

Supplementary material – Brentnall, Diego, Culkin – Data extraction form. Terms of search: competition, contest, award, prize in (non-HE) European policy and guidance 2006 – 2016.

Year	Policy document	Context of competition within document	Examples of relevant quote/s.	Approximate label
2006	Oslo Agenda for Entrepreneurship	Competitions and awards are recommended as a 'communications activity', which potentially could be applied to any of the recommendations/activities throughout the rest of the document.	"F2 Celebrate entrepreneurship education activities and programmes that work well, by organising awards and competitions." (p4).	1, 4
2009	Best Procedure Project. Entrepreneurship in Vocational Education and Training. Final Report of the Expert Group (EC, DG Enterprise and Industry)	The organisation of contests is identified as a 'good practice indicator' in terms of key features for the effectiveness and success in teaching entrepreneurship.	"Students are exposed to real-life work situations and encouraged to take part in extracurricular activities. External events, activities and contests are organised." (p30).	2.
		An example of good practice from Belgium, relating to a 'virtual knowledge centre' which provides and disseminates 'good practice' materials to teachers, training organisations and other partners.	"This broad initiative...(includes).... a large database on materials (documents on policy and research reports; models, methods and course materials; and screening instruments for entrepreneurial competences), initiatives, information, events and contests." (p33).	1, 2.
		An example of good practice from Bulgaria relates to the use of competitions.	"A Business Clun with representatives from the local business community and experts from the relevant industry is set up to support delivery and provide practical experience. Students, schools, and the local community cooperate to organise and promote events such as trade fairs, competitions, and joint projects." (p34).	1, 3, 2, 5.
		An example of good practice from Norway relates to the impacts of mini-company programmes.	"Findings from a number of studies have shown that entrepreneurship education like the mini-company method contributes to a more entrepreneurial culture, and students who have had entrepreneurship education are at least twice as likely to become entrepreneurs in later life. In addition, the students score higher on questions about self-confidence, cooperation skills and motivation in school." (p36).	1, 2, A, F, B.
		An example of good practice from the UK relates to the Make your Mark initiative.	"...competitions with cash prizes to help students develop their ideas are held each term' (p37).	9.
		An 'example of good practice' from France relates to teacher recruitment and recognition.	"Every teacher is now required to know the world of enterprise, and needs to prove this knowledge before being recruited. During the preparation for the teachers' competition, every future teacher must do an internship of at least three weeks in a company.' (p40).	1, 6, C.

		<p>An 'example of good practice' from France relates to a national competition.</p> <p>Advice provided in a section of the 'How to move forward' chapter.</p> <p>Advice provided in a section of the 'How to move forward' chapter.</p>	<p>"...offering awards to teachers who are particularly committed to entrepreneurship education would also contribute to keeping their motivation high." (p40).</p> <p>"In France, the national competition 'young initiative' organised by the Ministry of Education rewards the best enterprise projects every year. This award aims to encourage students' creativity and enterprising spirit by selecting the best projects on setting up a business (virtual or real) developed in vocational, technical and general secondary schools, or apprenticeship schools, in any field of study." (p41).</p> <p>"Dedicated non-profit organisations or NGOs with experience in delivering entrepreneurship programmes and activities to schools also play an important role, and one which should be better recognised. These organisations contribute to programme development, teacher training, effective involvement of the private sector, and the organisation of extra-curricular activities such as competitions and other events.... In some cases, it may be more cost-effective for education ministries to certify and endorse a partner than to invest in setting up programmes themselves." (p44).</p> <p>"Promote campaigns to raise awareness among the general public about the importance of entrepreneurship, and in particular competitions and European awards for entrepreneurship programmes, courses and activities in vocational education. Set up or support European awards (best school, best teacher, best student, best company), and/or introduce an Education category in the European Enterprise Awards. Encourage the involvement of private sponsors." (p44).</p>	<p>1, E, A.</p> <p>1, 2, 5.</p> <p>1, 4.</p>
2010	<p>Towards Greater Cooperation and Coherence in Entrepreneurship Education (EC). Report and Evaluation of the Pilot Action High Level Reflection Panels on Entrepreneurship</p>	<p>Included in reflection on how entrepreneurship education has tended not to be treated systematically in the curriculum, but instead, is typically an extra-curricular activity.</p> <p>Included within a section on good practice descriptions of how national governments are developing strategic approaches to entrepreneurship education. Focused on Swedish government programme to integrate entrepreneurship throughout the education system, and</p>	<p>"(iii) it tends not to be assessed as part of the mainstream curriculum: teachers and schools instead rely on in-house prizes and awards, or take part in competitions run by well-known organisations such as Junior Achievement-Young Enterprise " (p15).</p> <p>"The Swedish Government also contributes to different organizations such as the Swedish organization Ung Företagsamhet, which is part of Junior Achievement Young Enterprise Europe. This organization aims at giving more than 10 percent of high school students (15,000) the possibility to start and develop their own business during a school year. Another example is Emax Nordic, which creates a common meeting place for up</p>	<p>2.</p> <p>1, D, 2.</p>

	<p>Education initiated by DG Enterprise and Industry and DG Education and Culture</p>	<p>its work with partners to do this. Highlights the ‘inspiration, knowledge and valuable networks’ young people gain.</p> <p>Included within a section on ‘Content, Tools, Methods and Resources for Teaching’ which described how, as well as providing teacher training, it is also critical to make available effective teaching resources and support.</p> <p>Included in a section on ‘Developing effective practice’ the role of awards to recognize and celebrate effective teachers to highlighted.</p> <p>Included in a section on ‘clusters, partners and wider linkages’, a business plan competition is described from Germany - the Baden-Württemberg Schools Entrepreneurship Programme – in particular as a ‘structure’ which can be replicated across wide areas.</p> <p>Included in a section about the ‘role of the European Union’.</p> <p>A suggestion for a European Centre for Entrepreneurship Education is made, which would, amongst other things, recognize good practice through awards.</p>	<p>to 200 young entrepreneurs between the ages of 18 and 25 and organises competitions and prizes. At these events, young entrepreneurs gain inspiration, knowledge and valuable networks.” (p45).</p> <p>“In Austria, the Impulse Centre of Entrepreneurship Education (EESI) inter alia provides approved entrepreneurship education textbooks, has created a software tool to measure personality traits and attitudes towards entrepreneurship as a teaching resource for upper secondary schools, and organises business plan competitions, as well as organising an annual entrepreneurship symposium with expert lecturers and workshops.” (p51).</p> <p>“Effective practice – and effective teachers – need to be recognised and given a high profile, e.g. through national awards, in order to raise the visibility of entrepreneurship education.” (p47).</p> <p>“[the] programme aims to foster an entrepreneurial spirit through a varied package of measures, including school-firms and mini-enterprises, and spanning both national and regional levels. A business start-up competition for students at national, regional and local level (e.g. the 'Nordschwarzwald-cup') is an important component of the programme and is based on a computer-based start-up game. During the competition a virtual firm is run over a simulated period of 16 years, from start-up until it is listed on the stock exchange. Teams are composed of players from different types of schools. In addition, a range of support is provided to help schools take advantage of the benefits of using the mini-enterprise approach...” (p67).</p> <p>“...an observatory of policy and practice to gather, disseminate and recognise good practices (e.g. through awards), and to monitor progress across the EU and globally (p72).</p> <p>Development of awards as incentives (“Excellence awards”: e.g. “Most international young enterprise award”) (A45).</p>	<p>2, 3.</p> <p>C.</p> <p>1, A.</p> <p>4.</p> <p>7.</p>
--	---	--	--	---

2011	Research Paper No 14. Guidance supporting Europe's aspiring entrepreneurs. (CEDEFOP)	<p>Competition features in the introduction, a specific element in different chapters and featuring explicitly and implicitly in case study 'examples of good practice.'</p> <p>Included within the overall introduction and the 'Role of guidance within IVET', where the importance of entrepreneurship/business start-up is highlighted as a viable career route for VET students. Given this, students need to experience entrepreneurial learning and educators need guidance on how and what to deliver.</p>	<p>"Learning opportunities for VET students are delivered in formal and non-formal settings and include simulations, competitions and mini-enterprises." (p12).</p>	1, 2.
		<p>Included in the section 'Guidance building entrepreneurial skills' competitions are handed down as a recommended/usual practice, their value includes motivating students, developing initiative/skills and confidence and helping young people pursue entrepreneurial ideas and ambitions.</p>	<p>"Innovation camps and a range of different mini-company approaches help students develop business mechanics; they allow students to experience how companies are actually launched and operated. Business planning/ideas competitions are often used alongside both innovation camps and mini-company programmes to motivate young people taking part in these programmes." (p14).</p>	A, B.
		<p>Included in the section 'Guidance building entrepreneurial skills' competitions are identified as an effective promotional and awareness raising tool.</p>	<p>"Business planning/ideas competitions and awards are an established feature of European HEIs. They help young people pursue their entrepreneurial ideas and ambitions. They also act as an effective promotional tool as they provide a means of raising awareness of entrepreneurialism: award ceremonies are normally associated with high profile events or prizes." (p16).</p>	4, 1, A.
		<p>Included in the section 'Entrepreneurship Education in Europe' which looks at the role of the private sector and external/third sector organisations, competition is identified as a usual/good practice method.</p>	<p>"This also means that third sector organisations, such as Ja-Ye (12), European (13) and Jade (14), have become important partners for schools, training institutions and authorities by providing significant expertise and alternative methods to teaching entrepreneurship, mainly through mini and virtual companies, business competitions and other awareness-raising activities." (pp54-55).</p>	5, 3, 2.
		<p>Competition is part of a pedagogical tool kit handed to educators – its value in students taking an active role based on real life situations or simulations.</p>	<p>"Entrepreneurial learning pedagogy is typically characterised by interactive and experiential methods, which require students to take an active role in the learning process, which is based on real-life situations and simulations. These include: group</p>	3, 2.

		<p>Included within the section ‘Entrepreneurship in IVET’, competition is identified as a ‘must’ within guidance to educators.</p> <p>Included within ‘CHAPTER 3 Guidance in the entrepreneurship agenda of IVET institutions’ competition is a feature of recommended activities, case studies and methods, for example, within the section, ‘Familiarising students with entrepreneurial principles and thinking’. It also has its own element within the section ‘3.3. Enterprise familiarisation activities’ which show ‘... how and why businesses operate, and about entrepreneurial practices and environments, by undertaking activities set in enterprise contexts. Three different types have been identified as part of this research: innovation camps, business competitions and other approaches.’</p> <p>The guidance makes a link between ‘business competitions’ and the delivery of mini-company programmes – the competition adds value and is an ‘incentive’ for students to take part.</p>	<p>learning and assignments; interactive methods with businesses and entrepreneurs, including visits to companies; practical, hands-on learning (trial and error); developing creativity; problem-solving; business simulations and games; student run businesses; and business competitions.” (p55).</p> <p>“Entrepreneurship learning in IVET is delivered in both formal and non-formal settings (European Commission, 2006a). Overall it is recognised that for successful delivery, it must include some real life ‘immersion’ into the project, and a variety of techniques have commonly been used. These include simulations, student competitions and mini-enterprises.” (p57).</p> <p>3.3.2. Business competitions VET students have more opportunities to participate in business orientated competitions today than ever before. Competitions have become an important element of the entrepreneurship learning agenda and many of them are linked to other entrepreneurial activities, such as mini-companies. Competitions are organised by individual schools, local, regional and national authorities, international organisations (e.g. Ja-Ye) and media (e.g. newspapers).” (pp76-77).</p> <p>“Entrepreneurship oriented competitions have a number of benefits for participants. They can develop or improve entrepreneurial/business skills but can also form other skills such as team-working and communication. Depending on how the competition is run, participants may be able to learn from existing businesses/entrepreneurs and there is the chance to win a (generally monetary) prize. Another value lies in the fact that students have the chance to teach one another; some of the most valuable learning may come informally and tacitly, as younger or less experienced students learn by observing and imitating those whose techniques and skills are greater”(Volkman et al., 2009).[...] Business competitions can also be used as an incentive for VET students taking part in virtual mini-company programmes. For example, in Bulgaria, the national competition Virtual enterprise is a competition promoted by Junior Achievement and</p>	<p>3, 2.</p> <p>A, 1, 2.</p> <p>A, 9, D, 7.</p>
--	--	---	---	---

		<p>In section '3.6.4. Guidance building entrepreneurial foundations and skills' a link is made between the delivery of innovation camps/mini-companies and the business plan/idea competitions.</p> <p>The value of competitions to motivate young people, as well as 'raise the profile' of activities and therefore increase 'the commitment of the private sector' is highlighted.</p> <p>In the chapter 'Embedding guidance in entrepreneurship education business competitions have their own section: '4.3. Encouraging entrepreneurial activity in students' – '4.3.1. Business plan/idea competitions and awards.' The focus is HE.</p>	<p>the Ministry of Education, Youth, and Science which gives students aged between 15 and 19 the opportunity to test their business skills." (p77).</p> <p>"All students – regardless of whether they win or not in the competition – should receive formal feedback from the judges: what worked, what did not, what needs to be improved (Volkman et al., 2009). This ensures that all participants gain from the experience." (p78)</p> <p>"Innovation camps and a range of different mini-company approaches go much deeper into familiarising students with the enterprise concept; they allow students to experience how companies are actually launched and operated. It is increasingly common to organise business plan/idea competitions alongside both innovation camps and mini-company programmes." (p91).</p> <p>Competitions provide an important goal (motivation) for young people taking part in the programmes, but they also raise the profile of the activities, increasing media interest. This, in turn, increases the commitment of the private sector." (p91).</p> <p>Business plan/idea competitions and awards have become an established feature in European HE. They give potential young entrepreneurs an arena to compete in, where business professionals and experienced entrepreneurs can evaluate their business ideas/plans and provide a critique (Volkman et al., 2009). Competitions, which typically have a monetary (or other) prize, incentivise and drive young people into performing to the best of their ability and pursuing their entrepreneurial ideas." (p108).</p>	<p>2.</p> <p>A, 2.</p> <p>B, 4, 5.</p> <p>1, 2, 8, 9, 7, B.</p>
2011	Entrepreneurship Education: Enabling Teachers as a Critical Success Factor. Final Report (EC)	<p>Competition featured in a good practice case study about how to best engage with employers.</p> <p>In the section on 'Developing entrepreneurial school strategies'.</p>	<p>"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." (p43)</p> <p>"Competitions can be organised locally, with financial support from local authorities, to recognise the best strategy implementation by schools." (p48)</p>	<p>2, 5, A.</p> <p>1, 4.</p>

		<p>'Entrepreneurship Education' is referred to generically throughout the document, with more emphasis put upon the strategies required to progress teacher training in the field rather than specific examples. JA-YE approach has competition as part of its philosophy/pedagogy.</p>	<p>"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." (p45).</p>	1, 3.
2012	Entrepreneurship Education at School in Europe National Strategies, Curricular and Learning Outcomes (EC/EACEA).	<p>Eurydice Report on the Entrepreneurship Education, national strategies, curricular and learning outcomes. The document analyses the state of entrepreneurship education in terms of the policies and practices of member states and puts forward examples of good practice.</p> <p>In chapter 4 'Ongoing initiatives and current reforms', competition is highlighted as a method for incentivising students.</p> <p>Business plan and entrepreneurship competitions are put forward as examples of good practice.</p> <p>Competitions are included in conclusions about the range of practice and activities typical across European countries.</p>	<p>"The organisation of entrepreneurship competitions can be seen as an incentive to students to engage in entrepreneurial projects. Furthermore, the certification of entrepreneurial skills adds value for students who choose to invest in their skills development. The competitions also highlight the importance of developing entrepreneurial skills in education from an early age. However, the wider impact of the competitions on the development of entrepreneurship skills is restricted as access to them is often limited" (pp25-26).</p> <p>"The University of Cyprus in collaboration with the Ministry of Education and Culture conducts an annual entrepreneurship competition for students in the second and third year of upper secondary education." (p26).</p> <p>"In Romania, the Business Plan Competition, aimed at all registered training firms, was introduced in the school year 2008/09 as a joint initiative of the Ministry of Education, Research, Youth and Sports, the National Centre for the Development of Vocational and Technical Education, KulturKontakt Austria and other social partners." (p26).</p> <p>"The ongoing initiatives related to entrepreneurship education in a dozen countries show a range of activities, including closer cooperation between education and business, financial initiatives to fund pilot projects promoting entrepreneurship, the organisation of entrepreneurial competitions, the certification of entrepreneurial skills, the setting up and running of student training firms and last, but not least, teacher training and support." (p30).</p>	<p>7, A.</p> <p>2.</p> <p>1, 2.</p> <p>1, 2.</p>

		<p>In the section 'National strategies, current initiatives', competition is included in the description of current activities in different member states.</p>	<p>Austria: "Jugend Innovativ (Innovative Youth) (EU best practice) is a competition supporting project work in 5 topical areas: business, design, engineering, science and climate protection. The target group is mainly upper secondary students in regular classes. <a href="http://www.jugendinnovativ.at">www.jugendinnovativ.at</a> (only DE)." (p32).</p> <p>Belgium: "COOS: A competition, with the prize of a Trophy for the School team with the best entrepreneurial skills" and "Plan(k)gas: A business plan competition for ISCED 3 (1st-2nd year) in Flanders." (p34).</p> <p>Cyprus: "The University of Cyprus in collaboration with the Ministry of Education and Culture conducts an annual competition on entrepreneurship for students of ISCED 3 (2nd and 3rd year)." (p39).</p> <p>Czech Republic: "...the teachers offer students professional help. They help students to discover and develop their abilities through school or national competitions and include activities in instruction that familiarise students with career opportunities." (p41).  "...gain specific (self-restraint as well as communicative) skills for handling various social situations (situations which are complicated in terms of communication; competition; cooperation; help, etc.) (p41).</p> <p>Latvia: "A national business plan contest for ISCED 3 students is also part of the programme." (p53)</p> <p>Lithuania: "Innovation Camps and Business Contests: Held for students aiming at promoting student entrepreneurship, creative ideas, teamwork, solving of real problems and encouraging students in achieving their goals." (p57).</p> <p>Portugal - "There are a number of schools (mainly at ISCED 3) that develop entrepreneurship education as evidenced by an external evaluation commissioned by the Ministry in 2010. Complementarily, some municipalities developed local strategies to promote entrepreneurship with youngsters (campaigns in schools, contests, workshops, business advisers, etc.). (p66).</p> <p>"The Ministry is preparing a National Contest of Entrepreneurship, for ISCED 3, coupled with awareness campaigns and on-line support for teachers (webinars, entrepreneurship education hotline and workshops in teacher training universities)." (p66).</p> <p>Romania – "The Business Plan Competition, addressed to all registered training firms, was introduced in the school year 2008/09 as a joint initiative of the Ministry of Education, Research, Youth and Sports, the National Centre for the Development of Vocational and Technical Education, KulturKontakt Austria and other social partners." (p67).</p> <p>Slovenia - "Pupils understand the meaning of cooperation, learn about different ways of cooperation, competition and solving conflicts." (p72).</p>	<p>1, 2.</p> <p>2.</p> <p>2.</p> <p>A.</p> <p>1, 2.</p> <p>1, 2, A.</p> <p>2, 4.</p> <p>1, 2.</p> <p>1, 2.</p> <p>A.</p>
--	--	--	--	--



2012	Building Entrepreneurial Mindsets and skills in the EU (EC)	<p>Report provides a rationale for entrepreneurship education and concrete actions members states can take to better support its development; includes guidance on national strategy, good practice and teaching methodologies.</p> <p>Within Chapter 2: The State of Play - Entrepreneurship Education an Uneven Landscape, competition is identified within 'Key features of current practice' section.</p> <p>Within Chapter 4: Developing effective policy and practice: Good practices to support progression.</p> <p>Within the same chapter, in a section on: 'Content, Tools, Methods and Resources for Teaching', competitions are positioned as part of resources and methods which teachers can use or adapt.</p> <p>In the same chapter, included as part of an example of good practice from Germany.</p>	<p>"(iii) it tends not to be assessed as part of the mainstream curriculum: teachers and schools instead rely on in-house prizes and awards, or take part in competitions run by well-known organisations such as Junior Achievement-Young Enterprise (JA-YE), outside of mainstream qualifications." (p18).</p> <p>"Another example is Emax Nordic, which creates a common meeting place for up to 200 young entrepreneurs between the ages of 18 and 25 and organises competitions and prizes." (p42).</p> <p>"In Austria, the Impulse Centre of Entrepreneurship Education (EESI) inter alia provides approved entrepreneurship education textbooks, has created a software tool to measure personality traits and attitudes towards entrepreneurship as a teaching resource for upper secondary schools, and organises business plan competitions, as well as organising an annual entrepreneurship symposium with expert lecturers and workshops" (p47).</p> <p>"During the [business start-up] competition a virtual firm is run over a simulated period of 16 years, from start-up until it is listed on the stock exchange. Teams are composed of players from different types of schools. In addition, a range of support is provided to help schools take advantage of the benefits of using the mini-enterprise approach." (p59).</p>	<p>2.</p> <p>2, D.</p> <p>2, 3.</p> <p>2, 3.</p>

		<p>Included in a section A 'menu of actions': The Oslo Agenda for Entrepreneurship Education (the section reproduces the whole of the agenda) and which stakeholders are relevant.</p> <p>Included within different case studies in a chapter of 'Good practice examples' from different member states.</p>	<p>"F2 Celebrate entrepreneurship education activities and programmes that work well, by organising awards and competitions." (p70).</p> <p>Bulgaria: "The first fair for enterprise education projects took place in 1997, but after a thorough analysis it was decided to move up from an annual domestic event to an international forum on enterprise education where pupils can compete with each other to measure their performance." (p74).</p> <p>Estonia: "Junior Achievement – "Throughout the school year different courses, fairs and competitions are organised for the registered student companies." (p75).</p>	<p>4.</p> <p>2, 8.</p> <p>2.</p>
2013	Entrepreneurship Education: A Guide for Educators (EC)	<p>The report underscores the role of educators in supporting the entrepreneurship education agenda and provides advice and guidance on strategy and actions to involve and develop teachers.</p> <p>In the chapter 'Examples of practice in Initial Teacher Education', within the Entrepreneurial or innovative teaching methods and pedagogies section, competition and its benefits are included within member state case studies.</p>	<p>Macedonia: "NCDIEL also provides additional teaching material and are responsible, together with Bureau for Development of Education (BDE), for the organisation of the National Business Plan Competition among secondary schools. The competition is under the auspices of the prime minister." (p46).</p> <p>England: "'Sector-drop weeks' are arranged to make students familiar with different industry sectors and their professions. The school also runs quizzes and competitions to make students aware of different sectors." (p56).</p> <p>Finland: "YVI is a virtual learning environment that offers competitions." (p60)</p> <p>Germany: "The content of the training is implemented through lesson-related or educational school projects (e.g. foundation of mini-enterprises/school firms or competitions), as well as helping connect teachers with companies." (p62).</p> <p>"Competition engages the community and motivates teachers. JA-YE sees competition as crucial to engaging with the local community and media. Judges of these competitions are typically from the business community, politicians and local / national education authority, which help to get their support behind</p>	<p>3, 2, 1.</p> <p>2.</p> <p>2.</p> <p>3, 5.</p> <p>6, 4, 5, E, C.</p>

			the project. Several awards are given out to mini-companies; teachers and schools are also awarded, and this kind of recognition often creates positive publicity both for the activities but also for the schools and the teachers” (p87).	
2015	Entrepreneurship Education: A Road to Success (EC)	<p>A report compiling 13 case studies to demonstrate the impact of entrepreneurship education.</p> <p>Case study 2 lists reports on the review and evaluation of JA-YE and member organisation activities, listing a wide range of benefits which are demonstrated.</p> <p>In case study 4, The Entrepreneurship Education Project (EEP), competition is identified as a supporting activity.</p> <p>Included in case study 6, UPI, a project developing innovation and entrepreneurship clubs in primary schools.</p> <p>In case study 9, EE Courses in 27 VET schools, Company Programme is highlighted as one of the activities which students do through Young Enterprise Switzerland.</p>	<p>“The most widely known programme run by JA-YE member organisations...is the Company Programme. It consists of five steps (including)... 5) Competing and closing, reporting and participating in competitions.” (p23).</p> <p>“The studies analysed in this report provide abundant information on immediate results (e.g. learning outcomes, increased engagement, intention to start businesses) and intermediate outcomes (e.g., enhanced employability, better earnings, higher rate of startup). Some studies also provide evidence of global impact, namely on economic growth.... (pp22-45 provides details/impact under all these headings).</p> <p>“...,the project includes a number of supporting activities...one of these is a partnership with USABE, and the two parties have created ‘Launch’ a national student business model competition.” (p67).</p> <p>“A UPI course project from (one) primary school resulted in placing an application to the Bauhaus competition for best business plan. As a result, the project was awarded financing which contributed to the re-arrangement of the school foyer into a reading corner.” (p92).</p> <p>“Students are required to present a business plan and business reports throughout the year. They also take part in a national competition and successful companies can attend an international fair trade. The project ends with complete liquidation of the mini-enterprise.” (p118).</p>	<p>2.</p> <p>A, B, G, H, I, F, J.</p> <p>2.</p> <p>9.</p> <p>2.</p>

		<p>In another example (in case study 9), students who get seed funding to develop a business opportunity.</p> <p>In case study 11, Impact of Entrepreneurship Education in Denmark, demonstrated replication of the JA-YE Company Programme.</p> <p>In case study 13, Entrepreneurial Impact, The Role of the MIT, work was undertaken to understand the impact of university activities (including competitions) on businesses and start-ups.</p>	<p>"A yearly competition offers the most successful projects an opportunity to be promoted in the media." (p119).</p> <p>"...participants are required to come up with an idea as well as put it into practice. This includes creating a project plan. The programme ends with students participating in national competitions with a financial prize." (p158).</p> <p>"[a survey examined impact of MIT on revenue, sales and employment levels]...specific groups or activities held at the institution (such as entrepreneurship competitions, entrepreneurship relevant centres and forums, networks of entrepreneurs, etc.)" (p180).</p>	<p>4.</p> <p>1, 2.</p> <p>J.</p>
2015	<p>Entrepreneurship Competence: An Overview of Existing Concepts, Policies and Initiatives Komarkova et al. Joint Research Centre Science and Policy Reports, European Commission.</p>	<p>The report aims to define the state of play in entrepreneurship education, combining insights from a literature review, an inventory of selected initiatives and in-depth case studies.</p> <p>Competition is highlighted as a standard model for delivery in the three-stage theoretical foundation - TRIO – developed by Josef Aff and Johannes Lindner (2005).</p> <p>Identified in a summary describing 'common pedagogical approaches'.</p> <p>First negative comments to be made about competition in any document.</p>	<p>"Level 1 – Entrepreneurial Core Education is concerned with establishing a basic understanding of entrepreneurial learning and become familiarized with developing ideas and putting them into practice e.g. through business plan competitions in order to gain a taste of entrepreneurial activity." (p 53).</p> <p>"However, competitive learning has been found to be a complementary learning experience. The extent to which competitions shape entrepreneurial learning varies from initiative to initiative. In secondary and primary education, competitive elements are being increasingly introduced to give learners the opportunity to validate their ideas and experience the entrepreneurial/start-up environment." (p59).</p> <p>However, the owners of the Junior Entrepreneur Programme in Ireland (Case Study 6) pointed out that competitive learning in primary schools should be used with caution, since it may create an unpleasant environment for learners and teachers alike. The potentially negative effects of competitive elements should, therefore, be taken into account when setting up teaching and learning methods, particularly at lower education levels." (p59).</p>	<p>1, 2.</p> <p>A, 3.</p> <p>3.</p>

	Competition element removed as a result of negative effects in the pilot phase.	"Initially, the JEP programme was based on a competition with one winner. During the pilot phase, the feedback showed this competitive environment had negative effects, creating unhappiness among teachers and pupils. As a result, this approach has been changed to the current model, where the most important aspect is to engage the class in the process and complete all steps of the programme." (p60).	3.
	Competition identified as typical activity for HE students.	"Business ideas generation, competitions, careers guidance and development of social and career networks [Learning outside the curriculum examples from QAA guidance]." (p62).	2
	Competitions are identified as an assessment method.	"From the OvEnt case studies, we learnt that project work and self-evaluation are the assessment methods used most widely, followed by presentations and pitches. Alongside peer evaluation, events and competitions...appear to be the most commonly used as complementary methods." (p65).	8.
	The report identifies the widespread use of competitions, across all phases of education.	"It is interesting to see that traditional start-up methods (pitches, competitions, events, business or idea plan), are to some extent and often in an adapted way – applied across all levels of education. For instance, a primary school level initiative uses less business like terminology when asking children to describe and present their 'big idea' to the 'Dragon Panel'. There is no evidence to identify which assessment method is more appropriate for which competences. (p65).	3, 8.
		"Overall, action based learning, learning-by-doing and collaborative learning seem to be the most widely employed and commonly agreed upon. Competitive learning is complementing the learning experience and self-reflective methods seem to gain importance across education levels." (p74).	3.
	Report identifies that competitive pedagogy has been transferred to lower phases of education.	"From the OvEnt study, we may also conclude that methods associated with start-up programmes – mentoring, networking and competitions – are largely transferred to lower levels of education." (p76).	1, 2, 3.
	Glossary includes a definition of competitive learning, which links its use to achieving 'better learning outcomes.'	"Competitive Learning describes a learning form where competitive elements are used in order to achieve better learning outcomes, frequently resembling a real market economy situation. It is often used by means of business plan and business idea competitions." (p84).	2, 3.

		<p>The OvEnt Inventory includes competitions within several of the case studies/activities/methods it includes....</p>	<p>"The most common pedagogical approaches are learning-by-doing approaches combined with collaborative and to some extents also competitive teaching methods." (p89).</p>	3.
		<p>The Youth Start Model identifies competition as part of its learning objectives, teaching methods and business model.</p>	<p>"The ESP (Entrepreneurial Skills Pass) addresses a variety of entrepreneurship competences covering all components - knowledge, skills and attitudes - and employs wide range of teaching methods, in particular based on learning by doing and collaborative and competitive learning dynamics." (p101).</p>	A, 3.
		<p>Competition features in Youth Starts learning objectives and entrepreneurial competences frameworks.</p>	<p>"Moreover, teaching methods associated with Youth Start are based on hands-on learning (learning-by-doing), competitive learning - applied through business idea and business plan competitions." (p106).</p>	3.
		<p>A range of initiatives from member states are listed describing competitive learning and/or competitions.</p>	<p>"The main summative assessment form is through the 'Next Generation' Business plan and business idea competitions where students are assessed on the basis of the application form as well as on the pitch they present at a competitions final." (p106).</p>	8, 3, 2.
			<p>"Entrepreneurial challenge based learning characterized by Collaborative learning, Challenge Based Learning, hands-on learning (Learning-by-doing), complemented by Competitive learning." (p 109).</p>	3.
			<p>Business Model: "Public-private partnerships for new programmes and competitions." (p110).</p>	5.
			<p>Youth Start learning objectives: "I am ready to take over a task and complete it successfully, also in competitive situations". (p111).</p>	A.
			<p>YouthStart attitude: "competitive (being able to face a competition)." (p112.)</p>	A.
			<p>Next Level Programme (DK): "As a project oriented programme to gain experience in a non-school environment, the primary teaching methods are learning-by-doing, collaborative learning supported by competitive learning, and the programme is based on effectuation perspective." (p120.)</p>	3.
			<p>Next Level Programme (DK): "...students have the opportunity to participate in national competitions (though participation is not mandatory)." (p120).</p>	1, 2.

			<p>Next Level Programme (DK): "The primary target group are lower secondary students with a very active role of teachers. Co-operation with business is not a focus of the programme; however, business has been involved marginally as a partner in the competitions and in the framework of the students' project courses." (p121).</p> <p>Next level (DK) "Teaching Methods: Learning-by-doing, Collaborative learning, Competitive learning, Effectuation perspective." (p122).</p> <p>Next level (DK): "Assessment methods: Project work, Peer-Evaluation, Self-Evaluation; Competition application for those participating in competitions. (p122).</p> <p>JEP Programme (Ireland): "Besides, using a competitive environment as the key pedagogical approach proved to be inadequate at primary education level creating unhappiness among students and teachers." (p126).</p> <p>OEMP Programme: "A particularity is that all of OEMP's teachers are entrepreneurs themselves. The main teaching methods are collaborative learning and self-reflection/self-evaluation supported by competitive learning, applied in some of the extra-curricular activities (e.g. Venture Lab)." (p132).</p> <p>Italy: SIMULIEMPRESA "The didactic methodology draws on action based and practical based learning, in other terms learning by doing, collaborative learning complemented by competitions." (p144).</p> <p>Italy: SIMULIEMPRESA "The assessment methods consist of self-evaluation, project work and are complemented by validation components on the form of fairs and competitions." (p144).</p>	<p>5.</p> <p>3.</p> <p>8.</p> <p>3.</p> <p>3.</p> <p>3.</p> <p>8.</p>
2016	Entrepreneurship Education at school in Europe (EC/EACEA).	<p>A report covering schools and education, and looking at context and definitions, strategic actions and funding, integrations into national curricula and teacher education and good practice case studies.</p> <p>Within a section 'Strategies related to areas within education and training', in the section 'Youth Strategies.'</p>	<p>"The most detailed strategy is the Slovakian National Youth Strategy' .... actions are broad ranging from quantifiable, from mentoring schemes...to encouraging entrepreneurship competitions in the media." (p43).</p>	<p>1, 2.</p>

		Highlighted in a variety of examples of strategies and activities to develop entrepreneurship in education.	<p>Austria – ‘... national funding covers different activities...including...the competition ‘Jugend Innovativ’, a competition for pupils’ and students’ innovative ideas in business, design, engineering and science and the thematic fields of ICT and climate protection.” (p58).</p> <p>“Micro-financing student initiatives are even rarer in European curricula; the only example found within normal curricula is in Austria, in general upper secondary education, where it operates as part of the project competition 'Innovative Youth' (Jugend Innovativ). It is also available in IVET but not as part of the curriculum; it operates through crowd funding platforms catering specifically for student projects.” (p77).</p> <p>“A regards methodology, all programmes are committed to active and meaningful learning connected to the real world. They are often structured as educational micro-companies (involving youth associations, cooperatives, production companies, businesses, etc.) or are organised as competitions for projects. Participation in these programmes is optional for educational institutions.” (p78).</p> <p>“Another means through which pupils can get the chance to participate in a practical entrepreneurial experience are 'best ideas' or business competitions. They are already being run in many European countries, in a variety of ways.” (p78).</p> <p>“...Of course, this is clearly an extra-curricular activity which is limited in scope and in terms of participation numbers, as it generally involves a pupil selection process. Another limitation is that rather than attracting the average pupil, there is bias to 'self-selection', meaning that the pupils with the most developed entrepreneurial skills are probably the ones who apply. Nevertheless, these competitions can be interesting in terms of the methods used and in motivating pupils (p79)</p>	2.
		A range of initiatives from member states are listed describing the strategy and activities countries are undertaking to develop entrepreneurship education.	<p>Austria: “... the objective of the idea competition ‘Next Generation’ is that students in vocational education work on their own ideas but they are put in contact with business coaches. At the 'Festivals of Ideas', students and teachers learn about other students’ ideas.” (p79).</p> <p>United Kingdom: “...there are a number of national initiatives which provide pupils with entrepreneurial activities. They include, amongst others: 'Tycoons in Schools' – a</p>	1, 2.
				1, 2.
				1, 2.
				A, B.
				A, 5.
				1, 2.



		<p>national enterprise challenge in schools. The competition allows students to start and run a business whilst at school or college, thereby allowing them to gain valuable hands-on experience of what is involved in running a business. Other examples are the 'Enterprise Challenge Programme', giving schools the opportunity to set up and manage a business: the 'Tenner Challenge' is a business competition and micro-financing initiative for young people aged 11-19 who want to get a taste of what it's like to be an entrepreneur. It gives them a chance to think of a new business idea and make it happen, using real money (GBP 10), thus to take calculated risks in the business field, make a profit – and use this to make a difference to the community; the 'Fiver Challenge' provides similar opportunities for primary school pupils (aged 5-11 years). Both programmes operate across all four part of the United Kingdom.” (p79).</p> <p>Wales: “'Enterprise Troopers' is a national primary school competition to encourage enterprise in primary schools.” (p79).</p> <p>Iceland: “The 'Entrepreneurial Student's Competition' (Nýsköpunarkeppni grunnskólanemenda) is for 10 to 12-year-olds and is run all year round. The main goal of the competition is to activate children's creativity across the country. Each spring, a workshop takes place where all ideas that made it to the finals are produced with the assistance of an instructor. The workshop ends with a grand final celebration.” (p79).</p> <p>Romania: “15 regional centres have been established to disseminate the teaching materials and methodology developed within the 'Practice Enterprise' Project .... Central authorities support the activities of this regional network by organising competitions on entrepreneurial topics and monitoring how these activities can support the development of the entrepreneurial spirit.” (p102).</p> <p>Belgium: “Teacher training institutes have autonomy in terms of what they include in ITE. VLAJO (linked to Junior Achievement) and UNIZO act as expertise centres on EE, conducting ad hoc teacher training and organising numerous extra-curricular activities and competitions. They are both partly funded by the government of Flanders.” (p135).</p> <p>Denmark: “Implement an innovation competition for students in primary and secondary education.” (p142).</p> <p>Croatia: “Develop a creative approach towards challenges, changes, stresses, conflicts, and competition.” (p156).</p>	<p>1, 2.</p> <p>A.</p> <p>1, A.</p> <p>3.</p> <p>1, 2.</p> <p>1, A.</p>
--	--	--	---

			<p>Lithuania – features in the national strategy as a way of acquiring entrepreneurial competencies: “Entrepreneurship education is a cross-curricula objective at all levels of education through the 'National Programme of Economics and Entrepreneurship' for basic education. This is based on the key competences including entrepreneurship, communication, learning to learn and citizenship. The programme provides possibilities for teaching and learning in different ways e.g. student companies and business competitions.” (p165).</p>	1, A, 3, 2.
			<p>Poland – “Teachers are also encouraged to enrol in projects and competitions together with their students e.g. <i>Finansoaktywni</i> – an educational programme on financial education for teachers and students in lower secondary schools organised by the Ministry of Finance.” (p181).</p>	6, 3.
			<p>Portugal: “Initiative INOVA – Learning Enterprise – which aims to encourage young people to develop initiatives that contribute to the resolution of problems in the communities in which they live and can involve (regional/national) competitions.” (p183).</p>	2.
			<p>Romania: “Within the follow-up project ‘Training the Teachers in VET’, 15 centres have been established to disseminate the teaching materials and methodology developed within the project. Central authorities support the activities of this regional network by organising competitions on entrepreneurial topics and monitoring how these activities can support the development of the entrepreneurial spirit.” (p187).</p>	3, A.
			<p>Slovakia: “Encourage entrepreneurial competitions for young people in the media.” (p192).</p>	1, 4.
			<p>Sweden: “To develop a new concept of professional competitions in school-based vocational upper and secondary education.” (p197).</p>	1, 2.
			<p>Iceland: “The only nationally funded activity is NKG, a competition in innovation for students aged 10-12. This is funded by the state and delivered by a private company that runs and oversees the competition.” (p214).</p>	1, 2.

## Legend

Code	Approximate Label (characterized as)	Code	Approximate Label (outcomes)
1	Part of an EE Strategy	A	Develops skills
2	Good practice model	B	Motivates students
3	Teaching method	C	Rewards teachers
4	Dissemination activity	D	Students are 'Inspired by Peers'
5	Engage private sector	E	Rewards students
6	Engage teachers	F	Better start up rates
7	Incentivizes participation	G	Increased entrepreneurial intention
8	Assessment method	H	Better employability
9	Offer cash prize	I	Higher earnings
		J	Economic growth