Developing entrepreneurship competencies
Parallel session 3

22-23 February 2018
Mexico City
### Background information

This paper was prepared as a background document to the OECD Ministerial Conference on Small and Medium-sized Enterprises, taking place on 22-23 February 2018 in Mexico. It sets a basis for reflection and discussion.

### About the Ministerial Conference

The 2018 OECD Ministerial Conference on Strengthening SMEs and Entrepreneurship for Productivity and Inclusive Growth is part of the OECD Bologna Process on SME and Entrepreneurship Policies. The Conference will provide a platform for a high-level Ministerial dialogue on current key issues related to SMEs and entrepreneurship. It will seek to advance the global agenda on how governments can help strengthen SME contributions to productivity and inclusive growth; how SMEs can help address major trends and challenges in the economy and society; and how the OECD can support governments in designing and implementing effective SME policies.

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2018 SME Ministerial Conference

Developing entrepreneurship competencies

Policy note
Summary

- Entrepreneurship competencies combine creativity, a sense of initiative, problem-solving, the ability to marshal resources, and financial and technological knowledge. These competencies enable entrepreneurs and entrepreneurial employees to provoke and adapt to change. They can be developed through entrepreneurship education and training that focus on promoting an entrepreneurial mindset and behaviours.

- Schools, vocational and higher education institutions are increasingly developing these competencies in students by enriching their study programmes with dedicated entrepreneurship education courses, either as self-standing modules or embedded into curricula. Problem-based teaching and assessment methods are particularly successful.

- Key priorities for public policy include introducing a progressive approach to entrepreneurship education over the student’s lifetime; specialised entrepreneurship education training and support for teachers; and strengthened business start-up support in vocational and higher education institutions, including linkages between education institutions and existing business support organisations.

Questions for discussion

1. How can government approaches to promoting entrepreneurship competencies be enhanced? How can collaboration be achieved across relevant government ministries?

2. What are current trends and gaps in developing entrepreneurship competencies from early levels of education to university? How can links between entrepreneurship education and start-up support be strengthened?

3. How can the impact of entrepreneurship education and different entrepreneurship education approaches on business start-up and SME innovation performance be assessed? How can entrepreneurial culture and entrepreneurship attitudes be measured?

Why does it matter?

Entrepreneurial employees are among the major enablers of SME innovation. They are critical to the capacity of SMEs to provoke and adapt to change, alongside entrepreneurs themselves, who fulfil a three-fold role as creators, organisers and market-makers (Schoonhoven and Romanelli, 2002). There is an underlying set of entrepreneurship competencies that allows individuals to identify, create and act upon opportunities in order to create value, by marshalling resources, demonstrating self-efficacy and confidence in ability to achieve, and persisting in the face of obstacles (OECD, 2014). The formal education system can make an important contribution to the development of these entrepreneurial competencies.
What are current trends and challenges?

A perceived lack of capabilities remains one of the most frequently cited barriers for people to start a business. This is in particular a challenge for the youth (18-30 years old), who have to rely more on education to gain relevant knowledge and skills. Across all OECD countries, more than half of the youth surveyed in the period 2012-16 reported a lack of entrepreneurship knowledge and skills (OECD/European Union 2017a).

One of the aims of developing competencies for entrepreneurship is to reduce the fear of failure through a combination of measures focused on awareness-raising, as well as providing knowledge and know-how that allow individuals to demonstrate resilience and persistence in the face of obstacles. This continues to be an important area for intervention, since in most OECD countries, fear of failure as an impediment for starting a business has been rising (Figure 1).

Figure 1. Fear of failure, 2006, 2010 and 2014

Percentage of 18-64 year-old population, who indicates that fear of failure would prevent them from setting up a business

Note: New Zealand refer to 2005 instead of 2006; Austria, Israel, Portugal and Switzerland refer to 2007 instead of 2006; Czech Republic, Poland and Slovak Republic refer to 2011 instead of 2010; Czech Republic, Israel, Korea, Latvia and Turkey refer to 2013 instead of 2014.
Source: OECD (2017b), based on data from the Global Entrepreneurship Monitor.

Globally, efforts to build entrepreneurship competencies through education have increased significantly over time. In many OECD countries, schools, vocational education and training institutions and higher education institutions are enriching their study programmes with dedicated courses on how to start a business, either as self-standing modules or embedded into curricula. As part of lifelong learning, these courses also target individuals already working in firms, including SMEs. In Europe, 27 out of 38 countries participating in Eurydice (the European Union’s network to enhance cooperation in lifelong learning) dedicate public funding to entrepreneurship education (Eurydice, 2016). Developing countries are also becoming more active in this area. In several African states, the United Nations Industrial Development Organization (UNIDO) collaborates with governments through the Entrepreneurship Curriculum Programme to

**A common aim is to nurture an entrepreneurial culture and to stimulate innovation.** Emphasis is placed on helping people to consider the desirability and feasibility of starting a business or acting entrepreneurially as an employee - and to develop the ability to cope with failure. Recent survey results show that progress requires long-term endeavours. The share of people reporting possessing the knowledge and skills to start a business has not grown significantly over the period 2006-14 (Figure 2).

**Figure 2. Perceived capabilities for entrepreneurship, 2006, 2010 and 2014**

Percentage of 18-64 year-old population, who believes they have the required skills and knowledge to start a business

![Figure 2](image.png)

*Note: New Zealand refer to 2005 instead of 2006; Austria, Israel, Portugal and Switzerland refer to 2007 instead of 2006; Czech Republic, Poland and Slovak Republic refer to 2011 instead of 2010; Czech Republic, Israel, Korea, Latvia and Turkey refer to 2013 instead of 2014. Source: OECD (2017b), based on data from the Global Entrepreneurship Monitor.*

Competencies for entrepreneurship need to be developed over the full course of education, with the extent of business start-up orientation being increased in later years (OECD, 2014). Several countries (e.g. US, Ireland, Denmark) have opted for a progressive approach in which early intervention is followed up by evenly distributed interventions throughout secondary and tertiary education. However, in many countries there is a lack of entrepreneurship education activities in lower levels of education (GEM, 2017). When early intervention does not take place, however, it will be challenging to develop certain entrepreneurship competencies at later stages (Cunha and Heckman, 2010).

There is an increasing move to codify entrepreneurship competencies in order to help design and deliver appropriate education responses. Entrecomp, for example, is a competence framework used in European Union countries (see Table 1) For each of the competencies, the framework sets out a set of defined learning outcomes and a description of different levels of achievement. The aim is to encourage the use of the framework for curricula design and teacher training (European Commission, 2016).
Table 1. The entrepreneurship competencies identified in the EntreComp entrepreneurship competency framework

<table>
<thead>
<tr>
<th>Ideas and opportunities</th>
<th>Resources</th>
<th>Translation into action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spotting opportunities</td>
<td>Self-awareness and self-efficacy</td>
<td>Initiative taking</td>
</tr>
<tr>
<td>Creativity</td>
<td>Motivation and perseverance</td>
<td>Planning and management</td>
</tr>
<tr>
<td>Envisioning</td>
<td>Mobilising resources</td>
<td>Coping with uncertainty, ambiguity and risk</td>
</tr>
<tr>
<td>Valuing ideas</td>
<td>Financial and economic literacy</td>
<td>Working with others</td>
</tr>
<tr>
<td>Ethical and sustainable thinking</td>
<td>Mobilising others</td>
<td>Learning through experience</td>
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</tbody>
</table>


A common approach in entrepreneurship education is problem-based learning (OECD, 2014b), the success of which depends on the overall learning environment. Findings from the OECD’s Programme for International Student Assessment (PISA) show that the teaching and learning methods used in some countries are more effective at developing problem solving skills than others, and even countries which are very good at teaching reading, mathematics and science literacy can be weaker in developing students’ problem-solving abilities (OECD, 2017a).

Traineeships, study visits and “job shadowing” can potentially represent very conducive learning environments for problem-based learning and the development of entrepreneurship competencies. Large firms and multinational companies are good at making use of engagement opportunities through well-structured programmes. SMEs, instead, often face collaboration barriers related to size and a lack of structured contacts with educational institutions (OECD, 2015a).

In addition, teachers play a fundamental role in building entrepreneurship competencies. Effective teaching requires adequate preparation time from teachers, tailored education material and guidelines that facilitate the collaboration with external partners (OECD, 2015b). In many countries, teacher networks have been formed to provide peer support for this (e.g. US Network for Teaching Entrepreneurship, NFTE), whereas public policy has so far played a less active role.

So far, most efforts to promote entrepreneurship competencies have been undertaken in higher education institutions, where incubation facilities, mentoring and support to access financing are growing quickly, partly in response to an increasing demand from students and young scientists, as well as opportunities to commercialise research (OECD/European Union, 2017b). At this level, there has been an increase in best practice exchange among stakeholders across different institutions. For example, HEInnovate, a joint initiative of the European Commission and the OECD, is a guiding framework to establish effective approaches to support entrepreneurship and innovation though higher education. Part of this is an on-line development platform (www.heinnovate.eu) that supports higher education institutions to design and implement graduate start-up support actions, as well as entrepreneurship education and knowledge exchange mechanisms more generally. The framework also provides guidance on how to create effective linkages between HEIs and SMEs. However, there has been less activity and exchange at upper secondary and vocational levels of education.
What are key areas for policy to consider?

Formal education can play an important role in developing entrepreneurship competencies. However, a cultural shift is likely to take a generation, if not more. For governments, this means a long-term commitment to supporting entrepreneurship through education. Key areas for policy consideration are:

- **Developing a progressive approach to promoting entrepreneurship competencies that builds up with the stage of education.** Efforts to develop entrepreneurship competencies through formal education will be most effective if organised in a progressive way that covers all levels of education, starting early on with laying out the foundations of an entrepreneurial mind-set and building on this with targeted and specific activities the closer learners get to choose their career paths.

- **Supporting teachers.** Teachers need to be supported in their new roles of promoting entrepreneurship competencies. Continuous professional development, temporary mobility programmes to gain work experience in industry and civil society, the involvement of teachers in new curricula design, and sharing monitoring and evaluation information on the success of different entrepreneurship education approaches are promising ways of support.

- **Closing gaps in start-up support.** Activities to develop entrepreneurship competencies should be paired with business start-up supports for students who are motivated and able to start a business in the near future, starting at upper secondary level and continuing through vocational and higher education. Close connections between education institutions and support offered by local business support organisations such as business incubation, finance and mentoring are important to achieve this objective. Students in higher education should be supported to combine studies and their start-up efforts, for example by receiving a special status similar to sport champions.

- **Policy co-ordination.** Providing a sustainable answer to the question of how to effectively develop entrepreneurship competencies brings together different policy portfolios. The aim should be to carefully balance different objectives - education, employability, innovation - to prepare learners to succeed in an unknown future. A cross-portfolio approach is needed that involves collaborations across different ministries, facilitates co-ordination and tailoring of activities across different levels of education, and allocates financial resources in a balanced and mutually-supportive manner.
Further Reading


OECD (2015a), Skills and learning strategies for innovation in SMEs, Working Party on SME and Entrepreneurship, CFE/SME(2014)3/REV1


