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A quick overview of entrepreneurial interventions in higher education institutions

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4th March 2021

Update March 2022

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1. Introduction

A key objective of the BeyondScale project is to make existing knowledge available to higher education practitioners on organisational change processes that integrate entrepreneurship into colleges and universities. This is done through systematic reviews of scientific literature and other relevant documents, especially the case studies, that are available on the HEInnovate platform. The aim of the reviews is to identify typical entrepreneurial activities and measures in universities. The analysis covers all aspects of implementation, i.e. also the barriers encountered and mechanisms used to promote impact. At the same time, a distinction was made between the so-called inbound and outbound activities. Inbound projects refer to a set of activities undertaken by a HEI that focuses primarily on HEI-internal matters and its internal stakeholders (e.g. staff, students). Examples are the development of the management capacity of the institution, the development of the institution's curriculum, the development of the institution's entrepreneurial support systems. Outbound projects refer to a set of activities undertaken by a project partner that focuses on external matters and external stakeholders, such as engagement with the professional field in the development of academic programmes and R&D activities, engagement in social entrepreneurship activities or engagement with regional bodies to develop entrepreneurial educational, economic, social and cultural plans at a regional level. Also, activities aimed at the internationalisation of the institution are part of outbound activities.

In this short paper, the major outcomes of these reviews and analysis will be presented in a very condensed manner as the paper aims to provide a quick start and first insight.

2. Understanding entrepreneurial change processes in higher education institutions

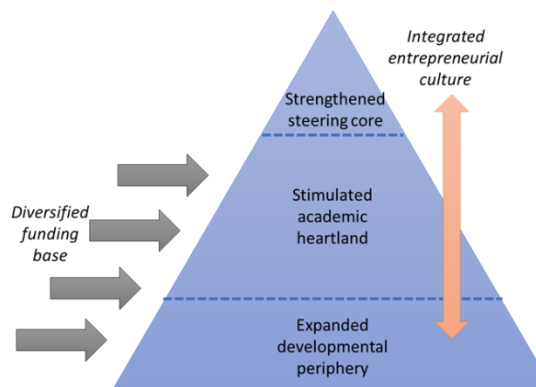
Two frameworks guided the analysis of the literature and documents (see figure 1). The first bases on Clark's (1998) famous case studies that sets out five dimensions that need to be addressed when implementing or enhancing entrepreneurship in higher education institutions. These dimensions include:

- **Strengthened steering core** – This core refers to the institutions' capacities to steer themselves, which needs to select a management approach that embraces the whole of the institution, i.e., involving central faculty in the decision-making and fusing academic with managerial values.
- **Expanded developmental periphery** – refers to (infra)structures that allow higher education institutions to collaborate with outside groups and organisations. Currently, the term "ecosystem" is used to depict how higher education institutions are embedded in their environment and social networks.
- **Diversified funding base** – Entrepreneurial universities gain their funding from different sources. Diversifying the funding base can increase the HEI's income and allows them to cross-subsidise activities within the organisation.
- **Stimulated academic heartland** – Becoming more entrepreneurial across the whole of the HEI requires that also the traditional units and staff engage with the institution's new departments and incorporate the more managerial values.

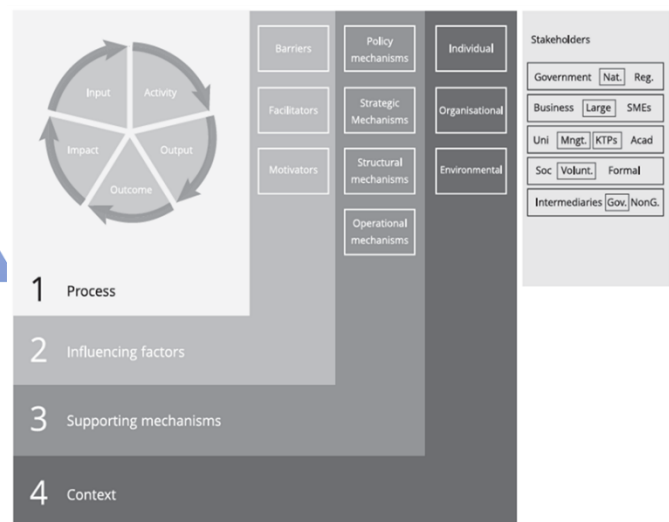
- **Integrated entrepreneurial culture** – Entrepreneurial universities have a culture that embraces change. This feature enables them to flexibly adapt to the external demands and facilitates collaboration with outside groups and organisations.

While Clark’s dimensions demonstrate in what areas change takes place, the second selected framework (Davey et al, 2018) zooms in on the process of change. At the heart of the framework are the actual process, in which activities and input lead to outputs, but also to envisaged outcomes and impacts. Embedding the process in different layers that set out influencing factors, supporting mechanism and other aspects of the overall context helps to understand why some processes achieve their envisaged outcomes while other eventually fail. The framework thus can guide finding an answer to the question what made the process work.

Figure 1: Frameworks used to understand entrepreneurial change processes



Source: after Burton Clarke (1998)



Source: Davey (2018)

Both frameworks will be used in the following presentation of typical interventions for inbound and outbound projects that higher education institutions use to implement or enhance entrepreneurship.

3. Overview of typical entrepreneurial interventions for inbound activities

Strengthening the steering core, i.e. above all, giving entrepreneurial planning and measures greater legitimacy and assertiveness, can be achieved by higher education institutions by creating leadership positions, such as vice-presidents or rectors, who are responsible for entrepreneurship (Hazelkorn 2016). This can help ensure that the importance of entrepreneurship is also carried into the university. At the same time, it is also pointed out that active entrepreneurial engagement of institutional leadership and middle management positions can increase the acceptance of entrepreneurship in higher education institutions. It

is important that the engagement includes active elements, that the results and progress of the projects are communicated to the university as exemplars and that it is clear how the university supports the entrepreneurial engagement of its employees. (Powell and Dayson 2013, Cannatelli et al 2017, Muralidharan and Pathak 2019).

Expanding and strengthening the developmental periphery or ecosystem relies on the commitment of academic staff and students. In addition to incentives that demonstrate the personal benefits these groups can gain, creating a physical space for entrepreneurship activities is also important. This can be done through Centres for Entrepreneurship or Business Incubators, which can also indicate to the university environment the importance of entrepreneurship and the willingness to cooperate. For the integration of these new (infra-)structures, it is important to gain legitimacy and approval within the university, since the establishment of the structures is often associated with massive investments. Here, too, communication of the activities and support of the academic staff and students through small projects are important measures to promote acceptance and use of the structures (Maritz 2017; O'Connor et al 2017, Thom 2017, Ortiz-Medina et al 2016).

Inbound interventions that contribute to HEIs achieving (further) diversification of their funding base include the differentiation of professional roles that engage in the solicitation of projects and further funding. These roles can, for example, be located in the new (infra-)structures for entrepreneurship and support academic staff in the acquisition of these projects and funds. To acquire funds in collaborations with industry or the social sector, the universities must present the results and impact of their work to the outside world in a comprehensible way. Therefore, it is important to establish appropriate monitoring and indicator systems (Pruvot and Estermann 2012, Dahlan et al 2020, Jongbloed and Benneworth 2013).

For inbound projects, support from academic staff and students is essential. Projects that do not connect to these two groups' values, motivation, and intentions may not fully achieve the set goals or may even fail. This is especially true for projects requiring new or additional contributions from staff and students outside their 'normal' areas of activity. Incentives that can also demonstrate personal benefits will help engage staff and students in these new areas. Here it is important to create different incentives: these can also be, for example, the recognition of commitment as a promotion criterion, the prospect of new research areas, the chance to learn new things, the awarding of ECTS and the teaching of skills that are also relevant in other areas. (Clements 2012, Ghina et al 2014, Mets et al 2017, Terzaroli 2019, Thom 2017, Neves and Brito 2020). The willingness to support entrepreneurship projects is also lower among staff if they have little knowledge and skills in this area. This is especially true for the integration of entrepreneurship education into existing curricula. It is important to support teachers in two ways: firstly, in acquiring entrepreneurial competencies, and secondly, in how these can be taught in the classroom. (Murray 2019, Thom 2017, Terzaroli 2019).

In creating an entrepreneurial culture in the institution, its values must find a connection to the already existing academic culture. Universities that want to strengthen entrepreneurship can decide in a first step what kind of entrepreneurship model they want to establish. Hazelkorn (2016) suggests three models in which this engagement is integrated either into research (economic development model) or teaching (social justice model) or into both areas (public good model). Deciding how entrepreneurship should be shaped in the university can help develop a transparent communication strategy and a coherent selection of measures. A gradual introduction of the measures ensures longer-term support and acceptance of the interventions (Apostolakis 2011, Cinar 2019, Cunha et al 2015, Hazelkorn 2016, Roslan 2020).

4. Overview of typical entrepreneurial interventions for outbound activities

Also, in the context of outbound activities, the differentiation of roles in management and leadership and structures specifically for cooperation with actors in the environment of the universities are essential options for strengthening the steering cores. The cooperation of the management/leadership with the region must also be presented to the outside environment. This presentation strengthens the interest of the regional stakeholders as well as the support of the internal stakeholders. The university is perceived more strongly as a regional player by both groups, i.e. the change in the university's role in the region is seen. Leadership concepts, such as connective leadership, support this process: This model points to managers from the top level of the higher education institutions engaging or collaborating actively with regional stakeholders. Their activities are strong good practice exemplars for internal stakeholders and regional, external stakeholders interested in collaborating/innovating with the higher education institution (Reichert 2019).

For the expansion and strengthening of the ecosystem, it is important in the context of outbound activities that higher education institutions are able to recognise and seize collaboration opportunities. To do this, they must recognise which needs exist in their environment and which they can also serve within the scope of their possibilities. Consultation with external stakeholders and a self-assessment of their performance and capabilities help gain clarity about collaboration opportunities and implement appropriate measures and projects. Tools such as HEInnovate¹, the BeyondScale tested Value Proposition Canvas², or the TEFCE toolbox³ can accompany this process (Cheah and Ho 2019, Roslan et al 2020, Lepik and Urmanavičienė, 2022).

Measures that HEIs can apply to diversify their funding base in outbound activities do not differ much from those for inbound activities. Here, too, it is important to create specialised roles and structures for this area, support staff in finding sources of funding, and establish a monitoring system that can present the performance of HEIs in the area of their entrepreneurial engagement both internally and externally. This information can give external stakeholders interested in collaboration an idea of the returns on investment they can gain from cooperation (Pruvot and Estermann 2012, Dahlan et al 2020, Jongbloed and Benneworth 2013).

The use of incentives and the creation of entrepreneurial skills for staff and students are also means of choice for outbound projects if their motivation and support for the measures are to be secured. In addition to the incentives mentioned above, start-up funding to support initial collaborations with external stakeholders is also an important tool.

When creating an entrepreneurial culture in outbound projects, it is not only important that the values and objectives are compatible with the beliefs and motivations of staff and students. It is also important to create common goals and interests in cooperation with the stakeholders. These shared goals and interests provide an important mechanism for fostering collaboration that can overcome the reduction of bureaucratic hurdles or a lack of trust between collaborative partners (Davey et al 2018).

¹ www.heinnovate.eu

² <https://www.beyondscale.eu/result-repository/user-stories-tutorial/>

³ www.tefce.eu

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Disclaimer:

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

