2016, the Ministry of Education will launch professional development projects to increase the skills of teachers of general and vocational upper secondary schools and technical institutes working on *alternanza scuola-lavoro* training pathways. Each school and school network is able to start professional development pathways for teachers of all subjects, including entrepreneurship education; however no information is available on how many do so for EE.

⁽²²³⁾ <http://www.federalismi.it/nv14/articolo-documento.cfm?Artid=30033>

Cyprus

Definition of entrepreneurship education

A national definition is now under design, and is going to be based on the 2006 Recommendation of the European Parliament and the Council Reference Framework for Key Competences in Lifelong Learning ⁽²²⁴⁾.

Related strategy

There is no specific strategy addressing entrepreneurship in Cyprus.

There is an on-going initiative to develop a strategy for entrepreneurship as part of the new strategic framework of the Ministry of Education and Culture.

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education (EE) is not explicitly recognised in steering documents and implementation guidelines. However, since 2010, new curricula for primary and secondary education have been developed and implemented focusing on key competences, including creativity and innovation. In these, as part of the educational innovation that started back in 2004, there is an emphasis on developing competences related to entrepreneurship, innovation and creativity.

ISCED 1-3: In the new curriculum for ISCED 1-3, implemented in the 2011/12 school year, emphasis is given to attributes, skills and working methods that enhance entrepreneurial behaviour as a cross-curricular objective.

ISCED 3 (VET): Between 90 % and 100 % of VET pupils in Cyprus participate in entrepreneurship programmes at some time during their studies.

Learning outcomes

There are no learning outcomes linked to entrepreneurship education.

Teacher education and support

Cyprus is in the process of organising optional but targeted all-year seminars in cooperation with the Cyprus Pedagogical Institute. These are to be delivered through in-service training for Cyprus primary, secondary and technical teachers, school head-teachers and policy-makers. The seminars will be organised in cooperation with the Ministry of Education and Culture and the industry sector.

⁽²²⁴⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

Latvia

Definition of entrepreneurship education

In Latvia, the description of the entrepreneurship key competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽²²⁵⁾ is used as the national definition.

Related strategy

The relevant strategy for entrepreneurship education (EE) for general school education and school-based IVET is contained in the 'Education Development Guidelines', led by the Ministry of Education and Science. This covers the period 2014-2020 and addresses all levels of education and training.

There is also a higher education (HE) strategy, the 'National Concept of the Development of Higher Education and Higher Educational Institutions', related to EE, which aims to create a higher education system competitive at EU level. The strategy has four priorities: EE lays under priority one on HE modernisation.

Main objectives

For the 'Education Development Guidelines', one of the objectives is to promote the development of individuals' professional and social skills based on values for life and employability. The specific objectives related to entrepreneurship education are to:

- further develop EE as one of the competences to be strengthened through improved education content for ISCED levels 1-3;
- develop modular programmes in IVET including one on 'initiative and entrepreneurship';
- develop teachers' professional competences including entrepreneurship;
- develop non-formal and extra-curricular education provision of various competences, including entrepreneurship.

Concrete actions

- Develop education and content and innovative learning tools, including assessment of learning achievements, to support new competences including 'enterprising spirit' and entrepreneurial skills;
- develop the professional competences of teachers (including entrepreneurship, financial, leadership, ICT and foreign language competences) reaching 50 % of those involved in continuing professional development activities by 2017 and 80 % by 2020;
- increase information about business/entrepreneurship professions by developing a resource (*Profesiju pasaule*).

⁽²²⁵⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

Ministries and stakeholders involved

In Latvia, the involvement and impact of governmental institutions in entrepreneurship education is decentralised. Three governmental institutions are responsible for EE:

- the Ministry of Economics, notably the Latvian Investment and Development Agency (LIDA);
- the Ministry of Education and Science (MoES);
- the Ministry of Welfare (MoW).

MoES works in cooperation with stakeholders including Latvia Line Ministries and State Agencies, national civic society organisations, the Latvia Employers' Confederation, the Latvia Students' Association, the Latvian Chamber of Commerce and Industry, the Financial and Capital Market Commission and others.

Monitoring framework

A monitoring framework is provided by the Ministry of Education and Science. For the 'Education Development Guidelines 2014-2020', the Ministry is to submit an interim report to the Cabinet on 30 September 2017. The final report is due on 30 September 2021.

In the curriculum

Explicit integration in the curriculum

For ISCED 1-2, entrepreneurship education is mainly integrated into the compulsory social sciences subject. However, entrepreneurship themes can be also provided in other subjects, for instance in 'Home Economics and Technology', as well as in mathematics, physics, chemistry, biology and the visual arts. As part of compulsory schooling, one lesson each week – known as 'class lesson' or 'upbringing' – is organised by the class teacher. These are dedicated to the discussion of various themes such as career guidance, EE, civil participation, etc.

Non-compulsory subjects can also be dedicated to entrepreneurship education. For example, in ISCED level 3, EE is one of the central issues in the subject of economics for grades 10-12.

In addition, general education institutions may develop and, after accreditation, implement their own subject standards in EE related areas for example Business Basics, Entrepreneurship etc.

Learning outcomes

In ISCED 1-2, EE learning outcomes are generally linked to the awareness of entrepreneurship. The main outcomes are knowledge of the role of entrepreneurs in society and understanding of the qualities needed to be a good entrepreneur. Outcomes include the ability to perform some skills necessary for entrepreneurship, such as working in a team, cooperation, making simple plans, etc.

In ISCED level 3 and school-based IVET, learning outcomes are linked to economic and commercial knowledge and the ability to perform some skills necessary for successful entrepreneurship.

In the subject social sciences for grades 1-9, entrepreneurship is integrated and all discussions and learning themes are coherent and demonstrate progress across different educational levels.

The requirements for entering the IVET module 'Initiative and Entrepreneurship' include the completion of ISCED 1-2 levels, including the compulsory subject social sciences, which incorporates entrepreneurship. There is also a requirement to continue studies in ISCED 3, where economics is offered as a subject.

Teacher education and support

Entrepreneurship education is a compulsory topic in the initial education of prospective primary and general secondary teachers. CPD provision is available for all teachers at all education levels.

The development of teacher professional competences is supported by several national institutions and private bodies. These include the Ministry of Education and Science, Regional Education Boards, the State Education Development Agency, the Investment and Development Agency, HE institutions, Junior Achievement Latvia, etc., who offer support according to their mission and tasks.

European funding provided for EE activities for teachers and ISCED levels 2 and 3 students is administered by the Investment and Development Agency of Latvia (2009-2015). The Agency organises seminars/workshops on EE issues for ISCED 2 and 3 students and their teachers.

Until now, actions were fragmented. However the 'Education Development Guidelines 2014-2020' sets aims for CPD in entrepreneurship education, financial literacy, leadership, ICT and foreign languages. There are specific targets to increase the proportion of teachers trained, to reach 50 % in 2017 and 80 % in 2020.

Lithuania

Definition of entrepreneurship education

In the place of a national definition, Lithuania refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽²²⁶⁾.

Related strategy

Lithuania does not have a specific strategy for entrepreneurship education (EE); however, it is explicitly included the 'Lithuania Entrepreneurship Action Plan 2014-2020' ⁽²²⁷⁾. This strategy covers all levels of education, including pre-primary, primary, basic, secondary, vocational, colleges, universities and adult education. This follows on from the previous specific 'Strategy of Economic Literacy and Entrepreneurship Education' ⁽²²⁸⁾ which ran from 2004 until 2012.

Main objectives

The main objective is to increase the level of entrepreneurship, and closely reflects the aims of the 'European Entrepreneurship 2020 Action Plan' ⁽²²⁹⁾ with three sub-objectives:

- create a coherent and continuous system for entrepreneurial education;
- create a business start-up and development-friendly environment;
- promote entrepreneurship, ensuring the availability of public services for business, distinguishing target groups (youth, women), encouraging start-ups and social entrepreneurship, supporting entrepreneurship in the regions and forming a positive image of entrepreneurs.

Concrete actions

Under 1.1 'Create a coherent and continuous system for entrepreneurial education', the following concrete actions are identified:

- 1.1.1. ensure that entrepreneurship and financial literacy education is integrated into the pre-school and primary education curriculum;
- 1.1.2. provide at least one opportunity for students before the end of compulsory education to gain practical experience in entrepreneurship, such as through managing a Student Educational Company (SEC), undertaking working experience in a business training company, or being responsible for a project in a company, business or social enterprise;
- 1.1.3. in order to develop students' practical experience in vocational training, in addition to the mandatory study practice, students can have additional practices and sign a bilateral training agreement (between the student and the institution);

⁽²²⁶⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽²²⁷⁾ http://www.ukmin.lt/uploads/documents/Verslumo_veiksmu_planas_2014-2020_1.pdf

⁽²²⁸⁾ http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=235714andp_query=andp_tr2=

⁽²²⁹⁾ http://ec.europa.eu/growth/smes/promoting-entrepreneurship/action-plan/index_en.htm

- 1.1.4. develop practice in workplace according to the profession; strengthen the partnership with the social partners;
- 1.1.5. implement measures to encourage collaboration between general education schools and non-governmental organisations to support the promotion of entrepreneurship and students' involvement in voluntary activities;
- 1.1.6. improve the EE competences of general education and vocational school teachers and high school practice supervisors;
- 1.1.7. encourage creative initiatives by children and young people.

Ministries and stakeholders involved

- Governments: Ministry of Economy, Ministry of Education and Science, Ministry of Social Security and Labour, Ministry of Culture, Ministry of Agriculture, Ministry of Transport;
- other: Businesses, NGOs;
- education e.g. VET institutions.

Monitoring framework

'Lithuania Entrepreneurship Action Plan' contains a monitoring framework.

In the curriculum

Explicit integration in the curriculum

Entrepreneurship is one of key competences to be acquired in formal education. Entrepreneurship education is a cross-curricula objective at all levels of education through the 'National Programme of Economics and Entrepreneurship' for basic education. This is based on the key competences including entrepreneurship, communication, learning to learn and citizenship. The programme provides possibilities for teaching and learning in different ways e.g. student companies and business competitions.

At secondary school level (grades 1-12), it is addressed in different areas through an integrated EE programme introducing knowledge, skills and abilities. This can be expanded into various after school activities. For ISCED 2, it is addressed in a separate compulsory subject, 'Economics and EE' in the formal education programme (34 hours in grades 9-10). For ISCED 3 at grades 11-12, economics is not obligatory and schools propose programmes such as 'Student Companies', 'Economics and Business', 'Business and Management' and others. Students choose an option.

Learning outcomes

The 'National Programme of Economics and Entrepreneurship' contains indicators of student knowledge, understanding and skills levels. These help the teacher to observe, generalise, capture the individual student achievements and differentiate tasks. Satisfactory, standard and upper levels are described and provided. Level indicators are not quantitative but qualitative, and aim not only to assess student achievement levels (based on points), but also to help teachers assess each student's skills and plan how to develop them in order to improve teaching (learning) results.

For example, at the end of the ISCED 2 compulsory programme ⁽²³⁰⁾, students reaching the basic level should be able to:

- evaluate their role in the business environment and explain the significance of entrepreneurship;
- be responsible, take initiative, set goals and evaluate other people's efforts.

Teacher education and support

In 2010, Lithuania approved the 'Teacher Training Regulation' ⁽²³¹⁾, in which entrepreneurship education is not emphasised. However, in the Lithuanian University of Educational Sciences, initial teacher education includes an option of economy and entrepreneurship related modules.

The Lithuanian University of Educational Sciences provides CPD opportunities for general secondary and school-based IVET teachers in charge of economics and entrepreneurship courses.

⁽²³⁰⁾ Learning outcome for General Basic Education Curriculum Social Education: http://www.smm.lt/uploads/documents/svietimas/ugdymo-programos/6_Socialinis-ugdymas.pdf Learning outcomes for General Secondary Education Curriculum: http://www.upc.smm.lt/suzinokime/bp/2011/Socialinis_ugdymas_5_priedas.pdf

⁽²³¹⁾ http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=425048

Luxembourg

Definition of entrepreneurship education

There is no national definition for entrepreneurship education (EE).

In Luxembourg, entrepreneurship is recognised as a transversal skill to be developed.

Related strategy

There is no current national strategy for entrepreneurship education in Luxembourg.

Junior Achievement – Young Enterprise (*Jonk Entrepreneuren*)⁽²³²⁾ is part-funded by the government of Luxembourg to support EE in schools. The Ministry of Economy; the Ministry of Education, Children and Youth; and the Ministry of State (of the Luxembourg Prime Minister) are represented on the board of directors.

In the curriculum

Explicit integration in the curriculum

The Ministry of Education, Children and Youth of the government of Luxembourg, is part of the European Erasmus+ funded 'Youth Start – Entrepreneurial Challenges'⁽²³³⁾ policy experimentation, a major initiative to support the introduction of practical entrepreneurial experiences into compulsory education. Entrepreneurship education can be included in languages in ISCED 1 and in several subjects in ISCED 2. It depends on whether teachers are willing or not to integrate any EE content in their teaching time. In ISCED 3 EE is compulsory for economics and commerce students in technical secondary schools and optional for all other students in technical and general secondary schools. In school-based IVET EE is compulsory for economics, commerce and administration students and optional for all the others.

Learning outcomes

Some EE learning outcomes such as planning or financial literacy are integrated into different subject curricula in upper secondary education. However, they are not defined as EE learning outcomes. Teamwork is primarily used as a teaching method. Financial literacy is almost always taught in specific subjects.

Teacher education and support

For the moment, the development of professional competencies in EE is mostly a question of teacher motivation. Entrepreneurship education is not a compulsory subject for teacher education at any level. CPD courses only exist for economics and communication teachers in school-based IVET.

⁽²³²⁾ <http://jonk-entrepreneuren.lu/>

⁽²³³⁾ www.youthstartproject.eu

Hungary

Definition of entrepreneurship education

In the place of a national definition, the Hungarian National Core Curriculum⁽²³⁴⁾ refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning⁽²³⁵⁾. This is elaborated upon as follows: 'Related knowledge includes recognition and understanding of opportunities and challenges connected to personal, professional life or business activities, as well as an overall understanding of how the economy operates and a self-confident approach to finance. The individual must be aware of financial and legal terms and conditions of operating enterprises. This includes skills such as planning, management, leadership, delegating tasks, analysis, communication, reasoning, assessing experiences, risk assessment and risk taking, working individually and in teams, and behaving ethically. A positive attitude is characterised by independence, creativity and innovation, the motivation to achieve aims and resilience in personal and social life as well as in work'.

Related strategy

There is no current national strategy for entrepreneurship education (EE). Three broader strategies include references to EE: firstly, the 'Life Long Learning Strategy for Hungary 2014-2020'⁽²³⁶⁾; secondly, the 'National Youth Strategy 2009-2024'⁽²³⁷⁾; and lastly, the 'National Research, Development and Innovation Strategy 2013-2020'⁽²³⁸⁾.

The 'Life Long Learning Strategy for Hungary' is the most relevant strategy, explicitly calling for the development of entrepreneurial skills at all levels.

Main objectives

- Strengthen the teaching of basic skills and key competencies including EE;
- placing an emphasis on broader skills as part of addressing the reintegration of young people (dropouts) into education (links made to entrepreneurial skills i.e. problem solving and negotiation);
- stronger emphasis on horizontal skills to ensure the labour market relevance of adult education;
- using competency-based learning outcomes.

Concrete actions

The action plan for the strategy is in development.

Of the other broader strategies, the 'National Youth Strategy 2009-2024'⁽²³⁹⁾ makes reference to EE in terms of youth in general, rather than specific educational levels. The aspiration is for young people 'to

⁽²³⁴⁾ https://www.ofi.hu/sites/default/files/attachments/mk_nat_20121.pdf

⁽²³⁵⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽²³⁶⁾ <http://www.kormany.hu/download/7/fe/20000/Egész%20életen%20át%20tartó%20tanulás.pdf>

⁽²³⁷⁾ http://planipolis.iiep.unesco.org/upload/Youth/Hungary/Hungary_National_Youth_Strategy.pdf

⁽²³⁸⁾ http://www.kormany.hu/download/5/ef/e0000/Nemzeti_KFI_strat%C3%A9gia.pdf

⁽²³⁹⁾ http://planipolis.iiep.unesco.org/upload/Youth/Hungary/Hungary_National_Youth_Strategy.pdf

become self-sufficient, have a flexible approach to life, start a career, apply innovative ideas and thus to contribute to the economic and social development of society and become entrepreneurs'. Furthermore, 'making use of the opportunities for education and informal learning, the entrepreneurial mindset should be promoted amongst young people'. Broad indicators are monitored such as youth unemployment and participation in community activities. One indicator is specific to business start-up: improve the 'ratio of young entrepreneurs as compared to all young people who are not students or pensioners'.

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is cross-curricular for ISCED 1-3 including school-based IVET.

It is represented in a relatively complex way in the Hungarian National Core Curriculum and respective framework curricula. It is a key competence that should be addressed in all subject areas. The National Core Curriculum also defines 12 cross-curricular aims, amongst which, three are related to entrepreneurship education:

- taking responsibility for others, volunteering;
- career guidance;
- developing financial and monetary literacy.

Objectives and perspectives vary depending on age groups and subject areas; in STEM subjects, for instance, more emphasis is placed on creativity, planning, analysis, risk and trend assessment and managing project work. However, in geography or history, the focus is more on understanding financial and legal terms and contexts, the overall operation of business world and ethics. Furthermore, there is compulsory voluntary practice as part of the curriculum.

Learning outcomes

There are no defined entrepreneurial learning outcomes.

Teacher education and support

Entrepreneurship education is addressed as an overarching educational aim and development task in the National Core Curriculum, which recommends broad pedagogical approaches (such as individual development and active learning), but does not provide direct guidelines to any of the key competences or development tasks.

The integration of EE into initial teacher education is a matter for institutional autonomy.

The Hungarian National Institute of Vocational and Adult Education (NSZI) provides a CPD course on teaching entrepreneurship for all school-based IVET teachers.

Malta

Definition of entrepreneurship education

In Malta, the definition of entrepreneurship education (EE) shared by most stakeholders is that given by the National Curriculum Framework for All:

'Entrepreneurship allows children and young people to develop skills for life, enables them to handle uncertainty, respond to change and to be creative. Soft entrepreneurial skills include social skills and entrepreneurial attitudes; hard entrepreneurial skills focus more on developing business skills such as drafting a business plan. Elements of entrepreneurial behaviour (curiosity, autonomy, creativity, initiative and team spirit) are embedded and strengthened through the integration of entrepreneurship programmes, projects and activities in the established curriculum' ⁽²⁴⁰⁾.

Related strategy

There is no specific national strategy for EE in Malta, nor is it addressed within a broader government strategy. However, it is included in the National Curriculum Framework (NCF).

The NCF was launched in 2012 and covers primary and secondary education (ISCED 1-3). The lead ministry is the Ministry for Education and Employment, but its development involved wide consultation ⁽²⁴¹⁾ with several other entities amongst which were trade unions, constituted bodies, political parties, teachers, students and parents.

Main objectives

The NCF proposes a whole school approach that should support a climate of creativity intended to develop 'communication, lateral thinking, originality, emotional development, leadership, questioning, intuition, critical thinking, problem solving, the fostering of entrepreneurial mind-sets and openness to cultural diversity and self-expression' ⁽²⁴²⁾. Implementation also links to the Secondary School Certificate and Profile ⁽²⁴³⁾ documenting formal and non-formal learning followed by students.

As from 2016/17, learning outcomes for entrepreneurship education will be explicitly referred to in the curricula of all compulsory and optional subjects across ISCED levels 1, 2, 3, including school-based IVET. This will take the form of a central recommendation through these official documents. This implementation will be spread over a number of years so that EE is integrated gradually through each level.

⁽²⁴⁰⁾ <https://curriculum.gov.mt/en/Resources/The-NCF/Pages/default.aspx> (see p. 38)

⁽²⁴¹⁾ For further information on the consultation process: <http://curriculum.gov.mt/en/Resources/The-NCF/Pages/default.aspx#Consultation> and http://curriculum.gov.mt/en/Resources/The-NCF/Documents/Consult_Docs/Analysis%20of%20Feedback_Entities.pdf

⁽²⁴²⁾ <https://curriculum.gov.mt/en/Resources/The-NCF/Pages/default.aspx> (see p. 38)

⁽²⁴³⁾ <http://skola.edu.mt/wp-content/uploads/2012/11/handbookweb.pdf>
<http://weavefx.com/smcboys/wp-content/uploads/2015/06/SSCP-circular-to-parents.pdf>

Concrete actions

- Provides guidance on the cross curricular theme 'Education for Entrepreneurship, Creativity and Innovation';
- targets for EE in ISCED 1 – students should value the processes that lead to creating and implementing new ideas; understand and develop the ability to think, create and value new products that help them and others adapt to changes in society; experience risk-taking, planning, perseverance and the use of their imagination to create products; attain self-belief and the ability to be useful and productive for one's self, one's group of friends, class and school ⁽²⁴⁴⁾;
- targets for EE in ISCED 2-3 – students should be equipped to anticipate, initiate and deal with change; develop organisational skills; develop the skills required for group dynamics, risk assessment and conflict resolution ⁽²⁴⁵⁾.

Monitoring framework

The integration of EE as a cross-curricular theme was not monitored or evaluated during 2014/15 but this is planned to start as of school year 2016/17 with the implementation of a Learning Outcome Framework (LOF) and Learning and Assessment Programmes (LAPs).

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is centrally recommended and will be explicitly referred to in curricula from the 2016/17 school year. EE is one of the cross-curricular themes defined in the National Curriculum Framework relevant for all primary and secondary schools (ISCED 1-3). A Learning Outcomes Framework is currently being developed. This framework follows on from the suggestions of the NCF and develops EE as a cross-curricular theme in more depth and detail, defining its specific learning outcomes. Simultaneously, LAPs are being developed for each subject taught in ISCED 1, 2 and 3. These LAPs integrate explicitly the specific EE objectives defined in the LOF within all subjects across all levels.

The overall goals of EE as a cross-curricular theme are to give students the attitudes, knowledge and capacities to act in an entrepreneurial way and to acquire the skills that will promote their lifelong employability in a rapidly changing commercial, economic and social environment. This includes becoming entrepreneurial citizens in other spheres beyond industry or employment. These goals require the development of the 'soft' generic personal and interpersonal skills fundamental to becoming entrepreneurial, as well as fostering the entrepreneurial knowledge and understanding required to pursue entrepreneurial endeavours, and to possess an entrepreneurial mind-set which is both creative and innovative.

Learning outcomes

A Learning Outcomes Framework (LOF) is currently being developed. LAPs are being developed for each of the 48 specific subjects that are taught across ISCED levels 1, 2 and 3. These LAPs specify the EE learning outcomes to be achieved for each subject and at each education level. The LAPs will ensure the gradual development of universal EE learning outcomes, across the whole of the compulsory schooling period and within each subject.

⁽²⁴⁴⁾ NCF, 2012, p. 52.

⁽²⁴⁵⁾ NCF, 2012, p. 59.

Teacher education and support

Although there are no current central level recommendations/guidelines for teacher education/support in entrepreneurship education, these are being developed as part of the Learning Outcomes Framework (LOF) and will be launched during the 2016/17 school year.

No CPD activities on EE form part of the official undergraduate or post-graduate education courses given by the University of Malta, which is the only gateway to qualified teacher certification at this level. However, Junior Achievement – Young Enterprise (JA – YE) Malta may be invited to provide CPD activities for educators to familiarise themselves with the JA – YE Malta educational programmes on offer, as well as with methodologies to implement EE activities in classrooms.

Netherlands

Definition of entrepreneurship education

In the Netherlands, there is agreement with the definition of the European Thematic Working Group on Entrepreneurship Education (EE):

'Entrepreneurship education is about learners developing the skills and mindset to be able to turn creative ideas into entrepreneurial action. This is a key competence for all learners, supporting personal development, active citizenship, social inclusion and employability. It is relevant across the lifelong learning process, in all disciplines of learning and to all forms of education and training (formal, non-formal and informal) which contribute to an entrepreneurial spirit or behaviour, with or without a commercial objective' ⁽²⁴⁶⁾.

According to experts in the Ministry of Education:

'Entrepreneurship refers to an individual's ability to put ideas into action. It includes creativity, innovation and risk taking, and the ability to achieve objectives'. Entrepreneurship is about seeing opportunities and using them, showing initiative, being proactive and creative, and solving problems; it also involves perseverance, teamwork and communication as well as cultural and moral sensitivity'.

Related strategy

There is no current national strategy for entrepreneurship education in the Netherlands.

There was previous strategic support for EE until 2012, led by the Dutch ministries of Economic Affairs, Education, Culture and Science and Agriculture, Nature and Food Quality. In 2005, the ministries launched the programme partnership *Leren Ondernemen* to promote EE, which was followed in 2007-2012 with the 'Education and Entrepreneurship Action Programme' ⁽²⁴⁷⁾. This was a national subsidy scheme to support educational institutions integrate EE in their policies and organisation, with the aim of increasing the number of students demonstrating an entrepreneurial mindset and behaviour. As a result of the Action Plan, there has been a clear shift in the educational field so that there is greater attention paid to entrepreneurship. Entrepreneurship in education has also gained a more permanent place in the organisation of education at a growing number of institutions – one of the objectives of the programme.

The Netherlands has a wider strategy related to entrepreneurship and innovation ⁽²⁴⁸⁾, and the need to improve education and training are explicitly highlighted such as increased collaboration between education and business while linking to previous and ongoing EE activities.

⁽²⁴⁶⁾ http://ec.europa.eu/education/policy/strategic-framework/archive/documents/entrepreneurship-report-2014_en.pdf

⁽²⁴⁷⁾ http://www.onderwijsonderneemt.nl/english/action_programme_education_and_entrepreneurship

⁽²⁴⁸⁾ <https://www.government.nl/topics/entrepreneurship-and-innovation/contents/investing-in-top-sectors>

In the curriculum

In the Netherlands, schools are autonomous. Although there is no strategy at national level, many schools pay attention to EE but they are free to decide whether and how they teach this subject.

Explicit integration in the curriculum

Entrepreneurship education is not mentioned explicitly in the curricula for primary and secondary education. However schools can use entrepreneurship programmes such as *Jong Ondernemen* ⁽²⁴⁹⁾, which is funded by the Dutch government to deliver programmes in primary, secondary, IVET and university levels ⁽²⁵⁰⁾. For primary education, the focus is primarily on 'enterprising behaviour': encouraging 'guts', creativity, solution-oriented thinking (problem solving), commercial/economic thinking and action, developing social skills. Children are encouraged to develop their own initiative through short-term projects (lasting weeks/months).

In general secondary education (HAVO and VWO), entrepreneurship components are included in the curriculum, especially in the 'Economics and Society' profile. Some schools specialise in entrepreneurship as part of a network of 'Entreprenasiums' ⁽²⁵¹⁾ – in which teachers and students together run the school, or as a 'Technasium' ⁽²⁵²⁾ in which (technical) sciences are often combined with innovative entrepreneurship, e.g. by working with external clients.

In VMBO, there is a pilot project in 2015 for a new examination programme called 'Economics and Management' (entrepreneurship), in which there is a stronger emphasis on entrepreneurial skills than before. In addition, there is cooperation between various schools with VET colleges (ROC) and agricultural VET colleges (AOC), to achieve continuing learning in the field of entrepreneurship.

In school-based IVET, the 'Entrepreneurship Certificate' developed entrepreneurship qualities including the knowledge and skills needed to start and run a company. The certificate is intended for secondary vocational education (MBO) students in all sectors, and provides them with the opportunity to develop their skills in entrepreneurship and provide a sound preparation for becoming an entrepreneur. In school-based IVET, there are also qualifications that focus on entrepreneurship, for example, training for 'retail entrepreneurs' and 'entrepreneurs in the catering industry/ bakery'. This is specific training that educates young people to become entrepreneurs. Training in VET consists of qualifications and one or more optional elements (*keuzedelen*). With the introduction of these optional parts, almost all students in VET are able to choose an option in EE during their training.

⁽²⁴⁹⁾ www.jongondernemen.nl

⁽²⁵⁰⁾ <http://www.rijksoverheid.nl/nieuws/2013/06/10/ondernemen-kun-je-niet-vroeg-genoeg-leren.html>

⁽²⁵¹⁾ www.entreprenasium.nl

⁽²⁵²⁾ www.technasium.nl

Learning outcomes

Learning outcomes are not explicitly mentioned because there is no national strategy for primary and secondary education. What students must know in school-based IVET is mentioned in the qualification profiles.

In the Dutch qualifications structure, representatives of employers, employees and educational institutions are working together to define Qualification Dossiers ⁽²⁵³⁾. These dossiers indicate what a future professional should know or be able to demonstrate after his or her examination. The national qualifications structure for VET is referenced to the EQF. It is a guarantee that, after graduating, students will have the same capacities all over the country'.

Teacher education and support

In the Netherlands, teacher training institutions are autonomous and are not required to address entrepreneurship.

'The Enterprising Teacher' (*De ondernemende docent*) – a two-year project organised by the Netherlands Enterprise Agency (*Rijksdienst voor Ondernemend Nederland*) – aimed to encourage PABOs (primary school teacher training college) to raise awareness on enterprising behaviours of both their students and teachers. The project ended in December 2015. Its outcome is that a few PABOs decided to continue to work on implementing entrepreneurial education in their curriculum and within their organisation.

The 'Edison' project ⁽²⁵⁴⁾, co-funded by the EU Lifelong Learning Programme since 2013, aims to embed entrepreneurship into the learning pathways of students on VET programmes. It gathers partners from six countries (the Netherlands, Ireland, Spain, Italy, Austria and the United Kingdom). A programme to support VET teachers in the development of their entrepreneurial skills has already been developed. The Netherlands Association of VET Colleges (*MBO Raad*) together with the Alfa-College is offering this programme to Dutch VET teachers.

⁽²⁵³⁾ The Qualifications Dossiers are based on the Europass Certificate Supplement. More information can be found at <http://en.europass.nl/node/91> and the certificates can be seen at http://cs.s-bb.nl/?SES_LANG=6

⁽²⁵⁴⁾ <http://www.edisonentrepreneurship.eu/>

Austria

Definition of entrepreneurship education

In place of a national definition, Austria refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽²⁵⁵⁾.

However, there is a clearly defined model of entrepreneurship education (EE) in use: the Austrian 'TRIO Model' for EE ⁽²⁵⁶⁾. The model advocates an early incorporation of EE across the educational curriculum:

- level 1: Entrepreneurial Core Education;
- level 2: Entrepreneurial Culture;
- level 3: Entrepreneurial Civic Education.

Related strategies

There is no specific strategy for EE; however, EE is part of three broader strategies:

- the 'Strategy on Lifelong Learning (LLL:2020)' ⁽²⁵⁷⁾ – most relevant to entrepreneurship education;
- '*Gründerland Österreich*' ⁽²⁵⁸⁾;
- the 'Austrian Youth Strategy' ⁽²⁵⁹⁾.

A) The 'Strategy on Lifelong Learning (LLL:2020)'

This runs from 2011-2020, covers ISCED 1-8, and is the most relevant strategy for EE.

Main objectives of LLL:2020

The basic objective of the strategy is to encourage learning which challenges and promotes learners through the individualisation of learning paths. There are 10 action lines.

Concrete actions of LLL:2020

The strategy sets out EE as a cross-cutting issue – as one of the eight European key competences –, and this ensures that EE is governed by a national framework. Action Line 2 refers to entrepreneurship as one of the eight key competences, specifying one concrete measure as follows: 'Develop new curricula (for all types of schools) which are consistently aimed at learning outcomes and sustainability, and interdisciplinary teaching models which focus on key competences'. Action Line 8 specifically focuses on entrepreneurship, with the vision on Action Line 8 reading as follows: 'The concept of lifelong learning is a major element of economic and labour market policy and promotes the competitiveness of companies as well as employees' opportunities in the labour market'.

⁽²⁵⁵⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽²⁵⁶⁾ This model was developed by the EESI-Impulse Centre (Entrepreneurship Education for School Innovation (<http://www.eesi-impulszentrum.at>) and funded by the Ministry for use in school (especially VET schools and colleges).

⁽²⁵⁷⁾ https://www.bmbf.gv.at/ministerium/vp/2011/llarbeitspapier_ebook_gross_20916.pdf?4dtiae

⁽²⁵⁸⁾ http://www.bmwf.gv.at/Presse/Documents/BMWFV_Land_der_Gruender_NEU.pdf

⁽²⁵⁹⁾ http://www.youthpolicy.org/national/Austria_2013_Youth_Strategy.pdf

Ministries and stakeholders involved in of LLL:2020

Ministries involved included the Federal Ministry for Education, Arts and Culture; the Federal Ministry for Science and Research; the Federal Ministry of Labour, Social Affairs and Consumer Protection; and the Federal Ministry of Economics, Family and Youth.

Monitoring Framework of LLL:2020

The strategy is controlled by a task force of ministries with a National Platform of external partners. In addition to annual reports, the Task Force will submit in 2020 a final report on achievements, which will include further recommendations. The strategic goals are measured against benchmarks, which are based on national and EU-wide projects and are expressed in specific ratios.

B) 'Gründerland Österreich'

'Founder Country Austria' is a strategy whose main objective is to improve the entrepreneurship ecosystem. It includes the following actions linked to EE under the theme of 'Raising Awareness': Action 17 on the improvement of financial literacy; Action 20 on the generation of an entrepreneurial spirit in young children and the communication of entrepreneurial thinking across the entire education system; and Action 21 on the improvement of the significance of entrepreneurship in society.

C) The 'Austrian Youth Strategy'

Entrepreneurship education is also part of the 'Austrian Youth Strategy', which is line with the 'EU Youth Strategy 2010-2018'. It has measurable strategic goals along with recommendations for concrete measures, including more entrepreneurial learning, an increased use of practice firms, and an increase in young people participating in projects and becoming involved in voluntary work.

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is a cross-curricular objective for ISCED 3 (including school-based IVET) and aims at giving students an understanding of entrepreneurial thinking (entrepreneurial spirit) and action. Through this, they are enabled to either start their own business or work for their own benefit, for the benefit of society or as intrapreneurs, i.e. employees.

Entrepreneurship education is integrated into compulsory subjects at ISCED 1-3 (including school-based IVET). The main focus is on entrepreneurial, experiential learning. There are specific entrepreneurship competences in the National standards. It is also integrated as a compulsory subject into general studies at ISCED 1, in geography and economics at ISCED 2-3 and in business studies within school-based IVET.

Moreover, through the 'Open Schools' objective, schools can reach out to the outside world by providing for learning in settings outside the school premises and by complementing their instruction with school events. Companies, public institutions etc. can provide useful places for teaching and/or learning giving an opportunity for hands-on learning in real-life situations.

Learning outcomes

Many curricula have been adapted to be competence-oriented, mainly based on the 'TRIO Model' ⁽²⁶⁰⁾, and include entrepreneurship, particularly in school-based IVET. The learning outcomes also reflect the 'TRIO Model', while the 'Austrian Reference Framework for Entrepreneurship Competence' ⁽²⁶¹⁾ has been developed as a guide.

Teacher education and support

Currently, EE is a compulsory topic only for the initial education of prospective teachers of economics and geography in secondary education (including school-based IVET). However, ITE is undergoing reform in Austria, and most of the new ITE curricula for secondary education (starting in 2016/17) are not yet issued. CPD provision is also limited to secondary teachers of economics and geography.

The EESI-Impulse Centre (Entrepreneurship Education for School Innovation), supported by the Ministry of Education and Women's Affairs is the centre of expertise for entrepreneurship education in the country. It provides access to online teaching materials developed in cooperation with the 'Initiative for Teaching Entrepreneurship' (IFTE) and other stakeholders. Since 2011, it has also run the 'EESI Entrepreneurship Certification for Schools' programme. EESI coordinators are available at regional level to coordinate and manage project groups on entrepreneurship.

⁽²⁶⁰⁾ More information on this approach is available in Section 3.3.3 of the report.

⁽²⁶¹⁾ <http://www.eesi-impulszentrum.at/wp-content/uploads/2014/01/PosterReferenzrahmen-092014.pdf>

Poland

Definition of entrepreneurship education

Entrepreneurship education (EE) is intended to develop the skills and attitudes of students in preparation for an active life, open to the world; it also seeks to give them the knowledge needed to help them adapt to changing conditions. Entrepreneurship is the development of skills such as taking the initiative, planning projects, achieving objectives, self-realisation, risk taking, teamwork and the ability to face set-backs and draw meaningful conclusions. It also shapes attitudes towards creativity, responsibility and willingness to take initiative ⁽²⁶²⁾.

Related strategy

There is no current national strategy for EE in Poland; instead, it is addressed within several broader strategies. The most relevant of these is the 'Lifelong Learning Perspective Strategy (LLP)' ⁽²⁶³⁾ setting out the national strategic framework for lifelong education and training. This covers the period 2013-2020, and addresses all levels of education.

Main objectives

There are five objectives in the strategy:

- encouraging creativity and innovation;
- providing a clear and coherent national qualifications system;
- providing a diverse and accessible range of early care and education;
- tailoring education and training to the needs of a sustainable economy and changes in the labour market;
- improving the work environment and promoting community involvement, adult learning and addressing social needs.

Concrete actions

General reference is made to EE in two objectives:

- **Objective 1** emphasises the need for young people to develop creativity, entrepreneurship and innovation to help face social and personal challenges in life;
- **Objective 4** points to the need to develop practical and entrepreneurship skills in general education to prepare young people to enter the labour market and take up employment opportunities.

The strategy also makes reference to areas that are integral to EE, for example the wide focus on creativity in Objective 1 and the importance of involving business and specialists from industry/civic institutions in education and training in Objective 4.

⁽²⁶²⁾ http://men.gov.pl/wp-content/uploads/2014/01/plli_2013_09_10zal_do_uchwaly_rm.pdf

⁽²⁶³⁾ <http://men.gov.pl/jakosc-edukacji/planowanie-strategiczne-i-uczenie-sie-przez-cale-zycie/perspektywa-uczenia-sie-przez-cale-zycie.html>

Ministries and stakeholders involved

Government: Chancellery of the Prime Minister, Ministry of National Education, Ministry of Science and Higher Education, Ministry of Foreign Affairs, Ministry of the Economy, Ministry of Development, Ministry of Family, Labour and Social Policy.

Stakeholders: Polish Agency for Enterprise Development, scientific community, entrepreneurs, workers, civil society and banks.

Of these, the Ministry of the Economy and the Polish Agency for Enterprise Development (PARP) are particularly important in supporting entrepreneurship at policy level. Both organisations are actively participating in the creation and effective implementation of the strategy around entrepreneurship and innovation. Also, the National Bank of Poland (*Narodowy Bank Polski*) has been involved for years in promoting economic and financial education among young people ⁽²⁶⁴⁾.

Monitoring framework

Coordination and monitoring is carried out by the Inter-ministerial Team for Lifelong Learning made up of the stakeholder ministries above. They will analyse the key competence development including entrepreneurship, monitoring implementation and ensuring evaluation of measures for the development of skills and qualifications.

The Europe 2020 and ET 2020 benchmarks at European and country level will be used. The preparation of regional lifelong learning strategies as part of general regional strategies is a key factor in the implementation of the LLP strategy at the national level. There will also be an ex-post evaluation of the strategy upon completion of the implementation.

In the curriculum

Explicit integration in the curriculum

EE is explicitly integrated in the curricula.

In ISCED 2 and 3, the compulsory subject 'Knowledge about Society' asks all students to participate in an educational project (20 % of the course in ISCED 2 and 10 % in ISCED 3).

In ISCED 3, the compulsory subject 'Introduction to Entrepreneurship' involves students in social/civic activities and develops their creative skills and initiative. In the optional subject 'Economics in Practice', students implement an individual educational project.

⁽²⁶⁴⁾ http://www.nbp.pl/home.aspx?f=/o_nbp/informacje/dzialalnosc_educacyjna.html

Learning outcomes

Core curricula for general education define numerous learning outcomes for EE at different ISCED levels and for different subjects (compulsory and optional). Learning outcomes are linked and developmental at each ISCED level. Examples include:

- 'Knowledge about Society' (ISCED 2-3):
 - problem recognition and solving (ISCED 3)
- 'Introduction to Entrepreneurship' (ISCED 3):
 - communication and decision-making
 - economy and enterprise
 - planning and career development
 - ethical rules
- 'Economics in Practice' (ISCED 3):
 - ability to plan and implement a project and analyse its results.

Teacher education and support

There is no specific provision for EE as part of ITE, as higher education institutions have autonomy in programme design, based on the National Teacher Training Standards.

CPD in general is not obligatory, but necessary for promotion. CPD is offered both by the central level institutions (ORE – Centre for Education Development – *Ośrodek Rozwoju Edukacji*) and by regional and district CPD centres. ORE provides a CPD offer on EE for all teachers in lower and general upper secondary education. Junior Achievement Poland also offers CPD activities on EE for all teachers of primary and secondary education, including school-based IVET.

It is possible to find optional CPD training courses, workshops or free conferences providing support for delivery of EE related subjects, such as the 'To Be Entrepreneurial' course or the 'Economy in School' course (covering entrepreneurship and wider topics) delivered by the teacher training centres in Poznan and Lublin. Teachers are also encouraged to enrol in projects and competitions together with their students e.g. *Finansoaktywni* ⁽²⁶⁵⁾ – an educational programme on financial education for teachers and students in lower secondary schools organised by the Ministry of Finance.

Some resources are available through networks of public pedagogical libraries at regional level and online at national level ⁽²⁶⁶⁾. The Civic Education Centre ⁽²⁶⁷⁾ also runs some projects on EE and provides teaching materials on this topic.

The Ministry of the Economy organises educational clusters ⁽²⁶⁸⁾, with a focus on supporting better collaboration at regional level between education and training (particularly vocational training) and business.

⁽²⁶⁵⁾ <http://men.gov.pl/ministerstwo/informacje/finansoaktywni-program-edukacyjny-dla-uczniow-i-nauczycieli-szkol-gimnazjalnych.html>

⁽²⁶⁶⁾ <http://www.ore.edu.pl/wydzialy/rozwoju-kompetencji-spoecznych-i-obywatelskich>

⁽²⁶⁷⁾ <http://www.ceo.org.pl/pl/biblioteka-materialow/przedsiębiorczość-i-ekonomia>

⁽²⁶⁸⁾ <http://www.mg.gov.pl/Wspieranie+przedsiębiorczości/Szkolnictwo+zawodowe/Klasy+edukacyjne>

Portugal

Definition of entrepreneurship education

The national definition is detailed in *Citizenship Education – Guidelines* ⁽²⁶⁹⁾ by the Directorate-General for Education dated December 2012, which states:

'Entrepreneurship Education (EE) aims to promote the acquisition of knowledge, skills and attitudes that encourage and ensure the development of ideas, initiatives and projects, in order to create, innovate or make changes in an individual's life in response to the challenges set by society.

EE is a transversal contribution to different subjects and non-subject areas, accomplished through activities or projects, which are developed in a participatory way by students willing to make a change in their capacity as citizens'.

Related strategy

There is no current national strategy for EE in Portugal.

Regional entrepreneurship support strategies are of great importance. These aim to consolidate entrepreneurship as the basis of a strong and sustained regional economy. Regions play a crucial role here, as they are the main institutional partners of universities, various research and education bodies and small and medium-sized enterprises. Some key ideas for the implementation of intelligent specialisation strategies, such as lifelong learning in research and innovation, help promote research, encourage an entrepreneurial approach among students and cooperate with regional enterprises involved in innovation, thereby consolidating their participation in regional economic development.

There is a well-established network of government departments and external organisations working collaboratively on this policy area.

Portugal participates in different European projects where EE approaches are tested. One of these is the European Erasmus+ funded 'Youth Start – Entrepreneurial Challenges' ⁽²⁷⁰⁾ policy experimentation led by the Portugal Entrepreneurship Education Platform ⁽²⁷¹⁾ with the Ministry of Education and Science. This is a major EU initiative across six countries to pilot and support the introduction of practical entrepreneurial experiences into compulsory education.

⁽²⁶⁹⁾ <http://dge.mec.pt/educacao-para-cidadania-linhas-orientadoras-0>;
http://dge.mec.pt/sites/default/files/ECidadania/citizenship_education_guidelines.pdf

⁽²⁷⁰⁾ www.youthstartproject.eu

⁽²⁷¹⁾ <http://www.peep.pt>

There is also a government-led initiative called the 'Strategic Programme for Entrepreneurship and Innovation' ⁽²⁷²⁾, with an objective to 'promote creativity, digital literacy, scientific and technological culture and entrepreneurship' at all levels of education. Two specific actions are identified within the legislation ⁽²⁷³⁾ supporting the programme:

- 4.1.1. Promoting an experimental component in basic education and secondary education – intended to improve experiential learning in science and introduce enhanced requirements for laboratory work. It is also intended to stimulate creativity, collaborative work and development activities and reduce risk aversion, thus contributing to an organization's culture and accountability from the early years of basic education.
- 4.1.2 Initiative 'INOVA! – Learning Enterprise', which aims to encourage young people to develop initiatives that contribute to the resolution of problems in the communities in which they operate and can involve (regional/national) competitions.

In the curriculum

Explicit integration in the curriculum

Within education legislation, entrepreneurship education is included in Decree-Law n° 139/2012, of the 5th July, updated by Decree-Law n° 91/2013, of July 10th ⁽²⁷⁴⁾ addressing curriculum organisation and management of primary and secondary education. It is included within the 'Education for Citizenship' curriculum area.

In ISCED 1 and 2, EE is included in 'Citizenship Education', a cross-curriculum content area that is defined in the syllabus and in the curriculum guidelines, and is a responsibility for all subject areas and non-subject-based curriculum areas. However, it is not mandatory. Depending on each school, provision can include several cultural activities and optional subjects. Each school decides which activities help their students develop the capacities that enable them to progressively adopt pro-active attitudes towards different situations.

The insertion in the curriculum of the different dimensions of 'Education for Citizenship', with EE among these, requires a transversal approach, both in subject areas and subjects and in activities and projects, from pre-school to upper secondary education. Since citizenship education is not a mandatory subject, schools can decide whether to provide it as an independent subject or not, in the 2nd and 3rd cycles of basic education (ISCED 1-2). It can be developed according to the specific needs and problems of the educational community, alongside and in response to the objectives defined by each school cluster or independent school within their educational projects.

In school-based IVET courses (ISCED 3 and 4), entrepreneurship is not a separate subject, but is integrated and addressed as a theme or content within a module, a training unit or a subject. Entrepreneurship content is developed through goals and competencies.

⁽²⁷²⁾ <http://www.ei.gov.pt/index/>

⁽²⁷³⁾ <http://www.iapmei.pt/iapmei-leg-03.php?lei=7992>

⁽²⁷⁴⁾ <http://www.dge.mec.pt/educacao-para-a-cidadania/documentos-de-referencia>
http://www.dge.mec.pt/sites/default/files/Basico/Legislacao/dl_139_2012.pdf

Learning outcomes

A curricular guidance document for EE is under development; it will contain performance descriptors on entrepreneurial knowledge, skills and attitudes, from pre-school to upper secondary education level. This development is being led by an inter-governmental working group that includes government directorates from the Ministry of Education and the Ministry of Economy. To be published in the first semester of 2016, this will be a reference document on EE to be used across schools and will impact on how the curriculum is developed, across and within all subjects.

Teacher education and support

Entrepreneurship education is not a compulsory topic in initial teacher education, nor one of the areas identified in the legislation concerning continuing professional development (CPD). However, there are several training programmes in this area established under the auspices of higher education institutions. CPD is planned, linked to the development of the curricular guidance document for EE, and features training sessions for target group primary and general secondary teachers.

For teachers in school-based IVET, the guidelines to teach entrepreneurship content are flexible and teachers have the autonomy to find didactic materials and other resources, adjusting their methodology to suit the class/group. Curricular programmes and qualifications give some advice on pedagogic strategies and resources and may include a bibliography.

Romania

Definition of entrepreneurship education

In the place of a national definition, Romania refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽²⁷⁵⁾.

Related strategy

There is no current national strategy for entrepreneurship education (EE) in Romania.

The most relevant national strategy is the 'Strategy for the Development of the Small and Medium-sized Enterprises Sector' and for the Improvement of the Romanian Business Environment Horizon 2020 ⁽²⁷⁶⁾. This covers the period from 2014-2020 and covers all educational levels from ISCED 1-8. The current strategy is also correlated with other programmes, strategies and projects developed by Romanian Government institutions.

Main objectives

The Strategy's general objective is the creation of an environment that is supportive of business, private initiatives and the entrepreneurial spirit. It is intended to stimulate the start-up and development of SMEs; support an increase in competitiveness in the local business environment at all levels and via a significant increase in the number of economically active SMEs; encourage the development of existing enterprises and new job creation until the end of the year 2020.

The main objectives related to EE are measures two and nine. Measure two aims to strengthen EE at all levels of education and stimulate social entrepreneurship, while measure nine mentions expanding the number of training firms and simulated enterprise programmes.

Concrete actions

There are a number of relevant actions defined, led by the Department for Small and Medium-sized Business Environment and Tourism, with additional partners such as Ministry of National Education and Scientific Research:

- support the implementation of practice firm programmes, involving partnerships between educational institutions both in Romania and abroad;
- National Qualifications Authority (NCA) to link business needs for qualifications and skills with provision made by education and training providers;
- support partnerships between private sector and schools to carry out practical training courses for teachers to improve their professional skills in entrepreneurship;
- develop a support programme for creating web platforms to promote education and training opportunities for young people (especially entrepreneurship and entrepreneurial education).

⁽²⁷⁵⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽²⁷⁶⁾ https://static.anaf.ro/static/10/Anaf/legislatie/HG_859_2014.pdf

Ministries and stakeholders involved

- Ministry of Energy, Small and Medium-sized Enterprises and Business Environment
- Ministry of Public Finance
- Ministry of National Education and Scientific Research
- Ministry of Labour, Family, Social Protection and the Elderly
- Ministry for the Information Society
- Employers' organisations and representative associations.

Monitoring framework

There is no monitoring framework.

In the curriculum

Explicit integration in the curriculum

EE is explicitly integrated in the curriculum as a cross-curricular subject, as a compulsory separate subject and integrated in a range of other subjects:

For ISCED 1-3, EE is explicitly recognised as a cross-curricular objective for all subjects ⁽²⁷⁷⁾. For each subject and year of study, a presentation note refers to the eight key competences, including to the sense of initiative and entrepreneurship.

In ISCED 2, it is taught as the compulsory separate subject, 'Entrepreneurial Education', during 10th grade. In ISCED 3, it is taught as the compulsory separate subject, 'Applied Economics', 12th grade. In ISCED 3 school-based IVET, it is taught as the compulsory separate subject, 'Entrepreneurial Education', in 11th grade as part of three-year vocational education.

It is also integrated into the following compulsory subjects:

- 'Personal Development' at preparatory grade, first grade and second grade;
- 'Civic Education' at third and fourth grades;
- 'Technological Education' at fifth-eighth grades;
- 'Civic Culture' at seventh and eighth grades;
- 'Economics' at eleventh grade;
- 'Practice Enterprise' (for the services field of study).

There are central recommendations for teaching methods for EE, including a range of practice-based teaching methods. The syllabi also recommend the use of computer-based economic simulation exercises to bring the learning process closer to the economic reality.

⁽²⁷⁷⁾ In 2009, curricula were reviewed and the new curricula were approved by Order of the Education Minister 5097/ 2009.

Learning outcomes

There are defined learning outcomes:

- entrepreneurial attitudes – self-confidence, a sense of initiative;
- entrepreneurial skills – planning, financial literacy, organising resources, managing risks;
- entrepreneurial knowledge – assessing opportunities.

The specific syllabi include explicit references on evaluation, including both summative and formative approaches.

Teacher education and support

ITE institutions have institutional autonomy to develop their curricula and integrate EE.

CPD courses are mainly offered by the Teaching Staff Resource Centres (CCD), which are specialised training institutions at county level. Other training provision is supported by county inspectorates, universities or the Ministry of National Education and Scientific Research. These include national programmes or those organised in partnership with bodies such as NGOs. Some teachers in Romania participate in training activities delivered or supported by international institutions or organisations such as the European Council or wider European Union programmes.

Guidelines are provided for implementing entrepreneurship education in the curriculum using annual calendar planning ⁽²⁷⁸⁾. The Ministry of National Education and Scientific Research also provides a list of useful resources on EE on its website ⁽²⁷⁹⁾.

There is a programme for the training of school-based IVET teachers to support business 'Practice Firms' (*Firma de exercitiu*), as well as supporting activities, a website and methodological handbook for best practice in business practice firms ⁽²⁸⁰⁾. This CPD provision was developed based on a project co-funded by the European Social Funds, with 600 teachers trained during the project (2007-2013). Within the follow-up project 'Training the Teachers in the Vocational and Technical Education – Services Field of Study for Extending the Modern Interactive Method of the Training Firm', 15 regional centres have been established to disseminate the teaching materials and methodology developed within the project. Central authorities support the activities of this regional network by organising competitions on entrepreneurial topics and monitoring how these activities can support the development of the entrepreneurial spirit.

⁽²⁷⁸⁾ <http://www.edu.ro/index.php/articles/16038>

⁽²⁷⁹⁾ <http://www.edu.ro/index.php/articles/c152>

⁽²⁸⁰⁾ <http://firmaexercitiu.tvet.ro/index.php/achizitii>

Slovenia

Definition of entrepreneurship education

In the place of a national definition, Slovenia refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽²⁸¹⁾.

Related strategy

There is no current national strategy addressing entrepreneurship education (EE), however this is in development and a strategic group has already been established. In the meantime, EE is included in the 'National Programme for Youth 2013-2022' ⁽²⁸²⁾.

The 'National Programme for Youth' outlines national policy for young people aged 15-29 years old and covers ISCED 3-8. It is led by the Ministry for Education, Science and Sport (responsible also for youth) in collaboration with other ministries. The Programme focuses on six key areas: education, employment and entrepreneurship; housing; health and wellbeing; society and the youth sector; culture, creativity, heritage and the media.

In the key area 'Employment and Entrepreneurship', there is one priority that explicitly links to EE: 'Promote innovation, creativity, initiative, entrepreneurship (including social entrepreneurship) and self-employment among young people and underline the increasing importance of developing socially responsible entrepreneurial attitudes and knowledge.'

The programme mentions the importance of encouraging these attributes through school courses, and emphasises social entrepreneurship and self-employment for young people.

Monitoring framework

Every three years, the Government submit a report on implementation and results to the National Assembly, and a final report is submitted at the end of the strategy lifetime. The National Assembly considers the report.

There are three indicators relating specifically to EE:

- proportion of new and emerging entrepreneurs by age group;
- proportion of young entrepreneurs who have at least one employee in their company;
- proportion of young people who are receiving education in the field of innovation, creativity and entrepreneurship, by gender.

Links to broader strategies includes the Basic School Act covering ISCED 1-2 ⁽²⁸³⁾, which was amended in 2007 to include an objective for the 'development of entrepreneurship in terms of developing personal attitudes towards effective action, innovation and creativity of the individual learner'. The previous 'Slovenian Development Strategy 2005' ⁽²⁸⁴⁾ included an objective that

⁽²⁸¹⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽²⁸²⁾ http://www.pisrs.si/Pis_web/pregledPredpisa?id=RESO93

⁽²⁸³⁾ <http://www.uradni-list.si/1/objava.jsp?urlid=2007102&stevilka=5073>

⁽²⁸⁴⁾ <http://www.arrs.gov.si/en/agencija/inc/ssd-new.pdf>

entrepreneurial skills at all education levels should be developed, the entrepreneurial spirit of young people should be encouraged, training programmes for running small enterprises should be set up and entrepreneurial knowledge for young people should be provided.

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is explicitly recognised as a cross-curricular objective for all subjects in ISCED 1-3 including school-based IVET, and is also part of other compulsory and optional subjects at different levels.

In ISCED 1-2, the Basic School Act includes an EE related objective and teachers in basic schools pursue this objective during lessons. The implementation of the updated subject curricula for basic schools started in school year 2011/12, including a competence approach (one of which is a sense of initiative and entrepreneurship).

In ISCED 1, in certain years EE is part of compulsory subjects in the social and natural science areas: 'Environmental Education', 'Social Science', 'Natural Science and Technology', and 'Home Economics'.

In ISCED 2, in certain years EE is part of 'Geography', 'Technology' and 'Homeland Culture, Citizenship Culture, and Ethics' and some optional subjects.

In ISCED 3, an update of the subject curricula was launched in 2007, including a competence approach supported by the adoption of guidelines. Implementation began in 2008/09. Alongside this, guidelines for the cross-curricular theme 'Environmental Studies' were adopted, which includes EE⁽²⁸⁵⁾. EE is also compulsory for students specialising in economics at upper secondary level (general and school-based IVET).

Learning outcomes

For ISCED 1-3, entrepreneurship is in curricular documents as one of the eight key competences. Curricula for different subjects (such as social studies, natural science, technology, home economics) include some learning outcomes linked to developing entrepreneurial skills and attitudes. These include those in areas linked to the economy, world of work, economic rights, sustainable development and similar.

To a certain extent, entrepreneurship is specified in curricular documents. However, implementation is often limited to its individual dimensions (such as critical thinking or creativity), and usually within the scope of project work and similar activities.

A comprehensive approach to include entrepreneurship in school education is to be developed. In order to draft national strategy, Slovenia participates in different developmental projects where a variety of approaches are tested. One of these is the European Erasmus+ funded 'Youth Start – Entrepreneurial Challenges'⁽²⁸⁶⁾ policy experimentation, a major initiative to support the introduction of practical entrepreneurial experiences into compulsory education.

⁽²⁸⁵⁾ http://eportal.mss.edus.si/msswww/programi2014/programi/media/pdf/un_gimnazija/k_okolj_vzgoja_gimn.pdf

⁽²⁸⁶⁾ www.youthstartproject.eu

Teacher education and support

Several CPD courses have been developed by the Public Institute for VET and the Agency for the Promotion of Entrepreneurship, Innovation, Development, Investment and Tourism within projects, and by Junior Achievement Slovenia for teachers from primary to secondary education, including school-based IVET.

The virtual classroom on self-initiative and entrepreneurship ⁽²⁸⁷⁾, run by Institute of the Republic of Slovenia for Vocational Education and Training, provides some materials and guidelines which were developed within the scope of different projects and can help teachers of entrepreneurship education at upper secondary level (general and school-based IVET). Slovenia is still involved in projects aimed at developing teaching methods and materials.

⁽²⁸⁷⁾ <https://skupnost.sio.si/course/view.php?id=8668>

Slovakia

Definition of entrepreneurship education

In the place of a national definition, Slovakia refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽²⁸⁸⁾.

Related strategy

There is no specific national strategy for entrepreneurship education (EE) in Slovakia.

However, entrepreneurship education is addressed in detail within the 'National Youth Strategy 2014-2020' ⁽²⁸⁹⁾. Other strategies linked to EE include:

- the 'Lifelong Learning Strategy 2011' ⁽²⁹⁰⁾ – one of the key areas is related to key competences, included the entrepreneurship competence;
- 'Minerva 2.0 Strategy' ⁽²⁹¹⁾ – an economic/innovation strategy that includes topics related to EE e.g. support for practice-oriented entrepreneurship training;
- 'Modernisation Programme Slovakia 21' ⁽²⁹²⁾ – a long-term strategy on key fields of national policy, which also addresses EE as a measure to increase the employment of graduates. One of its goal is to support the development of entrepreneurial skills and the achievement of basic knowledge of entrepreneurship and economics in upper secondary school;
- the 'National Youth Strategy' highlights creativity and entrepreneurship as one of nine priorities, breaking this down into four strategic objectives with 13 supporting actions. A summary is available below.

Concrete actions

- **Strategic Objective 1 – Information on opportunities:** identify high-quality, functioning and sustainable programmes and projects:
 - Use an expert to manage the entrepreneurship agenda across government departments with a view to achieving cooperation and targeting results.
- **Strategic Objective 2 – Entrepreneurial literacy:** support education for entrepreneurship and entrepreneurial education:
 - involve participation in an entrepreneurship-targeted experiential programme or project;
 - encourage the introduction of entrepreneurial education at all levels of education, including non-formal;
 - clearly define the outcomes of education in entrepreneurship for teachers at all levels;
 - adapt the existing, effective and successful methods for education in the field of entrepreneurship into formal and non-formal education.
 - Introduce the teaching of basic entrepreneurial skills by means of online courses.

⁽²⁸⁸⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽²⁸⁹⁾ http://www.youthpolicy.org/national/Slovakia_2014_Youth_Strategy.pdf

⁽²⁹⁰⁾ <http://nuczv.sk/wp-content/uploads/lifelong-learning-strategy-2011.pdf>

⁽²⁹¹⁾ http://unctad.org/Sections/un_cstd/docs/cstd2011p01_Slovakia_EN.pdf

⁽²⁹²⁾ <https://www.minedu.sk/data/att/2337.pdf>

- **Strategic Objective 3 – Entrepreneurship for the future:** raise awareness through positive information on the achievements of entrepreneurs and the benefits they bring to society, and the possibilities of start-ups:
 - create an ambassadors' network of future entrepreneurs' generation to present in schools as well as through public media;
 - initiate a TV/radio reality show depicting start-ups for young entrepreneurs;
 - encourage entrepreneurial competitions for young people in the media;
 - spread more information about entrepreneurship particularly in universities;
 - provide information on innovative and supportive tools for young people's enterprises.

- **Strategic Objective 4 – Cooperation with entrepreneurs:** mentoring for young people with innovative ideas:
 - map the existing mentoring programmes and provide access to information on existing and planned mentoring programmes within formal and non-formal education;
 - create a specific mentoring programme for volunteers within non-formal education in cooperation with companies, entrepreneurs and chambers of commerce with a view to enable learning through mentoring.

Ministries and stakeholders involved

The Ministry of Education, Science, Research and Sport is the lead, working in collaboration with other Ministries and bodies of the state administration, the government's counselling bodies and committees. It is overseen by an inter-ministerial working group for state policy in the field of youth.

Monitoring framework

The Ministry of Education, Science, Research and Sport of the Slovak Republic will inform on the status of the preparation and implementation of the above-mentioned projects and initiatives by means of an inter-ministerial working group for state policy in the field of youth; the respective reports will be drawn up annually.

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is part of the curricula as a topic integrated in compulsory subjects in primary and secondary education (including in school-based IVET). In ISCED 1, it is integrated in 'Work Education', while at ISCED 2 it is integrated in 'Technology', 'World of Work' and 'Civics'. In ISCED 3, EE is integrated in 'Civics', while in school-based IVET it is integrated in civics, laboratory exercises and workshop practice.

Learning outcomes

In ISCED 1 level, it is integrated into the subject 'Work Education', which states pupils should be able to:

- understand work and work-related activity as an opportunity for self-realisation, self-education and development of entrepreneurial thinking.

In ISCED 2, it is integrated into the subjects 'Civics', 'World of Work', and 'Technology' and pupils should:

- understand and explain economic life in society and basic forms of entrepreneurship;
- be able to carry out basic activities to realise enterprising intentions, and understand the benefits and risks of starting an enterprise.

In ISCED 3/school-based IVET, it is integrated into the subject 'Civics' which states pupils should be able to:

- understand the basics of economic literacy.

Teacher education and support

CPD in entrepreneurship education is only available to lower and upper secondary teachers of mathematics, civics, ethics, computer science, and to teachers of technical and professional subjects in upper secondary education.

The Slovak Centre for Training Firms, a member of EUROPEN-PEN International, supports school-based IVET in the development of simulated companies.

Finland

Definition of entrepreneurship education

There is a national definition for both entrepreneurship and entrepreneurship education (EE) in Finland, taken from the 'Guidelines for entrepreneurship education ' (²⁹³):

'Entrepreneurship is the individual's ability to translate ideas into action. It encompasses creativity, innovation and risk-taking, as well as the ability to plan and direct action towards the achievement of goals. These qualities support everyday life in education, at work, in leisure activities and in other societal activities. These qualities are needed in entrepreneurship, but they also enhance workers' awareness of their work and help them seize opportunities.

Entrepreneurship education mainly refers to the wide-ranging work done within the educational administration with a view to enhancing entrepreneurship. EE is also provided and supported by many labour market partners and organisations. Practical measures are geared to inculcate positive attitudes and develop knowledge and skills relating to entrepreneurship, create new businesses, upgrade entrepreneurs' personal competencies, and bring about an entrepreneurial mode of operation in the workplace and in all other activities. EE is rooted in lifelong learning and a networked mode of operation.

Related strategy

In Finland, there is a specific national strategy for entrepreneurship, the 'Guidelines for entrepreneurship education ', which is led by the Ministry of Education and Culture (MoEC) and covers the period 2009-2015. The guidelines address all levels: from early childhood education and care to adult education and higher education.

Main objectives

The objective of the 'Guidelines for entrepreneurship education' is to enhance the entrepreneurial spirit among Finns and make entrepreneurship a more attractive career choice. The measures go across the whole education system, aiming to develop active citizenship, enhance creativity and innovation in education and training, create a positive entrepreneurial culture and attitude, and promote business start-up.

It advocates entrepreneurial schools with a flexible, creative and innovative operational culture. This is matched by support to develop learning environments which are learner focused, and where the teacher is a guide. Experiential learning involving problem solving and interaction with external organisations should be provided.

Concrete actions

Projected achievements for 2015:

- networking between EE partners is intensified at international/national/regional/local levels;
- measures for EE primarily originate at regional and local levels;

(²⁹³) <http://www.minedu.fi/export/sites/default/OPM/Julkaisut/2009/liitteet/opm09.pdf?lang=en>

- regional expertise centres have established their position and cover the whole country;
- EE has become a solid part of core curricula and a stronger part of school-specific curricula;
- EE is integrated more robustly into school and business strategies and development plans;
- entrepreneurship studies are included in vocational core curricula;
- higher education institutions have incorporated entrepreneurship in their overall strategies;
- EE is part of the initial training of the teachers who will be responsible for this theme;
- increased availability of CPD and secondments relating to EE;
- learning environments that promote networking for ITE and CPD, for example, using virtual environments.

Ministries and stakeholders involved

The guidelines were prepared through broad-based cooperation with different operators in the entrepreneurial community. The partners included a range of government and national agencies, education organisations, regional authorities and business organisations.

Monitoring framework

The Ministry of Education and Culture has commissioned an evaluation from Lappeenranta University of Technology, and will update the Guidelines based on the evaluation. The MoEC has not indicated the timeframe for this.

In the curriculum

Explicit integration in the curriculum

At ISCED 1-2, EE is integrated within cross-curricular themes: 'Personal Growth' and 'Participatory Citizenship and Entrepreneurship', which are addressed through core and optional subjects and in joint events such as assemblies. In addition, the subject 'Social Studies' (grades 7-9) includes EE elements.

At ISCED 3, the national core curriculum features 'Social Studies', which includes EE.

At ISCED 3, in school-based IVET, the module 'Entrepreneurship and Entrepreneurial Activity' is compulsory for all qualifications and the key competence is integrated into different subjects.

Learning outcomes

In Finland, there is a continuum of learning outcomes from basic to secondary education ensured by the structure of the curriculum.

In ISCED 1-2, the main learning outcomes for 'Participatory Citizenship and Entrepreneurship' are to develop the skills needed for civic involvement, and basic entrepreneurial skills such as forming critical opinions, dealing with conflict, being enterprising and acting innovatively. In 'Social Studies' (ISCED 2-3), pupils learn the fundamentals of entrepreneurship and understand its importance to society's well-being and the economy.

At ISCED 3, the national core curriculum requires the school to create a study environment where students set their own objectives and learn to work both independently and collaboratively. In economics, the content looks at everyday economic decisions and economic issues from an ethical point of view.

At ISCED 3, school-based IVET, the module 'Entrepreneurship and Entrepreneurial Activity' is compulsory for all qualifications. Through this, students are able to assess and recognise their own skills and strengths, make their own business plans and assess the value of being an entrepreneur.

Teacher education and support

The central level recommendations are presented in the strategy.

There is institutional autonomy for integrating entrepreneurship education into ITE curricula. However, 'YVI – The Entrepreneurship Education Service for Teachers' project (2010-2014) brought together more than 30 organisations to develop an entrepreneurship programme for teacher education. Curricula for ITE were developed jointly, as were new pedagogical models and tools.

A range of organisations offer CPD including the Finnish National Board of Education and the Association for Teachers of History and Social Studies.

The Finnish National Board of Education maintains a web page ⁽²⁹⁴⁾ offering supporting material for teachers related to EE. Teacher training institutions have the autonomy to decide on their curriculum with some offering optional courses on entrepreneurship. 'YES – The Virtual Learning Environment for Entrepreneurship', a free EE service created in 2001 with funds from European Social Funds, acts as a centre of expertise for the regions. The National Board of Education contributed to its initial development and still finances the training activities of this centre. The main national contributors (except for CPD) are now regional and local stakeholders.

The learning concept of 'Me & MyCity' ⁽²⁹⁵⁾ includes teacher training, learning materials for 10 lessons and a day-long visit to the 'Me & MyCity' learning environment. In Finland, the majority of sixth-graders aged 12 to 13 participate in 'Me & MyCity' under the direction of their teacher.

⁽²⁹⁴⁾ www.minedu.fi/export/sites/default/OPM/Julkaisut/2009/liitteet/opm09.pdf?lang=en

⁽²⁹⁵⁾ <http://yrityskylä.fi/en/me-mycity/>

Sweden

Definition of entrepreneurship education

There is a national definition for entrepreneurship education (EE) in Sweden, which appears in the 'Strategy for Entrepreneurship in education and training' ⁽²⁹⁶⁾:

'Entrepreneurship education is about developing and stimulating general skills such as taking initiative, responsibility and turning ideas into action. It is about developing curiosity, self-reliance, creativity and the courage to take risks. EE also promotes competences such as the ability to make decisions, to communicate and to collaborate. Entrepreneurship is a dynamic and social process where individuals, alone or in collaboration identify opportunities and transform ideas into practical and targeted activities in social, cultural or economic contexts'.

Related strategy

Sweden has a specific national strategy for EE. The 'Strategy for Entrepreneurship in education and training' launched in 2009, has no timeframe and addresses all levels of education (ISCED 1-8).

Main objectives

- Entrepreneurship should be part of education at all levels;
- more people should choose to start their own companies.

Concrete actions

- To state the importance of stimulating entrepreneurial abilities through curricula and in some of the course syllabi in primary, general and vocational secondary education;
- to establish a new general upper secondary educational programme focusing on the economy;
- to establish closer collaboration between school-based vocational upper secondary education and Swedish companies;
- to develop a new concept of professional competitions in school-based vocational upper secondary education;
- to support schools and higher educational institutions to stimulate EE;
- to identify and analyse EE in primary, general and vocational secondary, post-secondary non-tertiary and higher education to be able to highlight good practice;
- to develop top class higher educational programmes focusing on entrepreneurship and innovation.

Ministries and stakeholders involved

- Ministry of Education and Research
- Ministry of Enterprise and Innovation

Monitoring framework

There is no monitoring framework attached to the strategy.

⁽²⁹⁶⁾ <http://www.regeringen.se/contentassets/0f6c0164196e4071a9cb27eaada1cb41/strategi-for-entreprenorskap-inom-utbildningsomradet>

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is a cross-curricular objective in primary and upper secondary education. In upper secondary education, entrepreneurship courses are also given on a compulsory and/or optional basis. The course 'Entrepreneurship' is taught as a compulsory separate subject within four upper secondary school programmes (Handicraft, Business and Administration, Natural Resources, and Hotel and Tourism), and as an optional separate subject within the other upper secondary school programmes. The course 'Entrepreneurship and Business' is taught as a compulsory separate subject within the business studies element of the Business Studies Programme, and as an optional separate subject within 12 of the 18 national programmes.

Learning outcomes

There are no cross-curricular learning outcomes but learning outcomes have been defined for the courses 'Entrepreneurship' and 'Entrepreneurship and Business'.

For example, teaching in the subject 'Entrepreneurship' should give students the opportunity to develop the following aspects:

- understanding of what entrepreneurship means for individuals, organisations, companies and society;
- the ability to turn ideas into practical and goal-oriented activities to start a project or simulated company;
- the ability to carry out a project or run a simulated company;
- the ability to complete and evaluate a project or a simulated company;
- knowledge of how ideas and products are protected through laws and other regulations;
- the ability to use business economic methods.

Knowledge requirements, using the grading scale A-E, are specified for each aspect.

Teacher education and support

Higher education institutions (HEIs) have autonomy regarding the integration of entrepreneurship education into the initial teacher education curriculum.

In accordance with the national strategy, the Swedish National Agency for Education (*Skolverket*) is supporting and encouraging schools in developing EE. In cooperation with HEIs, it provides the course 'Entrepreneurial Learning' for teachers at all school levels, and the teachers participating in the course are intended to lead the implementation process within their schools. The Swedish National Agency for Education also provides financial support directly to schools for teachers' CPD and is developing digital support materials.

United Kingdom – England

Definition of entrepreneurship education

Enterprise education (EE) in England is intended to help 'young people be creative and innovative, to take risks and manage them and to do this with determination and drive'. EE is divided into three areas ⁽²⁹⁷⁾:

- enterprise capability – enterprise skills and a can-do attitude;
- financial capability – understanding and managing basic finances;
- eEconomic and business understanding – understanding the business context.

This definition was included in the Department for Education's Review of Enterprise Education in England ⁽²⁹⁸⁾ and Outcomes map: Enterprise Education and Employability ⁽²⁹⁹⁾ published by Young Enterprise in 2015.

Related strategy

There are no national strategies related to entrepreneurship education.

One of the policy statements ⁽³⁰⁰⁾ made by the coalition Government (in office from 2010 to 2015) concerned business enterprise. It stated that 'evidence shows we need to engage with young people early on through the education system. We need to give them hands-on business experiences to encourage them to see starting their own business as a career option in later life'. Its actions included 'Encouraging people and giving them the skills to set up their own business' and 'Engaging with young people'. Although the policy statement is no longer in place, some of its concrete actions continue and ensure that the focus on creating an entrepreneurial society filters into schools:

- 'Inspiring the Future' ⁽³⁰¹⁾ recruits young entrepreneurs as volunteers to go into schools to talk about running their own businesses and how they got there.
- 'Enterprise Village' ⁽³⁰²⁾ provides support for schools to develop and run their own business through the 'Enterprise Village'.
- Support for the development of the 'tenner' ⁽³⁰³⁾ programme run by Young Enterprise, provides 10 pounds for secondary school pupils to develop a business idea.

⁽²⁹⁷⁾ <http://webarchive.nationalarchives.gov.uk/20130123124929/https://www.education.gov.uk/publications/eOrderingDownload/00228-2010BKT-EN.pdf>

⁽²⁹⁸⁾ <https://www.education.gov.uk/publications/eOrderingDownload/DFE-RB015.pdf>

⁽²⁹⁹⁾ http://www.young-enterprise.org.uk/wp-content/uploads/2015/01/Outcomes-map_Jan-2014.pdf

⁽³⁰⁰⁾ <https://www.gov.uk/government/publications/2010-to-2015-government-policy-business-enterprise/2010-to-2015-government-policy-business-enterprise>

⁽³⁰¹⁾ <http://www.inspiringthefuture.org/>

⁽³⁰²⁾ <http://www.enterprisevillage.org.uk/>

⁽³⁰³⁾ <http://www.tenner.org.uk/>

In addition, the report of Lord Young, the Prime Minister's Enterprise Advisor, *Enterprise for All: the relevance of enterprise in education*, made a number of recommendations on how a lifelong experience of enterprise in education could be created. Some of these are being taken forward by the newly established (in February 2015) Careers and Enterprise Company⁽³⁰⁴⁾ which aims to inspire young people, inform independent choice and help young people achieve even more. It plans to establish an Enterprise Advisor Network (in autumn 2015), the Enterprise Passport and administer the Careers and Enterprise Fund (in 2016).

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is not a part of the national curriculum.

The only element of EE that is compulsory in the 'slimmed-down' National Curriculum from September 2014 is financial literacy, which forms part of the statutory 'Programme of Study for Citizenship'.

Until 2012, EE was part of the work-related curriculum for 14-16 year olds (ISCED 2). Schools are now free to determine whether and how work experience should be provided.

Until September 2014, a non-statutory programme of study for 'Personal, Social, Health and Economic Education (PSHE)' covered financial literacy and EE within an economic well-being strand. Although this programme of study has been withdrawn, PSHE remains a non-statutory subject for which all schools are expected to make provision. The Government provides support through the PSHE Association, which advises schools on curriculum development and improving teaching quality. The PSHE Association has published a Programme of Study containing the following:

In ISCED 1 (primary education aged 5-11), children should be taught about money and given a basic understanding of enterprise.

In ISCED 2 and 3 (secondary education aged 11-16), pupils should be taught.

- how to make informed choices and be enterprising and ambitious;
- about the economic and business environment;
- how personal finances choices can affect oneself and others;
- about rights and responsibilities of consumers.

⁽³⁰⁴⁾ <https://www.careersandenterprise.co.uk/>

Learning outcomes

As entrepreneurship education is not part of the National Curriculum, there are no associated learning outcomes. The 'Programme of Study for Citizenship' ⁽³⁰⁵⁾ contains the following learning outcome for financial literacy: 'pupils should be equipped with the skills to enable them to manage their money on a day-to-day basis and to plan for future financial needs'. The PSHE Association Programme of Study ⁽³⁰⁶⁾ is also expressed in terms of learning outcomes.

There are regional initiatives across the UK that promote entrepreneurial schools and provide EE learning outcome frameworks e.g. the ladder of entitlement and enterprise skills outcomes matrix developed by ReadyUnlimited ⁽³⁰⁷⁾.

Teacher education and support

Entrepreneurship education is not mentioned explicitly in the Teachers' Standards which define the minimum level of practice expected of trainees and teachers from the point of being awarded Qualified Teacher Status (QTS).

Responsibility for CPD is shared across a range of organisations, including schools, local authorities, the DfE and individual teachers. Teachers have a professional duty to review their methods of teaching and programmes of work, and to participate in arrangements for their in-service training or CPD as teachers throughout their careers. Performance management arrangements are designed to identify and act upon teachers' training and development needs, informed by the professional standards which define the minimum level of practice expected of teachers throughout their careers. They do not refer to entrepreneurship.

There is no compulsory requirement to cover entrepreneurship education as part of CPD but schools may choose to do so.

⁽³⁰⁵⁾ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/239060/SECONDARY_national_curriculum_-_Citizenship.pdf

⁽³⁰⁶⁾ <https://www.pshe-association.org.uk/content.aspx?CategoryID=1167>

⁽³⁰⁷⁾ http://www.readyunlimited.com/wp-content/uploads/2015/10/Ready-Unlimited_Ladder-of-Entitlement_.pdf

United Kingdom – Wales

Definition of entrepreneurship education

The 'Youth Entrepreneurship Strategy' ⁽³⁰⁸⁾ uses two terms, agreed by a wide range of stakeholders and consistent with the European entrepreneurship competence description ⁽³⁰⁹⁾:

Entrepreneurship education (EE) covers developing young people's attitudes and skills to help them realise their potential. It is also about having the drive to turn ideas and opportunities into reality, enabling young people to be positive, proactive and successful in their approach to life and work.

Enterprise education is about providing the opportunity for young people to apply their skills and develop their understanding in practical ways.

Related strategy

There is a specific strategy for entrepreneurship education in Wales. The 'Youth Enterprise Strategy (YES)' was first published in 2004. It was updated with a revised Action Plan in 2010. The 'Youth Entrepreneurship Strategy: Action Plan 2010-2015 (YES)' covers 5 to 25 year olds, which is relevant to schools, further, higher education and outside education.

Main objectives

Its vision is to 'develop and nurture self-sufficient, entrepreneurial young people in all communities across Wales, who will contribute positively to economic and social success'.

Concrete actions

The Action Plan has three delivery themes, each with a number of associated actions.

- Engaging – promoting the value of entrepreneurship to create opportunities and develop young people:
 - launch Big Ideas Wales as a campaign to encourage young people to be more entrepreneurial and help those interested in starting a business;
 - deliver targeted activities and events to stimulate interest and participation in entrepreneurship, particularly to the unemployed and/or economically inactive;
 - encourage business to engage with young people and academia;
 - empowering – providing young people with entrepreneurial learning opportunities;
 - provide online guidance to schools and further education institutions;
 - maximise experiential learning opportunities available for young people;
 - promote excellence in entrepreneurial learning and leadership by sharing and benchmarking good practice locally, nationally and internationally.

⁽³⁰⁸⁾ <https://business.wales.gov.uk/bigideas/youth-entrepreneurship-strategy>

⁽³⁰⁹⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

- Equipping – supporting young people to create and grow businesses:
 - prepare young people to take the next step towards starting a business;
 - support young people to become self-employed;
 - focus support services on high potential start-ups especially in key priority sectors and amongst graduates;
 - draw on the experience and expertise of the business community to support young entrepreneurs.

Ministries and stakeholders involved

The Welsh Government's Department for Economy, Science and Transport and the Department for Education and Skills jointly lead the strategy. Other stakeholders include education institutions, Careers Wales, Jobcentre plus, work-based learning providers, youth organisations, third sector organisations and local authorities.

Monitoring framework

There is a framework of quantitative five-year targets in the Action Plan, with progress monitored by the YES Action Plan Panel. Separate to this, in 2013 the Enterprise and Business Committee of the National Assembly for Wales undertook an inquiry into Youth Entrepreneurship ⁽³¹⁰⁾ to investigate the effectiveness of this work and potential for improvement.

In the curriculum

Explicit integration in the curriculum

In ISCED 1-3 (for pupils aged 5 to 16), EE is integrated into the compulsory subject 'Personal and Social Education' ⁽³¹¹⁾ (PSE). PSE covers a broad area of study including financial literacy.

During secondary education (ISCED 2-3), EE is also covered by the framework for 'Careers and the World of Work' ⁽³¹²⁾ which is part of the compulsory basic curriculum for 11-16 year olds and an element of the 'learning core' for 16-19 year olds.

At ISCED 2-3 (between 14-19 years), EE is embedded in the Welsh Baccalaureate Qualification ⁽³¹³⁾ (WBQ). WBQ is a national umbrella qualification bringing together mainstream qualifications and the Skills Challenge Certificate (which assesses the skills that young people need for college, university, employment and life). A reformed WBQ, piloted in 2014 and introduced in 2015, now includes a Skills Challenge Certificate which is made up of a research-based project and three challenges – (1) global citizenship, (2) community and enterprise, and (3) employability. WBQ is not compulsory for learners or schools/colleges, although the Welsh Government strongly encourages them to participate, including providing incentives to schools/colleges. Learners develop seven core skills including entrepreneurial skills, by taking part in a series of practical entrepreneurial experiences. WBQ ⁽³¹⁴⁾ is available at three levels: foundation level (from the age of 14), intermediate (GCSE level/ISCED 2) and advanced (A level/ISCED 3), and supports delivery of PSE and CWW.

⁽³¹⁰⁾ <http://www.senedd.assembly.wales/mgIssueHistoryHome.aspx?IId=6052>

⁽³¹¹⁾ <http://learning.gov.wales/resources/improvementareas/curriculum/programmes-of-study/personal-and-social-education/?lang=en>

⁽³¹²⁾ <http://learning.gov.wales/resources/browse-all/careers-world-of-work/?lang=en>

⁽³¹³⁾ <http://www.wjec.co.uk/qualifications/welsh-baccalaureate/welsh-bacc-from-2015/>

⁽³¹⁴⁾ <http://www.wjec.co.uk/qualifications/welsh-baccalaureate/welsh-bacc-from-2015/>

From a broader perspective, 'Learning and Progression in EE' ⁽³¹⁵⁾ offers national guidance for schools on planning for learning and progression in all phases of education across the curriculum. It sets out expectations for integrated provision and offering challenging, entrepreneurial learning experiences.

Learning outcomes

At ISCED 1-3, 'Personal and Social Education' (PSE) prepares learners to be personally and socially effective by providing learning experiences in which they can develop and apply skills, explore personal attitudes and values, and acquire appropriate knowledge and understanding. At ISCED 2 and 3, as part of 'Careers and the World of Work' (CWW), learners should have opportunities to explore the attitudes and values required for employability, lifelong learning and being entrepreneurial.

The frameworks for CWW and PSE have been developed alongside each other and the learning outcomes for both are developmental and allow learners to build on their previous experiences as they progress through the system. Neither CWW nor PSE lead to formal qualifications, but both are supported through participation in WBQ.

The WBQ has defined learning outcomes at three levels in ISCED 2-3 ⁽³¹⁶⁾, supporting delivery of seven core skills: communication, numeracy, digital literacy, critical thinking and problem solving, planning and organization, creativity and innovation, and personal effectiveness. Supporting documents include detailed guidance on the assessment of entrepreneurial learning outcomes.

Teacher education and support

The 'YES Action Plan 2010-2015' does not include reference to ITE. The curriculum for ITE is determined by individual institutions in response to Welsh Government requirements and in line with the 'Standards for the Award of Qualified Teacher Status' (QTS) ⁽³¹⁷⁾, which do not explicitly mention entrepreneurship. However, teachers are expected to be able to deliver the full curriculum, which includes entrepreneurship as part of PSE and CWW as set out above.

The Higher Education Academy's report on 'Enhancing Employability through Enterprise Education' ⁽³¹⁸⁾ references the Entrepreneurial Educators' elective module on the PGCE/PCET course at the University of Wales Trinity Saint David as an example of good practice in including EE in ITE. It may be the only course of its type across the UK.

The 'YES Action Plan' supports CPD through the Youth Entrepreneurship National CPD hub ⁽³¹⁹⁾, led by the University of South Wales. The aim of the hub is to build expertise and create a pan-Wales hub of educators, with a primary focus on VET and higher education.

There is a range of online resource libraries with teaching materials and guidance for EE. Hwb, the national digital learning resource library ⁽³²⁰⁾ provides a number curriculum resources for EE. Regional Consortia (funded by the Welsh Government to standardise and raise quality of delivery in schools and VET) and the WJEC (an awarding organisation) develop and share resources for the WBQ. WJEC's online Challenge Bank holds resources developed by business and community organisations.

⁽³¹⁵⁾ <http://learning.gov.wales/docs/learningwales/publications/140626-careers-and-the-world-of-work-learning-and-progression-en.pdf>

⁽³¹⁶⁾ For an example at the advanced level, see <http://www.wjec.co.uk/qualifications/welsh-baccalaureate/welsh-bacc-from-2015/Welsh%20Bacc%20Specification%20KS4%2028%2010%2014%20-%20Branded.pdf>

⁽³¹⁷⁾ <http://wales.gov.uk/docs/dcells/publications/090915becomingateacheren.pdf>

⁽³¹⁸⁾ <https://www.heacademy.ac.uk/resource/enhancing-employability-through-enterprise-education>

⁽³¹⁹⁾ <http://www.yesnationalcpdhub.com>

⁽³²⁰⁾ <http://hwb.wales.gov.uk/Resources/resource/e7d3cdd0-a650-4c60-94d4-54af9816f1f0/en>

United Kingdom – Northern Ireland

Definition of entrepreneurship education

There is an agreed national definition. In the 2003 'Action Plan for Entrepreneurship and Education', the responsible government departments (Enterprise, Trade and Investment (DETI), Education (DE) and Employment and Learning (DEL)) agreed to consider entrepreneurship, in its widest possible sense, as the 'ability of an individual, possessing a range of essential skills and attributes, to make a unique, innovative and creative contribution in the world of work, whether in employment or self-employment'.

Related strategy

In Northern Ireland, entrepreneurship education (EE) is addressed within a broader strategy, the 'Innovation Strategy for Northern Ireland 2014-2025'⁽³²¹⁾, accompanied by an Action Directory. The strategy is relevant to all levels of education (ISCED 1-8).

Main objectives

One of the main objectives is to 'encourage our young people to be entrepreneurs'. The strategy states that EE at primary, secondary and post-secondary level is one of the basic requirements, which needs to be met to facilitate entrepreneurship in all areas of life. The employability aspect of entrepreneurship education is already part of the curriculum at ISCED levels 1-3.

Concrete actions

The 'Innovation Strategy' contains one education related commitment, that the Department of Education will examine how the support offered to young people to engage in entrepreneurial activity can be increased. However, this is not followed up by a specific action within the Action Directory⁽³²²⁾.

Ministries and stakeholders

The 'Innovation Strategy' is coordinated by the Department of Enterprise, Trade and Investment but involves all government departments including the Department of Education and the Department of Employment and Learning.

Monitoring framework

The monitoring approach being taken includes an Annual Innovation Report, which updates performance against goals and targets. It will include an assessment of innovation performance in a wider range of related areas, a review of how appropriate goals and targets are in light of emerging data, progress on the actions outlined in the strategy, and make recommendations for future actions and policy direction.

⁽³²¹⁾ <http://www.detini.gov.uk/innovationstrategy>

⁽³²²⁾ http://www.detini.gov.uk/innovation_strategy_2014-2025_action_directory.pdf (p. 6)

In the curriculum

Explicit integration in the curriculum

In ISCED 1 (primary education for 4-11 years), EE is integrated into the compulsory subject 'Personal Development and Mutual Understanding' ⁽³²³⁾ (PDandMU) which focuses on encouraging each child to become personally, emotionally and socially effective, to lead healthy, safe and fulfilled lives and to become confident, independent and responsible citizens, making informed and responsible choices and decisions throughout their lives. It covers introductions to the world of work and financial literacy.

In ISCED 2-3 (key stages 3-4 for ages 11-16 years), it is part of 'Learning for Life and Work' (LLW). This area of learning is central in helping young people develop the fundamental skills, knowledge, qualities and dispositions that are pre-requisites for life and work, and contains the contributory strands of Employability, Home Economics, Local and Global Citizenship and Personal Development. LLW is also an element of the Entitlement Framework for 14-19 year olds, which provides access to a wide range of learning opportunities suited to young people's needs, aptitudes and interests, irrespective of where they live or the school they attend.

In addition, the Department of Education provides annual funding for business education activity which is mainly delivered via a number of third party partners such as Young Enterprise. This delivers front line engagement programmes directly to pupils, mapped to the Northern Ireland curriculum.

Learning outcomes

In ISCED 1, the EE related learning outcomes for 'Personal Development and Mutual Understanding' are that children will develop:

- self-confidence and self-esteem;
- the ability to work effectively with others and to take responsibility for themselves;
- awareness of the immense value of personal and interpersonal skills in future life and employment contexts;
- knowledge and understanding of the challenges and opportunities they may encounter in an increasingly diverse society;
- informed decision-making and responsible action throughout their lives.

ISCED 2 – 'Learning for Life and Work'. Pupils should be able to:

- show deeper understanding by thinking critically and flexibly, solving problems and making informed decisions, using mathematics and ICT where appropriate;
- demonstrate enterprise, creativity and initiative when developing ideas and following them through;
- work effectively with others;
- demonstrate self-management by working systematically, persisting with tasks, evaluating and improving own learning and performance;
- communicate effectively in oral, visual, written, mathematical and ICT formats, showing clear awareness of audience and purpose.

⁽³²³⁾ http://www.nicurriculum.org.uk/docs/key_stages_1_and_2/areas_of_learning/pdmu/PD-Guidance.pdf

ISCED 3 – 'Learning for Life and Work': Pupils should be able to:

- explore self-employment and identify relevant sources of support;
- investigate the increasing social responsibility of business in the community.

These learning outcomes are developmental and allow learners to build on their previous experiences as they progress through the system.

Teacher education and support

There is currently no reference to EE in ITE, where the curriculum for initial teacher education programmes is a matter for the provider, within the framework of the requirements set by the Department of Education. However, teachers in primary schools are expected to be able to deliver the full curriculum, in which entrepreneurship is included as part of PDandMU and LLW.

As part of the commitment to entrepreneurial learning, St Mary's University College, a college of Queen's University, has developed a certificate in Entrepreneurial Learning for its teacher education degree programmes ⁽³²⁴⁾.

Responsibility for CPD is shared across a range of organisations, including the Department of Education, the Education Authority, schools, local authorities, and individual teachers. Teachers have a professional duty to review their methods of teaching and programmes of work, and to participate in arrangements for their in-service training or CPD as teachers throughout their careers. Performance management arrangements are designed to identify and act upon teachers' training and development needs, informed by the professional standards which define the minimum level of practice expected of teachers throughout their careers. They do not refer to entrepreneurship.

No specific information is available on CPD linked to entrepreneurship education.

⁽³²⁴⁾ <http://www.smucb.ac.uk/downloads/entrepreneurship/Certificate%20of%20Entrepreneurial%20Learning.pdf>

United Kingdom – Scotland

Definition of entrepreneurship education

The term 'enterprise in education' is used in Scotland. Enterprise in education is defined broadly as:

'The opportunity for young people to: develop enterprising attitudes and skills through learning and teaching across the whole curriculum; experience and develop understanding of the world of work in all its diversity, including entrepreneurial activity and self-employment; participate fully in enterprise activities, including those which are explicitly entrepreneurial in nature, and in which success is the result of 'hands-on' participation; and enjoy appropriately focused career education' ⁽³²⁵⁾.

Related strategies

There is no longer a specific strategy for entrepreneurship education (EE) in Scotland. Scotland's approach to enterprise education was developed in the EE strategy 'Determined to Succeed: A Review of Enterprise in Education' and implemented in 2003-2011 ⁽³²⁶⁾. EE has been mainstreamed through the national curriculum framework, 'Curriculum for Excellence' ⁽³²⁷⁾. At a strategy level, EE is now addressed in Scotland's innovation strategy, 'Scotland Can Do – Becoming a World-Leading, Entrepreneurial and Innovative Nation' ⁽³²⁸⁾ and 'Developing the Young Workforce – Scotland's Youth Employment Strategy' ⁽³²⁹⁾.

A) 'Scotland Can Do – Becoming a World-Leading, Entrepreneurial and Innovative Nation'

This entrepreneurship and innovation framework, covering 2013-2020, is relevant to all levels of education (ISCED 1-8). It highlights the importance the Scottish Government attaches to entrepreneurship and innovation, the values that will inform work in this area, and future priorities for action. Education has a central role in the strategy. Stakeholders involved include: Scottish Government, Education Scotland, the Association of Directors of Education in Scotland, Micro-Tyco, the Social Enterprise Academy, Young Enterprise Scotland, The Prince's Trust, Big Ideas, Curriculo Solutions and Co-operative Education Trust Scotland.

Main objectives of Scotland Can Do

One of the five stated ambitions is to achieve 'an education system with entrepreneurship and innovation at its core, seizing the opportunities presented by the 'Curriculum for Excellence', college reform and the world-leading strength of our universities'.

Concrete actions of Scotland Can Do

Concrete actions relevant to education in 'Scotland Can Do' include: facilitate the development of resources to better allow entrepreneurial learning in Scotland's classrooms; following successful piloting, support the rollout of the 'Bridge 2 Business' initiative – an interactive and engaging

⁽³²⁵⁾ Scottish Executive (2002) Determined to Succeed: A Review of Enterprise in Education: <http://www.gov.scot/Resource/Doc/46932/0028821.pdf>

⁽³²⁶⁾ Evaluation report of the strategy: <http://www.gov.scot/resource/doc/920/0118640.pdf>

⁽³²⁷⁾ <http://www.educationscotland.gov.uk/learningandteaching/thecurriculum/whatiscurriculumforexcellence/keydocs/index.asp>

⁽³²⁸⁾ <http://www.gov.scot/Publications/2013/11/7675>

⁽³²⁹⁾ <http://www.gov.scot/Publications/2014/12/7750>; see also Education Scotland's website <http://www.educationscotland.gov.uk/learningandteaching/thecurriculum/dyw/index.asp>

programme to inspire, connect and support college students into business – to other colleges in Scotland and supporting the delivery of a refreshed Young Innovators Challenge. A subsequently developed Action Framework ⁽³³⁰⁾ includes more detail on these and wider actions supporting start up for young people.

Monitoring framework of Scotland Can Do

The implementation of the 'Scotland Can Do' strategy has been linked to three of Scotland's National Indicators: increase the number of businesses, increase research and development spending, improve knowledge exchange from university research.

B) 'Curriculum for Excellence'

From 2011, the 'Determined to Succeed' strategy was embedded within the Scottish 3-18 curriculum framework, 'Curriculum for Excellence'. This is making learning and teaching more relevant, engaging and connected to equip young people with the skills, knowledge and understanding they need for the 21st century. It includes development of enterprise, entrepreneurial and employability skills, as well as financial enterprise as part of financial education. These skills have been re-emphasised within the current workstream and the 'Developing the Young Workforce' programme ⁽³³¹⁾, which is a key national priority. Accordingly, children and young people are expected to benefit from closer curriculum links with the world of work, extended employer engagement and in-depth work placement experiences.

C) 'Developing the Young Workforce – Scotland's Youth Employment Strategy (DYW)'

Published in December 2014, this strategy aims to reduce youth unemployment by 40 % by 2021 by better preparing young people for the world of work. It aligns with 'Curriculum for Excellence' which provides the flexibility for a more blended approach to learning, widening the range of pathways and options available to all young people in schools. It also links to the aims of inspiring enterprising and entrepreneurial learning across the curriculum. As part of the recommendations of the DYW programme, Guidance on School/Employer Partnerships, a Work Placement Standard and a new Career Education Standard (3-18) were published in September 2015. These documents will be revisited in March 2017 in light of experience and use.

In the curriculum

Explicit integration in the curriculum

There is no statutory curriculum in Scotland. Within 'Curriculum for Excellence', enterprise is a theme across learning, other themes include citizenship, sustainable development, international education and creativity. The curriculum framework highlights that such themes need to be developed in a range of contexts. Learning relating to these themes is therefore built in to the Experiences and Outcomes across the curriculum areas. The Experiences and Outcomes set out national standards and expectations for learning and progression for the whole curriculum. 'Curriculum for Excellence' is intended to offer flexibility in the way in which teaching and learning is managed. While the framework for 'Curriculum for Excellence' was set nationally, decisions regarding the detail of delivery, including for enterprise education, rest with local authorities, their schools and teachers.

⁽³³⁰⁾ <http://www.gov.scot/Resource/0044/00449131.pdf>

⁽³³¹⁾ Scottish Government (2014) Education Working for All! Commission for Developing Scotland's Young Workforce Final Report: <http://www.gov.scot/Publications/2014/06/4089>

Learning outcomes

The Experiences and Outcomes are organised into eight curriculum areas: Expressive Arts, Languages and Literacy, Religious and Moral Education, Social Studies, Mathematics and Numeracy, Sciences, Technologies, Health and Wellbeing. They are set out in linear development, describing learning progress through the levels.

For example in the Social Studies curriculum area, an aim relevant to enterprise is 'develop an understanding of concepts that stimulate enterprise and influence business'. The experiences and outcomes statements for the different levels are:

ISCED 0	Early level – In real-life settings and imaginary play, I explore how local shops and services provide us with what we need in our daily lives.
ISCED 1	First level – I have developed an understanding of the importance of local organisations in providing for the needs of my local community. Second level – Through exploring ethical trading, I can understand how people's basic needs are the same around the world, discussing why some societies are more able to meet these needs than others.
ISCED 2-3	Third level – When participating in an enterprise activity, I can explore ethical issues relating to business practice and gain an understanding of how businesses help to satisfy needs. Fourth level – I can critically examine how some economic factors can influence individuals, businesses or communities.

Teacher education and support

A new initiative in the 2014/15 school year, formally launched in September 2015 and involving a number of partners led by Young Enterprise Scotland, is the 'Enterprising Schools' project⁽³³²⁾. The primary focus is empowering educators through continuing professional learning, to build in enterprising skills development into their schools and teaching with the objectives to:

- recognise schools for their work in this area and provide a platform for sharing good practice;
- encourage schools, from first level through and beyond senior phase, to develop a whole-school approach to enterprise and entrepreneurial thinking;
- make resources available for teaching staff to support enterprise activity and encourage entrepreneurial thinking.

Education Scotland has also worked together with their third sector partners in the 'Enterprising Schools' project (Big Idea, Co-operative Enterprise Trust Scotland, Curriculo Solutions, Social Enterprise Academy, and Young Enterprise Scotland) to produce resources to support education practitioners to make learning more enterprising and entrepreneurial. The guidelines provide Scottish case studies that aim to highlight the positive impact that developing entrepreneurial skills has had on the confidence and self-esteem of young people, and demonstrate the opportunities to develop these skills across the curriculum.

There is no specific information on the inclusion of EE as an explicit theme in initial teacher education. However the teacher standards state that all student teachers in primary and secondary should be trained in all topics relevant to the curriculum. This implies the inclusion of EE. Several of the third sector partners involved in the Scotland's 'Enterprising Schools' project provide CPD that is relevant to EE, including the Social Enterprise Academy. There are no main courses as such. One centrally supported programme is the 'Excellence in Education through Business Links' (EEBL) programme⁽³³³⁾, which organises internships for all primary and secondary teachers for at least 2 days.

⁽³³²⁾ <http://www.enterprisingschools.scot>

⁽³³³⁾ <http://www.educationscotland.gov.uk/resources/e/eebl.asp?strReferringChannel=educationscotland&strReferringPageID=tc:4-615801-64&class=1+d86716>

Bosnia and Herzegovina

Definition of entrepreneurship education

In the place of a national definition, Bosnia and Herzegovina refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽³³⁴⁾.

Related strategy

The 'Strategy for Entrepreneurial Learning in Education Systems in Bosnia and Herzegovina' ⁽³³⁵⁾ is a specific national strategy for entrepreneurship education (EE) in Bosnia and Herzegovina. It covers the period from 2012-2015, and addresses all levels of education.

Main objectives

The overall goal of the strategy is to 'to foster and promote entrepreneurial mindsets which positively impact upon social and economic development in Bosnia and Herzegovina, in line with existing strategic commitments and taking into account global economic progress' ⁽³³⁶⁾. The specific strategic goals are:

- encourage the acquisition of entrepreneurial skills through the education system;
- increase the level of awareness and knowledge of the entrepreneurial spirit in the education process at all levels;
- develop a sense of innovation and entrepreneurship as key skills in the education system;
- promote the establishment of links between education and community (local authorities, NGOs, social partners including companies);
- strengthen cooperation between the education system and the business community.

Concrete actions

- Establishing a state-level Partnership for Entrepreneurial Learning;
- establishing partnership learning about entrepreneurship at all levels by promoting links between education and economic sectors and communities;
- raising awareness about entrepreneurship learning at all levels;
- promotion of entrepreneurial learning in primary and secondary education, including vocational secondary schools (formal education system);
- integration of entrepreneurship as a key competence in the current curricula;
- capacity building for teachers and school principals;
- peer support actions between education institutions to build on good practice;
- promotion of entrepreneurial learning in higher education;
- promotion of links between education and employers in higher education;

⁽³³⁴⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽³³⁵⁾ http://www.mcp.gov.ba/org_jedinice/sekto_r_ obrazovanje/dokumenti/strateski_doc/Archive.aspx?langTag=en-US&template_id=108&pageIndex=1

⁽³³⁶⁾ Strategy, p. 11.

- recommendations for the introduction of entrepreneurial learning in the curriculum of higher education, with a special focus on initial teacher training;
- promotion of entrepreneurial learning in non-formal education (adult education and development of skills in workplace training);
- promotion of entrepreneurial learning in adult education;
- the development of entrepreneurial skills through – analysing training needs, quality assurance and the training of trainers.

Ministries and stakeholders involved

A wide range of Ministries and stakeholders is involved at state and local level from government, education, business and the community⁽³³⁷⁾; a State Partnership for Entrepreneurial Learning has been established as an advisory body to support the strategy.

Monitoring framework

A monitoring framework has not yet been established, but a current EU project will work on providing monitoring tools and evaluation mechanisms.

In the curriculum

Explicit integration in the curriculum

The integration of EE into curricula is now in progress, supported by the Entrepreneurial Learning Education Systems (ELES)⁽³³⁸⁾ and through the regional SEECEL⁽³³⁹⁾ project in pilot institutions.

Learning outcomes

Learning outcomes are defined for ISCED levels 2 and 3⁽³⁴⁰⁾, but they are not integrated officially in curricula. Learning outcomes for ISCED 1 are defined through the regional SEECEL project and are used in pilot schools (4 schools).

Teacher education and support

The 'National Strategy for Entrepreneurial Learning' contains recommendations for initial teacher education (not compulsory at national level) and CPD. CPD activities on entrepreneurship education is organised for all teachers in all levels of education.

There is also a transnational pilot led by the South East European Centre for Entrepreneurial Learning (SEECEL) in cooperation with the national teacher training authority, supporting continuing teacher education in eight primary schools and four secondary schools. This includes direct funding, curriculum support (including practical entrepreneurial experiences), teacher training materials, teaching material and networking, alongside teacher mentoring schemes between schools that have established EE and those new to the SEECEL pilot.

There are guidelines for teachers. Bosnia and Herzegovina supported the 'Entrepreneurial Learning Education Systems' (ELES) project, co-funded by the EU IPA Programme, which developed teaching materials.

⁽³³⁷⁾ The strategy p. 2 contains a list of organisations involved in authoring the strategy, and the wider strategy for more information on stakeholder involvement and partnerships.

⁽³³⁸⁾ www.eles.ba

⁽³³⁹⁾ www.seecel.hr

⁽³⁴⁰⁾ http://eles.ba/images/Projekt/RG1/Programme_and_Guidelines.pdf (pp. 10 and 12)

Iceland

Definition of entrepreneurship education

There is no national definition of entrepreneurship education (EE). There is an example definition that is referenced in relation to Innovation and Entrepreneurship Education (IEE):

'IEE is a curricular area that is about using creativity and knowledge to solve problems that learners identify and analyse. It aims at developing critical and creative thinking in design, science, technology, marketing and enterprise. The main emphasis in IEE is about enhancing creative skills and actualizing learner ideas with their active participation. The pedagogy of IEE has been analysed as emancipatory pedagogy, where the learner has ample agency and the teacher gradually and systematically gives control to students in their projects' ⁽³⁴¹⁾.

Related strategy

There is no current national strategy for entrepreneurship education in Iceland.

Icelandic curricula introduced in 2011 include separate National Curriculum Guides for three school levels – pre-school ⁽³⁴²⁾, compulsory (6-16 years)⁽³⁴³⁾, and upper-secondary level (mainly 16-20 years) ⁽³⁴⁴⁾. EE is explicitly mentioned only as the 'Entrepreneurial Studies' theme in the guide for compulsory education.

The National Curriculum Guides offer the flexibility to work in the spirit of EE, however the six fundamental pillars of the curricula (literacy, sustainability, equality, creativity, health and welfare, and democracy and human rights), do not now explicitly include innovation or EE. However, the emphasis of the curriculum and most of the fundamental pillars are well aligned with the approaches of Innovation Education (IE) and EE, such as the inclusion of creativity and broad entrepreneurial competences such as critical thinking.

Research in Iceland has shown that innovation education (more common on compulsory level) and entrepreneurship education are irregular and usually depend on enthusiastic teachers and interested head teachers. Recent research ⁽³⁴⁵⁾ at upper secondary level showed that head teachers understand the EE area and there are many areas of potential, but the formal offer of EE is still scarce. The main characteristic of EE in Iceland is that it is generally rare, is not part of a continuum or progression in education and has a tendency to be linked to the particular teachers that have instigated and taught it within their schools ⁽³⁴⁶⁾.

⁽³⁴¹⁾ Svanborg R. Jónsdóttir, Meyvant Þórolfsson, Gunnar E. Finnbogason, and Jóhanna Karlsdóttir. (2013). *Rætur nýsköpunar- og frumkvöðlamenntar í íslenskum námskrám og skólamálaumræðu*. Netla - Vef tímarit um uppeldi og menntun. Sérítt 201 – Fagjói og fræðin. Retrieved from http://netla.hi.is/serrit/2013/fagjoi_og_fraedin/006.pdf.

⁽³⁴²⁾ http://www.dalvikurbyggd.is/resources/Files/krilakot/adskr_leiksk_ens_2012.pdf

⁽³⁴³⁾ http://brunnur.stjr.is/mrn/utgafuskra/utgafa.nsf/xsp/.ibmmodres/domino/OpenAttachment/mrn/utgafuskra/utgafa.nsf/C590D16CBC8439C500257A240030AE7F/Attachment/adskr_grsk_ens_2012.pdf

⁽³⁴⁴⁾ <http://brunnur.stjr.is/mrn/utgafuskra/utgafa.nsf/RSSPage.xsp?documentId=2149C139F3FA145B00257A240035BA1B&action=openDocument>

⁽³⁴⁵⁾ Jónsdóttir, S. R. (2007). *Analysis of entrepreneurship education in vocational education and training in Iceland*. Reykjavík: Leonardo National Agency, Iceland. Available at <http://www.lme.is/doc/23?download=false> Svanborg R. Jónsdóttir, and Allyson Macdonald. (2013). Settings and pedagogy in innovation education. In L. V. Shavinina (Ed.), *The Routledge international handbook of innovation education* (pp. 273-287). London: Routledge.

⁽³⁴⁶⁾ Interview Source: Svanborg R. Jónsdóttir, senior lecturer/associate Professor, School of Education at University of Iceland.

The only nationally funded activity is *Nýsköpunarkeppni grunnskólanemenda* ⁽³⁴⁷⁾ (NKG), a competition in innovation for students aged 10 to 12. This is funded by the state and delivered by a private company that runs and oversees the competition.

In the curriculum

Explicit integration in the curriculum

At ISCED 1-3 (compulsory education), EE is an explicit cross-curricular theme. The interdisciplinary area of 'Innovation, Entrepreneurial Studies and New Media' is explicitly mentioned for compulsory education. EE is not taught as a separate subject, but is mentioned in two subjects ('Design and Technology', and 'Natural Science') and is also included in two of the five categories of competence criteria (Using Media and Information, and Creativity and Critical Thinking ⁽³⁴⁸⁾).

Learning outcomes

At ISCED 1-2, the curriculum states: 'It should be emphasised that pupils gain deep understanding of the phenomena they are engaged with in their studies. This can, for example, be done by emphasising productive and creative work, vocational skill, innovation and entrepreneurial studies where initiative and self-reliance are encouraged in working methods and utilised both in school activities and in everyday life'.

Competence criteria are defined at the completion of grades 4, 7 and 10 and each builds on the previous one. Criteria at the completion of grade 7 are more demanding than those at grade 4; meaning that what is expected of pupils increases between grades and this is reflected in the competence criteria. For example, with respect to 'Natural Science, Innovation and Practical Use of Knowledge':

- at the completion of grade 7, pupils are able to: work in groups under supervision according to a schedule in order to design an environment, object or system;
- at the completion of grade 10, pupils are able to: take part in organising and working according to a group schedule for designing an environment, object or system.

Teacher education and support

There is no nationally provided teacher education or support for entrepreneurship education. However, CPD courses are available for all teachers in all education levels. The Educational Research Institute at the School of Education, University of Iceland, offers courses for in-service teachers in 'Innovation and Entrepreneurship Education', on demand throughout the country. The University of Iceland School of Education also offers courses in collaboration with FNF (Icelandic association of teachers in EE), INNOENT (independent centre) and Klifið (an independent educational centre). These courses have only reached a small proportion of teachers and schools in Iceland, although the number is growing each year.

⁽³⁴⁷⁾ <http://www.nkg.is>

⁽³⁴⁸⁾ For description of competences developed in *Creativity and critical thinking* in grades 4, 7 and 10, see pp. 88-89. http://brunnur.stjr.is/mrn/utgafuskra/utgafa.nsf/xsp/.ibmmodes/domino/OpenAttachment/mrn/utgafuskra/utgafa.nsf/E7D E015E63AA2F2C00257CA2005296F7/Attachment/adalnrsk_greinask_ens_2014.pdf

Montenegro

Definition of entrepreneurship education

In the place of a national definition, Montenegro refers to the description of the entrepreneurship key competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽³⁴⁹⁾.

Related strategy

Montenegro has a specific national strategy for entrepreneurship education (EE), the 'Montenegro Strategy for Lifelong Entrepreneurship Education'. This covers the period 2015-2019, and addresses ISCED 0-6 and IVET. The main objectives of the strategy are to support entrepreneurial learning at all levels of education, support educational institutions to implement EE, increase the relevance of education to the economy, raise awareness of social and community enterprise and build an efficient entrepreneurial ecosystem.

Concrete actions

Actions are defined at different levels of education.

- Pre-school education:
 - prepare children to learn effectively;
 - develop entrepreneurial skills such as creativity, innovation and team work.
- Primary education:
 - raise awareness on entrepreneurial culture, attitudes and skills necessary in life;
 - develop basic entrepreneurial competence among all pupils.
- Secondary education (general and vocational):
 - better prepare pupils for the world of work and studying in the future;
 - develop entrepreneurial competences and skills to support better employment.
- Higher education:
 - strengthen the role of universities in achieving competitiveness and growth;
 - include EE in all faculties;
 - improve opportunities for establishing enterprises.
- Adult education:
 - opportunities for lifelong learning and personal development to be available to all;
 - modernise skills for the 21st century;
 - greater involvement of new businesses.

Ministries and stakeholders involved

A wide range of stakeholders are involved including government ministries, government education agencies at all levels, universities, NGOs, social enterprise organisations, business member organisations and the employment office.

⁽³⁴⁹⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

Monitoring framework

Strategy monitoring is the responsibility of the National Partnership for Entrepreneurial Learning, coordinated by the Directorate for the Development of Small and Medium-sized Enterprises. They support and monitor the strategic objectives and submit an annual report to the Government of Montenegro.

In the curriculum

Explicit integration in the curriculum:

In ISCED 1 and ISCED 2, entrepreneurship education is included as a specific cross-curricular area through all compulsory subjects studied at these levels. Entrepreneurship is also studied as an optional subject in the eighth grade of primary school, one lesson a week.

To support this, a programme for training teachers to integrate EE into regular teaching activities has been developed. Training programmes have been approved by the National Council for Education and can be found in the Catalogue for Professional Development of Teachers ⁽³⁵⁰⁾.

In ISCED 3, the National Council for Education has now included EE as one of the eight cross-curricular subject areas for this level. The following has been done:

- Entrepreneurship as an optional subject for the first or second grade of upper secondary school has been prepared and implemented as of the 2014/15 school year.
- EE as a cross-curricular area at upper secondary schools was piloted in 2014/15 in four upper secondary schools through the SEECCEL project. As of 2015/16, all upper secondary schools in Montenegro will begin the implementation of EE covering all students at these levels.
- A training programme for upper secondary teachers has been prepared, and will be conducted at all upper secondary schools in June and August 2015.
- Except as an optional subject, EE at upper secondary schools is carried out through the work of entrepreneurship clubs and organisation of workshops, discussion forums and round tables drawing members from the area of entrepreneurship.

Learning outcomes

In ISCED 1 and ISCED 2, entrepreneurship education is a cross-curricular area and the content has been harmonised with the existing primary school curriculum. Instructions are available for the implementation of EE through compulsory subjects at primary school ⁽³⁵¹⁾. A wide range of entrepreneurial learning outcomes are featured.

At upper secondary level, the curriculum provides teachers with clear guidelines. This level includes more learning outcomes ⁽³⁵²⁾ relating to economic and financial literacy.

⁽³⁵⁰⁾ <http://www.zzs.gov.me/naslovnna/profesionalnirazvoj/programi/>

⁽³⁵¹⁾ http://www.zzs.gov.me/rubrike/preduzetnicko_ucenje/

⁽³⁵²⁾ <http://www.zzs.gov.me/naslovnna/programi/gimnazija/>

Teacher education and support

ITE is offered for teachers at all levels from primary to school-based IVET, however it is compulsory only for school-based IVET teachers of entrepreneurship as a separate subject.

CPD is accredited by the Bureau for Education Services, and draws on expertise from SEECEL. To introduce EE into the curriculum, seminars and training were organised by the Bureau for Education Services and Centre for Vocational Education for all teachers in primary and secondary education.

There is a transnational pilot led by the South East European Centre for Entrepreneurial Learning (SEECEL)⁽³⁵³⁾ in cooperation with the national teacher training authority, supporting continuing teacher education in eight primary schools and four secondary schools. This includes direct funding, curriculum support (including practical entrepreneurial experiences), teacher training and networking, alongside teacher mentoring schemes between schools that have established entrepreneurship education and those new to the SEECEL pilot.

Teaching materials are available on the implementation of EE as a key competence including annual work plans and lesson plans. Guidelines have been prepared, providing learning objectives and outcomes, and proposing methods that must be applied to support EE as a cross-curricular competence.

The Entrepreneurial Centre (*Preduzetnički centar*) – created in December 2013 in three towns (Bijelo Polje, Berane, Mojkovac) and in October 2015 in Bar – is supported by the central authorities. It provides expert support for the development of innovative entrepreneurial ideas and organises CPD activities.

⁽³⁵³⁾ <http://www.seecel.hr/about-us>

Former Yugoslav Republic of Macedonia

Definition of entrepreneurship education

The national definition of entrepreneurship education (EE), as mentioned in the 'Entrepreneurial Learning Strategy of the Republic of Macedonia' ⁽³⁵⁴⁾, is:

'A concept of education and training which supports an entrepreneurial way of thinking and is based on the development of individuals, including basic principles of efficiency in everyday life without a particular focus on business start-up – all of which leads to entrepreneurial literacy for the society as a whole'.

Related strategy

The 'Entrepreneurial Learning Strategy of the Republic of Macedonia' is a specific national strategy addressing EE. It covers the period 2014-2020 and addresses ISCED levels 1-8.

Main objectives

The five priority areas of the strategy cover primary education, secondary education, higher education, informal/non-formal learning and youth entrepreneurs. Four instruments are crucial for the implementation of the strategy: best practice, technology, raising awareness and reform, and teacher professional development. These will be supported by strong cooperation of educational institutions at international level, and a focus on the development of more entrepreneurial education institutions.

Concrete actions

A detailed action plan forms part of the strategy, and a summary of action areas is provided below.

- Long term goals:
 - increase the level of awareness among all citizens about the meaning and importance of entrepreneurial learning at all levels in the country;
 - increase teachers' entrepreneurial learning (EL) competences at all levels of education to enable every teacher to be entrepreneurially literate with EL as a key competence;
 - create a supportive and collaborative environment between all educational institutions, local communities, businesses and families for entrepreneurial learning activities at all levels in the country;
 - equip all educational institutions with state-of-the-art technologies for entrepreneurial learning activities at all educational levels in the country.
- Medium term goals:
 - develop and implement an education curriculum that better prepares entrepreneurs to create SMEs able to compete in the wider EU market;
 - create more virtual businesses and support the creation of real-life companies through educational institutions everywhere in the country;
 - ensure a strong network to support young entrepreneurs.
- Short term goals:
 - integrate entrepreneurial learning outcomes as a key competence into the national curriculum at all educational levels.

⁽³⁵⁴⁾ <http://www.mon.gov.mk/images/Artic-zDOC/Macedonian%20EL%20Strategy%202014-2020%20ENG%202.12.2014.pdf>

Ministries and stakeholders involved

At national level a large number of partners is engaged.

- government: Ministry of Education and Science, Ministry of Labour and Social Affairs, Ministry of the Economy and Ministry of Finance;
- agencies: Bureau for the Development of Education, Centre for Vocational Education and Training, National Agency for European Educational Programmes and Mobility, Centre for Adult Education, Agency for the Promotion of Entrepreneurship in the Republic of Macedonia, Employment Service Agency;
- others: National Entrepreneurship Educators Network, National Committee for Innovation and Entrepreneurship, students' organisations and universities;
- international: European Training Foundation (EFT), South East European Centre for Entrepreneurial Learning (SEECEL).

Monitoring framework

Progress on the implementation of the strategy will be monitored and measured annually. The Ministry of Education and Science, in coordination with other ministries, will be responsible for this process, including 'data gathering and analysis related to key indicators and for monitoring and reviewing the overall progression of the implementation process'. The Entrepreneurial Learning Steering Committee will also rely on research-informed strategy evaluation by an external organisation, and conduct annual surveys of students, teachers, entrepreneurs and different non-formal and informal educational institutions.

In the curriculum

Explicit integration in the curriculum

In ISCED 2, EE is introduced in the compulsory subject Innovation. In this subject, pupils learn about practical examples of entrepreneurship: how to develop business plan, write a CV, etc. It is also mandatory for other subjects (maths, physics, chemistry, biology, etc.) to have at least one topic dedicated to entrepreneurship and incorporated in the curriculum.

In ISCED 3, EE is integrated into the subject Innovation and Entrepreneurship in the first three years, and is part of the subject Business and Entrepreneurship in the fourth year.

In school-based IVET, a significant amount of content related to entrepreneurship is incorporated into the main subjects for the economic group of occupations. For other occupations, there is one subject 'Business and Entrepreneurship' which covers entrepreneurship topics.

Learning outcomes

There are currently no defined learning outcomes for entrepreneurial learning. However, one of the strategy's mid-term goals is to create and implement a curriculum based on SEECEL's full key competence approach (target 2016-2018).

Teacher education and support

Although there is no central regulation concerning the integration of EE into ITE curricula, the pedagogical faculties have made entrepreneurship education compulsory for prospective teachers of maths and science in lower secondary education. Similarly, prospective teachers of economics and mechanical engineering for general upper secondary education and school-based IVET are also required by their respective faculties to study entrepreneurship education.

The Bureau for the Development of Education (BDE), the Centre for Vocational Education and Training and the Ministry of Education and Science are in charge of developing and providing teaching materials and resources, and for the training of EE teachers at all levels. In 2013-2014, 3 800 secondary teachers were trained in courses focused on the effective implementation of EE. The training of school-based IVET teachers in EE was interrupted in 2014/15 due to a lack of financial resources.

Currently, there are no national policies, guidelines or recommendations to determine how entrepreneurial learning should be integrated into ITE. However, some universities have integrated entrepreneurship education into study programmes for teachers.

Within the framework of the national entrepreneurship strategy, the Bureau for the Development of Education and the Centre for Vocational Education and Training will encourage schools and teachers to design guidelines by training teachers to develop guidelines for educational process in primary and secondary education and by providing financial support to schools.

There is a transnational pilot led by the SEECEL⁽³⁵⁵⁾ in cooperation with the national teacher training authority, supporting continuing teacher education in eight primary schools and four secondary schools. This includes direct funding, curriculum support (including practical entrepreneurial experiences), teacher training and networking, alongside teacher mentoring schemes between schools that have established EE and those new to the SEECEL pilot.

⁽³⁵⁵⁾ <http://www.seecel.hr/about-us>

Norway

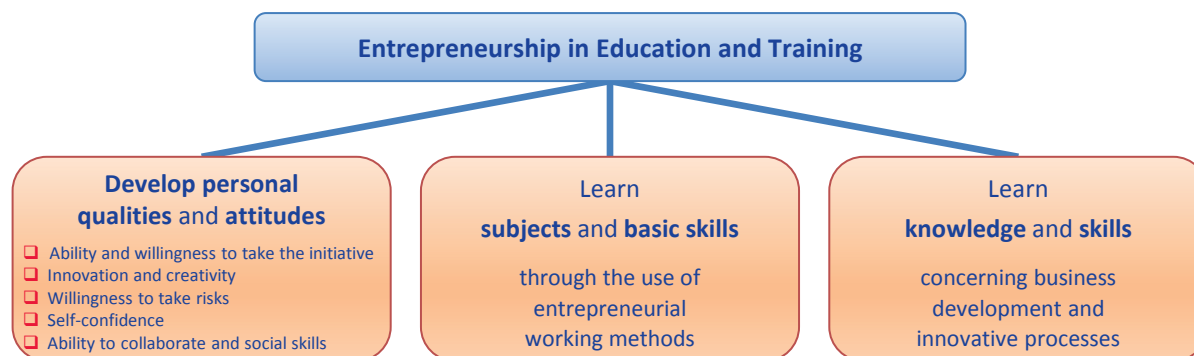
Definition of entrepreneurship education

There is a definition of entrepreneurship education (EE) at national level, as used in the 'Action Plan for Entrepreneurship in Education and Training 2009-14' ⁽³⁵⁶⁾:

'Entrepreneurship is concerned with establishing new activities and is about being able to perceive new opportunities and making them work in a number of social areas. Entrepreneurship competence is relevant for all areas of working and business life, in both new and established activities and enterprises [...] Entrepreneurship in education and training may be both theoretically and practically oriented. Training in entrepreneurship can be organised as a separate subject or be integrated as a way of working in other subjects. Entrepreneurship can be a tool and a working method to stimulate learning in different subjects and in basic skills. Entrepreneurship in education and training may also further develop personal characteristics and attitudes. The training may focus on imparting knowledge on how to start one's own business and about innovative and ground-breaking processes in existing enterprises'.

Related strategy

The 'Action Plan for Entrepreneurship in Education and Training 2009-14' is a specific national strategy for EE in Norway, and a collaboration between the Ministry of Education and Research, Ministry of Local Government and Regional Development and Ministry of Trade and Industry. Below is a diagram ⁽³⁵⁷⁾ providing an overview of the strategy aims:



While the strategy addresses ISCED 1-8, the main emphasis is on higher education. Further guidance has been placed in three reports to the *Storting* ⁽³⁵⁸⁾, and the strategy states that 'It will now be up to the national, regional and local authorities and educational institutions to follow up efforts concerning entrepreneurship in education and training in accordance with the steering principles of the education system and in accordance with local, regional and national challenges and needs. The educational institutions must assess how work on entrepreneurship can be included in their plans and strategies and in how their education and training is carried out'.

⁽³⁵⁶⁾ <https://www.regjeringen.no/globalassets/documents/action-plan-for-entrepreneurship-in-education-and-training-2009.pdf>

⁽³⁵⁷⁾ Idem, p. 8.

⁽³⁵⁸⁾ White Paper no. 7 (2008-2009). *An Innovative and Sustainable Norway* at https://www.regjeringen.no/globalassets/upload/nhd/vedlegg/brosjyrer_2008/innomeld_kortv_eng.pdf

White Paper no. 25 (2008-2009). *Local Growth and Belief in the Future* at https://www.regjeringen.no/contentassets/4d1ec710cb0f4ca1831cd85171c11c9c/pdfs/stm200820090025000en_pdfs.pdf

White Paper no. 44 (2008-2009). *Education Strategy*. <https://www.regjeringen.no/en/dokumenter/report-no.-44-to-the-storting-2008-2009/id565231/>

Main objectives

The main objectives of the strategy are to strengthen the quality and the scope of entrepreneurship education and training at all levels and in all areas of the education system. The intention is for Norway to be a leading force when it comes to entrepreneurship in education and training. The main target groups for the 'Action Plan' are leaders and owners of educational institutions, teaching staff, as well as pupils and students. Entrepreneurship in education and training must comply with the overarching fundamental principle in Norwegian educational policy: that it must be given broad priority and made available for everyone, adapted to the individual's abilities and needs.

Concrete actions

The concrete actions in the strategy relevant to schools and/or IVET are:

- Measure 10 – Establish a website for digital teaching aids for entrepreneurship in primary and secondary education and training;
- Measure 11 – Continue to allocate funds to JA-YE Norway;
- Measure 12 – Strengthen research on and start evaluation of entrepreneurship in education and training.

Please note that the previous strategy included a wider range of actions related to schools and IVET.

Monitoring framework

A formative evaluation of the 'Action Plan' has been completed. The Ministry of Education and Research will lead an inter-ministerial reference group that is responsible for the follow-up of the Action Plan, which will include reference to this evaluation.

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is taught as an optional separate subject in ISCED 2 and 3.

In ISCED 1-3, EE is integrated into the compulsory subject 'Social Studies'.

In ISCED 2, EE is integrated into optional subject 'Production of Goods and Services'.

In ISCED 3, it is taught as optional separate subjects: 'Entrepreneurship and Business Development' and 'Business Economics'. It is also integrated into optional subjects.

Work on entrepreneurship is embedded in the National Curriculum for Knowledge Promotion in Primary and Secondary Education and Training.

Learning outcomes

Entrepreneurial learning outcomes are identified individually across the curriculum. Although these are developmental, they are not linked to each other during the learning process. Some examples of the learning outcomes included are:

In ISCED level 2, in the optional subject 'Working Life Skills':

- the subject will improve motivation and stimulate pupils' interests, work ethic and a feeling of mastery through working with services and products;
- through work with various services and products it will contribute towards developing learners' autonomy, co-operation, service-mindedness, entrepreneurship and creativity;
- within the subject, pupils will carry out different and varied activities towards the production of a service or product.

In ISCED level 2, in the optional subject 'Production of Goods and Services Learners':

- develop a business venture/idea and develop a company;
- plan and carry out a task and document their practical work in accordance with quality criteria, reflecting on their own working processes.

In ISCED level 3, the subject 'Entrepreneurship and Business Development' includes the following learning outcomes:

- describe creative methods for business development;
- describe the development process for creating a product.

In ISCED 3, in the subject 'Business Economics', learners are asked to:

- give an account of how local and regional resources provide the foundation for business activities and evaluate any possible conflicts of interest due to the use of such resources;
- discuss the value of networking and cooperation and give an account of support networks for people wanting to establish a business;
- evaluate opportunities for business activity within local and regional resources, map out networking opportunities and prepare a plan for networking and cooperation.

Social studies spans across ISCED 1-3, its EE related learning outcomes are:

- describe how boys and girls spend money and discuss matters that influence consumption (Year 4);
- give examples of and discuss how commercial influences from different media can affect consumer habits and personal economy (Year 7);
- evaluate the opportunities for and challenges to establishing a company and illustrate some of the main features of the profit and loss accounts and balance sheet (ISCED 3).

Teacher education and support

Entrepreneurship and/or innovative practice are mentioned at a general level in the regulations for all teacher education programmes, as part of learning outcome descriptions. It is also mentioned in the national guidelines for the programmes under learning outcomes for certain subjects. However, the integration of EE into the ITE curricula is a matter for institutional autonomy. A CPD course on entrepreneurship as pedagogical method in vocational training (ISCED 3) is available at one university college for teachers in vocational training.

Since 2006, the Directorate of Education and Training has allocated approximately NOK 2 million annually, inviting applications for funds from university colleges and universities with teacher education programmes that focus on:

- developing study courses where training in entrepreneurship is integrated in the teacher education programme with focus on pedagogical principles and appropriate tools;
- offering continuing education courses, in-service training schemes, experience exchanges or other types of competence development for teachers and school leaders in primary and secondary education and training.

The Ministry of Education and Research aims to continue this measure and wishes to encourage the institutions providing teacher education for vocational education.

Serbia

Definition of entrepreneurship education

There is no national definition for entrepreneurship education (EE) in Serbia. However, it is recognised as a cross-curricular competence for all levels of education.

Related strategy

There is no current national strategy for EE. Instead, it is addressed within three national strategies, the most relevant of which is the 'National Youth Strategy'.

A) 'National Youth Strategy 2015-2025' ⁽³⁵⁹⁾

The 'National Youth Strategy' outlines national policy on youth aged 15-30, and is led by the Ministry of Youth and Sports (MoYS) in collaboration with the Government Working Group for the Implementation of the Strategy (involving representatives from different ministries). The objectives related to EE appear to be the most detailed and wide-ranging. The main objectives include stimulating youth entrepreneurship, supporting the development of creativity, innovation and initiative among young people and acquiring competencies within a lifelong learning framework. Concrete actions include:

- introducing entrepreneurship skills, knowledge and financial literacy into the curricula at all levels of formal education;
- developing programmes for entrepreneurship skills, knowledge and financial literacy;
- supporting the development of student companies as the entrepreneurship experience component of EE;
- supporting the introduction of the Entrepreneurial Skills Pass ⁽³⁶⁰⁾ at national level;
- improving psychological, didactical and methodological teacher competencies;
- initiating legislation change to ensure accreditation of CPD programmes for teachers via associations that organise youth activities;
- supporting associations that organize youth activities;
- including employers in active and continuous participation supporting the creation and delivery of lifelong learning;
- improving mechanisms for internships and practical work experience.

The MoYS, the Government Working Group and the Youth Council are in charge of annual progress reports based on set indicators within the strategy, which is submitted to government and posted on the MoYS website.

⁽³⁵⁹⁾ http://www.mos.gov.rs/mladisuzakon/attachments/article/389/nacionalna_strategija_za_mlade0101_cyr.pdf

⁽³⁶⁰⁾ <http://entrepreneurialskillspass.eu>

B) 'Strategy for Education Development 2012-2020' ⁽³⁶¹⁾

This strategy addresses national policy on education for ISCED 1-8 including school-based IVET, and is led by the Ministry of Education, Science and Technological Development with involvement from the Ministry of the Economy. It emphasises the importance of EE at all levels of education and training, the development of an entrepreneurial culture in schools and universities. It also encourages entrepreneurial extra-curricular activities for schools linked to the local community and promotes the inclusion of EE methods and techniques in teacher training. Although the aims of the strategy are broad, only one concrete action relevant to schools/IVET is included in the Action Plan, which is the development of EE programmes in school-based IVET.

C) 'Strategy for Supporting the Development of Small and Medium-sized Enterprises, Entrepreneurship and Competitiveness (SSDSMEEC) 2015-2020' ⁽³⁶²⁾

This strategy includes actions that address all levels of education and IVET (ISCED 1-8). The main objectives relevant to EE are to introduce EE at all levels of education and ensure the provision of initial teacher education and training for teachers in entrepreneurship education. Concrete actions relevant to schools and IVET include actions relating to curricula, the entrepreneurial spirit in primary schools, developing student mini-companies and the use of Junior Achievement programmes, as well as EE-related CPD and ITE for teachers.

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is recognised as a cross-curricular competence in ISCED 1-3 including in-school-based IVET. The subject 'Entrepreneurship' is also available in some vocational secondary schools and is described in curricula, including in learning outcomes, teaching plans and recommendations for teaching methods e.g. active learning, project-based learning or activities outside the classroom.

Learning outcomes

Learning outcomes for EE have been defined for both primary and secondary education (ISCED 1-3, including school-based IVET). Learning outcomes are neither linked nor developmental.

In primary education, pupils should:

- acquire skills in recognising opportunities in school and the community; and in implementing their idea, they should initiate and accept changes;
- take responsibility;
- become aware of their own potential and interests;
- become empowered for independent decision making and choosing future education and career;
- show readiness for volunteering and initiating humanitarian activities.

⁽³⁶¹⁾ Strategy: http://www.mpn.gov.rs/wp-content/uploads/2015/08/strategija_obrazovanja_do_2020.pdf
Action Plan: http://www.mpn.gov.rs/wp-content/uploads/2015/08/Akcioni_plan.pdf

⁽³⁶²⁾ Strategy: <http://www.privreda.gov.rs/wp-content/uploads/2015/06/Strategija-mala-i-srednja-preduzeca.pdf>
Action Plan <http://www.privreda.gov.rs/wp-content/uploads/2015/06/Akcioni-plan-mala-i-srednja-preduzeca.pdf>

In secondary education, students should:

- acquire organisational and interpersonal skills;
- learn event, time and finance management;
- undertake complex planning and decision making in accordance with preset requirements;
- show readiness for volunteering and use different opportunities for gaining work experience.

Teacher education and support

The integration of EE into ITE curricula is a matter for institutional autonomy. However the recently adopted Action Plan envisages the introduction of EE into ITE programmes.

CPD for teachers is compulsory and Serbia offers CPD courses on EE for all teachers from primary to upper secondary education, including school-based IVET teachers.

There is a transnational pilot led by the South East Centre for Entrepreneurial Learning (SEECEL)⁽³⁶³⁾ in cooperation with the national teacher training authority, supporting continuing teacher education and support in nine primary schools and four secondary schools. This includes direct funding, curriculum support (including practical entrepreneurial experiences), teacher training and networking, alongside teacher mentoring schemes between schools that have established EE and those new to the SEECEL pilot.

⁽³⁶³⁾ <http://www.seecel.hr/about-us>

Turkey

Definition of entrepreneurship education

In the place of a national definition, Turkey refers to the description of the entrepreneurship competence defined in the European Reference Framework for Key Competences in Lifelong Learning ⁽³⁶⁴⁾.

Related strategy

There is no current national strategy for entrepreneurship education (EE) in Turkey. Entrepreneurship education is included within a number of broader strategies, which include:

- the 'Ministry of National Education Strategic Plan 2010-2014' ⁽³⁶⁵⁾ (most relevant);
- the 'Lifelong Learning Strategy 2009' ⁽³⁶⁶⁾ highlights the importance of entrepreneurial culture and the key competences, including a sense of initiative and entrepreneurship;
- the 'Entrepreneurship Strategy and Action Plan 2014-2016' ⁽³⁶⁷⁾;
- the 'Vocational and Technical Education Strategy Paper and Action Plan 2014-2018' ⁽³⁶⁸⁾ stresses the need for individual entrepreneurial skills;
- the Guide for Standardisation of pre-primary, primary and lower secondary institutions ⁽³⁶⁹⁾.

Ministry of National Education Strategic Plan 2010-2014

The main strategy addressing EE is the 'Ministry of National Education Strategic Plan 2010-2014'. This is a five year plan and addresses all levels of education from ISCED 1-8, with a monitoring framework still to be developed.

Main objectives

- organising activities to promote entrepreneurship, starting from the last grades of lower secondary schools through to wider society through lifelong learning.

Concrete actions

- organising entrepreneurship education with the participation of successful entrepreneurs.

⁽³⁶⁴⁾ http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=NC7807312

⁽³⁶⁵⁾ http://sgb.meb.gov.tr/Str_yon_planlama_V2/MEBStratejikPlan.pdf

⁽³⁶⁶⁾ <http://mesbil.meb.gov.tr/genel/hayat%20boyu%20öğrenme%20dokuman.pdf>

⁽³⁶⁷⁾ <http://www.resmigazete.gov.tr/eskiler/2015/07/20150701-9-1.pdf>

⁽³⁶⁸⁾ http://mtegm.meb.gov.tr/documents/strategy_eng/strateji_eng.pdf

⁽³⁶⁹⁾ http://mevzuat.meb.gov.tr/html/okulonc_1/okulonc_1.html

In the curriculum

Explicit integration in the curriculum

Entrepreneurship education is included as a one-hour optional course in general upper secondary education and school-based IVET.

In general upper secondary education, an 'Entrepreneurship' course is optional in secondary schools. In school-based IVET, an 'Entrepreneurship Ideas and Starting Business' module is studied as part of the 'Career Development' course.

Learning methods are offered centrally for both secondary education institutions and vocational schools.

Learning outcomes

The learning outcomes of the entrepreneurship course are developmental, and it provides the following outcomes:

- use of basic concepts related to entrepreneurship;
- creation of business ideas and evaluation of those ideas;
- preparation of documents required to start a business;
- development of activities, professional competences and capacity, based on the scope of the business and the features of the occupations.

The learning outcomes of the curricula implemented in both secondary schools and the vocational schools link to the importance of entrepreneurship in social and economic life. Also, it shows the characteristics that an entrepreneur should have, and highlights the advantages and disadvantages of running one's own business.

Teacher education and support

In ITE, entrepreneurship education is a compulsory topic only for prospective teachers training via the Social Sciences Undergraduate Teaching Programme.

CPD activities exist only to raise teachers' awareness and develop their entrepreneurial skills. They are available to all primary and secondary teachers, including school-based IVET teachers. There are no guidelines or suggestions to develop this.

There is a transnational pilot led by the South East Centre for Entrepreneurial Learning (SEECEL) ⁽³⁷⁰⁾ in cooperation with the national teacher training authority, supporting continuing teacher education in eight primary schools and four secondary schools. This includes direct funding, curriculum support (including practical entrepreneurial experiences), teacher training and networking, alongside teacher mentoring schemes between schools that have established EE and those new to the SEECEL pilot.

⁽³⁷⁰⁾ <http://www.seecel.hr/about-us>

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Entrepreneurship Education at School in Europe

This report provides the most recent information on strategies, curricula and learning outcomes, and also covers themes such as funding schemes and teacher education.

The analysis focuses on primary education, lower and general upper secondary education as well as school-based initial vocational education and training. Information covers 33 countries participating in the Eurydice network. In addition, national information sheets provide an overview of entrepreneurship education in each country. The reference year is 2014/15.

The Eurydice network's task is to understand and explain how Europe's different education systems are organised and how they work. The network provides descriptions of national education systems, comparative studies devoted to specific topics, indicators and statistics. All Eurydice publications are available free of charge on the Eurydice website or in print upon request. Through its work, Eurydice aims to promote understanding, cooperation, trust and mobility at European and international levels. The network consists of national units located in European countries and is co-ordinated by the EU Education, Audiovisual and Culture Executive Agency. For more information about Eurydice, see <http://ec.europa.eu/eurydice>.

