



Entrepreneurship Education:

Enabling Teachers

as a Critical Success Factor

*A report on Teacher Education and
Training to prepare teachers for the
challenge of entrepreneurship education*

*Enterprise
and Industry*



European Commission

Entrepreneurship Education: Enabling Teachers as a Critical Success Factor

**“A report on Teacher Education and Training to prepare teachers
for the challenge of entrepreneurship education.”**

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Abstract:

Offering specific training to teachers is crucial in order to make entrepreneurship education generally available and effective: two High Level Symposia was organized on 7-8 April in Budapest and on 13-15 July in Istanbul to tackle that issue. The aim was to bring together practitioners and policy makers from across Europe to determine how to develop effective teacher education systems for entrepreneurship. This report is based on the contents of the two Symposia, and includes a "Budapest Agenda on Enabling Teachers for Entrepreneurship Education".

The report is a repository of information and good practice, for both policy makers and practitioners, on how to enable teachers to take on a new role in the classroom (as "facilitators" of learning), use innovative and entrepreneurial methods of teaching, help young people to develop entrepreneurial mindsets and skills.

Acknowledgments:

This report provides a synthesis and elaboration of the material gathered during the course of a pilot action funded by the European Commission. It is based on the perspectives of the large number of individuals who took part in the action, particularly a Symposium held in Budapest in April 2011 and a Symposium involving countries from the EU pre-accession and Southern Mediterranean regions held in Istanbul in July 2011. The authors would like to record their sincere gratitude for the enthusiasm with which participants gave so freely of their expertise. We would also like to thank those people who made presentations at the Symposium and to the European Training Foundation for providing facilitation skills at short notice for one of the Grand Challenges addressed.

Performing organisation:

This report was prepared in 2011 for the European Commission - DG Enterprise and Industry by ECORYS UK Limited. The European Training Foundation (ETF) also contributed substantially to the contents of this report.

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1.0 Introduction

The development of entrepreneurial mindsets is becoming embedded in policy across Europe. Previous research has shown the essential role that education plays in the development of such mindsets, and in particular the central role that teachers play in this process. It requires nothing less than a sea change in the approach to education, emphasising active learning and the provision of new experiences for students outside of the classroom. For many education systems this represents a fundamental shift away from traditional approaches.

Teachers are in the middle of these changes. They need to be equipped with the right skills, knowledge and attitudes to be able to provide their students with the new curricula, pedagogies and learning environments that they will need if they are to acquire entrepreneurial competencies. How should teachers be educated? What developments need to happen in initial teacher education and continuing professional development? What types of support will teachers need in the schools in which they teach?

These questions and others were addressed during 2011 through a pilot action initiated by DG Enterprise and Industry and DG Education and Culture and undertaken by a team from Ecorys, the University of Warwick's Centre for Education and Industry; and by the European Training Foundation (ETF) in its work with EU partner countries from the EU pre-accession and Mediterranean Neighbourhood regions.¹ This report presents the outcomes of these activities. It provides key findings on how to develop education for teachers in relation to entrepreneurship education, identifying actions for stakeholders at all levels in the process.

The European Commission pilot action took forward a key recommendation from work undertaken by Member States, EU partner countries and the European Commission in 2009 and 2010 that sought to establish the state of play in the teaching and learning of entrepreneurship education². That work took forward previous thinking³ and provided an opportunity for policy makers and other stakeholders to take

¹ ETF is the EU's specialist agency supporting human capital developments in Central and Eastern Europe, Central Asia and the Southern Mediterranean area. The Symposium involved the following countries: Albania, Algeria, Bosnia & Herzegovina, Croatia, Egypt, Iceland, Israel, Lebanon, Kosovo (under UNSCR 1244/1999), Montenegro, Serbia, Former Yugoslav Republic of Macedonia, Montenegro, Morocco, Occupied Palestinian Territory, Tunisia and Turkey.

² Pilot Action High Level Reflection Panels on entrepreneurship education initiated by DG Enterprise and Industry and DG Education and Culture. The report of the action is: ECOTEC (2010), Towards Greater Cooperation and Coherence in entrepreneurship education, DG Enterprise and Industry.

http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/education-training-entrepreneurship/reflection-panels/files/entr_education_panel_en.pdf See also ETF (2010) A Pilot Action on Entrepreneurship Education: High Level Reflection Panel, Fifth Cluster Meeting, Zagreb, 18-19 March. 2010 http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/education-training-entrepreneurship/reflection-panels/index_en.htm#h2-7

³ See in particular: European Charter for Small Enterprises. <http://ec.europa.eu/enterprise/policies/sme/best-practices/charter/>; the Oslo Agenda for entrepreneurship education in Europe (2006), http://ec.europa.eu/enterprise/policies/sme/files/support_measures/training_education/doc/oslo_agenda_final_en.pdf; EC, (2006) Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, Implementing the Community Lisbon Programme: Fostering entrepreneurial mindsets through education and learning, COM(2006) 33 final, Brussels, 13.2.2006; EC, DG Enterprise and Industry (2007) Assessment of compliance with the entrepreneurship education objective in the context of the 2006 Spring Council conclusions. Brussels, November 27, 2007 http://ec.europa.eu/enterprise/policies/sme/files/support_measures/training_education/doc/edu2006_en.pdf; and various studies on mini-companies, and on entrepreneurship in higher education and the reports of expert groups on primary and secondary education: http://ec.europa.eu/enterprise/policies/sme/documents/education-training-entrepreneurship/index_en.htm;

stock of progress and to discuss critical success factors and further developments in the field. As part of this process, teachers were identified as pivotal agents of change in making entrepreneurship education more widely available in schools. The pilot action provided the first opportunity to build on this work by exploring how teachers in the EU and its partner countries can be best supported to engage with and deliver effective entrepreneurship education. In particular, it enabled the further exploration and elaboration of Section C of the Oslo Agenda for Entrepreneurship Education in Europe - 'Support to Teachers and Educators'. A Symposium held in Budapest in April 2011 and a similar exercise in Istanbul in July 2011 with EU partner countries were central to this process.

The success of these activities - both for participants and in terms of the quality of the thinking generated - has enabled the development of a 'Budapest Agenda' for teacher education in entrepreneurship which is presented in this report (see chapter 5.2).

1.1 What is entrepreneurship education?

Much debate surrounds the meaning of entrepreneurship education, and different definitions can apply in different countries and at different levels and phases of education. Recent thinking has shown that narrow definitions based around preparing learners for the world of business may place limitations on both learners and the teaching community. Instead a broader definition which sees entrepreneurship education as a process through which learners acquire a broad set of competencies can bring greater individual, social and economic benefits since the competences acquired lend themselves to application in every aspect of people's lives. Entrepreneurship in this sense refers to an individual's ability to turn ideas into action. It includes creativity, innovation, showing initiative and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports everyone in day-to-day life at home and in society, makes employees more aware of the context of their work and better able to seize opportunities, and provides a foundation for entrepreneurs establishing a social or commercial activity⁴. Entrepreneurship education is thus about life-wide as well as lifelong competence development. As well as contributing to European competitiveness, entrepreneurship education also helps to ensure a number of positive social benefits. The entrepreneurship key competence plays a vital role in Europe 2020 as a consequence.

1.2 Implications ... a new role for teachers

What do such developments imply for the practices of teaching and learning and hence for teachers? The development of the entrepreneurship key competence is not simply a question of knowledge acquisition. Since entrepreneurship education is about developing the ability to act in an entrepreneurial manner, attitude and behaviours are perhaps more important than knowledge about how to run a business. In short, entrepreneurship education means developing a culture which is through, for and about entrepreneurship. 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,

⁴ The Key Competences for Lifelong Learning – A European Framework is an annex of a Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning that was published in the Official Journal of the European Union on 30 December 2006/L394. (http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_394/l_39420061230en00100018.pdf)

learner-centred pedagogies and learning activities that use practical learning opportunities from the real world. Furthermore, since entrepreneurship education is a transversal competence it should be available to all students and be taught as a theme rather than as a separate subject at all stages and levels of education⁵.

Clearly, the implication of these changes for teachers is substantial. They mean nothing less than a new role for every teacher: that of 'learning facilitator.'

1.3 New teacher education for new teachers

These changes will require significant changes in the way teachers themselves are educated. Research carried out by the European Commission shows that the core skills and values linked to entrepreneurship education are seldom a priority in initial teacher education programs. Creativity is not fully embedded into these programs and there are significant variations between Member States⁶. Approximately 90% of teachers say that they would like to receive some further training on creativity. Teachers also feel that educational and school cultures do not fully support them in fostering creative and innovative approaches to learning; this requires time to explore new approaches and a culture that encourages experimentation and allows for failure - in short, an environment that itself embodies the characteristics of entrepreneurialism.

Teachers thus need support throughout their careers, in their initial education, their continuing professional development and in their day-to-day work. The question is: how?

1.4 Teacher Education on the EU agenda

In response to proposals made by the European Commission, the Education Council in November 2007 for the first time adopted Conclusions that set a European agenda for improving the quality of teaching and teacher education. Ministers recognised that the quality of teaching is the single most important within-school factor affecting student attainment.

The importance of the teaching profession was again highlighted at an Informal Ministerial Meeting in Gothenburg in September 2009 under the Swedish Presidency of the EU and this was followed by the adoption of new Council Conclusions⁷ in which Member States committed themselves to improving the professional development of teachers and school leaders.

These Conclusions, taken together, provide a comprehensive set of EU priorities for improving teacher education. They include:

⁵ See ECOTEC (2010), Towards Greater Cooperation and Coherence in entrepreneurship education, DG Enterprise and Industry. http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/education-training-entrepreneurship/reflection-panels/files/entr_education_panel_en.pdf

⁶ Joint Research Centre, European Commission (2010) *Creativity in Schools: A Survey Of Teachers in Europe*

⁷ Conclusions of the Council and of the Representatives of the Governments of the Member States, meeting within the Council of 26 November 2009 on the professional development of teachers and school leaders (OJ 2009/C 302/04)

- Improving teacher competences, making sure that teachers possess the necessary pedagogical skills to teach their own subjects and the transversal key competences, including in heterogeneous classes and making the best use of ICT;
- Improving the quality of Initial Teacher Education (ITE) which should provide a Higher Education qualification and should balance research-based studies and teaching practice;
- Ensuring the quality of teacher educators (teacher trainers) who should have solid practical teaching experience, good teaching competences and be of a high academic standard; and
- Promoting professional values and attitudes in the teaching profession (in which teachers adopt a culture of reflective practice, undertake autonomous learning, engage with research, and collaborate extensively with colleagues).

It will be noted that this agenda emphasises the need to improve teacher education systems so that they produce teachers who are reflective, creative and innovative as well as highly competent and knowledgeable in their fields. In this it complements the EU entrepreneurship policy agenda.

1.5 Purpose of this report and methods used

This report brings together the work undertaken by the European Commission and the European Training Foundation that has sought to address this question. The methods used were innovative and provided the first opportunity for the question to be explored at European and wider multi-country level.

The European Commission pilot action

The main components of the European Commission pilot action were, as noted above, the Symposia held in Budapest and Istanbul.. The Budapest Symposium was designed using the concept of the 'Innovation Camp'. This is a means of bringing people together to generate creative but practical solutions to problems through small group work and expert facilitation. Each participant was placed into a group to work intensively with an expert facilitator on one of five Grand Challenges over the course of two days (facilitators combined a mixture of expertise in both the pedagogics of teacher education and Innovation Camp methods). The Grand Challenges were designed to enable participants to focus on solutions rather than having general discussions about the meaning of entrepreneurship education. This was appropriate for the participants; as one commented, 'We know this ... but how?' The Grand Challenges were:

- How to help primary and secondary school teachers to become agents of change through initial teacher education;
- How to encourage and enable in-service teachers to engage in entrepreneurship education through continuing professional development;
- How to develop teachers as facilitators of learning;
- How to develop support systems for teachers;

- How to develop the role of the school and its community to help teachers to provide learning opportunities in entrepreneurship.

The Istanbul Symposium considered the same questions and involved a series of focus groups preceded by good practice sharing which was designed to inspire discussions within the groups.

Participants developed a range of potential solutions to the questions posed and then applied a set of criteria to focus on the most significant and viable. Outline action plans were then created to help make ideas more concrete, give a sense of direction, and to enable participants to take away well developed ideas which they could then use in their own particular professional contexts after the Budapest Symposium (an overview of the action plans is provided in Annex 2). Similarly, Istanbul participants considered options for next step developments both at national and regional levels.

By design and owing to the complex nature of teacher education for entrepreneurship, the Grand Challenges overlapped. Hence the solutions developed were frequently relevant to more than one issue.

Around 140 participants took part in the discussions in the two events, drawn from communities of both policymakers and practitioners. 28 countries were represented in Budapest and 17 in Istanbul. Discussions focused on the primary and secondary stages of education.

The discussions that took place generated many practical solutions and insights into the questions at hand. These outcomes have provided the raw material for this report. Summaries of each Grand Challenge and of the preliminary conclusions reached by the working groups are available on the Commission webpage dedicated to the pilot action⁸.

As an integral part of the pilot action, a number of other activities were conducted:

- A survey of participants was undertaken before the Budapest Symposium. This was completed by 26 participants, and provided data on the state of play in their countries. It provides the raw material for Chapter 3. Although the sample size is rather limited, the data nonetheless provides a relevant and interesting picture since the respondents are experts who have both an informed overview and specific knowledge of entrepreneurship education.
- In addition, an evaluation of the Symposium was conducted using feedback gathered at the end of the event and a follow-up survey of participants. Feedback was gathered using a form filled in by participants on the second day of the Symposium (completed by 53 participants). The more extensive and reflective evaluation survey was conducted a few weeks later and completed by 38 people. The evaluation report is a separate document, and not included in this report.
- Good practices from both Symposia were also collected and collated, to be published in full separately.

⁸ http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/education-training-entrepreneurship/teacher-education-entrepreneurship/index_en.htm

- In addition to fresh intelligence gathered through the Istanbul Symposium, information and analysis from ETF assessments for the EU partner countries under the auspices of an EU enterprise policy monitoring framework were drawn upon.⁹

All these additional aspects of the project have also provided materials for this report.

First steps towards a development agenda for teacher education

This report is a synthesis and further examination of the insights gathered from the above activities. The nature of those activities means that – as intended by the processes used - the content reflects the shared thinking of participants, all of whom are experts in their field. This was the first time they had had the opportunity to debate the topic in this manner. The report is thus a reflection of the state of play of current thinking. Some topics have not yet been as well developed as others: participants more easily addressed the question of how to develop the wider infrastructure of teacher support than the intricacies of the pedagogy of teacher education, which is altogether a more difficult subject highly dependent on national circumstances. The solutions presented in the report thus constitute first steps. But they are also the critical steps needed if we are to develop education for teachers that is fit for European and EU partner country entrepreneurship.

1.6 Report structure

The report is structured as follows:

- Chapter 2 sets out the overall objectives for teacher education in respect of entrepreneurship education. It examines the concept of the entrepreneurial teacher and the entrepreneurial school which lie at the heart of attempts to develop the entrepreneurship key competence for teachers;
- Chapter 3 sets out the state of play in teacher education across the EU;
- Chapter 4 examines four areas for action: initial teacher education; continuing professional development; national and regional level support systems for entrepreneurial teachers; and the local level support required at school level;
- Chapter 5 concludes the report by setting out the 'Budapest Agenda'¹⁰ for action by all stakeholders. It also makes recommendations for the European Commission.

⁹ [Small Business Act for Europe and its predecessor instruments the European Charter for Small Enterprises and the Euro-Mediterranean Charter for Small Enterprise.](#)

¹⁰ This comprises the collective recommendations resulting from the Budapest and Istanbul symposia.

2.0 What are we aiming for?

In the introduction we described what entrepreneurship education means in terms of the curriculum and teaching and learning practices. We also set out some of the implications for teacher education. However, it is important to establish the qualities that are required in teachers in respect of entrepreneurship education in order that the process of teacher education has clear objectives. Equally it was evident from the discussions at the Symposium that alongside the entrepreneurial teacher it is also important to see the development of the entrepreneurial school. Indeed, the entrepreneurial teacher and the entrepreneurial school are in practice inseparable if we wish to see entrepreneurship education available for every student in every school. As was noted in the 2010 European Commission report, *Towards Greater Cooperation and Coherence in entrepreneurship education*, progress in the field has thus far tended to depend too much on the individual entrepreneurial teacher. Without entrepreneurial schools we shall never establish an institutional framework through which entrepreneurship education can be fully implemented and sustained. In the following sections we therefore look at two key objectives: the qualities of the entrepreneurial teacher and of the entrepreneurial school.

2.1 The entrepreneurial teacher

Figure 2.1 provides a graphical representation of the qualities of an entrepreneurial teacher identified by participants at the Symposia. These qualities fall into two main groups: a set of characteristics grouped around the heart shown in the figure and a group of key activities. In an arc around the bottom of these features are those aspects of teacher education and school and community support that will be required to support the development of these qualities. These latter issues form the basis for further discussion in chapter 4.

Unpacking the group of characteristics, we can see that at their heart entrepreneurial teachers should be passionate about what they are doing. They should have a very positive attitude, and be able to inspire others. They should be confident in their teaching, in effect being leaders in themselves, and not necessarily waiting for leadership from senior staff. In their new role, their task is to lead their students. In the words of one Symposium participant, they are the sort of people who 'just do it', teachers with a 'can do' approach to their profession, who have belief in what they are doing. They need to be energetic, providing a spark both to their students and their fellow teachers. They should also have vision, as well as being both open to new ideas and able to think laterally about subjects and issues. They should be open-minded with respect to the ways in which not just other teachers but parents, businesses, students and others ought to be involved in entrepreneurship education. Such characteristics will mean they are well equipped for delivering the entrepreneurship education curriculum both within schools and in terms of thinking creatively about how to use resources available within the local community. In this respect, the entrepreneurial teacher should also be able to network effectively and make connections to a wide range of stakeholders. Entrepreneurialism also requires teachers to be flexible and to push the boundaries with respect to established norms within education, without being a maverick. At the same time they need to have a balanced approach, be 'down to earth' and, of course, remain professionally responsible.

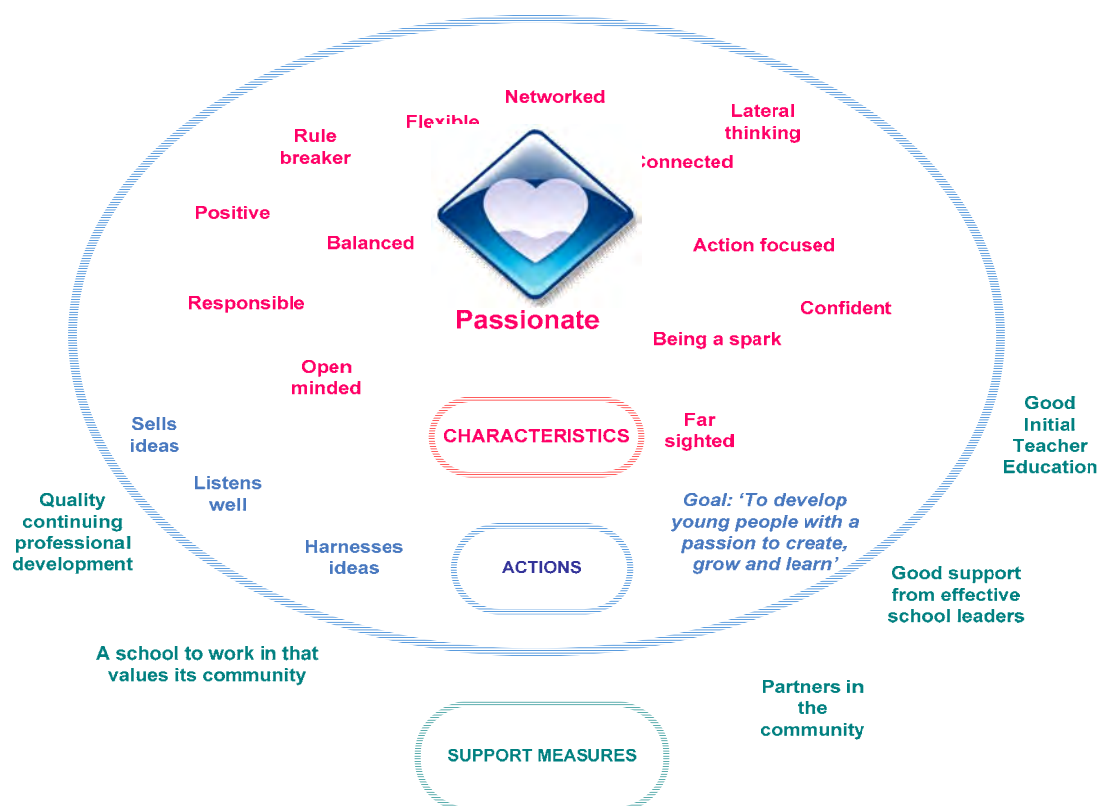


Figure 2.1 The Entrepreneurial Teacher – Characteristics, Actions and Support Measures

Alongside these characteristics, the entrepreneurial teacher needs to be someone who listens attentively and can pick up and put to good use new ideas. They also need to have the ability to sell ideas to others. Above all they should retain the goal of all educators which is to develop young people who have a passion to create, grow and learn.

As many participants at the Symposia commented, these qualities add up to the perfect teacher. Some felt that they also demonstrated how much was still to be achieved within the education system. As was also remarked, it is quite unlikely that all these ideal qualities will be found in one individual alone. Rather, it is more realistic to expect to find such qualities distributed across a range of individuals, reinforcing the point that entrepreneurial schools are needed as much as entrepreneurial teachers. As one participant commented, entrepreneurial teachers 'need to be part of the whole'. Indeed, entrepreneurial teachers imbued with such qualities who try to achieve their objectives in un-entrepreneurial schools may well find themselves suffering from 'burn out' quite rapidly as they constantly run into constraints and boundaries.

The entrepreneurial school

An entrepreneurial school would have a number of characteristics. Some of these might be developed early on in a school's 'journey' to becoming entrepreneurial; others would take more time. Their exact form would depend on policy and practice of the wider education system, so here we summarise the more generic aspects.

First, an entrepreneurial school would possess a clear vision and policy for entrepreneurship education which expresses it as an entitlement for all pupils. To achieve this, school leadership teams would consult

all staff, clearly identifying and agreeing their own understanding and definition of entrepreneurship education, appropriate for the institution. Communication, debate and dialogue with staff are important in developing a shared understanding of what entrepreneurship education means for the school.

In order to develop its approach to entrepreneurship education the school would undertake an audit of existing activity: schools are typically already carrying out a range of activities which are characteristic of entrepreneurship education and identifying these helps build understanding and overcome teacher concerns by demonstrating that much of what they already teach and the way in which they teach it has a good fit with the entrepreneurial approach.

To establish entrepreneurship education as a clear and defined entitlement for all pupils, a range of strategies and procedures can be used, e.g. an agreed list of annual activities, specific timetabling, use of a pupil diary, a school schedule, etc. Reference to entrepreneurship education should appear through explicit references in a number of curriculum policies.

The entrepreneurial school would also be clear as to how entrepreneurship should be introduced to pupils, discussing it with them well before activities take place. It is part of the ethos of entrepreneurship education that pupils are made aware of why they are involved in entrepreneurship activities, and of the intended learning outcomes and longer term benefits of developing entrepreneurship capabilities. All entrepreneurship education activities should be preceded by a structured briefing in which the purposes of the activity are explained and the intended learning outcomes are defined, emphasising the applicability of entrepreneurial skills throughout life, not just at work, and also the ethical aspects.

The entrepreneurial school would explicitly identify time for entrepreneurship education in the school timetable. This would include time identified within the 'normal' curriculum across a broad range of subject areas, and also opportunities created through collapsing the timetable, operating 'themed' sessions and, in addition, extra-curricular activities.

Entrepreneurship education activities in the school would aim to develop the full range of entrepreneurship capabilities and pupils would be increasingly encouraged to take on responsibility for their own learning. Entrepreneurship education activities would require pupils to apply decision-making and problem-solving skills, to work as part of a team and to get involved in 'supported' risk-taking and learning activities that incorporate the possibility of failure. Entrepreneurship education activities would be adequately varied to allow for the preferred learning styles of different pupils/students.

An entrepreneurial school would also make sure that it uses student assessment methods that are appropriate to assessing transversal skills and attitudes like those involved in entrepreneurship. Such methods can differ markedly from those that are often used which are designed mainly to assess knowledge acquisition. They are critical to ensuring teachers have the incentive to engage in entrepreneurship education.

An entrepreneurial school would also designate a teacher as co-ordinator with specific responsibility for entrepreneurship education activities. There should be a specific job description and objectives for the post. A formal commitment should be made by the leadership team to support and resource appropriate staff development for entrepreneurship education. Where financial management arrangements permit, a specified budget for entrepreneurship education should be made available to the entrepreneurship education coordinator.

Co-operation with the local community to deliver the entrepreneurship education curriculum is a further critical feature. Entrepreneurship education in the school should capitalise on the existing links with a wide range of external partners, including parents, and also play a leading part in developing relationships with new contacts, and extending the range and value of contributions from external partners. The school would also disseminate and celebrate its good practice in entrepreneurship education activities with outside organisations.

Depending on national arrangements, the school's entrepreneurship education programme would include assessment of entrepreneurship learning. The school would identify a set of key knowledge, understanding and skills for entrepreneurship education which would form a focus for assessment and evaluation. Time would be made available in which teachers can observe pupils/students in experiential learning contexts, and discuss progress with them. The school might also encourage the assessment of entrepreneurship learning by the pupils/students of their own and others' work. Specific reference to entrepreneurship education outcomes should be included in students' records, portfolios and progress files.

Colliding with opportunities – Manchester Academy

Jane Deflino, Director of Enterprise and Internationalism at the Manchester Academy (a secondary school in the UK) gave a presentation at the Budapest Symposium focused on the “teachers’ perspective” on entrepreneurship education. She presented the vision of the entrepreneurial teacher that her school has been implementing in the past eight years, as a mean to raise the achievements and perspectives of their students.

Entrepreneurship education is delivered at Manchester Academy through a variety of formal and non-formal settings, associating all teaching staff on a whole-school approach. The key principles of this approach are the following:

- *Self-respect and self-esteem*: lead students to respect themselves and to believe in their capacities. At the core of this principle is the belief that all students have talents, some of which they may even be unaware of, especially in the case of low academic achievers.
- *Collide with opportunities*: provide students with as many opportunities as possible, in and outside the school, to experiment new things and ideas. The involvement of the outside community is key to this principle. Partners outside the school include the local business world, schools from other countries as well as higher education providers.
- *Identity is not destiny*: raise students’ aspirations by leading them to realise that they can open all doors, and equip them with the life skills they need to do so. This is particularly relevant given that many students at Manchester Academy come from disadvantaged backgrounds. As a result, they may conclude that some jobs / universities etc. are out of their reach or they may lack the social and transversal skills required to access these positions.

The approach followed by the Manchester Academy has improved academic results dramatically: in the ten years before it was established, the former school had never reached 15% of pupils receiving A* to C grades¹¹ in five or more GCSE (General Certificate of Secondary Education) subjects. Since becoming the Manchester Academy, this score has gone from 8% in 2004 to 81% in 2010 and 84% in 2011.

¹¹ Equivalent to Level 3 in the European Qualification Framework. For more information, see http://ec.europa.eu/eqf/compare/uk-eni_en.htm#comparison

3.0 State of play

Given the goals of entrepreneurship education as set out in the preceding chapter, it is important to consider how well positioned EU Member States are to achieve them. In this chapter we review the state of play using the responses from the surveys carried out as part of the European Commission pilot project (details on the method used are contained in section Chapter 1) as well as the intelligence gathered by ETF through the entrepreneurship education assessments in partner countries.¹²

We begin by looking at the extent to which countries have introduced entrepreneurship education strategies in general, and the ways in which they have done this, before turning to examine the ways in which entrepreneurship education is being delivered in schools. We then look at the specific issue of teacher education, how it is incorporated into national strategies, the extent to which it is offered by teacher education institutions and its mode of incorporation into initial teacher education and continuing professional development.

3.1 National strategies

National approaches to entrepreneurship education are ubiquitous

Entrepreneurship education is on the agenda in almost all countries, either being in development, or already articulated in some form. On the basis of consultations with 16 Member State experts from the Budapest Symposium (rather than a full set of responses from EU27 Member States) it is clear that entrepreneurship education varies in terms of how it is dealt with at national strategy level. The High Level Reflection Panels undertaken in 2009¹³, which were designed to collect more detailed information in this area, also emphasised that Member States are at various stages in strategy development. For instance the Panels found that around one third of Member States had produced a specific and separate national entrepreneurship education strategy document, and that national strategies were in development or planned in a further eight countries. Furthermore, nine Member States reported that they had chosen to embed entrepreneurship education within wider strategies or related policy documentation (such as a wider lifelong learning strategy). The Symposium consultations with 16 Member State experts showed that the most popular strategic approach is to ensure that entrepreneurship education is embedded into curricula (as reported by participants from Bulgaria, Czech Republic, Poland, Romania, Spain, UK, Slovakia). For the pre-accession and Southern Mediterranean regions, while school-based approaches to entrepreneurship education were common, particular efforts were noted in mainstreaming the entrepreneurship key competence into curriculum in a number of countries (Albania, Croatia, Kosovo, Tunisia). Other methods for bringing forward entrepreneurship education concentrated on creating an enabling environment involving the elaboration of dedicated strategies or policy documents (Croatia, Denmark, Egypt, Kosovo, Montenegro, Norway, Netherlands, Occupied Palestinian Territory, Tunisia) or making it part of other policies (Belgium, Slovenia).

¹² Assessments were undertaken by ETF in 2008 (South Mediterranean neighbourhood) and 2009 (pre-accession region, excluding Turkey) as part of a wider SME policy review defined by the European Charter for Small Business which predated the Small Business Act for Europe.

¹³ Towards Greater Cooperation and Coherence in Entrepreneurship Education, Report and Evaluation of the Pilot Action High Level Reflection Panel on Entrepreneurship Education initiated by DG Enterprise and Industry and DG Education and Culture. ECOTEC (2010)

This stage of development of strategies is mirrored in the extent to which learning outcomes have been defined for the key competence sense of initiative and entrepreneurship. In a substantial majority of cases (17 out of 22 expert respondents) learning outcomes have either already been developed or are currently being developed. In around one half of these cases, a comprehensive approach has been adopted and learning outcomes have been/are being developed for all educational levels (Austria, Bulgaria, France, Norway, UK, Denmark, Poland, Romania, Slovakia); in the other half of cases, only some levels are covered. Meanwhile, the countries of the pre-accession region (excluding Iceland) have defined a common set of learning outcomes for the entrepreneurship key competence for lower secondary education. These are subject to a piloting exercise involving selected schools in all eight countries.

Participants at the Istanbul symposium underlined how teacher promotion were often school-based, project driven development initiated with external (donor) support with the risk of sustainability on withdrawal of financial assistance unless already adopted into national policy. While recognising their value, the Istanbul Symposium recommended that innovative projects should be monitored by the national authorities with a view to informing and improving national policy on teacher training within the wider entrepreneurship education agenda. Further, the Istanbul participants called for better coordination between the international agencies supporting entrepreneurship education particularly in the Southern Mediterranean area.

Partnerships tend to be ad hoc rather than systematic

As might be expected, it is ministries responsible for education which are most likely to be actively involved in taking forward entrepreneurship education. However, ministries responsible for economics or enterprise are also quite commonly involved and other ministries are also involved in particular countries (e.g. Ministry of Youth & Sport in Serbia). This highlights the considerable extent to which of entrepreneurship education tends to be taken forward by education ministries in partnership with other areas of government.

That said, it is important to note that the interactions between ministries tend to take place on an ad hoc basis as needs require rather than on a more regular and structured basis. This is unfortunate, since, as pointed out by the European Commission, considerable benefits follow from regular collaboration rather than ad hoc meetings between ministries¹⁴. Countries where ministries meet on a regular basis are for instance Denmark and the Netherlands.

With regards to the involvement of social partners, in most cases they are either consulted regularly or are an integral part of strategy development being involved in the key bodies that meet regularly. Nonetheless, in a substantial minority of cases social partners are either not yet involved or are only consulted on an ad hoc basis.

¹⁴ European Commission (2010) *Towards Greater Coherence and Cooperation in Entrepreneurship Education*

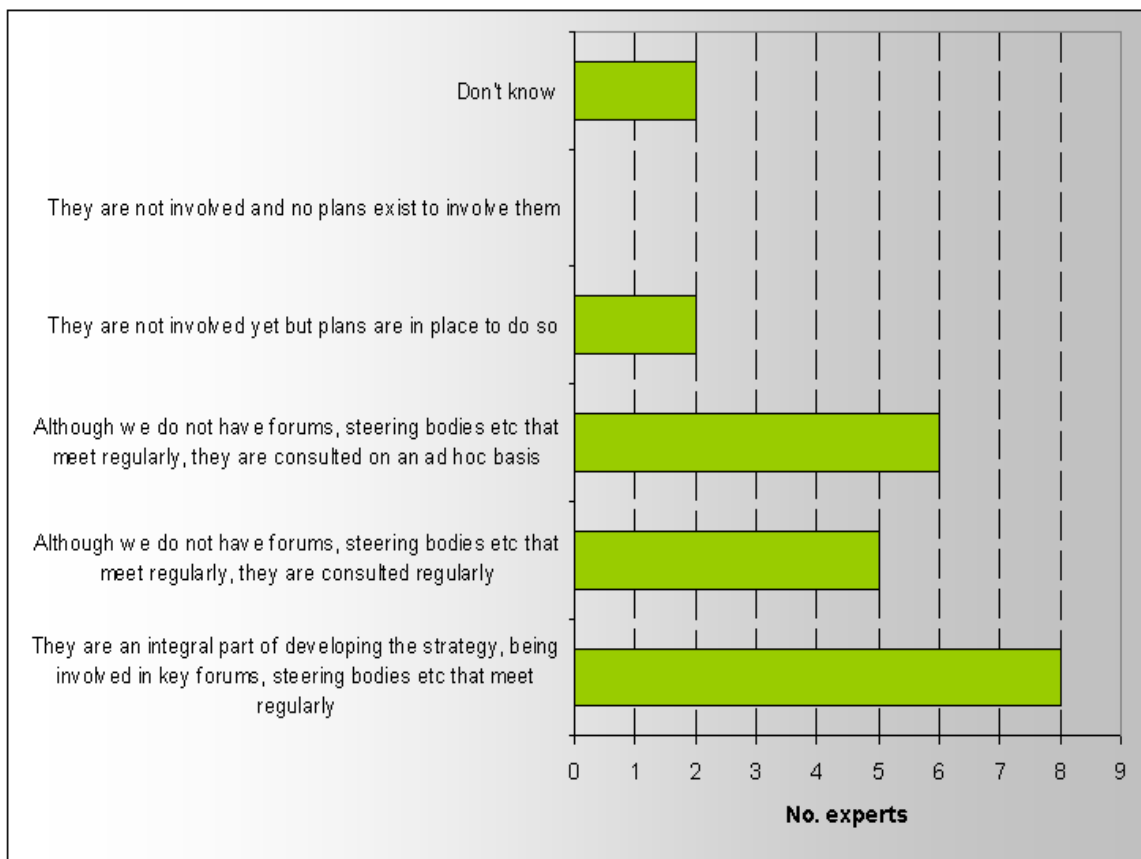


Figure 3.1 Which statement best describes the way social partners are involved in developing entrepreneurship education strategies?

With regards to implementation, in the majority of cases social partners are regarded as having a major or essential role to play. However, in only a minority of cases has the role of social partners been explicitly articulated in plans and strategies (for instance in Austria, Belgium, Denmark, Croatia, Kosovo, Lebanon Montenegro, Serbia, Slovenia).

3.2 Delivering entrepreneurship education

Entrepreneurship as a key competence is now well established ...

Entrepreneurship education is often taught in one of two ways: either as a key competence or as a specific business related topic. As noted in the introduction to this report, there is now a widespread recognition of the value of the former approach over the latter. Traditionally, however, entrepreneurship has tended to be treated narrowly as a matter of how to set up and run a business rather than more broadly as a set of transversal skills and attitudes. What is the current position?

As figure 3.2 makes clear, the teaching of entrepreneurship as a key competence is now well established. In the primary and lower secondary phases teaching it in this way is now around four times as commonplace as teaching it as a business-related topic. Even in upper secondary education, which has a much stronger labour market orientation and where subjects like business studies and economics have been traditional 'homes' for entrepreneurship, the key competence approach is as common as the other. Nonetheless, there remains scope to improve the extent to which entrepreneurship is taught in a broad rather than narrow manner across all educational levels and especially in the upper secondary phase.

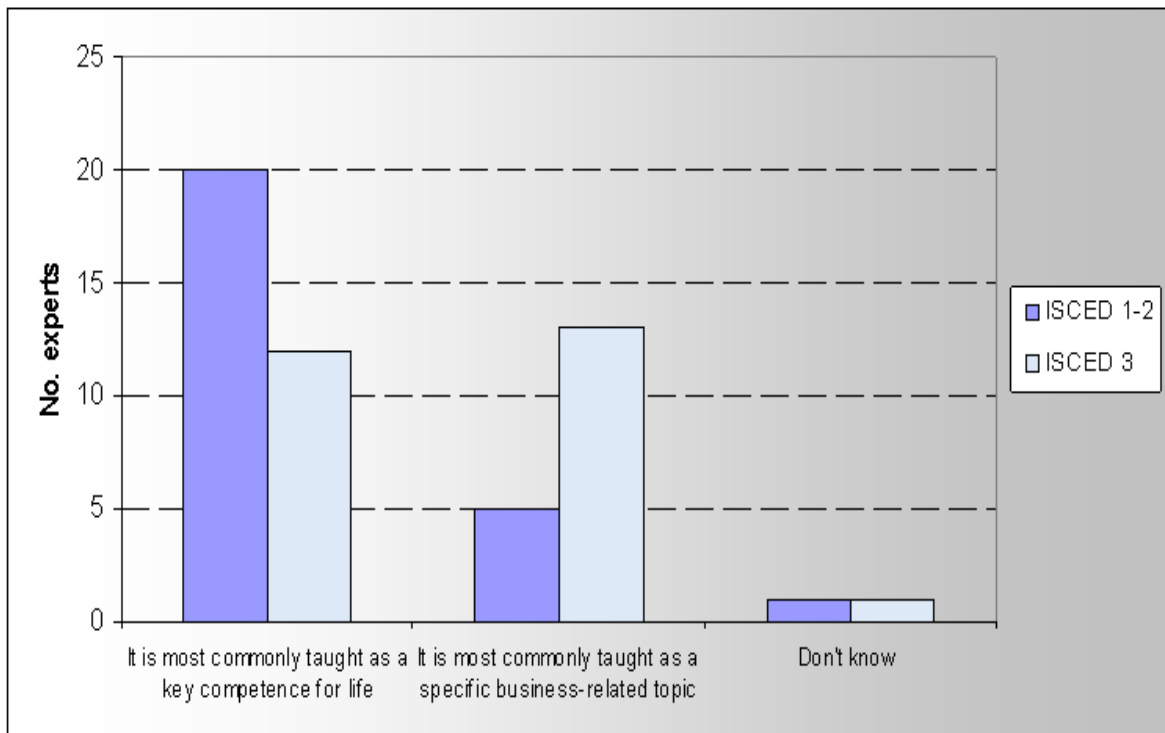


Figure 3.2 How is entrepreneurship education commonly taught in the country you represent?

... but there is some way to go to make it a cross-curricular subject

It is also important to have regard to the extent to which entrepreneurship is now incorporated into existing subjects rather than being taught separately; again, current thinking stresses the benefits of embedding entrepreneurship. Figure 3.3 enables the comparison to be made. It shows that the embedding of entrepreneurship is most likely in the primary and lower secondary phases but that even here teaching it as a separate subject is by no means uncommon. At upper secondary level the number of cases where entrepreneurship is taught as a separate subject out numbers its incorporation into existing subjects by about two to one. There appears to be some way to go therefore in all phases of education to embed entrepreneurship across the curriculum.

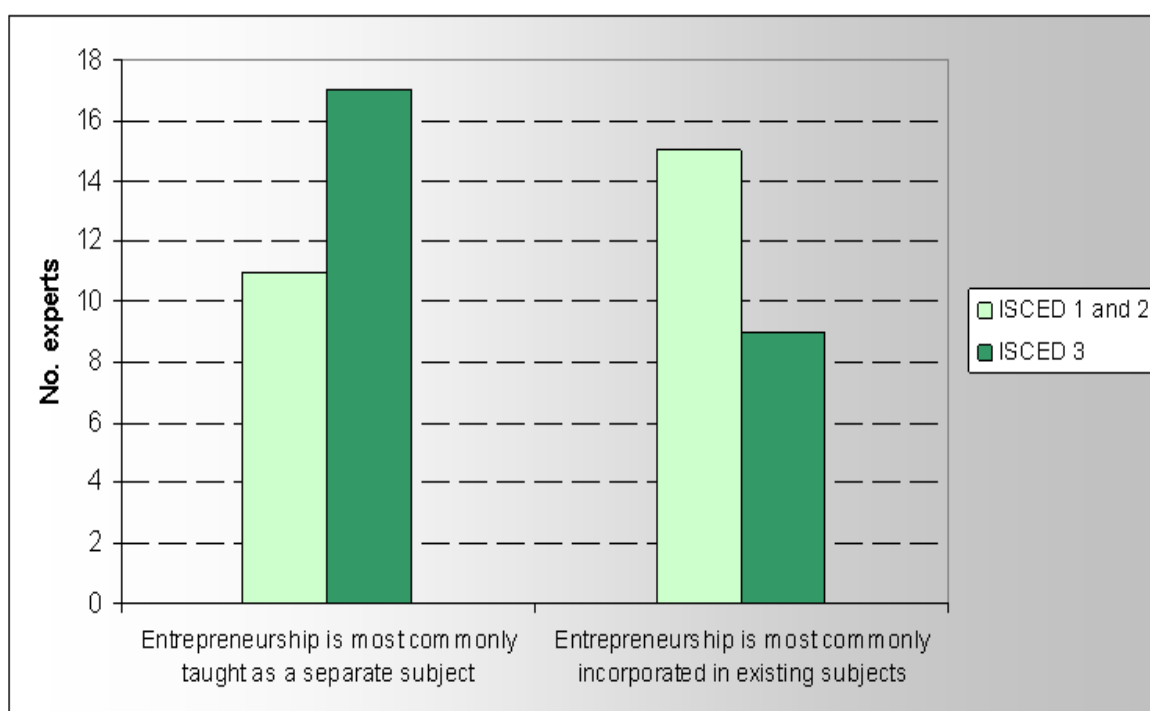


Figure 3.3 How is entrepreneurship education integrated into teaching in the country you represent?

Penetration of ‘sense of initiative and entrepreneurship’ into schools is highly variable from country to country

In terms of the number of schools aiming to foster the key competence sense of initiative and entrepreneurship, the picture is quite varied. It tends to be least common in the primary and secondary levels where one half of the expert respondents indicated that only a minority of schools aims to foster the key competence. But it is not uncommon for the majority or all schools in a country to be aiming to foster the key competence (as reported for instance by participants from Bulgaria, Denmark, Kosovo and Poland). At upper secondary level, the situation is perhaps more polarised with the number of countries where it is being fostered in most or all schools roughly equaling the number where it is not.

Individual teachers and schools are the critical factor ...

In most cases the availability of entrepreneurship education depends to a very high degree on the initiative of individual teachers and schools. In almost all cases they are the critical factor. This has traditionally been the way in which entrepreneurship education has been developed and sustained¹⁵. Developing more widespread coverage of entrepreneurship education will, however, require a shift towards more systematic approaches, such as those which we set out in the next chapter and which were the focus of the Budapest Symposium.

¹⁵ See European Commission (2010) *Towards Greater Cooperation and Coherence in Entrepreneurship Education*

... but teachers can't do it alone

Notwithstanding this dependence on individual teachers and schools, an important feature of the current state of play is that entrepreneurship education also relies upon both external actors outside the education system such as business organisations and NGOs, and on specific programs organised by national and/or regional authorities. In other words, whilst teachers are critical, they cannot do it alone, an issue to which we return at some length in the next chapter.

3.3 Teacher education for entrepreneurship education

Having set out in the preceding sections the general state of play in relation to entrepreneurship education, we turn in this section to specific issues related to teacher education.

Teacher education is yet to be fully incorporated into most national strategies

To begin with, we should establish the ways in which teacher education for entrepreneurship education is articulated within national plans and strategies. At the present time only in a very small number of instances is teacher education considered by expert respondents to be well-developed and in the process of being implemented (as reported by participants from the Netherlands, Poland and Romania) while a collective approach to teacher development for entrepreneurship education is underway in the EU pre-accession region. The most common situation is for teacher education to be still awaiting the articulation of an appropriate approach within strategies.

Entrepreneurship is absent from most initial teacher education

In this context, it is perhaps not surprising that typically only a minority of teacher education institutions in EU Member States and EU partner countries offer courses within their curricula which will enable student teachers to engage in entrepreneurship education after graduation..

For the EU countries, the most common mode of incorporation for entrepreneurship education is as an option, as shown in figure 3.4. Only two expert respondents stated that entrepreneurship education was an integral part of all teacher education (Austria, Poland). This situation falls well short of the proposition that all student teachers should as a minimum be acquainted with entrepreneurship during their studies¹⁶.

¹⁶ European Commission *ibid*.

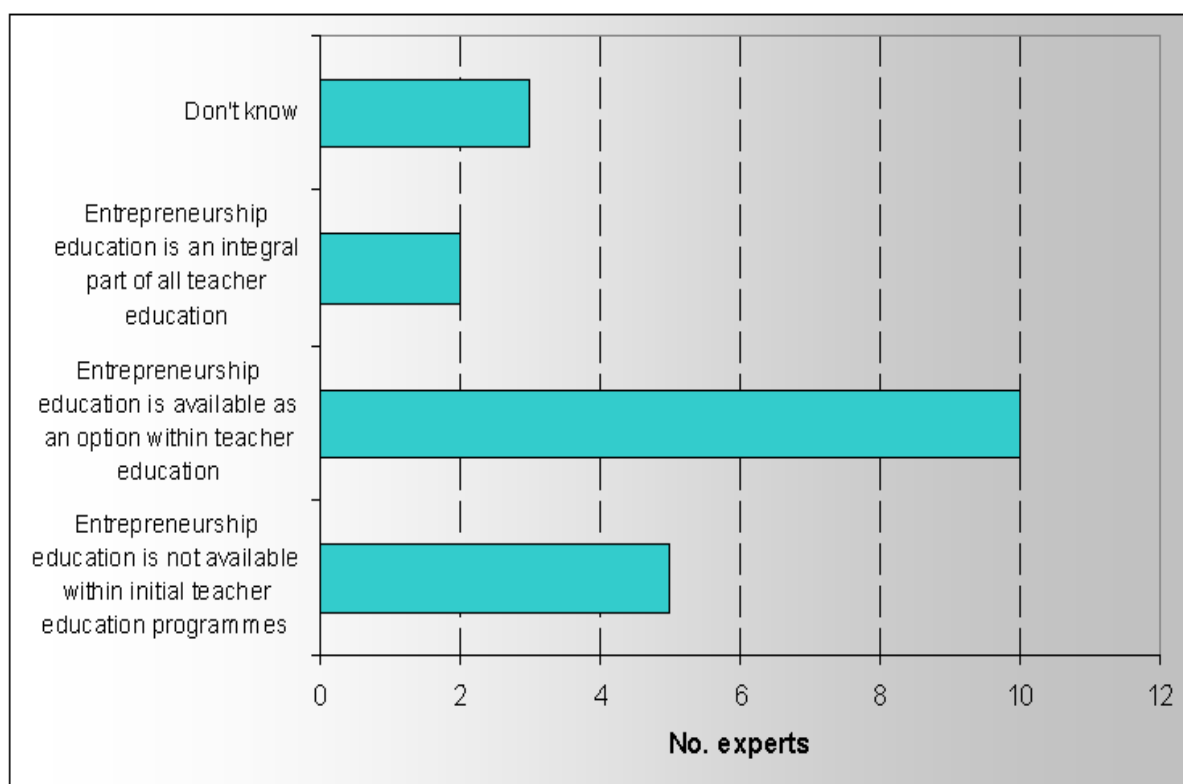


Figure 3.4 Degree/mode of incorporation of EE into Initial Teacher Education

Entrepreneurship is not yet an integral part of teachers' continuing professional development

As with initial teacher education, entrepreneurship is most commonly available as an option for teachers as part of their continuing professional development, with no instances being cited where it is integral. The dominant modes of incorporation of entrepreneurship education are through external actors and as part of specific programs organised by ministries of education. Once again, therefore, it is clear that schools alone struggle to make provision, and rely on support from the wider community of stakeholders.

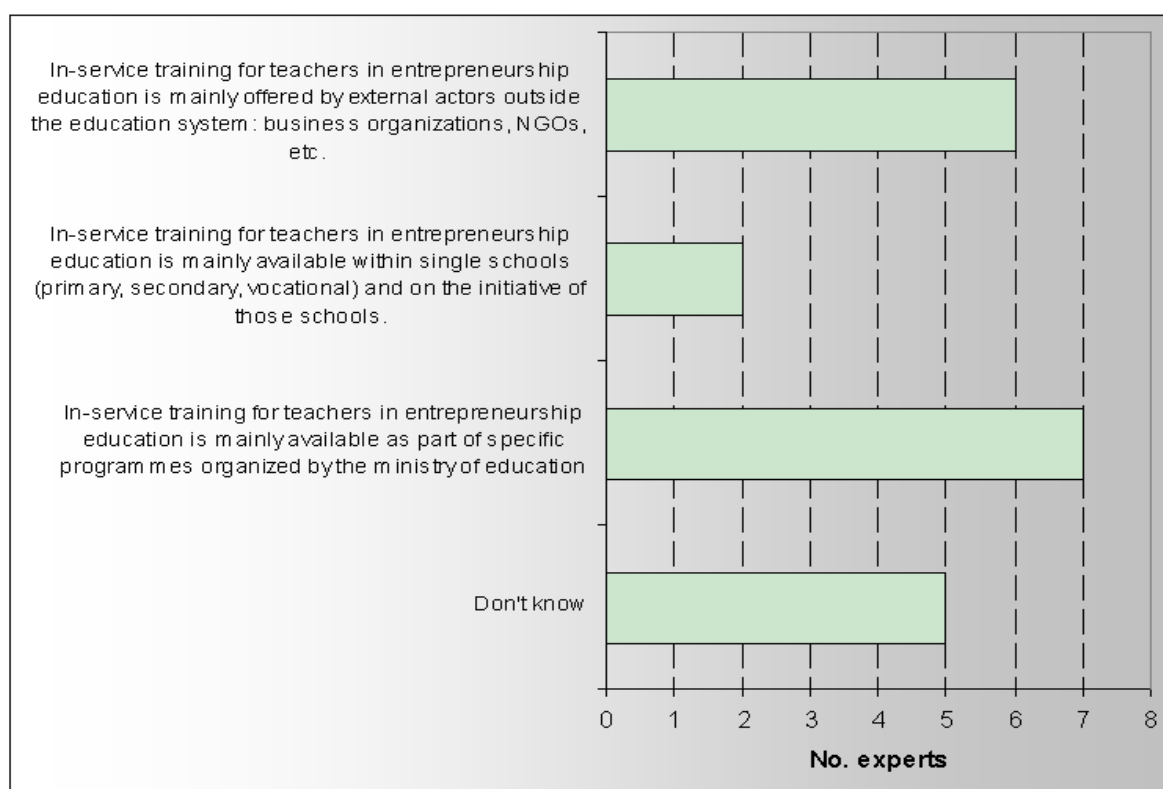


Figure 3.5 Degree/mode of incorporation of entrepreneurship education in continuing professional development

3.4 Conclusions

The data presented in this chapter shows that entrepreneurship education is now a part of national strategy in most countries. However partnerships involved in their development and implementation are in need of more systematic development especially with regards to the involvement of social partners. Furthermore, entrepreneurship education needs to become more commonly treated as a key competence across subjects rather than a business related and/or separate subject. Individual teachers are key but the evidence shows that they also need external support.

In comparison, the role of teacher education in the development of entrepreneurship is lagging behind. It is not included in most initial teacher education and continuing professional development. When it is included it is as an optional extra in the main rather than being integrated and mandatory. The question to which we now turn is how to improve on this baseline position.

4.0 Areas for action

In view of the state of play described in the preceding Chapter, it is clear that action is required in a number of areas to move towards the development of the characteristics of an entrepreneurial teacher which were set out in Chapter 2. These characteristics will be essential if teachers are to play the role of facilitators of learning. In this Chapter we look at the areas where action is required to achieve the goals intended.

4.1 Teachers as facilitators of learning: what is entailed?

Entrepreneurship education requires the use of active learning methods that place the learner at the centre of the educational process and enable them to take responsibility for their own learning to experiment and learn about themselves. Such methods have been shown to make learning experiences richer and to have positive benefits for students in terms of improving their motivation with positive effects from their engagement with learning and long-term attainment. Thus teachers need the professional competencies to be able to guide students through the learning process rather than, as in traditional methods, communicating knowledge and information mainly through 'chalk and talk'. They need the skills to be able to ensure the relevance of education to students' learning needs and backgrounds and be able to support students in planning activity. The teacher's role is especially important in the latter stage of activity-based learning, i.e. in the reflection and generalisation stages. Without the right support, students may not be able to draw lessons from their experiences. In this setting, there is a fine balance to be found between too distant interventions that leave learners under-equipped to make the most of the experience and too much supervision which does not leave space for students to develop their independence.

This is not to say that it is only teachers who need to change. Students need authentic, practical experiences and realistic learning environments as essential parts of active learning. Teachers need to have access to a varied new range of resources in order to build activities for students that are as true to life as possible, bringing the outside world into the school. This includes, for example, the resources to set up and manage a businesslike project, to organize study visits to companies or charities, or visits to schools by entrepreneurs. This challenges both schools to become more open to their local communities and, in equal measure, businesses and the wider community in general to be willing to play an active and committed role in supporting teachers and schools in their endeavours. Changes to teacher education cannot take place in a vacuum if they are to be effective.

Four key areas can be identified where action is required:

- the initial education of teachers;
- at national (or regional) level, the development of the requisite vision and supporting frameworks across education systems as a whole¹⁷;
- teachers' continuing professional development;
- at local school level, the development of appropriate support structures and activities.

¹⁷ The level depends on governance arrangements pertaining in an individual country.

The order in which these topics are dealt with is deliberate. Initial teacher education is principally a question of formal education and national/regional level action, as teachers undergo their education in dedicated establishments and universities – though, of course, they also do placements in schools. Hence we follow it with a description of the support measures needed at national level. Continuing professional development, in contrast, consists of a mixture of formal, non-formal and informal learning where local interventions are as important as national ones. Alongside the formal element – taking place as part of national/regional programmes – is learning through day-to-day professional practice in local school contexts. The latter is particularly important for teachers to acquire entrepreneurial skills and attitudes. As we noted in Chapter 2, for entrepreneurship education to be embedded we need to develop entrepreneurial schools. Hence the wider context of local, school level support is central to teachers' continuing professional development. At this level, national/regional policy and practice remain important, of course, since as we noted in Chapter 3 entrepreneurship education and in-service training are highly dependent in many countries on national/regional programmes and other external agencies (business organisations, NGOs etc). National policy and practice provides the overall framework as well. But local support measures are the essential corollary of continuing professional development. These relationships are shown schematically in Figure 4.1.

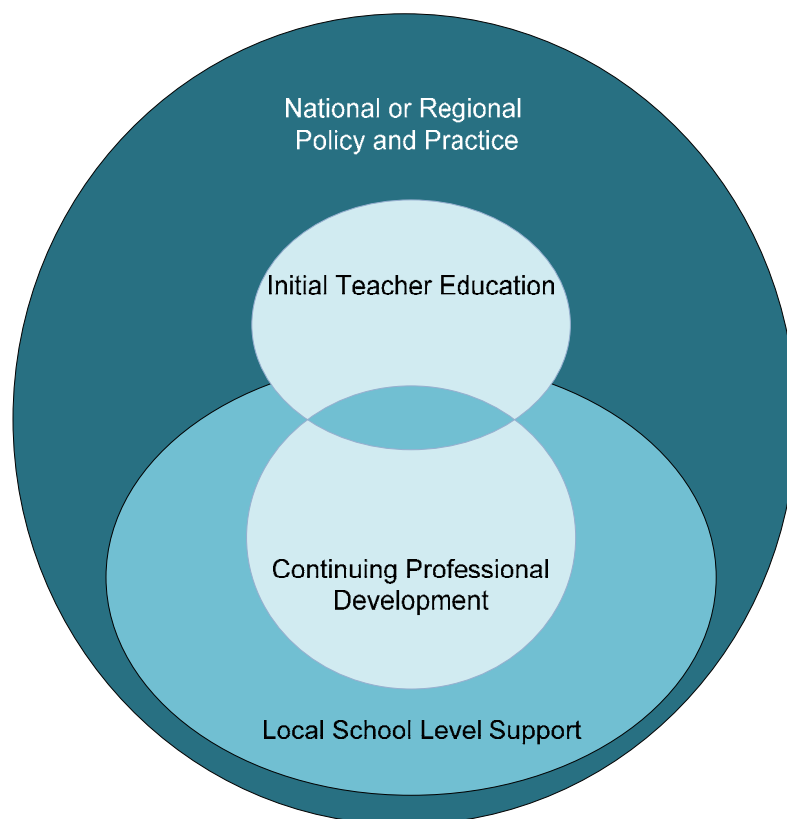


Figure 4.1 The relationship between areas for action in teacher education for entrepreneurship

In the following sections, we describe in detail the developments needed in each of the areas shown above. As we noted in the Introduction, the innovative methods used to generate the raw materials used in this Chapter mean that some areas are, at this point, developed in greater depth than others. This is true of the areas of wider support at national and local level, where it has tended to be easier for policy-makers and practitioners to formulate immediate solutions. In the more technical area of the pedagogy of teacher development it is an inherently more difficult task to tackle the challenging questions posed. Nonetheless, we see here the first critical building blocks in developing a comprehensive agenda for teacher education for entrepreneurship.

4.2 Initial Teacher Education

Given the current state of play, initial teacher education plays a key role in instilling in a new cohort of teachers the need for and skills and attitudes required for entrepreneurship education (whilst at the present time it is continuing professional development which has the task of promulgating entrepreneurship education to the much larger number of existing teachers). As we have seen in Chapter 3, the extent to which entrepreneurship education features in current initial teacher education and training is highly variable across Member States. In most countries, whilst teacher education in entrepreneurship education is a priority, a coherent approach is yet to be developed. Often it is still yet to be included in the initial teacher education curriculum. There is, then, scope for considerable change and development within initial teacher education.

Figure 4.2 overleaf, shows the first steps that will be required. In the sub-sections that follow we describe these steps, starting with the most fundamental question: what should be taught and how?

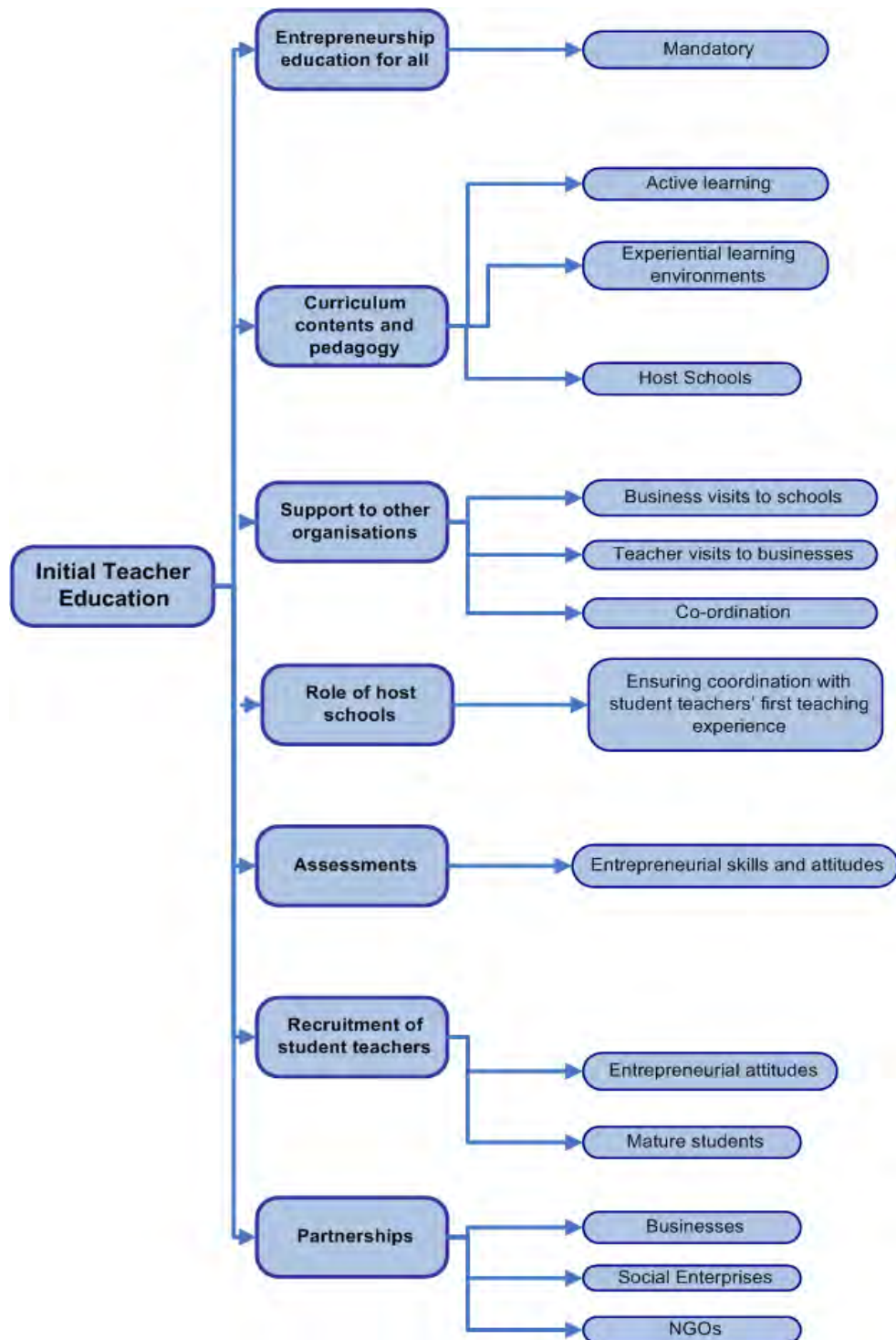


Figure 4.2 Map of actions involved in initial teacher education

Entrepreneurship education for all

Institutions educating our future teachers should adopt the paradigms and pedagogical models that will equip them with the necessary skills and attitudes for entrepreneurship education. Indeed, there was overwhelming support for making entrepreneurship a mandatory part of the initial teacher education curriculum amongst all those participating in the Budapest and Istanbul Symposia. More specifically for the Budapest participants, almost all of them thought entrepreneurship education should be formally integrated within initial teacher education. 84% thought it should be compulsory, either for teachers of specific subjects (25%) or for all student teachers (59%), reflecting the dominant conviction that entrepreneurship education should be a creative and experiential learning for all¹⁸.

Curriculum content and pedagogy

First of all, it needs to be noted that current evidence suggests that entrepreneurship education, when defined in broad terms, resonates with many of teachers' existing goals as educators, e.g. in terms of fostering creativity, innovation, and humanistic values¹⁹. Furthermore, once entrepreneurship education is explained, teachers can often match many of their core competencies as teachers to the pedagogies required. Initial teacher education therefore becomes a question of emphasising those personal generic skills and attitudes that entrepreneurship requires such as teamwork, sense of initiative, decision making, problem solving, leadership, risk-taking and creativity. It is less a question of knowledge and more that of skills and attitudes. Initial teacher education institutions will need to start by examining existing curricula and determining the extent to which entrepreneurship education underpins and is embedded within it, and what more needs to be done.

At the same time, entrepreneurial skills and attitudes will require new pedagogies: in essence the same ones as student teachers will be expected to teach once they professionally qualify, i.e. experiential learning (project-based activities, active learning, learning that is 'co-constructed' with those beyond the school, or college etc.) and participatory teaching. Teacher education institutions should thus 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.

Student teachers should also be encouraged to learn with student teachers from other subject areas, to learn about other subjects and differing approaches across disciplines so that they are open to other perspectives. Such approaches can foster team building, communication and negotiation skills, project management and reflective learning; all these are skills essential for entrepreneurship education.

Initial teacher education institutions should also encourage student teachers to take responsibility for their own learning and reflect upon their learning experiences and to articulate them through seminars, workshops and learning logs. They should be encouraged to integrate this learning into their own planning of entrepreneurship activities for future pupils.

¹⁸ Post-Budapest Symposium evaluation survey

¹⁹ Backström-Widjeskog, B. (2010) Teachers' thoughts on entrepreneurship education, in Skogen, K. and Sjøvoll, J. (eds), *Creativity and Innovation – Preconditions for entrepreneurial education*, Trondheim: Tapir Academic Press, pp. 107-120.

Drawing on the local community including businesses and other organisations to support the new approaches

In order to supply student teachers with the experiential learning situations they need, the involvement of the wider community in general, and entrepreneurs in particular, will be critical. This can work in both directions: teacher-to-community (T2C) and community-to-teacher (C2T). With regard to T2C, placements, or internships, outside the education sector enable student teachers to have first-hand experience of other sectors of employment and different work roles. This practice is already well established in some countries and is seen as an important contribution to the development of professional skills. Workplaces provide rich contexts for learning in terms of entrepreneurship skills, including the opportunities they afford for working in teams, problem solving, meeting deadlines, and working within budgetary constraints. Internships can also provide practical experiences in how links can be fostered between teachers and businesses and to develop their own links between education and other stakeholders.

C2T activities involve getting entrepreneurs to come in to initial teacher education institutions to assist in learning activities. Co-delivery alongside experienced university/college lecturers can enrich learning with a realistic dimension by providing examples of 'real life' business scenarios, or by getting student teachers involved in authentic business challenges set by visiting entrepreneurs, NGOs, local authorities etc.

Whilst T2C is arguably a richer experience on account of being more all-encompassing or immersive, C2T is probably easier to organise, requiring less time and commitment from individual entrepreneurs, and may be an easier first step for many initial teacher education institutions. Whatever the activity, stakeholders need to be well briefed on their role and the learning objectives need to be made clear for such activities to be effective.

Ensuring coordination with student teachers' first teaching experience

There should be strong alignment between what student teachers are learning with respect to entrepreneurship education in their university/college studies and their practical experiences of teaching. The co-ordination with host schools - those that receive student teachers during their education period - is central to developing this continuity, as is the awareness of entrepreneurship education among school management teams. Wherever possible, host schools should be selected which will provide excellent opportunities for students to practise their own entrepreneurship skills as well as observe good practice in terms of the school's provision of entrepreneurship education for its pupils.

The way in which this coordination with host schools in particular, and all schools which receive new teachers in general, depends on national and local situations, but there is a potential role for teacher education institutions. They could lead on taking forward the cooperation with host schools and ensure teachers' first experiences in school support what they have learnt in university or college. Exemplary schools in terms of entrepreneurship education could receive recognition from teacher education institutions through an award scheme, or be invited to present their work in the teacher education institutions.

Assessment

An essential corollary of the developments just described is that methods of assessing teachers are put in place that support the new skills and attitudes. Traditional methods like written examinations are well suited to assess the acquisition of bodies of knowledge but not to the assessment of practical skills in general and entrepreneurial skills and attitudes in particular. A wide repertoire of assessment techniques should be deployed, both formal and informal, which focus on performance as well as on subject knowledge.

Certificate in Entrepreneurship for Initial Teacher Education – St. Mary's University College Belfast, UK

St Mary's College, a provider of initial teacher training at the Queen's University in Belfast, started offering the Certificate in Entrepreneurship to its students in 2005. All students at St. Mary's University College Belfast are afforded the opportunity to develop and challenge entrepreneurial ideas through an intensive and inter-active programme of workshops, seminars and lectures. The course challenges the students to consider the practical/entrepreneurial dimensions to be encountered in their main degree programme. It employs a range of experiential methods of teaching which have been developed including the use of drama, business games and live case studies.

As the entrepreneurship education training programme is offered on a voluntary basis, rewarding students' effort with an accredited award (in this case a Certificate in Entrepreneurship offered in addition to their teaching degree) is reported to have made the course more appealing to student teachers and helped to secure their buy-in the optional entrepreneurship course.

Building on the experiences acquired, St Mary's has also introduced a new course at Masters degree level for school teachers, from both primary and post-primary sectors, as part of its contribution to continuing teacher education. As part of its recently completed review of its teacher education degree programmes, St Mary's is now proposing to enhance Entrepreneurship Education through establishing more formal cross-disciplinary linkages within its programmes, and between the degree programmes and the Certificate in Entrepreneurship.

Recruitment of student teachers

Initial teacher education institutions may pay regard to entrepreneurial skills from the point when they select student teachers on to their courses, emphasising the qualities of the entrepreneurial teacher described in Chapter 2. Potential to excel in these qualities may be assessed in selection criteria.

Following on from this, student teachers should be encouraged during their courses to build on their existing skills (including soft skills), which can be under-estimated by staff within initial teacher education institutions. This is of particular significance given that in some countries there are increasing numbers of mature entrants to the profession who bring with them a range of skills and experience from previous employment. In addition, younger entrants are highly likely to have part-time jobs during their student years. Many student teachers are already in the labour market and should be encouraged to draw on these experiences to inform their teaching.

Partnerships

The involvement of external actors in teacher education in the manner described above requires a planned and structured approach, in the same way as any curriculum design, while retaining some level of flexibility. Flexible co-operation agreements/partnerships (rather than ad hoc interventions) between teacher education and external institutions could help to sustain better and stronger links between the two, as well as make it easier for teacher educators to engage with actors from the local community. Links built on a 'coalition of the willing' lack sustainable foundations and can dissolve once initial partners move on.

Initial teacher education establishments also need to bear in mind that entrepreneurship is not the preserve of business: there are un-entrepreneurial business people and business organisations just as there are entrepreneurial teachers and schools. Large corporations for example may be willing participants in collaborations with schools, but though they may offer good experience of the private sector that is not the same as offering the opportunity to acquire entrepreneurial skills. Careful selection of partners is therefore required. (For more on the topic of linking with businesses and the wider community see the Chapter on local support.).

Implementation: stakeholder roles

Responsibility for implementing the actions set out above falls predominantly on the institutions that carry out initial teacher education and, depending on governance arrangements, national/regional education ministries. It may require legislative action to ensure that entrepreneurship becomes a mandatory part of student teachers' initial education. But in many respects the most pressing area where action is required is in developing and implementing appropriate pedagogical and assessment methods. The experience of the Budapest and Istanbul Symposia as already noted, was that this is a more difficult area to identify first steps for action than general support measures. This is not to say that completely new approaches need to be invented from scratch. On the contrary there is much good practice but steps are needed to bring this to the surface and to share amongst stakeholders. Practitioners need to know where to go to find the resources they need, and those resources need to be quality assured in some manner. Clearly these activities can involve a large range of actors from local through to national and European levels. Initial teacher education also needs to make more use of resources in the wider community especially amongst businesses and to develop sustainable and systematic partnerships rather than ad hoc links. This again draws in a wide range of actors outside the realm of education.

4.3 National (or regional) support systems²⁰

Putting in place effective support systems for teachers is a critical component of entrepreneurship education. As one Budapest Symposium participant said: ‘Teachers can’t do it alone!’ Support is needed at a number of levels. In this section, we look at measures that can be put in place at national (and/or regional) level. Figure 4.3 below, summarises the steps that can be taken.

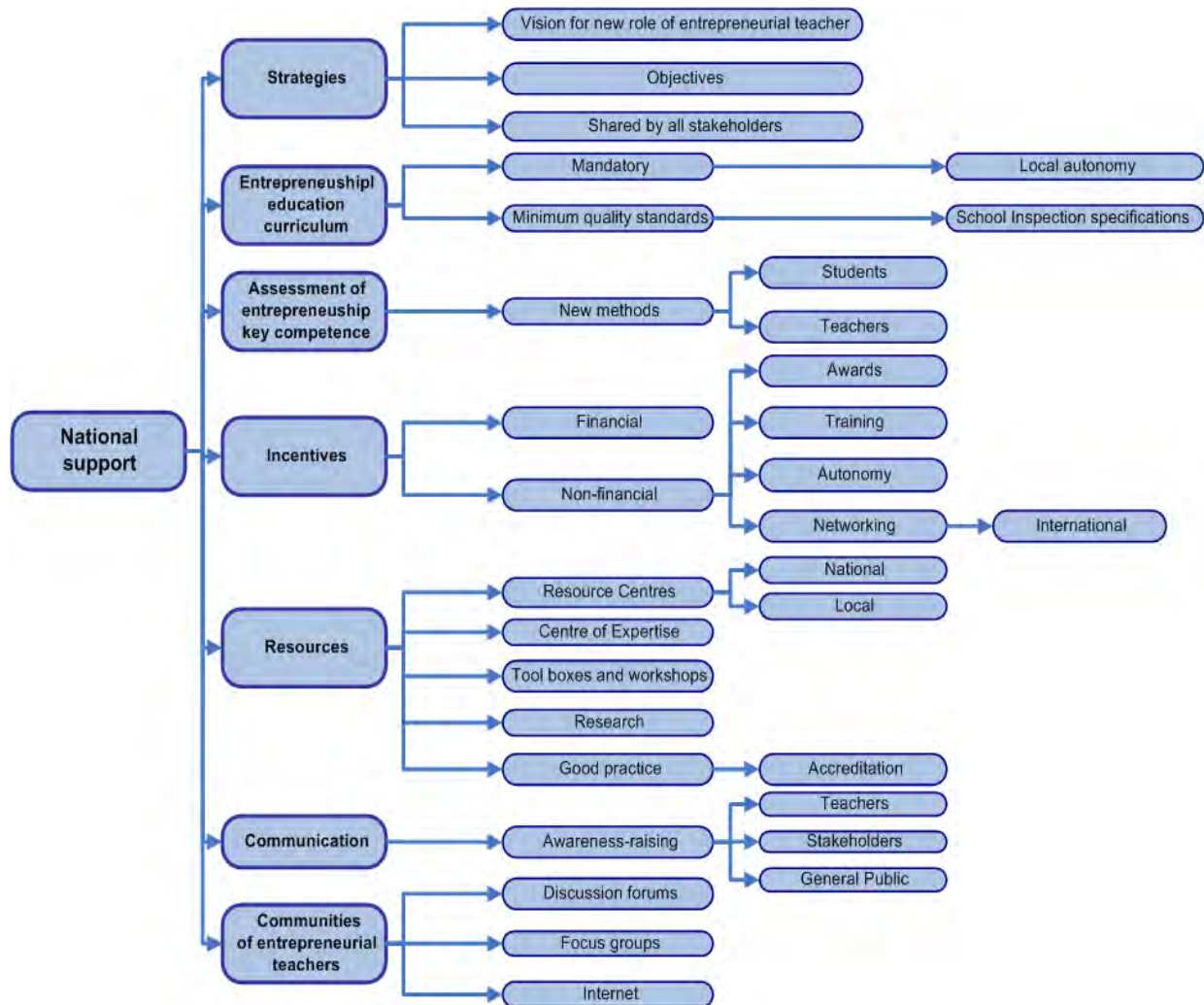


Figure 4.3 Map of national support actions

It is clear that action is required across several domains. Equally, many measures can be built in or linked to existing policy and practice. In general, entrepreneurship education ‘runs with the grain’ of many existing trends in education, e.g. towards learner centredness, greater teacher autonomy, and indeed can be a vehicle for achieving objectives outside entrepreneurship itself (e.g. by developing motivational learning environments across the curriculum which then drive up attainment). It should also be pointed out that although central stimulation of the necessary changes is essential, it is also important that local flexibility is possible in order that local systems can be created by teachers and schools with the support of their local communities, as described in Chapter 4.2. The entrepreneurship agenda requires the exercise of autonomy by teachers and schools in order to develop learner-centred practices for their students.

²⁰ The level of support systems depends on governance arrangements within countries.

Setting an entrepreneurial vision and objectives

The starting point for national interventions should be the establishment of a clear vision for the role of the teacher as learning facilitator in entrepreneurship education and its articulation in national strategies. Teacher developments are an integral feature of a set of common policy indicators presently used by the governments of the EU pre-accession and Mediterranean neighbourhood regions to guide lifelong entrepreneurship education developments. Further, all of the respondents to the Budapest Symposium evaluation questionnaire thought it was important (three quarters thought it was very important) that teacher education be part of a national strategy or plan for entrepreneurship education, while acknowledging that it was often not the case in their country at this point in time. Without such a vision, like that elaborated in Chapter 2, it will be difficult to develop appropriate policy and practice. National plans in this area are in an early stage of development and teacher education still needs to be integrated in the vast majority of cases. Many plans provide broad frameworks for action and these should specify responsibilities and objectives in relation to the education of teachers if entrepreneurship education goals are to be achieved. Implementation is at an early stage therefore and this provides an opportunity to interpret the findings presented in this report into national approaches.

National strategies should be developed and shared by all relevant stakeholders. At national level ministries responsible for education and economics or enterprise tend to dominate (see Chapter 3) but a variety of ministries can be involved in order to bring in all relevant interests (the configuration and number will vary from country to country). The cooperation at European level between Directorate General Enterprise and Industry and the Directorate General Education and Culture is an important model in this respect which should be emulated at Member State level.

It is important that a national strategy is not imposed. Forums are needed where all stakeholders can be involved in developing and implementing policy. Bosnia & Herzegovina provides an excellent example of cross-stakeholder cooperation for entrepreneurship education and particularly where teacher training is considered the predominant factor in ensuring success in the country's entrepreneurship education agenda. Teachers and enterprises themselves, through their social partner organisations, should feel they have ownership of the vision adopted. Equally, the involvement of business and trade union partners is just as vital.

Mandating the entrepreneurship education curriculum

Thus far, progress in entrepreneurship education has often been achieved through individual teacher action and/or through government pilots. At the moment, schools are focused on subjects and targets. There is a lack of time for entrepreneurship education owing to the requirements of the examination system. So entrepreneurship education is tacked on, for example as an enterprise day or extra-curricula activity, perhaps so that schools can 'tick a box' to say it is included in the curriculum. Making some level of provision mandatory by law would ensure a place for entrepreneurship in the mainstream curriculum. The way in which Information and Communications Technology developed and has become embedded in the curriculum is instructive – entrepreneurship education needs to follow the same trajectory.

At the same time, developing the entrepreneurship key competence requires a balance between central prescription and teacher autonomy. Whilst national objectives are important, so too is allowing enough space in the curriculum for testing new pedagogies.

In many countries there is a legal basis for creativity and innovation in education that can provide the cornerstone for a mandate on entrepreneurship education. At national level, teachers can lobby for change by using the argument that entrepreneurship education is a way of hitting existing targets and improving the learning experience, e.g. in maths and language, not necessarily creating new ones.

National/regional administrations should also oversee the establishment of minimum standards of quality; as one Budapest Symposium participant said, 'it can't just be a fun thing'. National administrations have the opportunity to ensure entrepreneurship is reflected in broader education developments such as school inspection or qualification frameworks. The efforts by the Icelandic education authorities to link its work on European Qualifications Framework to key competences, including the entrepreneurship key competence, provided a new dimension to the system-building perspectives' debate in the Istanbul Symposium.

Tuning assessment procedures to the entrepreneurial key competence

As mentioned in the preceding section, it is especially important that the ways in which teachers and students are assessed come in line with the goals of entrepreneurship education. Systems need to recognise and reward teachers for becoming entrepreneurial themselves and for using active learning methods and experiential learning. Student assessment methods are also needed which evaluate them against appropriate criteria related more to the essential features of entrepreneurship such as learning from mistakes, risk taking, innovation and creativity, rather than knowledge acquisition. If such methods don't change, the job of the teacher as facilitator will be impossible to realise fully in practice: teaching and learning are, to varying degrees, organised and adapted to methods of assessment and the types of knowledge, skills and attitudes being assessed so without change in these areas it is difficult to see how the goals of entrepreneurship education will be achieved.

For the teacher, assessment has a powerful impact on what is taught and how it is taught. An Eurydice study shows that while key competences such as mother tongue, foreign language and maths, science and technology are commonly assessed in national tests, transversal key competences like sense of initiative, entrepreneurship and learning to learn are not²¹. Therefore, there are limited incentives for teachers to engage in entrepreneurship education and to apply the teaching methods associated with entrepreneurship. Work by the European Commission²² has demonstrated that although a transversal competence like entrepreneurship is complex to assess, Member States are already developing practice in how to assess aspects like creativity and problem solving. Capturing attitudinal development is possible through systematic and intentional use of formative assessment and broader summative assessment. EU Member States are already developing learning outcomes for entrepreneurship, which need to be coupled to the definition of stages and levels to enable assessment to take place. The EU pre-accession countries as a collective (excluding Iceland) have worked up a set of entrepreneurship learning outcomes for lower secondary education, as noted in Chapter 3.

²¹ Education, Audiovisual and Culture Executive Agency (2009) National Testing of Pupils in Europe: Objectives, Organisation and Use of Results.

http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/109EN.pdf

²² European Commission (2010) Assessment of key competences. Draft Background Paper for the Belgian Presidency meeting for Directors-General for school education, 8 July 2010

<http://www.kslll.net/Documents/Draft%20Background%20Paper%20on%20Assesment%20of%20key%20competences%20final.pdf>

Getting the incentives right

Along with the development of assessment procedures, national education systems should ensure that they incentivise teachers to become learning facilitators. All systems, by their nature, provide both formal (intended) and informal (perhaps unintended) incentives for people involved in them to act in certain ways. For teachers the way they teach is a consequence of a variety of formal factors, including: their professional education; the pay they receive; the systems that assess their performance and determine their promotion prospects. But other less formal elements can also be significant including the extent of autonomy teachers experience and the opportunities for networking with colleagues, including at European and international level. All such elements, and others besides, should point in the same direction, and specific incentives should be developed such as awards for good entrepreneurial teaching practice, and further training opportunities. Special regard should be paid to ensuring that 'perverse incentives' which discourage teachers from becoming facilitators despite the overall policy intention are addressed.

Providing teachers with appropriate resources

As noted in Chapter 4.1, teachers need appropriate resources if they are to be able to work as facilitators of learning. Whilst the teaching community itself, which includes researchers and other experts, is best placed to know what resources it needs, national level support will be required to identify, bring together and disseminate them.

The virtual learning environment for entrepreneurship education – University of Turku, Finland

The Virtual Learning Environment for entrepreneurship education developed by the University of Turku, in Finland, provides an example of an attempt to create an online platform with the aim to tackle the lack of information, of learning material and of networking in teacher education in entrepreneurship. The objectives of the Virtual Learning Environment are to create dynamic models for entrepreneurship education, to enable networking between developers of entrepreneurship education and to support teacher educators by contributing to the development of pedagogies, strategies and curricula for teacher education in entrepreneurship.

The project, which started in mid-2010, will be implemented throughout the period 2010 – 2013. In 2011, it brings together 26 partners. Early results indicate changes in strategy and curricula development in teacher education, as well as an improvement in teachers' pedagogical readiness to implement entrepreneurship education. Through the project, the Finnish network has also been strengthened.

Resource centres are needed at both local and national levels. Budapest Symposium delegates stressed that these should be constituted so that partners do not waste time 'reinventing the wheel': teachers and teacher educators need to be provided with opportunities for finding what already exists and growing it.

Resource centres should therefore be close to practitioners so that easy-to-find tools, methods and good practices are available. Networking is important, perhaps with the help of web tools. Teachers also need training, coaching and mentoring. Workshops are valuable to share experiences and build common

understandings. In fact, workshops are needed for all relevant actors, including parents and businesses, to share knowledge.

The South East European Centre for Entrepreneurial Learning (SEECEL) provides a good example of a cost-effective facility which supports teacher trainers from the Western Balkans and Turkey to co-work teacher developments, share experience and good practice and promote networking. SEECEL experience shared into the Istanbul Symposium generated discussion and interest as to a similar support facility for the Southern Mediterranean region to develop common teacher support materials and methods.

One of the recommendations from participants in the Budapest Symposium concerned the possible creation of a resource centre at European level (see Chapter 5).

Trans-national laboratory on teacher developments in entrepreneurial learning: South East European Centre for Entrepreneurial Learning

The South East European Centre for Entrepreneurial Learning (SEECEL) is an institution which evolved out of the EU's enterprise policy monitoring framework in the EU's pre-accession region. On the basis on a multi-country interest in cooperation on entrepreneurship education, the Centre receives support from the European Commission and the Croatian Government. Eight countries are supported by the Centre where both education and economy ministries make up the Governing Board.

The Centre's activities are built around multi-country experts teams working on entrepreneurial learning curriculum and outcomes, pre-service and in-service teacher training and innovative approaches to promoting the entrepreneurial school. Within the pre-service strand, SEECEL is working with one university (education and other faculties which prepare teachers for subject-oriented teaching) from each of the 8 participant countries to develop pre-service entrepreneurship teacher training with particular reference to the entrepreneurship key competence. An optional course at the universities focuses on the role of the entrepreneurial school and the development of entrepreneurial characteristics in students.

SEECEL's in-service training support is offered at two levels. Firstly, at national level (education agencies) with a view to policy enhancement and monitoring arrangements. Secondly at school level, where teachers trained road-test the teaching principles and methods in 32 schools across the 8 participant countries (2011-2012). Given interest in sustainability of developments in the school environment, training of school directors is a core area of SEECEL's work.

A critical question is how end users can be sure that materials and tools are of high quality and fit for purpose. Pedagogies and didactic tools should be based on good quality research. A conclusion of the Istanbul Symposium was that, given the relative newness of the lifelong entrepreneurship education drive, there is a clear need for more systematic and longitudinal research to support policy makers and the teaching profession in determining 'directions and corrections' to the entrepreneurship education drive. Research studies are thus needed to underpin action. Additionally, over time resource centres might develop into national Centres of Excellence in entrepreneurship education with a role in accrediting the quality of teaching and learning materials. There should be one in each country.

Online training for primary school teachers – Valnalon, Asturias, Spain

Valnalóneduca, a project supported by the Asturias regional government and aimed at fostering the emergence of young entrepreneurs, developed an Entrepreneurship Education Online Training course for primary school teachers, which is implemented since 2005. Teachers acquire in-depth knowledge of *Emprender en Mi Escuela* (EME), a mini-company project for primary schools. The course's robust and coherent methodology provides a set of tools to develop sense of initiative and entrepreneurship key competence in a primary school setting.

The project identified two obstacles to the development of entrepreneurship education in primary schools: the absence of a broad perception and understanding of entrepreneurship education among primary school teachers and the lack of practice-based pedagogical tools. The project addressed these problems by developing a training programme which had the following three objectives: to raise awareness of entrepreneurship education among primary school teachers, to help teachers adopt more entrepreneurial learning styles and to provide practice-based methodologies to develop entrepreneurship in primary schools.

Participants enrol on a voluntary basis. The online nature of the course offers greater flexibility for them, especially at a time where extra-pressure is put upon them to perform a number of additional administrative and other work, while they also benefit from the personal follow-up by Valnalon tutors, with options to adapt the training to individual needs and availability, as the content of the course is modular and scalable, which allows adaptation at a minimum cost in terms of time, money and resources. As part of the efforts to ensure broad participation, the organisation also published a “how-to” guide targeted at those teachers with limited ICT skills and experience.

In 2010-2011, 48 teachers were enrolled in the training programme. The course is recognised by the official regional teacher training institution, and demand grows every year, including from sectors outside the primary target, such as early years education teachers.

Communicating the message

Alongside the development of vision, objectives and concrete support to teachers, it is also important that national/regional communication plans are put in place. Without effective means of communicating the message, there is a risk that the vision of the teacher as facilitator will not be absorbed and acted upon. Communication strategies should:

- target teachers in order to better inform them about entrepreneurship education and the essential functions they have; teachers need to know about the purpose of entrepreneurship education, the intended outcomes for students, and the teaching, learning and assessment methods associated with effective entrepreneurship education;
- target other stakeholders at all levels of the education system to better inform them about teachers' role and how they might support teachers going forwards;
- raise awareness amongst the general public of the need for change within education to support learning for the entrepreneurship key competence.

The methods used to deliver these communication strategies naturally need to be appropriate to the group in question, but the whole gamut of traditional and modern methods (e.g. social media, information events) are potentially valuable.

Entrepreneurship in the School – Germany

The German Federal Government's initiative called "Entrepreneurship in the School" (Unternehmergeist in die Schule) is a network aimed at fostering awareness of entrepreneurship education among teachers and encouraging them to integrate entrepreneurship education into their teaching. This is achieved by:

- promoting successful entrepreneurship education projects;
- supporting teachers with a wide range of material;
- making teachers more familiar with the entrepreneurship education approach.

The programme also offers teacher training workshop and infoletters which keep the network together, resulting in the ongoing development of "social community" of professionals with an interest in entrepreneurship education.

The initiative started in 2009/2010 and works on a voluntary basis. In 2011, the network counted with 12 organisations representing 23 initiatives. The Ministry takes the coordinating role and provides financial and political support. As such, the approach has a relatively low financial and administrative cost for the national government.

Developing communities of entrepreneurial teachers

If teachers are at the centre of entrepreneurship education, then they should be supported in developing their own communities of interest around the topic. Teachers already form subject-based professional communities. These share experiences and practice (formal and informal) and provide general support to their memberships. Their activities include online discussion forums, newsletters, conferences, seminars etc. When at their most developed they uphold professional standards and provide advice on matters of curriculum and pedagogy to policy makers. Equally, in practice, these communities vary in their scale, capacity and ability to sustain themselves, depending on a variety of features. New, cross-curricula communities, such as those that would need to be built around entrepreneurship education, might struggle to establish themselves 'spontaneously', since teachers have their own subject interests. They may therefore need support to get started. Yet they have the potential to play an important role, spreading the message about the merits of entrepreneurship education teacher-to-teacher. As one Budapest Symposium delegate commented: a process is needed whereby teachers can 'virally infect' one another about entrepreneurship. Since entrepreneurship education is a new 'frontier' subject, teacher communities would also play a vital role in spreading good practice and stimulating innovation.

Given that entrepreneurship education in third-level education is relatively more developed, benefiting from the wider business studies experience, participants at the Istanbul Symposium saw opportunities in building on the third-level experience. Firstly, the case of Morocco demonstrated how national dialogue on third-level entrepreneurship promotion, including teacher readiness, had been catalytic in generating reflections on how the earlier education system could more strategically accommodate the entrepreneurship education agenda. Secondly, third-level education practice of summer workshops and training sessions for teacher development could be also undertaken for primary, secondary and

vocational education to ensure wider access of teachers to training opportunities. Thirdly, participants underlined that teaching practice associated with curriculum and learning outcomes needed to be sequenced across the learning system. Hence, primary, secondary, and vocational education teachers need to create linkages between themselves as well as with the university system to ensure a coordinated approach to the teaching of entrepreneurship based on a lifelong learning model.

Stimulating Entrepreneurial Education and Training (SEET) – Transnational programme

SEET is a transnational network bringing together people and organisations, interested in Entrepreneurial Education. The project, funded by the European Commission through the Leonardo da Vinci Programme, is led by SYNTRA Flanders, with partners from Iceland, the Netherlands, Norway, Spain, Sweden and the UK (Wales). The network aims to improve the valorisation and dissemination of teacher education policies, methods and instruments to stimulate entrepreneurship in (vocational) education and training and to enhance the transfer of entrepreneurial competences to young people and adults.

Network activities include:

- Supporting a transnational network on entrepreneurial education, linking up with other networks in the field.
- Setting up innovative projects in the area of entrepreneurial education, for example transnational benchmarking.
- Organising Study Visits, Transnational Events and Regional Activities in the field of entrepreneurial education and training.
- Maintaining an internet-based Transnational Knowledge Centre on entrepreneurial education and training and supporting the LinkedIn SEET Group.
- Facilitating discussion amongst stakeholders, including policy makers, organisations with a responsibility to promote the implementation of entrepreneurial education and practitioners.

SEET has facilitated the development of innovative practices and their transfer, including from one participating country to others. The impact from the SEET Project has been significant, not only for the SEET Partners, but also for other organisations and teachers who have participated in the SEET Events. The SEET project is also reported to have had significant impacts on national Entrepreneurship Education and Teacher Education for Entrepreneurship policies in participating countries.

Implementation: stakeholder roles

It is clear from this Chapter that a wide range of support measures are required at national/regional levels to support teacher education for entrepreneurship. Member States need to have clear frameworks within which these measures can be prioritised and coordinated, and this highlights the need for well-developed strategies to be created by ministries with responsibilities in this area (e.g. education and economics/enterprise ministries). In most countries teacher education is still waiting to be fully articulated within wider strategies that deal with entrepreneurship education. It is equally important that Member States move towards mandating entrepreneurship education within curricula so as to ensure it becomes part of the mainstream and not marginalised as an extra-curricular activity. An essential complement to

these activities are effective communication strategies which convey the need for change to teachers, stakeholders and the public in general.

Authorities with responsibilities in education also need to make sure that assessment procedures for students are tuned to the entrepreneurial key competence : many traditional assessment methods are designed for assessing the acquisition of bodies of knowledge and these are not appropriate for assessing the acquisition of skills and attitudes. Teachers inevitably focus on helping students to pass examinations so having the right assessment methods is absolutely vital if the efforts that will go into teaching education processes are to bear fruit. Stakeholders from the European level downwards can clearly play a role in helping to develop and share experiences in these areas.

More generally, the incentives and resources available within education systems need to be adapted to entrepreneurship education. Educational authorities need to play an important role in structuring incentives and removing obstacles to teachers becoming facilitators of learning. Making the right resources available can involve a broad range of actors including businesses, social enterprises and NGOs.

The development of communities of entrepreneurial teachers should involve a combination of bottom-up and top-down action. Clearly the onus is on teachers to come together but national and European level actions can support the process.

4.4 Continuing Professional Development

Continuing professional development has a critical role to play in the development of entrepreneurship education since it concerns the existing teaching force in Europe. At the start of this Chapter we drew attention to two of its key features: it comprises formal, non-formal, and informal learning; and it relies heavily upon the school context, particularly with regard to the non-formal and informal elements. A further relevant feature is the high degree of variation across Europe in the nature of continuing professional development. Research regarding primary and lower secondary education²³ has shown that in some countries this is a professional duty (e.g. in UK, Germany, Finland), in others it is optional although necessary for promotion (e.g. in Spain, Portugal, Poland and Slovenia), whilst in some countries it is completely optional (e.g. Italy, Greece, and Denmark). Some countries take a mixed approach (e.g. France and Sweden). Typically on average nine out of 10 teachers take some form of continuing professional development, although in some countries up to one in four teachers has none at all. The introduction of entrepreneurship into continuing professional development therefore takes place in a highly varied context.

We saw in Chapter 3 that at the present time in-service training for teachers in entrepreneurship education tends to depend heavily on provision offered by external actors such as business organisations and NGOs, and on specific programs organised by ministries of education. In our sample instances where in-service training is mainly available in single schools and on the initiative of those schools are rare. At the same time, the development of entrepreneurial teachers and entrepreneurial schools needs to proceed hand in hand if entrepreneurship education is to be realised as an entitlement for all teachers and students (as described in Chapter 2). The consequence of this is that teachers' continuing

²³ DGEAC and OECD (2010) *Teachers' Professional Development: Europe in international comparison*. Data for 2006/07.

professional development is necessarily an integral part of schools' strategies to become entrepreneurial. Continuing professional development for entrepreneurship will only succeed where schools have a clear vision and objectives about how they want to realise entrepreneurship education as a whole. Essentially this is therefore a matter for local school action which involves schools looking both inwards to their own practices and outwards to the local community. National policy and practice also has an important role to play.

This conception of continuing professional development clearly involves an inseparable relationship between teacher education and school development. However there is value in treating them separately. In this Chapter we focus on the actions required within schools that are most directly related to the professional development of teachers. The next Chapter examines the broader issues that schools need to take on board including their engagement with the local community. Figure 4.4 provides a summary of the elements to be dealt with in this section.

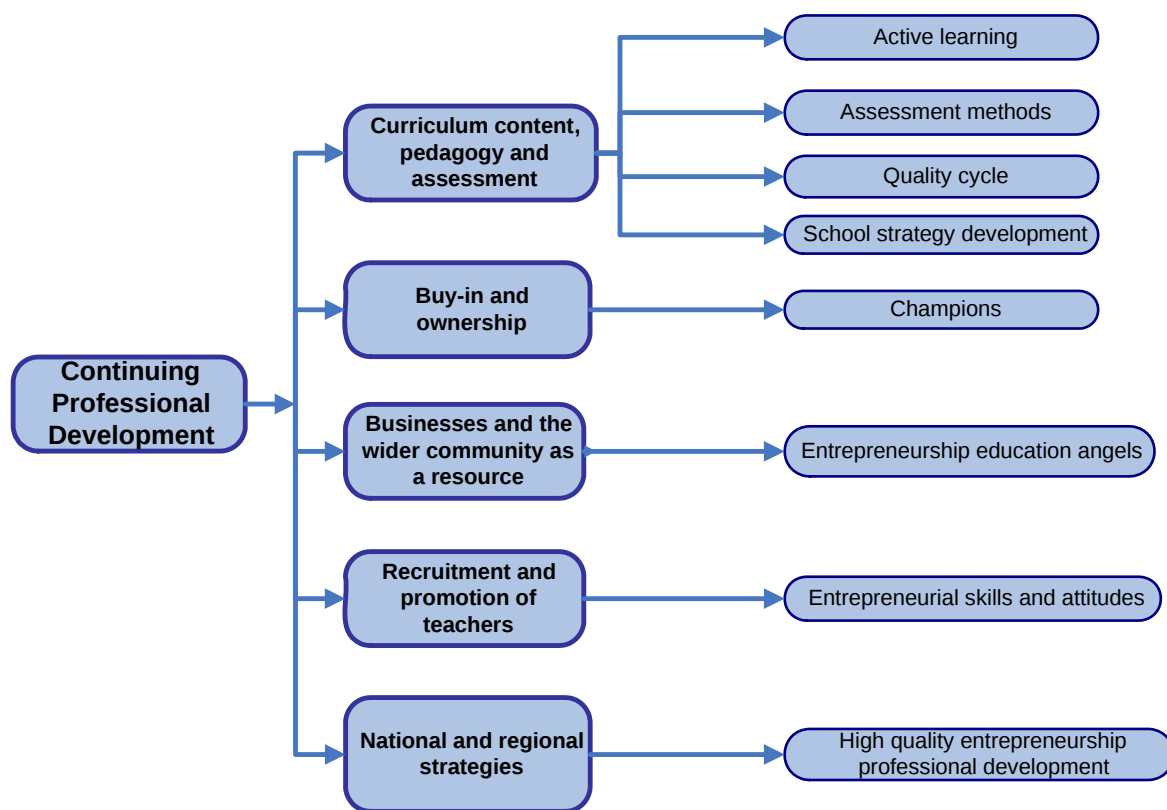


Figure 4.4 Map of actions involved in Continuing Professional Development

Curriculum content, pedagogy and assessment

As discussed in the Chapter on initial teacher education, the curriculum and pedagogy of entrepreneurship needs to be focused on providing teachers with active learning opportunities in experiential environments, and using appropriate assessment methods. Continuing professional development is no different. However, at school level there is the opportunity to make continuing professional development part of the process by which a school seeks to become an entrepreneurial institution. This offers many benefits: it means that entrepreneurship continuing professional development is not an 'add on' but an integral component of a programme of activities, that teachers are

not isolated 'champions' who risk becoming burnt out, and that the likelihood of the continuing professional development leading to lasting change is increased.

This approach means that continuing professional development should be structured around a 'quality cycle' that involves developing a vision, planning a strategy, delivering programmes and assessing and evaluating learning outcomes. Staff should have access to a 'menu' of continuing professional development choices that flow from the over-arching strategy (Figure 4.5). This can be conceived as comprising four elements – content, planning, delivery, and assessment and evaluation – as shown in the following table.

Figure 4.5 Example of a menu for continuing professional development in an entrepreneurial school²⁴

Content
• Challenging the myths surrounding entrepreneurship education • Developing whole school, cross curricular, vision and policy statements • Embedding the ethical and moral dimensions of entrepreneurship • Ensuring compliance with national statutory curricular requirements and identify learning objectives • Addressing the school improvement agenda • Engaging senior managers to create an entrepreneurial school culture • Addressing the 'hidden curriculum' of school bureaucracy and engendering a 'can do' attitude
Planning
• Auditing existing provision and action planning for future development • Staffing/coordination/resourcing – the role of entrepreneurship education coordinator • Complying with statutory regulation re Health and Safety, Public Liability and Child protection • Embedding of Equality Opportunities best practice • Design of real business challenges • Achieving coherent, progressive, comprehensive and inclusive curriculum coverage • Ensuring student voice and briefing
Delivery
• Supporting student centred active learning opportunities • Addressing the diversity of student learning styles • Student Skills development – team working, problem solving, decision making, risk taking • Personal Finance education for young adults • The production process as a mini business • Engaging support from the local community and from the business world • Identifying off site learning opportunities • Facilitating local Business Mentor involvement
Assessment and Evaluation
• Assessment for Learning (AFL) and Assessment of Learning (AOL) -Tracking, mapping and reporting student progress • Student peer review • Generating Local Business/community feedback • Reviewing progress and forward planning for programme improvement • Designing dissemination and celebration events

²⁴ Centre for Education and Industry, University of Warwick, England

This approach makes it possible for continuing professional development to be much more than one-off teacher seminars and conferences. The most crucial formal continuing professional development will often take place within the home institution, be run and managed by the school teaching staff and designed to address very specific issues identified by the school itself within its entrepreneurship education strategy. As with any entrepreneurship learning, these continuing professional development events should feature learner-centred approaches that require active engagement from all attendees. The school's strategy should also actively enable non-formal learning.

Quality Framework and National Standard for Enterprise Education - Centre for Education and Industry at the University of Warwick, UK

The Centre for Education and Industry at the University of Warwick, UK has developed a Quality Framework and National Standard for Enterprise Education for schools in England. The National Standard for Enterprise Education has been designed to provide a quality review process and mechanism for recognising and celebrating good practice in enterprise education. It has been produced by a team of staff at the Centre for Education and Industry, the University of Warwick, which has specialist experience in entrepreneurship education.

The National Standard quality framework is organised into five elements, each of which describes and identifies quality processes including:

- The vision of enterprise education in terms of concept and communication;
- Conducting an enterprise education audit;
- Planning and managing enterprise education;
- Delivering an enterprise education curriculum;
- Assessing and evaluating enterprise education.

Each element contains a list of requirements for schools to complete in order to meet the Standard and a brief descriptive explanation of the type of documentation which may be submitted along with specified evidence which must be included with any submission. The target audience was very broad and a wide range of schools (Primary, Secondary and Special) subsequently accessed the self review materials. Several regional teacher support networks have also used the materials as a benchmark for their provision and as the basis for designing their continuing professional development programmes. Reports suggest that teachers and their mentors value the provision of clear guidelines to support the provision of high quality enterprise education. They also respond well to the flexibility built into the requirements which allows for local priorities to be addressed whilst still complying with the basic criteria.

Learning opportunities can be built into the strategy development process itself. For example, continuing professional development sessions would support staff to audit their existing provision and draw up an action plan for change. Starting with the school improvement policy, continuing professional development provision would be driven by a requirement to identify opportunities for students to experience and learn through, for and about entrepreneurship. Staff would be offered training in teaching and learning methodologies that support a student-centred approach and the full range of entrepreneurial competences including team working, decision making and risk taking. Potential learning activities would be selected as to their suitability using the CEI²⁵ Four Essentials for Quality Enterprise Education framework:

- Learners are set real challenges;
- Learners take responsibility for their own learning;
- Learning is supported by community partners;
- Learning generates real solutions.

Other activities that can provide a starting point for entrepreneurship education include: undertaking an audit of local employers to ascertain their skill needs and their future demand for labour so as to identify and plug the gaps in provision; and inviting teachers and students to develop classroom curriculum projects which will have a demonstrably positive effect on the local community to kick-start a process of institutional review and renewal.

Golden opportunities : Closing the books a little more often – The Dutch National Centre for Curriculum Development (SLO), Netherlands

SLO, the Dutch national expertise centre for curriculum development, offers training courses to teachers, school directors and wider stakeholders who wish to develop, implement or contribute to entrepreneurship education programmes. The training for teachers consists in two consecutive courses. The core principle of SLO's training programme is that "being entrepreneurial is about behaviour".

The first one is called "Excelling" and is run over three days. The objective of this course, focused on attitudes and behaviours, is to stimulate the entrepreneurial behaviour of the teachers. Participants work on their own development as an entrepreneurial individual. The course hopes to kindle the entrepreneurial flame, by providing teachers with first-hand experience of what it means to have an entrepreneurial attitude. Participants learn to look at things differently, they must reflect on their own talent and the talents of their students, they must make contact with the 'outside world' and link entrepreneurship and education.

The second course is called "Arranging" and is run over two days. The aim of this course is for teachers to translate the entrepreneurial fire into teaching practice. Participants are taught how to arrange entrepreneurial lessons – from and for their own teaching practice, in cooperation with entrepreneurs from outside the school, with links being drawn with education frameworks and objectives. Participating teachers are expected to design their own entrepreneurship education courses, using all characteristics of entrepreneurship.

²⁵ Centre for Education and Industry, University of Warwick, England

A teacher who took part in the training gave the following testimony:

"I went on a course that has helped me to bring more entrepreneurship into our school. For instance by teaching me how to present my story within a three minute time period and to present a business plan to the directors. I worked very hard to promote my plan of starting a production agency for students. Our school organises many cultural and artistic activities, and the (senior) students who work for the agency take care of catering or the sound during a show or an event. It is a great challenge for students who prefer to work behind the scenes. They learn to organise things, to approach people and they learn how they can be a contact for clients. In addition I hope to enthuse more colleagues so they will help develop an entrepreneurial attitude with our students".

Buy-in and ownership

It is important that continuing professional development for entrepreneurship has teacher buy-in and ownership. As already noted, the evidence suggests that teachers readily embrace the broad definition of entrepreneurship based on creativity and initiative. Nonetheless, many – probably most – existing teachers have little or no experience of entrepreneurship education and perceptions of what it means vary greatly. All teachers should be encouraged to see these developments as a way of enhancing their teaching experience and it is important to effectively communicate entrepreneurship as a key competence. Also, one recommendation from the Istanbul Symposium was that more developed and structured discussion and engagement with the teaching profession was necessary. Teacher trade unions and other professional associations should be formally engaged into processes which had evolved from singular interest groups. The risk of poor buy-in or rejection by teacher bodies in the medium-term would be minimised by their immediate and more formal inclusion into the entrepreneurship education development agenda.

Municipality of Botkyrka, Sweden

In-service training can change teachers' attitudes towards entrepreneurship: teachers' feedback on a four-day entrepreneurship education training organised by the municipality of Botkyrka, in Sweden, showed that participants who might be initially hesitant to attend, often ended up finding the training "useful", "informative" and "thought-provoking". The message conveyed to participants was that transversal competences such as "creative thinking, innovation, networking and fund-raising" can be applied to a number of career choices and raise students' employability.

Much work needs to be done to dispel the 'myths and legends' surrounding entrepreneurship and entrepreneurial education. In the Chapter on national support we described national measures in this respect, and at school level these can be complemented with the use of teacher entrepreneurship champions. There is a strong argument for starting to work with those teachers who have already been convinced of the benefits of entrepreneurial education - the converted. These teachers not only understand the issues but they can also share their experiences with other teachers who may be less certain about the perceived advantages of adopting such an approach. Teacher champions can be important in the early stages in selling the benefits of entrepreneurship to their colleagues and therefore developing buy-in to the concept and eventually collective ownership of the strategy.

Federal Ministry for Education, the Arts and Culture, Schumpeter Handelsakademie, EESI Team (Entrepreneurship Education as School Innovation), Austria.

The EESI Centre is founded and financed by Austrian ministry of Education at the Schumpeter Handelsakademie (Secondary College for Business Administration). The aim of the Centre is to encourage teachers of secondary schools and colleges to develop entrepreneurial spirit in their students whilst teaching the hard facts of entrepreneurship and management skills across different types of school in Austria. The EESI Centre offers seminars and teaching materials and co-operates with regional teams in all the 9 federal countries of Austria to offer support. The approach was implemented 10 years ago and is still spreading across secondary (and also elementary) schools.

The Centre's work has helped to increase motivation and knowledge for the entrepreneurial teacher and has made positive contributions to teaching materials, curricula and training development. The key strengths of the activity are that teachers are involved with training other teachers which is effective in promoting mutual support and the sharing of information. The co-operation with universities and institutions of teacher education has also been key to the success of the project. Initially it was found that entrepreneurship education was seen as limited to business education and there was some opposition to integrating learning across subjects. However, the involvement of different partners such as various Ministries, the Chamber of commerce, trade unions, the Chamber of labour, and regional enterprises has helped to counter this view. Overall the project has raised the profile of entrepreneurship education amongst head teachers and stakeholders and has contributed to entrepreneurship education having become a well accepted theme in VET curricula.

Businesses: visits, mentors and 'angels'

Teachers, as with any profession, can be reluctant to have their work identified as exemplary but they are more likely to do so through a system of mutual exchange and sharing of good ideas. Teacher visits and placements with SMEs from the local community have been shown to be a very effective means of creating better understanding of the entrepreneurial world.

Business mentorship programmes can be integrated into and lead to the development of wider entrepreneurship education approaches. Under such programmes teachers spend time in local companies, experiencing different types of tasks and encountering different types of business problem, essentially learning by doing.

Employer engagement – Manchester Academy (UK)

"In urban settings qualifications are not enough", said Jane Deflino, Director of Enterprise and Internationalism at the Manchester Academy. In order to use qualifications effectively young people need to develop interpersonal and transversal skills, to build their confidence and self-respect, and to raise their aspirations. It is therefore vital that the development of these skills is embedded across the school. Employer engagement facilitates this.

Manchester Academy uses employer engagement as a key driver in raising attainment and aspirations. Employers offer mentoring, placements, competitions, support for micro-ventures, interviews and a number of other opportunities through which participants gain generic as well as sector-specific skills. Employer engagement started in 2007. The academy works on the principle of 'think big, act small'. *"We plan our work with employers one academic year in advance. Everything is agreed and calendared before the academic year begins. With new employers, we build our successes with one programme and then expand the programme and embed year upon year."*

Initially, some teachers thought it meant an increase in their workload and some employers were nervous about engaging with inner city students. Teachers need to see that employer engagement benefits, supports and enhances the work they are doing, by adding value and realism to what they teach. Teachers engaged in the programme also realised that the costs were lower than expected and implementation easier. They also saw an increase in student engagement and on task behaviour. Building and maintaining good relationships with employers means meetings on and off site, and always being business like.

After 5 years staff now take employer engagement for granted and see it as an essential part of their curriculum delivery. It is built into schemes of work and new projects (which happen all the time) are embraced with enthusiasm. Student teachers are inducted into the programmes – as they often have had no experience of enterprise education.

A further development of such teacher-business relationships can be the 'buddy' system where schools are supported to 'adopt' an entrepreneur who might act as an 'entrepreneurship education angel', which was proposed at the Budapest Symposium. These 'angels' would be recruited from the local business community and, following appropriate vetting procedures, trained to work alongside teachers in schools, to challenge some of the 'myths and legends' about entrepreneurship and entrepreneurs which abound in many quarters. 'Angels' would undergo a school familiarisation training programme and then make themselves available through a local web site to support teachers for up to a week at a time with any challenge which presented itself. They would aim to provide enterprising solutions to the issues faced by teachers and students in and outside the classroom. These mentors would also be encouraged to engage the teachers in discussions about their personal entrepreneurial activity, building an understanding and interest in the entrepreneurial process and life style. The next stage would be to offer those teachers interested an opportunity to learn more about business planning and SMEs in general, ultimately aiming to replicate some of this activity with pupils in a school context. Those mentees with an interest could in turn be trained to work with other colleagues in the school as internal mentors.

NGOs can often play a facilitative role in developing the mainstream entrepreneurship education agenda. The case of INJAZ in Lebanon demonstrates how one organization helps broker business-school cooperation for entrepreneurship promotion while additionally playing a capacity building role within the schools and wider policy environment.

INJAZ al Arab: inspiring and preparing young Arabs to succeed in a global economy

INJAZ Lebanon forms part of a wider INJAZ al Arab network which spans the Arab world. Established in 1999, the Lebanese operation specifically focuses on forging partnership between enterprises and schools drawing on a vast network of entrepreneurs which have signed up to supporting the schooling system in bringing forward entrepreneurship education. Its target is to ensure support services impact on one million young people by 2020.

The crux of INJAZ efforts focus on key competence development, financial literacy and mini-businesses. However, a more innovative line in the entrepreneurship education agenda has been INJAZ's support to teachers with careers guidance and counselling responsibilities. Considered a 'policy blind-spot' in the entrepreneurship education agenda, the focus on careers guidance and counseling within the school environment has engendered wider policy commitment to entrepreneurship education and ensured that young people's employability is now a more critical feature of the education agenda.

The spirit of partnership was captured by Dima EL Khouri, Executive Director of INJAZ Al Arab Lebanon at the Istanbul Symposium. 'Ensuring teachers and schools are prepared for the entrepreneurship education agenda is as much the responsibility of the private sector as the education services', she said.

INJAZ Lebanon benefits from structured cooperation with INJAZ partners from across the Arab world where exchange of experience and know-how is a primary feature of the network's entrepreneurship education promotion drive.

Focusing on entrepreneurship in recruitment and promotion

It is a central principle of entrepreneurship education that learners should become more responsible for their own learning and this applies equally to teachers. As noted, it is common in many EU countries for continuing professional development to be optional. In this context, it is especially important that individual teachers are encouraged to start to perceive the benefits of entrepreneurial teaching styles and prioritise their own professional development accordingly. To assist this process, leadership teams in schools should expect to see evidence of experience with entrepreneurship education when they are both promoting and recruiting teaching staff. Again, this highlights the importance of continuing professional development being an integral component of a school's strategy.

Ensuring national/regional strategies incorporate entrepreneurship in regular continuing professional development

As we saw in Chapter 3, national programmes and external agencies are key to the delivery of continuing professional development. Areas for action at this level would include the following:

- National/regional authorities should ensure that funding for entrepreneurship education continuing professional development is only made available if the training conforms to strict criteria as identified by a quality framework.

- Imaginative programmes should be offered with a broad range of opportunities made available, including SME and other community placements /internships for all teaching staff.
- Regular dissemination events should be organised at a national level to both inform teachers of best practice exemplars and also to celebrate progress being made towards establishing excellence in entrepreneurship education as a student entitlement available to all.

Continuing professional development of in-service teachers – training in delivering entrepreneurship education programmes – JA –YE Europe, transnational

The JA-YE organisation network (based in Brussels) collaborates with national education authorities through its local offices to organise training for primary, secondary as well as tertiary teachers. The training is focused on enabling teachers to use a 'learning by doing' methodology and JA-YE teaching materials. The training is provided locally to 'new' teachers before they teach the programme for the first time. The training of teachers is designed to help the teachers overcome a fear of teaching in an entrepreneurial way and to move beyond teaching in a conservative way to becoming an effective facilitator on entrepreneurship. JA-YE uses existing teachers as multipliers by having them reach out to peers in the same school or same city or region. The project has overcome the negative attitude of some teachers toward “learning by doing” and participatory teaching methods, through providing information about the results at both national and European levels.

In the countries where the JA-YE entrepreneurship curriculum is approved by the Ministry of Education, the training of teachers provided by JA-YE is officially accredited (teachers obtain credits that are recognised within the system of continuing professional development of teachers) or recognised in other ways by education authorities. Teachers are also trained in how to work with volunteers from the business community who are an essential element of all JA-YE programmes at any age. It is recognised that the approach improves performance of students in all standard subjects. The critical success factor of the project's success is the support from the education administration and education institution/school management. A benefit of the approach is that it offers a model which can be easily transferred to other settings.

Implementation: stakeholder roles

Interventions in relation to continuing professional development involve a wide range of actors since it encompasses both national, formal learning opportunities and local, formal and non-formal ones. Critically, continuing professional development should be part of a process of building entrepreneurial schools if it is to be most effective. Without such an approach efforts are likely to be atomised, unsustainable, and have little prospect of building up cumulative effects. Schools will need to play a lead role with support from other stakeholders at local, national, multi-country and European levels.

Schools should ensure that continuing professional development is an integral part of their strategies to develop entrepreneurship education. Buy-in and ownership by teaching staff and also the wider community will be important for success. Schools will also need to ensure that entrepreneurial skills and attitudes are considered in recruitment and promotion activities. National/regional strategies should ensure they support high-quality entrepreneurship continuing professional development. This can be

secured through funding against clear quality criteria, the development of imaginative programs, the dissemination of good practice and the recognition of excellence.

Like for initial teacher education there is a need for a new pedagogies and assessment methods to be developed and implemented. This should involve a wide range of actors to bring together and promulgate existing material as well as developing new approaches based on sound research. Actors at all levels should get involved.

4.5 School level support

In Chapter 4.3 we described the support needed at national level. In this Chapter we examine the support required at local level. This support is especially important for bolstering teachers' continuing professional development. As noted in the preceding section, schools need to transform their everyday practice and we examined how the elements of the entrepreneurial school translate into elements of continuing professional development. Here we concentrate on wider elements of school policy and practice. Without these wider changes, individual teachers who already believe in entrepreneurship education and aspire to the qualities of an entrepreneurial teacher are at risk of being isolated and becoming burned out. Figure 4.6 summarises the developments we shall look at in this section.

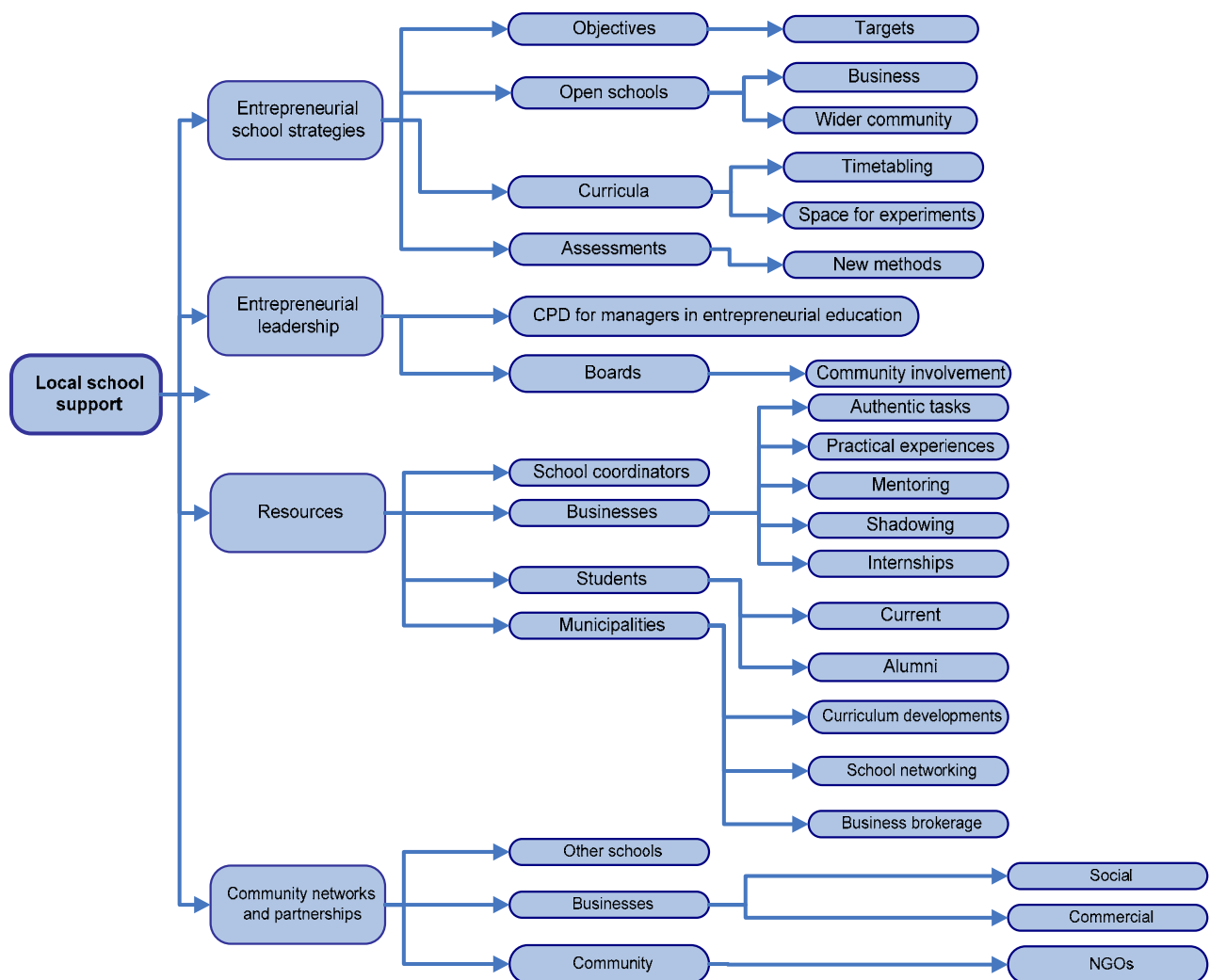


Figure 4.6 Map of local school support actions

Developing entrepreneurial school strategies

At a strategic level, every school should have a strategy that defines its objectives in relation to entrepreneurship education. It should set out how entrepreneurship is integrated into the curriculum, the space to be made available for it and the assessment methods to be used (see Chapter 4.2 for a discussion of these topics).

To get to this point means more than simple superficial adjustments if schools are to become truly entrepreneurial. Staff in individual schools need to work together as a whole school initiative to develop an entrepreneurship education ‘cultural journey’ which describes their process for delivering their vision of an entrepreneurship entitlement for all learners. This vision/mission statement should be an organic development generated from their understanding of the local community and aimed at equipping their learners with the entrepreneurship key competence. Staff may well need to accept the need to transform their organisation from a bureaucratic structure to an entrepreneurial learning environment that acknowledges the power of the ‘hidden curriculum’ as much as or more so than the formal programmes of study. The institution should develop as a flexible learning organisation that allows time for staff and learners to reflect on their practice and develop responses.

Schools need to ensure they define entrepreneurship education in a way that promotes ownership of the definition: teachers, students and the local community need to influence the definition. There needs to be a shared understanding of entrepreneurship education, what the educational outcomes should be and what the minimal provision should be in schools in order to achieve them. It is important that the right balance is struck: broad definitions might be too vague for some teachers and/or encourage them to think that it is all about creativity and therefore that they are already teaching it. Yet narrow definitions may make some teachers feel excluded.

Holistic approaches are needed that reflect the nature of entrepreneurship. One approach to this is to focus on making education more relevant to real life and on defining the skills that need to be acquired, linking them to the needs of different stakeholders. The EU key competence framework for lifelong learning²⁶ is a step forward in this respect and can provide a means for interpreting entrepreneurship competences into different education levels, as in the European Qualifications Framework²⁷.

Entrepreneurship education also means young people working on real-life issues within their community and formulating practical solutions. It means problem-based learning in which there are no wrong answers, only solutions that are more or less feasible. It is a design approach to learning that uses both sides of the brain and can call on the resources of the whole community.

School strategies should thus recognise that entrepreneurship education means a completely different outlook on education. It means seeing education as part of the community. "It takes a village to educate a child". Ultimately, the wider community needs to actively participate and not just be a passive provider of resources. To start this process schools need an open door policy that makes them accessible to the local community. A school cannot be a closed system; it should develop porous boundaries so that it can learn from and reflect the local community, making use of the skills and attributes that lie there. Schools boards need stronger community representation; and school buildings need to be designed to facilitate all kinds of activity supporting school-business cooperation. As far as a school's strategy is concerned, it should be owned by all parties, including students, teachers, parents, municipalities, chambers of commerce etc. Competitions can be organised locally, with financial support from local authorities, to recognise the best strategy implementation by schools.

Ownership of entrepreneurship education by the whole community involves defining entrepreneurship as a skill set for all. In some contexts, it primarily benefits the most able students, whilst elsewhere it is used to motivate the less able or potentially excluded pupils who thrive on active learning methods. There might be different types of entrepreneurship education for students with different talents.

²⁶ Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning (2006/962/EC), Official Journal 30.12.2006; <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32006H0962:EN:NOT>

²⁷ Recommendation of the European Parliament and Council of 23 April 2008 on the establishment of the European Qualifications Framework for Lifelong Learning (2008/C 111/ 01), Official Journal 6.5.2008; <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:111:0001:0007:EN:PDF>

Entrepreneurial school leadership

There is a wide literature demonstrating the importance of leadership in the effectiveness of teaching and learning within schools. Entrepreneurship education is no exception in this regard. At the same time, opening up schools to the wider world and involving the business community and the local community more widely can constitute a major challenge to traditional norms and approaches within education, and without the full support of the leaders of our schools, achieving entrepreneurship education will be an extremely difficult task. Whilst local communities have a very important role to play, it is head teachers and senior school managers who have to set the overall framework within which local goals are achieved in practice. School leaders thus need to have a clear vision of what they hope to achieve through entrepreneurship education, a vision that should be shared with their teaching staff. Without this vision, allocating resources in the most appropriate ways is unlikely to be successful.

For these reasons, school leaders should be given attention in national and regional strategies with regards to entrepreneurship education. Entrepreneurship education needs to be included as part of school leaders' own continuing professional development, and they should also be identified as separate target groups in national and regional communication strategies. School leaders need to understand the new role that teachers should perform as facilitators, so that they can identify the best means in which to support their teaching staff both through informal learning opportunities and formal episodes of continuing professional development.

Golden opportunities : Closing the books a little more often – The Dutch National Centre for Curriculum Development (SLO), Netherlands

SLO developed a course specifically aimed at and designed for school managers and directors, which runs in parallel to its teacher training in entrepreneurship education. The managers' 3-day course is aimed at helping school directors understand which values are essential to an entrepreneurial school, what entrepreneurship demands from them as directors and from their staff, as well as providing them with the tools to convince others to implement entrepreneurship education. Directors can then act as multipliers in their schools, as testified by this director who participated to the programme: "entrepreneurship education means a changing role for teachers. They must see opportunities themselves, think outside the box and be creative. I call that competence entrepreneurship. As a school, you can stimulate this, you can enthuse people. Forcing them does not work. We started to focus on entrepreneurship three years ago. Now we have ten to fifteen teachers that are very interested in this way of working. They feel challenged".

Resources

School strategies should identify the resources they need. Designating a teacher as the school entrepreneurship coordinator can be important for strategy implementation. There are also enormous opportunities to use skills and expertise within local communities. This is especially important with regard to businesses and entrepreneurs. Firms often do not know either how to participate or which activities they are allowed to participate in. Sometimes they need incentives to take part in entrepreneurship education. They need to be sold the benefits of internships and placements, and for entrepreneurship education to be linked into their products and services. Municipalities as well as individual schools can play a role here. They can be especially helpful given the variation between schools in the scale and

breadth of the local community, helping schools in areas with a smaller entrepreneurial base with access to businesses. But opportunities are available everywhere and schools should make use of all channels, including parents' connections. Intermediaries like chambers of commerce can also facilitate interaction between businesses and schools. This helps to establish a common language between commercial entrepreneurs and schools. There are instances across Europe where local business communities/Chambers of Commerce have instigated community involvement awards for local schools with an annual award ceremony similar to the 'Oscars'. These events recognise and reward the efforts required to develop and sustain effective employer links.

Another source of support is students. Many current students have work experience that can provide teachers with a useful resource. Past students' talents can be utilised systematically through alumni networks. They can be used as role models and ambassadors to share successes and failures.

Initially, a school's engagement with its community may be opportunistic and ad hoc. Over time, however, the goal should be to establish regular, structured and sustainable collaboration, moving from individual teacher-entrepreneur links to corporate school-business networks and partnerships.

Community networks and partnerships

As well as developing effective strategies for community collaboration, it is also important to ensure that opportunities are made available for schools to cooperate with one another. Partnership, networking and good practice exchange should be supported at local level. Such measures can help schools to develop mutual support mechanisms. These can help them to learn from one another's experiences, and perhaps to pool resources and share connections with local communities, including entrepreneurs.

Opportunities for networking should also be developed at European level. Indeed alongside opportunities for schools and teachers to share experiences, opportunities for mobility should also be developed for teachers. They should provide opportunities for both face-to-face and virtual interactions, aiming to foster the development of self-sustaining communities of interest. The introduction of a European trans-national mobility scheme should be considered by the European Commission.

Implementation: stakeholder roles

At the level of the individual school the range of support measures that can be undertaken to support entrepreneurship in teacher education is broad ranging. Schools and local municipalities need to take the lead in implementing these measures in the context of national frameworks. These stakeholders need to take advantage of or lobby for the local autonomy they need to make entrepreneurial education a reality.

Schools have the responsibility for developing strategies which have a shared understanding of entrepreneurship education, clear objectives and which are owned by the whole community. Open door policies that make schools accessible to their local communities, enabling them to draw on the skills and talents of local people, are vital. Within schools, leadership teams need to become entrepreneurial if they are to support the spread of entrepreneurship education.

Resources also need to be made available such as in the form of school entrepreneurship coordinators. There is also a need for practical toolboxes and resource centres with a guarantee of quality, which teachers can freely access according to their needs. Opportunities for networking and mutual exchange

should be provided at all levels from local through to European scales. Here there are roles for actors at national and European as well as local levels.

4.6 Conclusions: the need for action in all areas

For teachers to engage in entrepreneurship education as regards both content and teaching and learning methods, a complex combination of knowledge, skills and attitudes is required. This Chapter has described the changes needed in four areas to develop them. None of these elements on its own is sufficient. All four need to synchronise around the goal of creating the right conditions for the development of entrepreneurial teachers. Action is required not only within teacher education systems but more broadly within education systems as a whole to ensure that what teachers learn within their initial education is translated into a new role in day-to-day practice in schools.

Initial teacher education and continuing professional development have the critical task of developing in teachers the competences they need to ensure students benefit from curricula and pedagogies designed for entrepreneurship rather than those suited to more traditional objectives centred around the acquisition of subject knowledge. 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.

This Chapter has also shown that developing teachers as facilitators requires wider changes within education systems to establish a clear vision of the teacher's role and to ensure that system-wide frameworks support rather than discourage the developments required. Developments at school level are critical to support both existing teachers and those newly entering the profession. This requires action both within and outside the school. Within the school a supportive environment needs to be created which will enable teachers to put into practice their entrepreneurship education. Outside the school mechanisms need to be put in place to facilitate the structured involvement of the entire community - businesses, social enterprises, parents, students, alumni, local municipalities, and others.

5.0 Moving Forwards: an agenda for change

This Chapter of the report draws on the preceding sections to identify key actions to support future developments in entrepreneurship education for teachers. There are two elements to this. First, it draws together and consolidates the material presented in chapter 4 to present an agenda for action. Secondly, it identifies actions to be taken by the European Commission in the form of a set of recommendations.

5.1 The context for action

For the purposes of determining actions, both teachers and schools should be treated as part of a linked 'system'. Actions to support teachers will inevitably support the development of quality in schools and vice versa. Whilst initial teacher education plays an important role in teacher development, actions also need to be directed at the community of teachers already teaching in order that momentum can be gained in progressing entrepreneurship education. The importance of in-school and continuous teacher support reflects the fact that teachers will spend most part of their professional lives in schools, and also the current trend in education systems towards decentralisation to schools and increased autonomy for teachers²⁸. In this context, national policy and guidance are increasingly tending to take the form of objectives and frameworks of support rather than the prescription of requirements and inputs. Furthermore, the capacity of municipalities to act in support of entrepreneurship education should not be underestimated as they often have an important role in determining curricula. If the development of entrepreneurship education is to be adequately supported and stimulated in Member States then initial teacher education and continuing professional development needs to work in line with this wider context.

The Budapest Agenda for the Development of Entrepreneurial Teachers

The table below presents a comprehensive agenda for action. For each of the four areas discussed in the preceding chapter it presents the key overall steps needed, identifying in each case the actors who need to be involved in its realisation. Actors will need to determine the most appropriate way of implementing these steps in their own particular contexts. Chapter 4 provides ideas and inspirational case studies about how to do this.

²⁸ Eurodice (2003). Levels of Autonomy and Responsibilities of Teachers in Europe, Directorate-General Education and Culture.

5.2 The Budapest Agenda: Enabling Teachers for Entrepreneurship Education

The Budapest Agenda: Enabling Teachers for Entrepreneurship Education

The aim of the 'Budapest Agenda' is to provide a catalogue of measures to be drawn upon by stakeholders at all levels within the worlds of education, business and the wider community in order to take forward the development of teacher education in entrepreneurship. It draws on the work and experiences of practitioners and policy makers from across Europe, and is backed up by good practices, as evidenced by this report. It is intended to be used by all those with an interest in the subject, who can select measures and tailor them to their own particular circumstances. Each action indicates the relevant actors.

	EU	Member States	Educational Authorities	Regional/Local Authorities	Schools	Intermediary Organisations	Business Entrepreneurs	Teacher Education Institutions
A) Initial Teacher Education								
A1 Entrepreneurship education for all								
Make entrepreneurship modules compulsory for student teachers		✓	✓	✓				✓
A2 Curriculum content and pedagogy								
Use the same practical methods that teachers will use with their students (active learning, practical experiences)	✓	✓	✓	✓	✓	✓	✓	✓
Ensure continuity between teacher education and student teachers' first experiences in host schools		✓	✓	✓	✓			✓
Have access to authentic tasks , by creating links to the local community (business, local authorities, third sector) to identify and get access to real life tasks that the teachers can use		✓	✓	✓	✓	✓	✓	✓
Promote internships and placements of teachers in enterprises, or allow teachers to shadow an entrepreneur for one day	✓	✓	✓	✓	✓	✓	✓	✓
A3 Assessment								
Develop and implement methods that enable assessment of the transversal skills and attitudes of the entrepreneurship key competence	✓	✓	✓	✓				✓
A4 Selection of student teachers								
Consider entrepreneurial skills and experiences as one possible asset when selecting student teachers, and help those students to draw on these skills and experiences to inform their teaching.		✓						✓
A5 Partnerships								
Develop sustainable and systematic partnerships with businesses, social enterprises and NGOs rather than ad hoc links						✓	✓	✓

	EU	Member States	Educational Authorities	Regional/Local Authorities	Schools	Intermediary Organisations	Business Entrepreneurs	Teacher Education Institutions
B) National Support								
B1 Strategies								
Develop in national strategies for entrepreneurship education a clear vision of and objectives for the role of teachers as coaches and facilitators. Such a vision should be owned by all stakeholders, at policy and operational levels		✓	✓	✓				
B2 Entrepreneurship education curricula								
Make entrepreneurship education a mandatory part of the curriculum		✓						
Develop minimum standards as part of quality frameworks and enforce through inspection regimes		✓						
Create a label of accreditation for innovative approaches in teaching, thus helping entrepreneurship teachers to quickly identify good practices	✓	✓	✓	✓	✓			✓
B3 Assessment of the entrepreneurship key competence								
Put in place student assessment methods that are appropriate to entrepreneurship education so that teachers are able to put into practice the requisite facilitative teaching methods		✓	✓	✓	✓		✓	✓
B4 Incentives								
Ensure that incentives within the teaching profession reward entrepreneurial teachers. Such incentives can be both financial and non-financial , e.g. training, greater autonomy, international networking		✓	✓	✓				
B5 Resources								
Establish resource centres and quality assured centres of expertise at European, national and local levels to gather together and make available good practice	✓	✓	✓	✓		✓		
Develop tool boxes of entrepreneurial teaching methods	✓	✓	✓	✓	✓	✓	✓	✓
B6 Communication								
Develop effective communication strategies for all partners (teachers, teacher educators, businesses, other community organisations and the general public) to promote the need for entrepreneurial teachers and schools	✓	✓	✓	✓		✓		
B7 Communities of entrepreneurial teachers								
Develop self-sustaining communities of 'entrepreneurship educators' at local, national and European levels, e.g. through discussion forums and focus groups. Such groups can support continuous improvement and innovation on teaching methods, and also help to disseminate their practice and enthusiasm to new	✓	✓	✓	✓				

	EU	Member States	Educational Authorities	Regional/Local Authorities	Schools	Intermediary Organisations	Business Entrepreneurs	Teacher Education Institutions
teachers								
C) Continuing Professional Development								
C1 Curriculum content, pedagogy and assessment								
Implement active learning opportunities and appropriate teacher assessment methods as an integral part of overall entrepreneurial school strategies		✓	✓	✓	✓			✓
Identify learning opportunities as part of school strategy development , e.g. audits of existing provision, links with business etc				✓	✓	✓	✓	✓
C2 Buy-in and ownership								
Ensure all teachers buy in to and ultimately own their own entrepreneurial continuing professional development , e.g. through the appointment of entrepreneurship 'champions' to promote the benefits and dispel myths					✓			✓
C3 Businesses and the wider community as a resource								
Develop links with local entrepreneurs/businesses and others in the community to enable the setting up of mentorship and ' entrepreneurship education angels ' programmes. Over time these should be developed into comprehensive programmes				✓	✓	✓	✓	✓
C4 Recruitment and promotion of teachers								
Prioritise entrepreneurial skills and attitudes in recruitment and selection activities					✓			✓
C5 Continuing professional development in national/regional strategies								
Ensure national/regional strategies that support high quality entrepreneurship continuing professional development through funding against clear quality criteria, imaginative programmes, dissemination of good practice, and recognition of excellence		✓	✓	✓				
D) Local School Support								
D1 Entrepreneurial school strategies								
Create school level plans which have a shared understanding of entrepreneurship education, clear objectives and define the actions needed, and which are owned by the whole community, and which include strategies for business engagement				✓	✓	✓	✓	✓
Create ' open door ' policies in schools to make them accessible to their local communities; and enabling them to draw on the skills and talents of local people			✓	✓	✓			✓
D2 Entrepreneurial leadership								
Support the role of school leaders in the development of entrepreneurship education, ensuring the inclusion of entrepreneurship education within their continuing professional			✓	✓	✓			✓

	EU	Member States	Educational Authorities	Regional/Local Authorities	Schools	Intermediary Organisations	Business Entrepreneurs	Teacher Education Institutions
development								
D3 Resources								
Appoint school entrepreneurship coordinators				✓	✓			✓
Stimulate collaboration between entrepreneurs and schools to support teachers as facilitators		✓	✓	✓	✓	✓	✓	✓
Utilise the entrepreneurial talents and experiences of existing students and alumni in supporting teachers					✓			✓
D4 Community networks and partnerships								
Develop school-to-school initiatives where partnership, networking and good practice exchange are core features of all developments		✓	✓	✓	✓			✓
Implement EU-wide networking, mobility and know-how exchange opportunities for teachers . These could involve both face-to-face and virtual methods, and aim to foster self-sustaining online teacher communities	✓	✓						

5.3 Recommendations for the European Commission: developing the agenda

The aim of this section is to present recommendations with regard to the potential role of the European Commission in teacher education and training for entrepreneurship. The recommendations have been carefully selected to focus on the areas that provide a real Community added value in alignment with the principle of subsidiarity. They can be grouped under six main areas of action.

1. Raise awareness of the value and importance of teacher education for entrepreneurship

The EU could add value to local and national efforts by developing communication and public awareness activities. A number of recommendations emerging from the Budapest Symposium supported awareness-raising EU initiatives with the aim to dispel the myths surrounding entrepreneurial education and disseminate a picture of entrepreneurship in knowledge society.

The value of entrepreneurial teaching should be promoted as a vehicle for developing the entrepreneurial key competences that is essential to the future well being of our young people. Also, teachers should be encouraged to see a link between entrepreneurship education and employability. The relevance and contribution of individual subject disciplines to success in the jobs market needs to be revisited and shared with students.

Communication efforts could be targeted at different groups of stakeholders, which can be represented as concentric circles (Figure 5.1):

- The first circle is that of teacher educators and teacher education institutions, whose awareness entrepreneurship is a crucial component of the effort to improve teacher education in that field;

- The second circle encompasses the whole teaching community, to inform teachers about their role in entrepreneurship education, its purpose, the learning outcomes, teaching and learning methods, and to support demand for Continuous Professional Development in Entrepreneurship Education;
- The third circle includes the stakeholders who could provide a support role in the development of teachers as facilitators, to share with them the vision of the teacher's role so that they understand better how teachers might be supported;
- The fourth and last circle is made of the wider public.

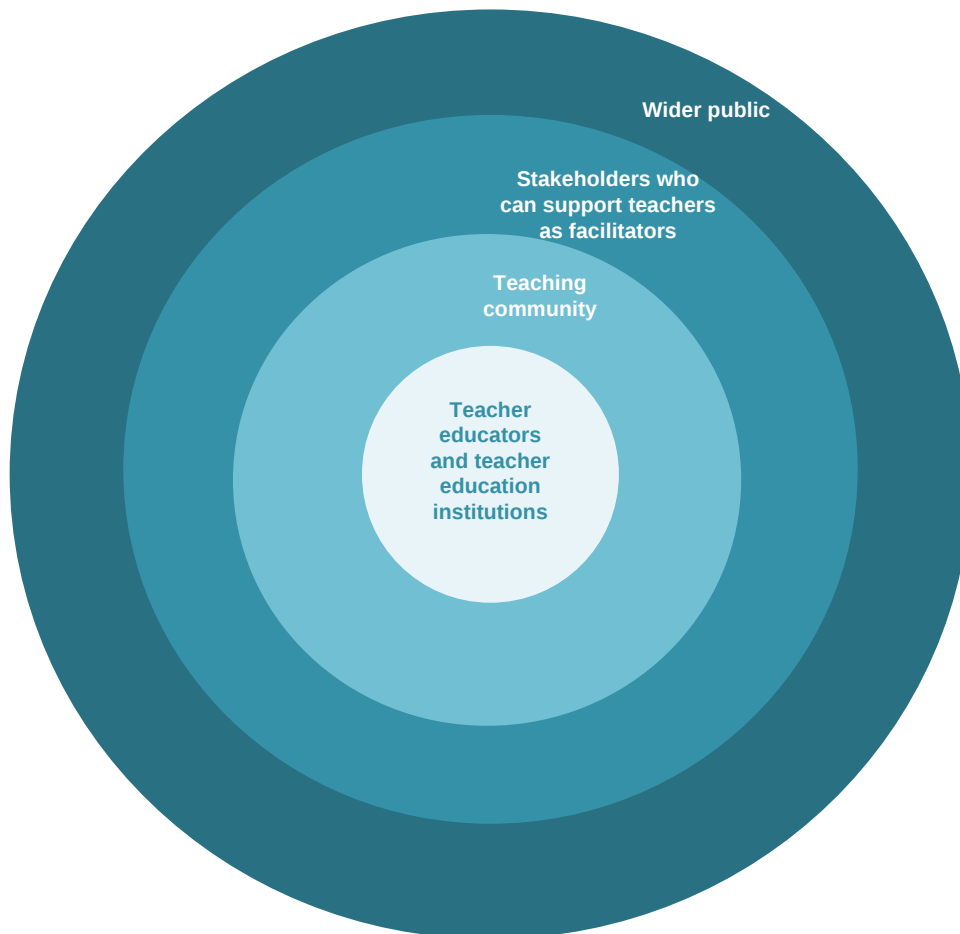


Figure 5.1 Stakeholders targeted at the European level

The European SME week could be used as an opportunity to organise national and EU-wide information events which could additionally be developed in the EU pre-accession and neighbourhood regions. Synergies between the SME week and specific teacher education for entrepreneurship awareness-raising activities would increase the impact of the latter.

2. Stimulate implementation of national and local policies and frameworks

The role model of the EU is for example very strong with regards to the on-going dialogue between DG Education and Culture and DG Enterprise and Industry. This dialogue should continue and encouragement given for replication of this between ministries at Member State level.

Joint meetings of Council of Ministers for Education, Youth & Culture & the Competitiveness Council could also be held, with preparatory meetings being held and goals sets for the next steps in achieving an improved teacher education for entrepreneurship.

Member States should be invited to develop their own national strategies, and benchmarking exercises at European level could map countries' achievements in promoting teacher education for entrepreneurship.

A European observatory should be established to monitor progress in the development of teacher education for entrepreneurship.

3. Collect and disseminate good practices, experience and knowledge

A clear area where the EU can add value to the initiatives taken at the local and national levels is in the sharing of knowledge, experience and good practices at the European level.

The Budapest Symposium illustrated clearly that there is in Europe a number of practitioners, researchers and policy-makers who have substantial experience and expertise of teacher education for entrepreneurship, and who can feed back on experiments which have been implemented at their level. This know-how deserves to be better disseminated, and the European Commission is ideally placed to facilitate these exchanges across Europe.

Meanwhile, the Istanbul Symposium called for more systematic approaches to good practice identification in entrepreneurship education and teacher developments in particular, to include a good practice quality assurance framework based on a peer review model. This proposal should be considered by the ETF in its support to the EU partner countries but should also include access to, and sharing of, good practice on teacher developments within the European Union. For its part, the Commission could also explore ways to promote the collection and dissemination of good practices including the development of quality standards and accreditation systems of good practices.

A further suggestion to enable the exchange of good practices and experience between practitioners is the establishment of 'incubators' for initial teacher trainees and their tutors at initial teacher education institutions. These incubators would promote peer-learning activities and promote the dissemination of practice and outcomes. The Commission could consider providing initial 'start-up' finance through calls for proposals to facilitate the establishments of such incubators.

4. Enhance networking among specialists

The EU can also add value by enhancing networking and exchanges between practitioners and specialists, through a variety of mechanisms in which the Commission has built a high level of experience over the years. The outcome of these activities would be to enhance the overall quality of teacher education for entrepreneurship by supporting and encouraging teacher education practitioners to engage in European level mobility and exchange of experience.

Increased mobility and networking at the European level would aim to foster the development of self-sustaining communities of interest. Such groups can support continuous improvement and innovation on teaching methods, and also help to disseminate their practice and enthusiasm to new teachers.

Practical proposals include support for trans-national training for practitioners and the international mobility of practitioners through grants, perhaps through the development of strands in existing programmes, e.g. Comenius. Opportunities should be provided for both face-to-face and virtual interactions.

5. Establish a European level platform

This recommendation partly overlaps with the preceding two ('collect and disseminate good practices' and 'enhance networking among specialists'). More precisely, it is one of the ways to make networking and sharing experience happen in reality.

The nature, shape and size of this Platform could vary but the essence remains the same: to enable dialogue, networking and sharing of ideas and experiences at the European level. While such a platform can foster exchanges between peers, one of its aims could also be to stimulate dialogue between the three apexes of the research, policy and practice triangle.

The Budapest and Istanbul Symposia provide an excellent example of the value of bringing together educationalists who share common concerns and challenges. Since the close of the Symposia, the seminar facilitators and practitioners have continued to exchange ideas and to offer advice to each other.

A European level platform for the development of teacher education in entrepreneurship education was considered useful by the participants to the Budapest Symposium. In fact, many delegates expressed their wish to take part in future gatherings with the Budapest Symposium participants, so as not to lose the high quality work dynamic which had been successfully developed during the event.

The European level platform could focus on areas such as:

- Sharing best practices and raising awareness / visibility;
- Facilitating international collaborative projects and initiatives;
- Developing concrete policy suggestions for Member States.

When asked who should sit on the platform, many respondents placed a great emphasis on practitioners (teachers, teacher educators, other educators and creativity experts), but also on a wide range of stakeholders (such as chambers of commerce, trade unions, entrepreneurs) as well as policy-makers from ministries responsible for education and entrepreneurship.

Face-to-face contacts such as seminars following up from the Budapest and Istanbul Symposia could be complemented with the development of online platforms for the exchange of resources and exemplars. Some web-based platforms have already been created at the local and national levels, and the establishment of a European platform could draw upon the lessons learnt by these examples, some of which were presented at the Budapest Symposium.

6. Stimulate and disseminate research, particularly on pedagogies

Entrepreneurship education is a relatively new subject, at least in many countries, and teacher education in that area is often even more recent. Discussions in Budapest and Istanbul highlighted that there is

already a wealth of didactic material and resources in place but participants stressed the need to deepen and widen existing knowledge and to improve pedagogical tools. This in turn calls for more research efforts, as pedagogies and didactic tools should be based on good quality research. Research studies are thus needed to underpin action.

The European Commission could consider how best it could support the research effort in teacher education for entrepreneurship, both through existing support mechanisms for research and by creating new ones. Suggestions for EU action include commissioning new research, supporting collaborative research projects as well as collecting and disseminating existing and new research (including through mechanisms which have been presented in previous sections).

Annex One: Action Plan

Action Plan: Entrepreneurship Education Incubators (Grand Challenge 1: initial teacher education)

This action plan summarises the steps required to initiate entrepreneurship education incubators within initial teacher training institutions. For modest 'start-up' funding an inception incubator could be established within a host initial teacher training institution for the purposes of bringing together trainers, trainees and practitioners to exploit what is already known, to disseminate good practice and to identify possible future collaborative projects.

How we are going to achieve it:

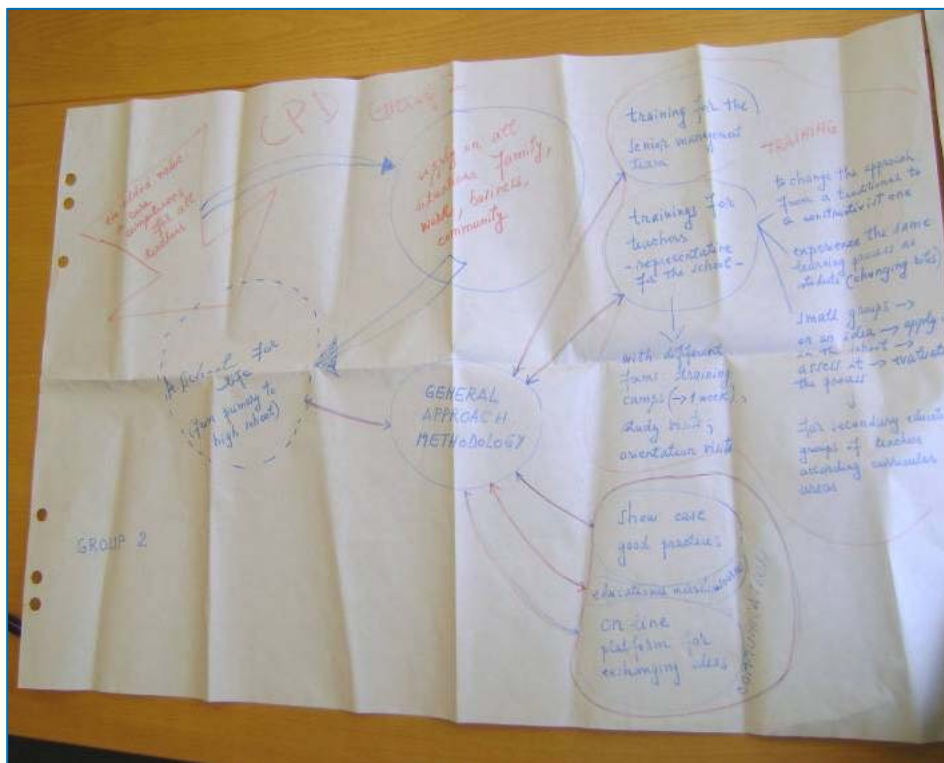
Action Plan

- **WHAT:** Develop incubators (Peer-learning activities) based in Teacher Training Institutions
- **WHY:** Exploit and disseminate existing experiences and good practices between practitioners and foster projects; Widen the club
- **HOW:** 5 transnational clusters throughout Europe and neighbouring countries to provide opportunities to exchange and on-going support to projects
- **WHO:**
 - Teacher Training Institutions /Student teachers will run the incubator
 - Host schools
 - Business and community partners
 - EU support

Action Plan: Reworking Managerial Mindsets (Grand Challenge 2: continuing professional development)

The focus for this theme is the work required with all staff and, particularly Senior Managers, to embed entrepreneurial education into the quality management structures of the school. Continuing professional development sessions would support staff to audit their existing provision and draw up an action plan for change. Starting with the school improvement policy, continuing professional development provision would be driven by a requirement to identify opportunities for students to experience and learn THROUGH, FOR and ABOUT entrepreneurship. Staff would be offered training in teaching and learning methodologies which support a student-centred approach and the full range of entrepreneurial competences including team working, decision making and risk taking. Potential learning activities would be selected as to their suitability using the CEI²⁹ Four Essentials for Quality Enterprise Education framework:

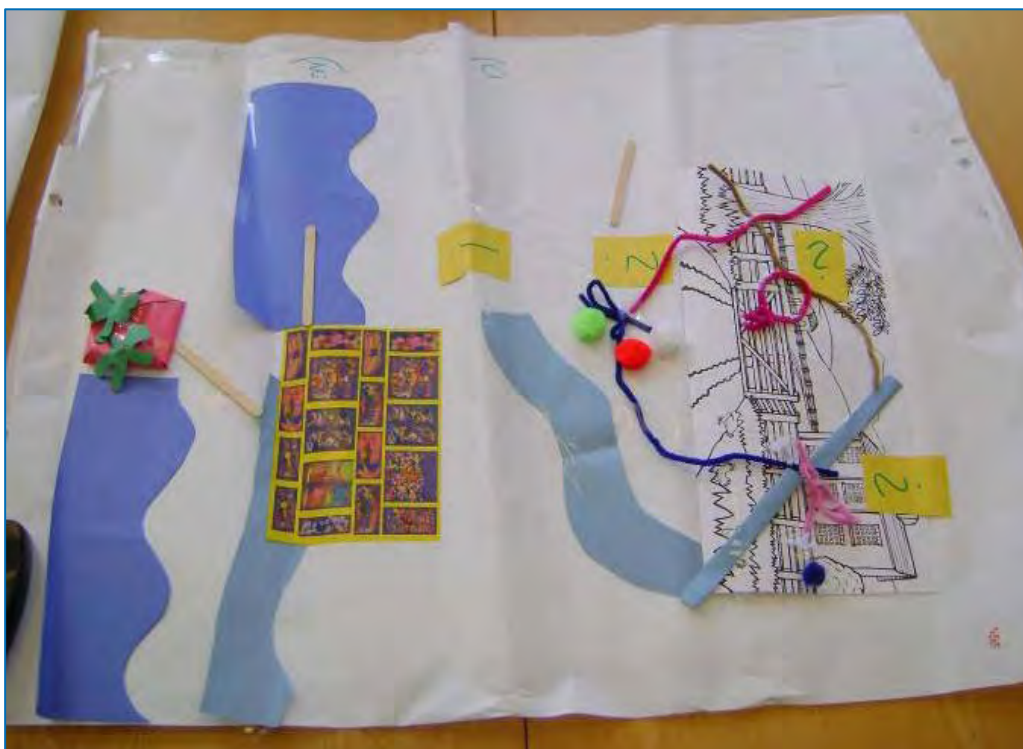
- Learners are set real challenges;
- Learners take responsibility for their own learning;
- Learning is supported by community partners;
- Learning generates real solutions.



²⁹ Centre for Education and Industry, University of Warwick, England

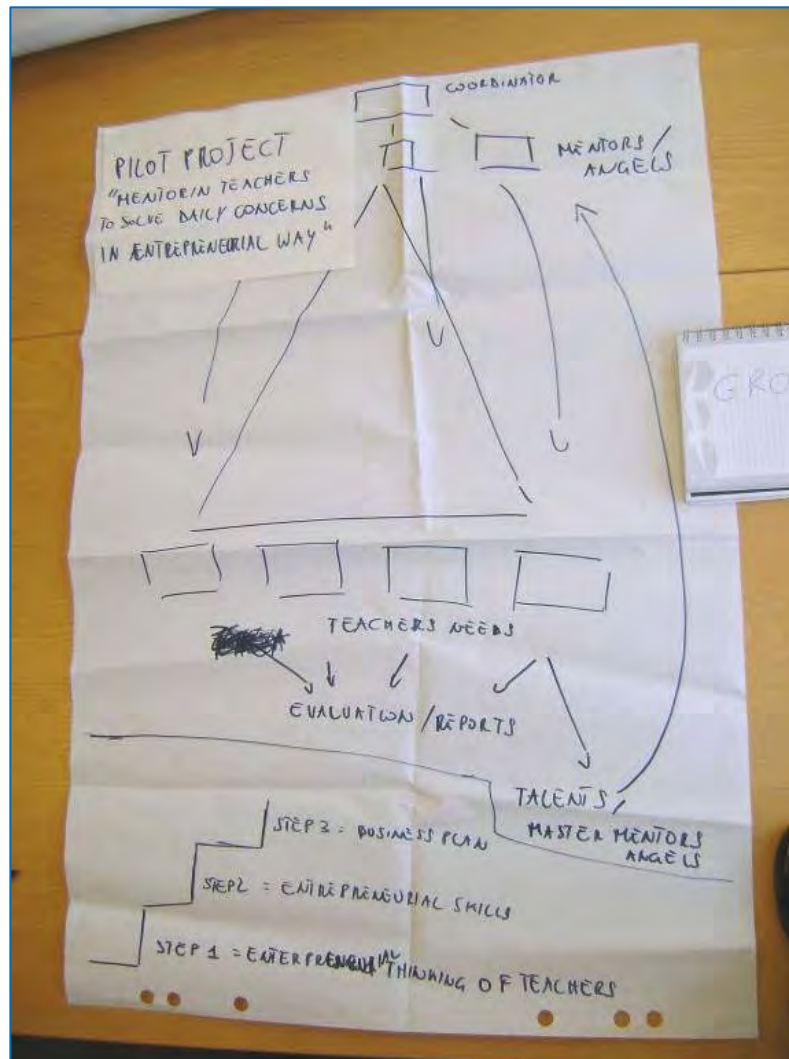
Action Plan: Transforming Schools - The Cultural Journey (Grand Challenge 2: continuing professional development)

Staff in individual schools work together as a whole school initiative to develop an entrepreneurship education 'journey' which describes their process for delivering their vision of an entrepreneurship entitlement for all learners. This vision/mission statement should be an organic development generated from their understanding of the local community and aimed at preparing their learners for life as 21st Century citizens. Staff may well need to accept the need to transform their organisation from a bureaucratic structure to an entrepreneurial learning environment which acknowledges the power of the hidden curriculum as much as or more so than the formal programmes of study. The institution should develop as an agile learning organisation which allows time for staff and learners to reflect on their practice and develop responses. Action would be required which would encompass but also go beyond training programmes for staff and encompass work on the 'eco-structure' of the school. Student voice would be central to the process, with stakeholder involvement in decision making and planning. There would also need to be a campaign to communicate and justify the philosophy to all staff and stakeholders to allow for a shift towards a school which laid a much greater emphasis on student-centred learning.



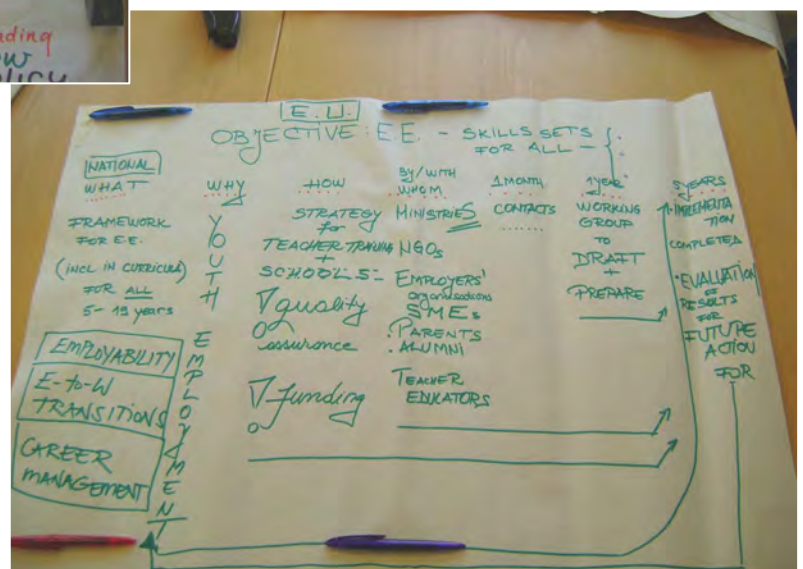
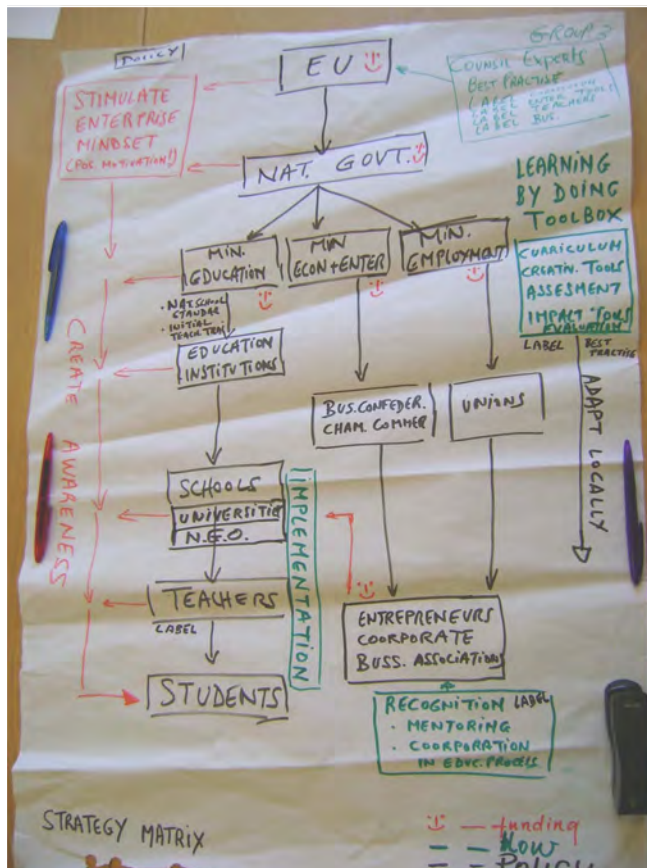
Action Plan: Engaging the Local Enterprise Community (Grand Challenge 2: continuing professional development)

Recognising the difficulties some schools experience developing links with a broader range of stakeholders, the concept of the 'entrepreneurship education Angel' offers many benefits. These 'Angels' would be recruited from the local business community and, following appropriate vetting procedures, trained to work alongside teachers in schools, to challenge some of the 'myths and legends' about entrepreneurship and entrepreneurs which abound in many quarters. These 'Angels' would undergo a school familiarisation training programme and then make themselves available through a local web site to support teachers for up to a week at a time with any challenge which presented itself. They would aim to provide enterprising solutions to the issues faced by teachers and students in and outside the classroom. These mentors would also be encouraged to engage the teachers in discussions about their personal entrepreneurial activity, building an understanding and interest in the entrepreneurial process and life style. The next stage would be to offer those teachers interested an opportunity to learn more about business planning and SMEs in general, ultimately aiming to replicate some of this activity with pupils in a school context. Those mentees with an interest could in turn be trained to work with other colleagues in the school as internal mentors.



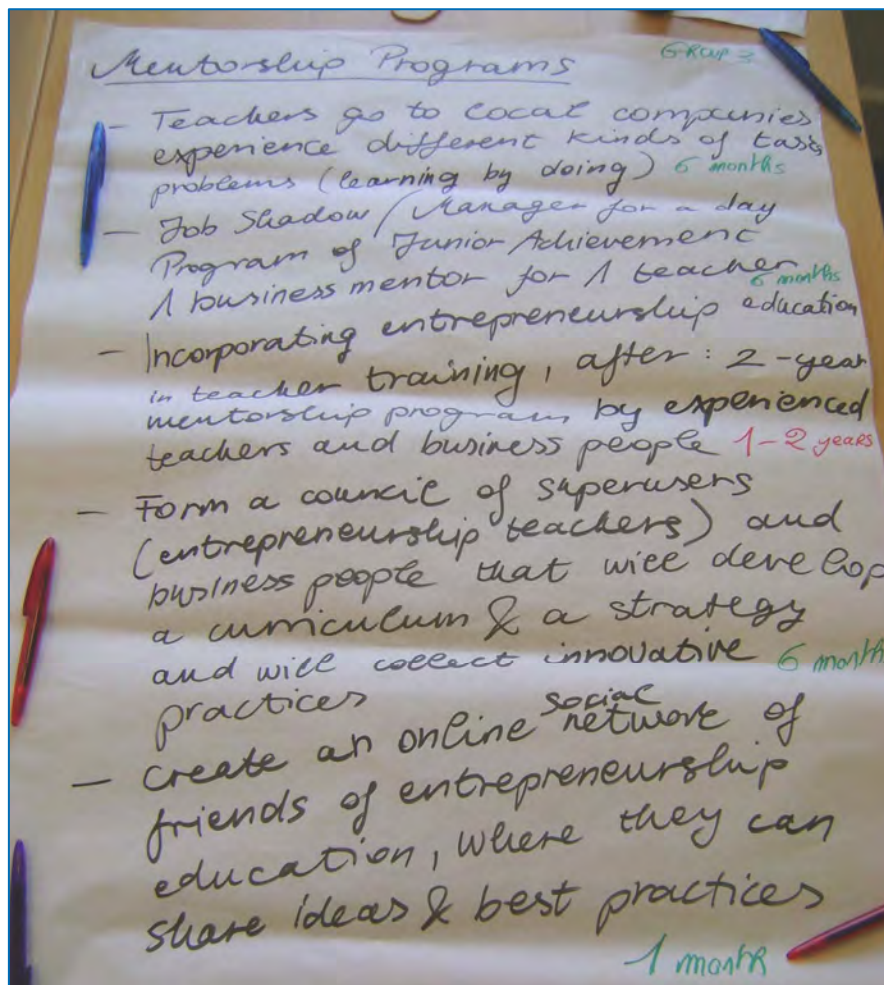
Action Plan: Entrepreneurship as a Skill Set for All (Grand Challenge 3: facilitators of learning and Grand Challenge 5: role of the school and its community)

The need to improve youth employment presents a powerful rationale for the introduction of entrepreneurship education as a means of developing entrepreneurial skills for all. Entrepreneurship can help with employability, school to work transitions, and career management. Strategies are required for teacher education that ensure quality provision and also that funding is available on a sufficient level. The entire gamut of stakeholders should be involved in preparing a strategy for implementation and subsequent evaluation.



Action Plan: Mentorship Programs (Grand Challenge 3: facilitators of learning)

This action plan demonstrates how a mentorship program might be integrated into and lead to the development of wider entrepreneurship education approaches. Under the program teachers will spend time in local companies, experiencing different types of tasks and encountering different types of business problem, essentially learning by doing. In order to create a community of interest they might form an online social network of friends of entrepreneurship education to share ideas. They might also shadow managers within companies. These individuals could then form a council of super users and be given the task of developing a curriculum and strategy for entrepreneurship education. After perhaps 1 to 2 years of such activity entrepreneurship education might then be incorporated into teacher training, drawing on the experience of the teachers and business people who have taken part in the program.



Action Plans: System Support for Teacher Training and Development (Grand Challenge 4: support systems)

The two action plans overleaf provide a comprehensive overview of steps needed to support teacher education at European, national and local levels. At the national level measures include seeing training as an incentive, developing job sharing between teachers and businesses, and seeing entrepreneurship education as a technique that can be used in all subjects. At the local level school to school networks can be developed to exchange good practices and increase quality and participation in entrepreneurship education. Both online and off-line methods can be used.

What	Why	How	By	Short Y1	Medium Y2	Long Y5
Training as an incentive e.g. "Erasmus 4 innovations"	Individual development	Attractive plan + experience based learning	National + private initiatives	Mapping the needs Language orientation Material + training		
	Recognition	United Trainer/ Company				
	Multiplying effect	Erasmus 4 innovators Week → short training course in another country	Bilateral European /pan-European	Ongoing 		
		European Academy Specific Prize for Innovators Teachers/Trainers	Regional/ National	Ongoing 		
Job sharing	Economic logic	e.g. 1 week in a company	Local, National	Contacts	Realising a week programme including didactic use	
	Direct contacts					
	Ongoing support					
Online training e.g. Finnish example resources	To learn form other experience	Direct support with a platform	National, European	Technical aspects Mapping which countries have an offer	Update + materials	
		self assessment				
	Cost effect	One stop shop				

What	Why	How	By	Short Y1	Medium Y2	Long Y5
entrepreneurship education as a "methode" → many subjects	Explanation Teach entrepreneurship Interpretation Action oriented approach	Tools development → Active exercise: via text book via guide to the teachers	National, regional			
Joint meeting of Council of Ministers for Education, Youth & Culture & the Competitiveness Council 	Importance of the topic to policy level	Pre-session (1 day before) Overview of implementation Goals for the next steps Entrepreneurship teachers are invited	DG/GD of Enterprise & DG/GD of Education	Ongoing 		
Invite Member States to co work strategic development in teacher training for entrepreneurship education with Commission to coordinate		Development & Experience Exchange and implementation		Ongoing 		

What	Through	How	With whom	Short-term	Medium-term	Long-term
- Exchange of best practices - Increase quality & relevance - Support active participation - Raise awareness	School to school network (+involvement of larger society: entrepreneurs, parents, universities, media etc.)	1. Offline partnerships (local) - clusters of communities of/in practice ➢ Job sharing/shadowing ➢ Exchange of materials - Coaching ➢ By experienced teachers ➢ Companies/entrepreneurs 2 Online platform (EU wide) - Disclosure / showcasing ➢ materials ➢ best practices - Discussion forums - Online training	- Schools ➢ Headmasters ➢ Teachers ➢ Parents - Career guidance councillors - Companies/entrepreneurs - Teacher training academy - Universities - NGOs - Society ➢ Media ➢ Individuals	- Focus on offline ➢ School partnerships ➢ Entrepreneurs ➢ Companies - Start conceptualizing ➢ Online/offline - Look for show cases - European Foundation	- Finalise concept - Build platform - Launch beta - Content - Establish partnerships - Mobilise people - EU SME - Week→ event - - Development of pilot regions	- European Platform up & running ➢ min. 20 countries ➢ self organizing ➢ radiant example for outside EU - Platform evaluated - Offline coverage + 80% schools

Action Plan: Mandating Entrepreneurship Education (Grand Challenge 5: role of the school and local community)

This action plan focuses on how to embed entrepreneurship education within education systems. Action is required across several domains: national legislation; the national curriculum; and inspection systems. In relation to national legislation, lobbying by a range of actors will be required to make sure that entrepreneurship education is built in to legal frameworks. Linkages can be made to existing policies such as the European Qualifications Framework, and science, technology, engineering, and mathematics curricula. The key here is to build on existing initiatives.

WHAT	WHY	HOW	BY/WITH	SHORT	MT	LT
SOE EMBED EDUC SYSTEM LAW REGULATION EQF	FOUNDATION	LOBBY	EU MEMBER - CAPRES SEP. + platform STUDENTS OTHER STAKEH	✓		✓
NATIONAL CURRI- CULUM STEM NEE BROAD DEFINITION!	"	BUILD			✓	
INSPECTO- RATE STEM NEE	"	MONITOR				✓
KEY STEM COMPET	TRANSLATED TO DIFE LEVELS	INITIATIVES	EU MEMBER ST	✓		



Entrepreneurship Education: Enabling Teachers as a Critical Success Factor