



THE ENTREPRENEURIAL CONTINUUM



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The entrepreneurial continuum concept was proposed by the ETF at the ETF International Conference 'Torino Process 2015 – Moving Skills Forward Together', 3–4 June 2015, Turin. It includes ETF work on skills policies foresight (2012–15), entrepreneurial governance (since 2012), entrepreneurial communities (2013–16) and entrepreneurial learning (since 2006). The authorship and writing contributions are included in the bibliography at the end of this paper.

The ETF is the European Union's agency that helps transition and developing countries to harness the potential of their human capital through the reform of education, training and labour market systems in the context of the European Union's external relations policy.

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The 21st century economy requires a more flexible and innovative workforce able to meet the challenges of globalisation, including unforeseen economic crises and their impact on employment. The policy debate increasingly centres on building a more entrepreneurial culture, and on how education and training can contribute to this process. However, this transformation will not be complete if it focuses exclusively on getting people into work and does not consider what happens to them afterwards: their career paths, further education and training, as well as their empowerment as learners and responsible citizens in a lifelong perspective.

The ultimate goals of education and training are associated with learners' capabilities to succeed in life. Making people aware of their full potential and helping them to be confident about using it is an essential part of both schooling and non-formal education and training. It is equally important to make learners aware of their expanding horizons and enable them to excel in highly uncertain environments.

Entrepreneurship education should enable learners to identify and seize the right opportunities at the right time, in the right place and for the right reasons. However, most approaches to entrepreneurship education today are based on yesterday's world, in which the past was often a good predictor of the future. Entrepreneurship, on the other hand, is about creating new opportunities in uncertain environments.

This is why the European Training Foundation's (ETF) approach to entrepreneurial learning is all about helping learners to think ahead, adapt and innovate.

Furthermore, the ETF sees entrepreneurship as something that happens within an eco-system that reaches beyond individuals to include communities, institutions and policies in a continuous spiral of interaction. This is how the entrepreneurial continuum contributes to sustainable development and, in particular, to growth, competitiveness, jobs creation and social cohesion.

WHY AN ENTREPRENEURIAL CONTINUUM?

If we want to have dynamic, cross-disciplinary entrepreneurship education that is genuinely entrepreneurial¹, we need to bear in mind that entrepreneurship is complex, chaotic, and non-linear². Complex systems theory claims that the universe is full of systems or eco-systems. These systems connect and interact with each other in unpredictable and unplanned ways and constantly adapt to their changing environments. Individual systems are therefore both independent and inter-dependent.

¹ Kent, 1990 ('Entrepreneurship education must be entrepreneurial')

² Neck and Greene, 2011

The whole is greater than the sum of its parts.

Aristotle

A successful entrepreneurial learner is not a lone runner: she or he is successful as a member of an empowering welfare society to whose prosperity and stability s/he is able to contribute.

The ETF defines entrepreneurial success within this overall context. It is therefore essential to take a systemic approach to entrepreneurial learning. Successful entrepreneurial learning is a continuous cycle of action including learning, testing, and experimenting and which forms 'reflective entrepreneurs'. Within these spirals of continuous action, reflective entrepreneurs interact with institutions and entire communities, which are complex adaptive systems in themselves. In other words, institutional and community environments change and, therefore, all of them, namely learners, institutions and communities, must continuously change to adapt. However, as they change themselves, they change their environments in a constantly evolving process.

Learning from this process is therefore critical for systems to adapt appropriately and influence their environments, better predict future changes and be ready for them. The framework for such an enabling context should be **public policies** that recognize and nurture entrepreneurship and which **should themselves be entrepreneurial**.

This is the entrepreneurial continuum of complex systems, consisting of many parts acting and reacting to each other and interconnecting for mutual benefit, leading to win-win scenarios. The **entrepreneurial continuum** embodies the coherence of the whole as well as the benefits of integrating different components into a functioning pattern free of centralised control that **follows the logic of complex adaptive systems**.

There is a close correlation between high levels of entrepreneurship and territorial economic growth. This is the business dimension of entrepreneurship, which illustrates the coherence and interdependence of the components of the entrepreneurial continuum. Unsurprisingly, local policy makers seeking ways to accelerate economic growth in their communities are interested in policies that generate more entrepreneurship.

However, the question remains of why **some territories are more entrepreneurial than others** especially where there is both an abundance of smaller firms and community success. One possibility is that there are high returns for entrepreneurs in particular places and in particular industries. This is the connection between *individuals, businesses and local policy makers* or, a '**commonality of interests**' that **generates interdependence and is followed by mutually beneficial collective action**.

In her classic study of Silicon Valley, AnnaLee Saxenian noted an abundance of smaller, independent firms relative to Boston's Route 128 corridor. These firms, she argued, caused further entrepreneurship because they lowered the effective cost of entry through the development of independent suppliers, venture capitalists, and an entrepreneurial culture.

[T]here is a robust link between educational institutions and certain types of high return entrepreneurship. The history of Silicon Valley would be totally different without Stanford. Good universities have faculty members who are involved in local start-ups and train students who may become entrepreneurs and the employees of entrepreneurs. These facts do not imply that universities should be locally subsidized, but they do suggest that imposing costs that restrict the growth of such institutions can be costly. (Glaeser and Kerr, 2010)

In other words, we see that an individual advancement towards being successfully entrepreneurial is facilitated by highly performant education and training providers, businesses that invest in education

and training and public policies that do not create barriers but seize the potential and generate opportunities for boosting it.

In addition to this kind of **business-oriented economic growth**, entrepreneurial learning increases the likelihood of creating a **more inclusive and fair labour market**.

In a world where 1% have more wealth than all the rest combined, the fight against poverty will not be won until global inequality is tackled. Youth unemployment in Europe is dramatically high. At the end of 2015 20% of young people were jobless³ – more than double the rate for the general population (9%). In addition to poverty and youth unemployment, a further inequality is the fact that, in Europe, women constitute only 32% of the self-employed workforce⁴, only 15% of the owners of start-ups⁵, only 21% of the board members of listed companies⁶, and file only 8.3% of patents awarded by the European Patent Office⁷. Entrepreneurial learning and funding can help address these issues, as can *social entrepreneurship* and the *social economy*. This is not just about social equity; it is mainly an economic issue. These concepts are not new, but they are only just beginning to move up the political agenda.

It is therefore desirable for individuals to become entrepreneurial, but individual action does not create the critical mass necessary for sustainable progress. Citizens should learn to be entrepreneurial, and societies should give them a reasonable chance of success by helping to break down barriers. In other words, the entrepreneurial continuum is a collective, coherent and complementary action of communities, institutions as well as citizens facilitated by entrepreneurial public policies. By way of conclusion, we can say the entrepreneurial continuum follows the logic of complex adaptive systems.

FIGURE 1. THE ENTREPRENEURIAL CONTINUUM



³ Eurostat, 2016a

⁴ Eurostat, 2016b

⁵ German Startups Association, 2015

⁶ European Commission, 2015

⁷ European Commission, 2008

THE ENTREPRENEURIAL CONTINUUM IN ACTION AT THE ETF

Entrepreneurial policies

The ETF's 29 partner countries reflect global diversity. They span G20 or OECD members and low-income countries. The ETF must **manage this diversity when addressing human capital development**. Therefore, the **policy learning** processes that the ETF activates must be able to contextualize and differentiate actions accordingly. There are nevertheless common principles associated to the kind of policy analysis advocated by the ETF that cover all phases of the policy cycle, namely policy formulation, policy adoption, implementation, monitoring and evaluation, as well as re-formulation (when necessary) to re-launch the policy cycle. The principles focus on the essentials of public policy making, notably that it should be evidence-based, participatory, holistic and owned by the country. These are elements of an entrepreneurial public policy that 'invents the future' and helps to make the results of the policy choices agreed by multiple actors predictable (ex-ante impact assessment can mitigate policy risks). This leads to improved transparency and accountability in public policies to the benefit of citizens. The ETF's **Torino Process**, an evidence-based biennial analysis of vocational education and training (VET) based on country ownership and broad and open participation of stakeholders from the public and private sectors follows these principles.

At the ETF 'inventing the future' translates into **foresight of public policies for human capital development**. The ETF is among the few organisations active in this field, which it pioneered in the partner countries of South Eastern Europe. The ETF methodology defines human capital as an asset of an entire country and not something fragmented into distinct sectors. Human capital is a complex system. The method, which uses interactive public consultation and structured communication techniques, helps to bring together the distinct agendas of government, business and citizens in a future perspective. In the case of business, the methodology prioritises employers and their associations as the economic sectors capable of generating competitiveness, economic growth and creating jobs within modern, cohesive societies. This is a way of selecting strategic and innovative priorities for investing scarce resources in human capital development. More information can be found under the ETF project FRAME – Skills for the Future⁸.

Entrepreneurial governance

Another component of the continuum is entrepreneurial institutions, which the ETF sees as the **entrepreneurial governance of public policies for human capital development**. Focusing on skills and VET, governance should be good, efficient, accountable and anticipatory. The ETF takes a functional approach to governance, emphasising the interaction among institutions, processes, traditions and cultures. Governance determines how power is exercised, how decisions are taken, and how stakeholders have their say. Being about power, relationships and accountability, the governance of entrepreneurship is key to policies that lead to results. The results are for the beneficiaries: the citizens and learners striving to become even more entrepreneurial.

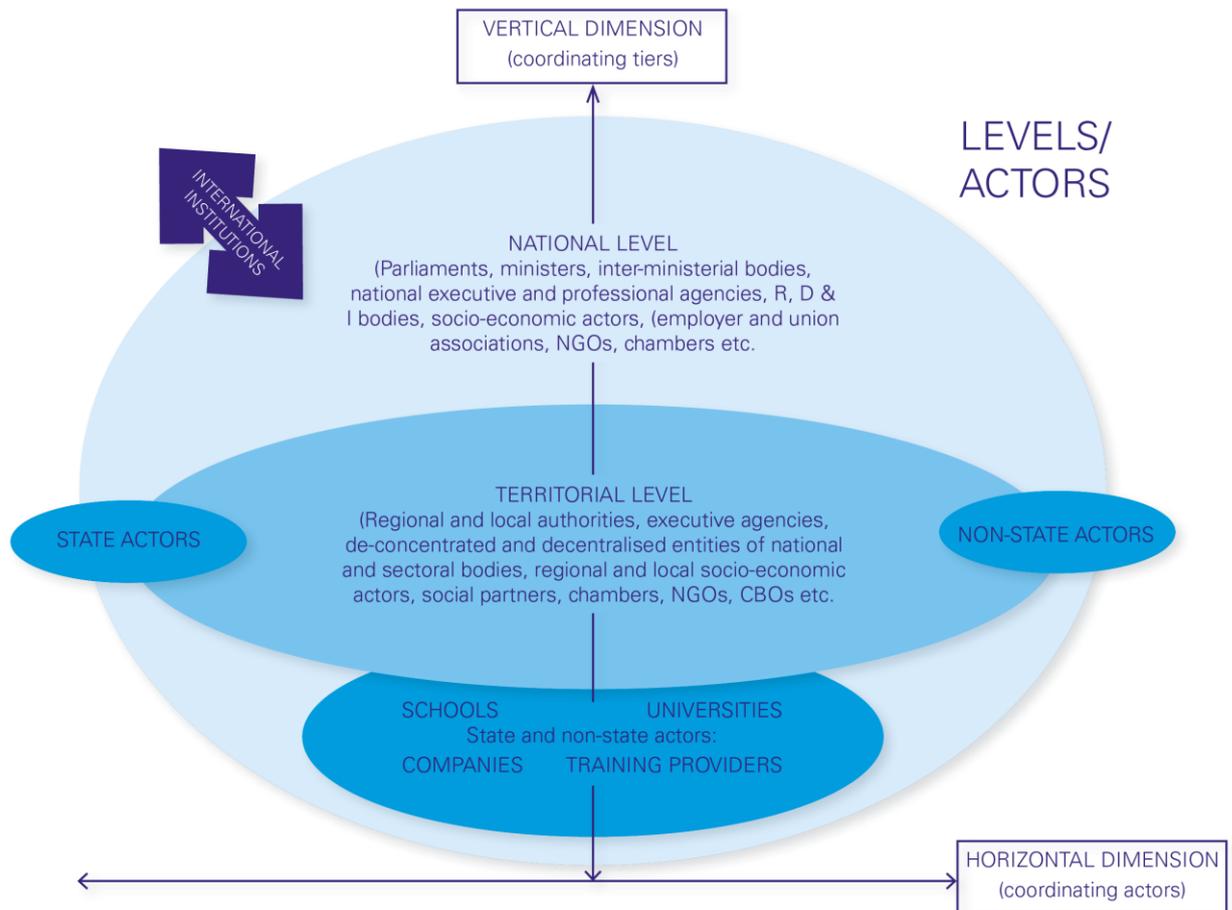
At the ETF, multi-level governance is seen from a functional VET system perspective rather than just in terms of institutional arrangements (see Figure 2 below).

⁸ See www.etf.europa.eu/web.nsf/pages/Frame_project

For the horizontal dimension of multi-level governance, it is important to underline the importance of the participation of business and civil society representatives, in addition to governments. Education and training providers and research and innovation powerhouses are as important as the others are.

The vertical dimension illustrates the interplay between decision-making layers, with roles and responsibilities defined by national constitutions and public administrations. Loyalty among levels and their accountability in terms of results is highly important.

FIGURE 2. THE ACTORS IN VET MULTI-LEVEL GOVERNANCE



Entrepreneurial communities

The ETF proposes expanding the focus **from institution-driven to community-based multi-level governance**. The significance of the role of institutions such as universities as drivers of transformation is not questioned. The ETF's message is about co-creation and co-responsibility. Universities cannot act alone. Without skills for technology transfer, technological innovation remains in the laboratory, and for the VET system, the message is the same: providing skills without knowing why is equally counterproductive.

There are examples of good practice in the governance of institutions acting together, as there are examples of shared agendas for the benefit of communities, which the ETF calls entrepreneurial communities. Communities that are not yet entrepreneurial should be supported to become so according to their innovation potential.

The ETF therefore seeks to foster and sustain *smart territories*. This can be achieved by connecting innovation, research, development, education and training (or as actors in society, government,

research entities, education and training providers, businesses and civil society) in the logic of a quintuple helix. By doing this, social capital can be combined with human, cultural and intellectual capital.

Entrepreneurial learning is as much for citizens as it is for institutions. All should act together to foster the wellbeing of their communities.

Individuals as reflective entrepreneurs

The ETF's support for entrepreneurial learning in its partner countries reflects a growing interest at EU level in entrepreneurship as a critical element in the wider policy effort to build more competitive, job-creating economies (European Commission, 2013).

The ETF defines entrepreneurial learning as all forms of education and training (formal, non-formal, informal) that contribute to an entrepreneurial attitude or behaviour, without this necessarily being linked to starting or running a business.

Entrepreneurship is not predictable, but it can be taught using practice-based teaching methods. Innovation-driven entrepreneurship is what makes the difference in getting lasting results. This has significant implications for policy makers, schools and universities, and especially for teachers, pupils and students, as the teaching and learning process helps build the entrepreneurship key competence (European Commission, 2016).

The entrepreneurship key competence comprises psychological and behavioural traits – e.g. creativity, opportunity identification and risk assessment (Bacigalupo et al., 2016). It is essential in building the entrepreneurial mindset and culture (OECD et al., 2016). However, creating this cultural change requires partnership and commitment by a wide range of actors – national and local government through policy and support structures, and business, schools and local communities to see through policy implementation –, and includes pupils, students and workers, all of whom make up the entrepreneurial continuum. The interdependence and responsibility of all actors in this entrepreneurial continuum is a core feature of the ETF's policy monitoring and support tools (ETF, 2013a).

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The links to *FRAME: Skills for the Future* documents are available on that page:

- *Foresight*, A methodological guide, ETF, Turin, 2014 (and *Foresight Interactive Guide*: https://connections.etf.europa.eu/wikis/home?lang=en-gb#!/wiki/Waf3b410daf0b_49f0_9a8e_897181655904/page/Welcome)
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- *Monitoring tool: A set of guidelines for assessing progress towards the Skills Vision 2020*, ETF, Turin, 2014
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- Algeria
<https://www.youtube.com/watch?v=ecE8X8TY1x4&list=PLYK8JpvJRLjjaZJts7falk19Y7o5hhZe&index=2>
- Making a difference – Algeria
<https://www.youtube.com/watch?v=3ZYkUwqqKUI>
- Belarus
<https://www.youtube.com/watch?v=rWUJdJrKr1E&index=1&list=PLYK8JpvJRLjjaZJts7falk19Y7o5hhZe>
- Follow up Belarus
<https://www.youtube.com/watch?v=coEexaEaqmc&index=16&list=PLYK8JpvJRLjjaZJts7falk19Y7o5hhZe>
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<https://www.youtube.com/watch?v=8HmVKWY2-Fk>
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<https://www.youtube.com/watch?v=ELeahECJgfk&index=6&list=PLYK8JpvJRLjjaZJts7falk19Y7o5hhZe>
- Follow up Israel
<https://www.youtube.com/watch?v=snl25-LvDgE&list=PLYK8JpvJRLjjaZJts7falk19Y7o5hhZe&index=17>
- Jordan
<https://www.youtube.com/watch?v=KdS6svnYXmU&index=7&list=PLYK8JpvJRLjjaZJts7falk19Y7o5hhZe>

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<https://www.youtube.com/watch?v=sWa8GGj0788>
- Lebanon
<https://www.youtube.com/watch?v=ko62S35QsJc&index=5&list=PLYK8JpvJRLjjaZJts7falk19Y7o5hhZe>
- Moldova
<https://www.youtube.com/watch?v=WlJwyaLuPeI&index=4&list=PLYK8JpvJRLjjaZJts7falk19Y7o5hhZe>
- Follow up Moldova
<https://www.youtube.com/watch?v=49UjfAGc8E4&list=PLYK8JpvJRLjjaZJts7falk19Y7o5hhZe&index=18>
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