

## EXPLORING THE DRIVERS OF A UNIVERSITY-BASED ENTREPRENEURIAL ECOSYSTEM – EXAMPLES OF GOOD PRACTICE

Ewa BADZIŃSKA

Poznan University of Technology, Faculty of Engineering Management; ewa.badzinska@put.poznan.pl,  
ORCID: 0000-0002-2621-976X

**Purpose:** The article strives for a more deeper understanding of the concept of a university-based entrepreneurial ecosystem and how it can support start-ups and contribute to the regional development. The empirical purpose of the study is to diagnose the key actors and drivers, initiatives and examples of good practice of a university-based start-up ecosystem with a strong leadership of the founders center.

**Design/methodology/approach:** The paper draws on a management science literature review, covering various approaches to the concept of entrepreneurial ecosystems, using the following methods: exploration, interpretation, comparing, and analysing critical factors. The empirical research applies the method of in-depth semi-structured direct interview with experts in the field of support services to potential founders and start-ups with academic origin, the case study method, participatory observation, and reflection. The explorative qualitative study uses both descriptive and explanatory techniques.

**Findings:** The research findings provide insight in the real nature of the university-based start-up ecosystem presenting its key stakeholders which provide a conducive environment for potential founders and start-ups. The study highlights examples of good practice implemented in the regional entrepreneurial ecosystem.

**Research limitations/implications:** Research limitations of this study resulting from the analysis of a purposefully-selected case of a local university-based entrepreneurial ecosystem only do not allow formulating general conclusions. Nevertheless, it illustrates a real business practice and thus contribute to the discussion on the dilemmas associated with increasing the efficiency and sustainability of entrepreneurial ecosystems. Future research line will concern the assessment of the interdependencies among the key stakeholders of the start-up ecosystem to look for more effective cooperation.

**Practical implications:** The examples of good practice reflected in the study prove the great commitment of the Viadrina Founders Center and its significant contribution to the development of the entrepreneurial ecosystem in the State of Brandenburg in Germany. These good practices can be an inspiration for other business incubators and local ecosystem actors.

**Originality/value:** The originality of the conducted exploratory research lies in presenting the real business practice and challenges of the development of a university-based entrepreneurial ecosystem, and thus inspire for further analysis and extended research on problems associated with increasing the sustainability of local start-up ecosystems.

**Keywords:** university-based entrepreneurial ecosystem, entrepreneurship, start-up ecosystem, incubators, stakeholders.

**Category of the paper:** Research paper, case study.

## 1. Introduction

The concept of entrepreneurial ecosystems has gained popularity within research, policy, and practitioner fields over the last decade. The potential of integrated policies, programs and processes which foster entrepreneurial activities in the region and boost intelligent evolution, technology transfer as well as productivity and employment growth was noticed and became the subject of many studies (Isenberg, 2011; Mason, Brown, 2014; Stam, Bosma, 2015; Hayter, 2016; Brown, Mason, 2017; Freiling, Baron, 2017; Spigel, 2017; Autio et al., 2018; Stam, Spigel, 2018; Theodoraki et al., 2018; Tomski, 2018; Wallisch et al., 2019; Stam, Welter, 2020; Buła, Schroeder, 2020; Stam, Van de Ven, 2021). Despite the fact that entrepreneurial ecosystems have become a prominent concept, there are still many questions and doubts about how they should be composed and interrelated to create start-up-friendly framework conditions and increase the attractiveness of investments in the region.

It should be emphasized that entrepreneurial ecosystems develop naturally through co-evolution. In order to effectively stimulate and accelerate this process, it is necessary to implement appropriate forms of substantive, regulatory, financial or infrastructural support. The efficiency of organizations and entities included in entrepreneurial ecosystems depends not only on their own competences and potential, but also on interactions with other entities and the condition of the entire ecosystem. Universities and research institutes act as talent factories in the start-up ecosystem and strengthen knowledge and technology transfer in the region. Moreover, universities occupy a special position in this context due to their institutional support and as an attraction factor. In addition to spin-off effects, this is primarily about the students and graduates who enrich the talent pool with their skills and ideas. Activities and support programs offered at educational and research institutes are of particular importance here.

On the part of regional politics, however, framework conditions must be created that facilitate start-up activities and the development of an entrepreneurial ecosystem. These include, among other things, the time and costs involved in founding a company and the provision of public funding and laws for the design of venture capital funds and their investments. Moreover, the development of entrepreneurial skills and a start-up culture in the region can also be specifically supported by local government measures. In addition to the increased establishment of start-up-oriented training in schools and universities, this includes the implementation of high-profile campaigns such as start-up weeks, hackathons and entrepreneurial events. Success stories of innovative companies in the ecosystem can affect its

condition, contributing to its evolution. According to Isenberg, “even one success can have a surprisingly stimulating effect on an entrepreneurship ecosystem – by igniting the imagination of the public and inspiring imitators” (Isenberg, 2010, p. 48).

It should be noted that entrepreneurial ecosystems represent a renewed interest in localized conditions for entrepreneurship aligned with a focus on the agency of entrepreneurial actors to create and transform their own contexts. Therefore, the “drivers” of an entrepreneurial ecosystem should connect resources and attract and fuel entrepreneurial actors in the entire region to provide a self-sustaining environment for the intelligent development.

The entrepreneurial ecosystem frameworks by Isenberg (2010), Mason and Brown (2014) as well as the local start-up ecosystem by Wallisch et al. (2019) are the theoretical basis of this study. The article strives for a more deeper understanding of a university-based entrepreneurial ecosystem and its critical actors. The empirical purpose is to identify the key actors and drivers of the local university-based start-up ecosystem and present examples of good practice which create a conducive environment for academic start-ups and regional development.

First, the paper provides an overview of the concept of an entrepreneurial ecosystem to establish an informed understanding of the conducted study. Second, the emphasis is on the local ecosystem actors – individuals, enterprises, institutions – which help to provide a nurturing environment for academic start-ups in the seed stage. Third, the explicit focus is on entrepreneurial initiatives and incentives undertaken by the Viadrina Founders Center to provide potential entrepreneurs with necessary business knowledge about starting their own business and networking within the ecosystem. The study highlights the mutual relationships within the start-up ecosystem and good practice examples which are crucial to stimulate and support ambitious entrepreneurship in the region.

Research limitations of this study resulting from the analysis of a purposefully-selected case of a local university-based entrepreneurial ecosystem only do not allow formulating general conclusions. Nevertheless, it illustrates a real business practice and thus contribute to the discussion on the dilemmas associated with increasing the efficiency and sustainability of entrepreneurial ecosystems.

## **2. The concept of entrepreneurial ecosystems**

Ecosystems are a cognitively interesting area of exploration in the field of management science. However, even within the academic literature, the concept of entrepreneurial ecosystems is mainly used metaphorically with unclear relationships to other theories of innovation and regional economic development (Alvedalen, Boschma, 2017; O’Connor et al., 2018; Scaringella, Radziwon, 2018). The emergence of this concept is the result of applying the “ecosystem” metaphor to the issue of entrepreneurship where the ecosystem is considering

a functional whole of the coordinated set of elements and mutual relationships between them and their environment.

The idea of entrepreneurial ecosystems was quickly adopted by governments and non-governmental organizations such as the Kauffman Foundation (Stangler, Bell-Masterson, 2015), the OECD (Mason, Brown, 2014), and the World Economic Forum (2014). The current thinking about entrepreneurial ecosystems can be seen as the result of development in various directions, such as, for example, the business ecosystem (Ben Letaifa, 2013; Adner, Oxley, Silverman, 2013; Stańczyk-Hugiet, 2015), the innovation and knowledge ecosystem (Autio, Thomas, 2014; Adner, Kapoor, 2016; Brown, Mason, 2017; Klimas, Czakon, 2021), the entrepreneurship (Isenberg, 2010, 2011) or entrepreneurial ecosystems (Stam, 2015; Stam, Spigel, 2017) or their connections with the system theory (Cohen 2006; Isenberg 2011; Stam, 2015), the network theory (Autio, Thomas, 2014; Letaifa, 2016) or clusters (Gilbert et al., 2008; Mason, 2008; Delgado, Porter, Stern, 2010).

The entrepreneurial ecosystem approach provides a means of synthesizing these different avenues to open up new research questions on both policy issues on how to support economic growth and prosperity, and more fundamental social science questions such as the relationship between structure and key actors (Spigel, 2020). Moreover, entrepreneurial ecosystems emphasize the role of “place” and provide a lens for understanding regional transformation through entrepreneurial action (Audretsch, 2015; O’Connor et al., 2018). What is more, ecosystems are capable of self-organization and self-development in the form of complex, adaptive systems related to the interrelationships of components and the ability to adapt “inside” and evolve together with the changing environment (Chan, 2001, in: Tomski, 2018, p. 115). However, since an ecosystem is composed of living organisms, its relationships co-evolve (Hayter, 2016).

A particularly influential approach to entrepreneurial ecosystems has been developed by Daniel Isenberg at Babson College who refers to as an “entrepreneurship ecosystem strategy for economic development” (2011, p. 1). He strongly emphasizes the importance of context: each ecosystem emerges under a unique set of conditions and circumstances where social, cultural and institutional factors play an underpinning role. Subsequent research, inspired by system theories, enables us to understand the ecosystem as a whole (Isenberg, 2011; Stam, 2015). These studies visualize ecosystem composition and the elements the system contains. Moreover, Isenberg (2010) identified six generic domains in the entrepreneurial ecosystem, namely: a conducive culture, a range of institutional and infrastructure supports, quality human capital and social networks, venture friendly markets for products and services, as well as enabling policies and leadership, and availability of appropriate financial capital. All these domains contain many elements and factors “interacting in highly complex and idiosyncratic ways” (Mason, Brown, 2014, p. 5).

In turn, Mason and Brown (2014) proposed a very extensive definition of the entrepreneurial ecosystem, emphasizing the diversity of the ecosystem's actors, processes and mutual formal and informal relationships. It is “a set of interconnected entrepreneurial actors (both potential and existing), entrepreneurial organizations (e.g. firms, venture capitalists, business angels, banks), institutions (universities, public sector agencies, financial bodies) and entrepreneurial processes (e.g. the business birth rate, numbers of high growth firms and serial entrepreneurs (...)) which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment” (Mason, Brown, 2014, p. 5). In turn, Spiegel (2017) emphasizes the result of an effective ecosystem, which is the productive entrepreneurship. This ecosystem is composed of an interdependent group of local culture (actors), social networks, universities, investment sources, coordinated economic policies (factors) in such a way as to create a good environment enabling productive entrepreneurship in a given region. Furthermore, a stable environment where trust prevails fosters the transfer of knowledge and skills between the members involved. In this sense, trust and cooperation are based on complementarity, which is characterized by cumulative and synergistic interactions between members of the ecosystem (Thomas, Autio, 2013; Adner, Kapoor, 2016). Without ties and common goals between the actors of an ecosystem, they would not be able to share important resources, some of which they are willing to share (e.g. experience, human capital, expertise, infrastructure).

The research subject in this study is the local university-based start-up ecosystem “driven” by the academic business incubator – the Viadrina Founders Center – which is presented in the empirical part of this article. Taking into account the above considerations, it should be noted that the start-up ecosystem as a specific type of entrepreneurial ecosystems that focuses on the potential of founders and start-ups in their region. It includes start-up ventures, i.e. those at the initial (seed) stage of development, looking for a scalable and profitable business model (Blank, Dorf, 2012) by introducing innovative products and services to the market (Ries, 2011) and operating in conditions of high variability of the environment and competitiveness. Moreover, a start-up ecosystem forms the framework conditions and networks for this specific target in order to provide a better accessibility of resources and facilities to ensure an effective cooperation with local stakeholders. It creates the framework conditions and networks for this specific target group in order to provide a better accessibility of resources and facilities, to ensure an effective cooperation with supporting actors and regional factors. In addition, it aims to promote relationships between stakeholders and identify appropriate actions for the development of networks and support measures in the region (Wallisch et al., 2019). Drawing on this research stream, the author of this study defines a university-based start-up ecosystem as an interconnected group of actors and institutions in a local geographic environment, associated with a specific university, committed to provide conducive framework conditions for potential academic founders and start-ups in order to support networking within the entire ecosystem (Badzińska, Alt, 2021). It should be emphasized that the success of the ecosystem

lies in its entrepreneurial ability to create coherent socio-economic systems supporting the creation and development of new enterprises (Stam, Spiegel, 2016). Undoubtedly, in order to ensure the sustainable development of an entrepreneurial ecosystem, consistency must be ensured in terms of critical factors.

It is well known that members of the entrepreneurial ecosystem benefit from a significant development of the whole system. There is a give-and-take relationship that helps individuals and institutions access external resources that undergo improvement and learning processes (Freiling, 2008). Furthermore, a turbulent environment forces ecosystem members to “contribute to the development of a favourable climate to maintain the ecosystem’s stability, durability, and continuing value” (Theodoraki et al., 2018, p. 156). Other important aspects considered to be key elements of entrepreneurial ecosystems are culture, positive social norms and attitudes towards entrepreneurship, the availability of start-ups and growth capital, as well as the presence of large companies, universities and service providers.

Given the breadth of policy and research interest in entrepreneurial ecosystems, it is important to critically reflect on what work has been done and what knowledge has been accumulated about the contextual nature of the entrepreneurial process.

### **3. Research design and methods**

For the cognitive purpose of this paper, an overview of the management science literature was conducted along with the analysis of secondary research results on the phenomenon of entrepreneurial ecosystems. The main attention was drawn to the critical actors (stakeholders) and conditions of a university-based start-up ecosystem. The following methods were used to cover various approaches to this concept: defining, comparing, attribute analysis, inference. In turn, the empirical part of the study is an attempt to indicate the key actors and drivers of the local university-based start-up ecosystem as well as examples of good practice for providing a nurturing environment for start-up incubation, and thus, the entrepreneurial development of the local ecosystem.

An in-depth analysis was conducted through the prism of “a leader-driver” of the local start-up ecosystem which is the academic business incubator – the Founders Center at the European University Viadrina in Frankfurt (Oder) in Germany. Therefore, in order to achieve the research objective and exemplify the good practices, the following research questions were posed: What is the configuration of critical actors of the start-up ecosystem “driven” by the Viadrina Founders Center? What forms of valuable support they offer to provide a nurturing environment for start-up incubation? What are the examples of good practice to strengthen the entrepreneurial culture in the region?

The confrontation of multiple data sources justifies the iterative nature of data collection in the years 2020-2023. The necessity to confront a variety of data sources forced the application of the principle of triangulation (a multi-method research approach) (Sułkowski, 2012; Glinka, Czakon, 2021). Data from secondary sources did not provide sufficient saturation of information for the research objective. To achieve the research goal an explorative qualitative study was conducted. Primary data was obtained from in-depth direct interviews with the manager and employees (4 persons) of the Viadrina Founders Center as well as incubator associates (3 experts in the field of academic entrepreneurship and knowledge transfer). An interview questionnaire was semi-structured and contained the following areas: (i) general questions about the Viadrina Founders Center and its organizational structure; (ii) questions about scope of services and facilities they provide to create a conducive environment for the creation and development of start-ups; (iii) questions about the sources of financing innovative business concepts of students and alumni; (iv) questions about the critical actors of the start-up ecosystem and the forms of support they provide. In order to verify the gathered information, the interview questionnaire was sent in an electronic form. Practical knowledge and experience of the surveyed experts in supporting start-up entrepreneurship in the region led to the conclusion that data obtained from in-depth direct interviews will help to attain the objective of the research. Furthermore, the source of primary data was also the author's participatory observation, reflection and active collaboration in the field of developing and supporting an entrepreneurial ecosystem within the research internship in the Viadrina Founders Center (September 2020, 2021). Moreover, the author's international cooperation and experience gained within the project "Heterogeneous University Start-ups" carried out at the Viadrina Founders Center in 2020-2021, the project "#InSpO. Start-up Ecosystem on the Innovation Axis on the Spree-Oder" running 2021-2023 in the State of Brandenburg in Germany as well as the Erasmus+ Staff Mobility (February 2022 and 2023) in the Viadrina Founders Center were an important source of information and the basis for the purposeful selection (Patton, 2002) of the research subject.

The empirical method makes use of a case study involving the analysis of entrepreneurial initiatives and incentives undertaken by the Viadrina Founders Center to effectively support entrepreneurial mindset by students and build valuable relationships with the ecosystem stakeholders. The rationale for the use of the case study is its usefulness for the practice-oriented approach (Yin, 2013) and the fact that it helps provide insights into the real university-based start-up ecosystem and diagnose which actors really provide and organize the connection of resources within the specific ecosystem. The nature of the presented case study is descriptive and reflective. To expand the database on the research subject an analysis of materials from the available secondary sources was also conducted. They included: incubator's website, press releases, opinions of supported students, and the social media run by the Viadrina Founders Center.

#### 4. Research findings and discussion

The Viadrina Founders Center is a university-based business incubator located at the European University Viadrina in Frankfur (Oder), the State of Brandenburg in Germany, which was established in 2015. Currently, the Founders Center employs six people, mostly part-time. There are also four student employees with a small number of hours (8-10 hours per week), i.e. 4.8 full-time units. The Viadrina Founders Center is largely financed by third-party funds or additional funds, such as the Ministry for Economic Affairs, Labor and Energy (MWAE) with funds from the European Social Fund and the State of Brandenburg. The manager of the Viadrina Founders Center – Dr. Ramona Alt – has many years of experience in offering professional advice and practical support in creating startups, and she has been running the Founders Center since 2015.

The Viadrina Founders Center is strongly committed to a start-up-friendly climate in the State of Brandenburg therefore it undertakes activities to strengthen the start-up culture in the region, improve framework conditions and support start-up networks. As a key actor of the university-based entrepreneurial ecosystem it mainly provides services to potential founders and start-ups with academic origin facilitating their access to academic and business networking as well as assist scientist in the transfer of technology and substantive knowledge. In order to overcome resource gaps in the seed stage of start-ups the employees of the Viadrina Founders Center help support networking with external entities such as advisers, investors, potential partners or team members, early-adopter customers, and potential employees as well. Thus, it provides connectivity with the key actors of the local entrepreneurial ecosystem. Because the Founders Center is publicly funded, reductions in public funds can influence the scope of activities and decrease support for potential founders. This is one of the reasons why the manager looks for resources, relationships and actors who effectively support potential founders by sharing expertise, good business practices, organizing events and providing funding as well.

In recent years, the Viadrina Founders Center has attracted an average of 11-12 founders per year. However, the number of those who have been qualified for support is significantly higher. The mission of the Founders Center is also raising students' awareness of the entrepreneurial mindset through a variety of events and formats. These are then called participants in the program and there are an average of around 1400 people a year. Successful applicants are provided with public funding and mentor support. Moreover, the potential founders involved in these entrepreneurial initiatives recognize that it takes time to build a vibrant, sustainable venture.

The Viadrina Founders Center aims to create an environment which is conducive to academic start-ups therefore it has developed a set of framework conditions for encouraging entrepreneurial activities among potential founders (e.g. professional workshops during the

academic year, meetings with academic start-ups and business advisers, ‘podium’ discussion, pitch competition and many others). In order to sensitize students for entrepreneurship, the Founders Center team offers them individual support and practice-oriented learning, such as strategic guidance, business mentoring, advice on the financing plan and financing options as well as leadership and team development. Moreover, the Founders Center attaches great importance to the coherence of communication in the local ecosystem and is trying to build sustainable relationships with valuable actors through the exchange of best practices and creating common ecosystem value.

One of the major challenges for the team of the Viadrina Founders Center is to interconnect actors, available resources and competences in the local start-up ecosystem in a highly useful manner. Despite the fact that resources are often no stand-alone factors, when combined with both internal and often external assets they create synergies.

As there are a lot of possible combinations of actors in an entrepreneurial ecosystem, the question is who is the “architect” of the structure of the entire ecosystem. This study assumes that the main “driver” (leader) of the local start-up ecosystem is the Viadrina Founders Center, which initiates and supports activities towards the creation and development of academic start-ups. As a result of the conducted empirical research, the critical actors were diagnosed.

The key actors of the entire ecosystem are, of course, students – potential founders – as well as alumni and start-ups from the European University Viadrina and the local environment. On the one hand, with their key competences and innovative activities, they contribute to the creation of the start-up scene as the core around which the entrepreneurial ecosystem will develop and evolve. On the other hand, they gain significant value through access to internal and external networks that help them develop business partnerships, recruit qualified staff and seek advice from external experts. Since the subject of the research is the start-up ecosystem with academic origin, an important role is played by the academic community represented by researchers and entrepreneurship teachers, as well as authorities providing both substantive, organizational, and financial support as well. Other contact points at the European University like for example the Career Center or Office for Research and Graduate Education also contribute to raising awareness of entrepreneurship, self-employment and further development. In addition, the exchange of experiences and organizational cooperation with start-up centers and services at several partner universities in the State of Brandenburg also brings measurable effects for the local ecosystem.

Other key elements of the start-up ecosystem are entrepreneur associations, networking platforms and co-working spaces. They give the opportunity to engage potential founders, as they facilitate the sharing of knowledge and business experience, building a sense of common community of start-ups. In addition, each member of the start-up community contributes through its core competencies and collaborates with others to strengthen both individual performance and benefit from the value created by the entire entrepreneurial ecosystem.

The availability of finance is another critical factor in entrepreneurial ecosystems. Of particular importance is the critical mass of seed and start-up investors who will provide funding and hands-on support. Investors in the initial waves of new ventures are often private individuals. Most start-ups are initially funded through a combination of self-financing, microcredit, loans from family and friends, and bootstrapping. The Viadrina Founders Center offers professional advice in this area. Financial support can also be obtained from government institutions at the state level of Brandenburg. In turn, substantive support is offered by public business consulting centers, such as the Investor Center Ostbrandenburg (ICOB). The leading financial institutions for start-ups and entrepreneurs are the Investment Bank of the State of Brandenburg (ILB) and the Investment Bank Berlin (IBB). In turn, the Chamber of Industry and Commerce (IHK) and the Chamber of Crafts (HWK) offer professional career advice.

On the basis of own research and data from secondary sources, examples of good practices in building a sustainable entrepreneurial ecosystem were developed. Below are several initiatives and projects implemented by the Viadrina Founders Center, which confirm the significant contribution of the examined entity to the development of the entrepreneurial ecosystem in the State of Brandenburg.

#### **4.1. International workshop Let's Match! Frankfurt/Oder – Potsdam – Poznań**

On the initiative of the Viadrina Founders Center, as part of the Global Entrepreneurship Week 2020, a matching workshop for start-ups and potential co-founders were organized in November 2020. The event was attended by 27 people from three European universities: European University Viadrina, Poznań University of Technology and University of Potsdam. The main purpose of the event was to give an opportunity for students and alumni to become a member of an international team and connect with inspiring entrepreneurs in order to shape entrepreneurial attitudes and professional competences to operate in an international environment. Moreover, the aim of the workshop was to support interdisciplinary business start-ups with academic background to create a regional and international network for innovative businesses in the State of Brandenburg. As part of the workshop, participants had the opportunity to design an initial business concept or solve a problem for a selected start-up using the Design Thinking method. The workshop was led by a professional trainer from the HPI School of Design Thinking in Potsdam (Hasso Plattner Institute D-School University of Potsdam) who provided an attractive and creative way of transferring knowledge and dynamic cooperation in teams. The last element of the workshop was the participation in a moderated Livestream panel where four academic start-ups shared their previous experience in building a business and the difficulties related to the COVID-19 pandemic. Workshop participants positively assessed the event, emphasizing the substantive value and good organization, which undoubtedly influenced the development of entrepreneurial attitudes among the academic community and the development of cooperation between the involved Universities.

#### **4.2. The project "Heterogeneous University Start-ups"**

The project was implemented by the Viadrina Founders Center in 2020-2021. The main goal of the project was to create international teams of potential founders with heterogeneous education (technical, economic, social) and academic background. During the project Viadrina tried to build communication channels and create relationships with selected external partners to gain access to more specialist knowledge and resources not available locally. The experience gained within the project "Heterogeneous University Start-ups" confirms that networking, mutual support and regular interactions become more and more important over time.

#### **4.3. The project "#InSpO. Start-up Ecosystem on the Innovation Axis on the Spree-Oder"**

This project is a part of the model project "Best Practice Start-up Ecosystems in the New Federal States" founded by the Federal Ministry of Economics in Germany in 2021-2023. Developing and strengthening start-up networks by bringing founders together with each other as well as with science, education, business, administration and supporters, and thus create start-up-friendly framework conditions on site is the aim of the model project.

Two of the twelve selected initiatives (out of 70 submitted) come from the State of Brandenburg and one of the winners is the project "#InSpO. Start-up Ecosystem on the Innovation Axis on the Spree-Oder" carried out by the Viadrina Founders Center in 2021-2023. This success undoubtedly confirms the competence and commitment of the incubator's employees in the development of the local entrepreneurial ecosystem. They promote a lively start-up scene with innovative approaches. In various formats, such as Start-up Safari, Casual Friday or Innovation Camp, local founders have the opportunity to exchange ideas with experienced entrepreneurs and to gain new insights from best practice examples. Moreover, professional conferences and events are intended to strengthen this exchange. With the help of online marketing campaigns, founders are presented in the region and their successes are made better known. The manager of the Viadrina Founders Center emphasizes that: "As encouragers, we want to work with partners to build on existing offers and create an even more start-up-friendly environment. The aim is to strengthen entrepreneurial spirit and anchor start-ups in the region" (Gründungsökosystem an der Innovationsachse Spree-Oder, 2021). As part of the project, a scientific survey was carried out in 2021. On the one hand, the survey asked for assessments of start-up activities in the region, and on the other hand, suggestions and ideas were collected that are intended to help shape a start-up-friendly ecosystem in the region. Strengthening the start-up culture in the region between the Oder and Spree and showing start-up perspectives based on the research outcomes are the declared goals of the #InSpO future forum in 2022. Until the end of 2023, the project partners are working together on new solutions for sustainable entrepreneurial ecosystem.

#### **4.4. Viadrina Compass Workshop Portal – Startup Support**

Viadrina Compass Workshop Portal offers free workshops, events as well as an individual coaching for professional qualification throughout the year. The trainings are carried out by employees of the Founders Center in collaboration with external advisers and experts. They provide potential founders with regular input on topics relevant to setting up a venture and starting own business. The Viadrina Founders Center offers extensive topics from the interactive workshop on the business model generation, seminars and consulting on marketing strategies to funding and financing options that optimally prepare students for starting their company. Moreover, the employees provide assistance and advice to students regarding networking opportunities and career planning.

#### **4.5. The Entrepreneurship Research Lab (ERLab) at the European University Viadrina**

The Entrepreneurship Research Lab (ERLab) is a community of researchers at the European University Viadrina investigating on central aspects of entrepreneurial activities in organizations and entrepreneurial ecosystems (it has been operating since 2023). The goal of ERLab is to understand how ecosystems created by companies and other relevant stakeholders develop and implement sustainable innovation and social values. The research projects focus on relevant factors for the functioning of these ecosystems, and these include community, creativity and communication. The starting point of the research projects is the focus on success factors of entrepreneurial practice. Thanks to the cooperation with Campus Founders gGmbH in Heilbronn (in the state of Baden-Württemberg, Germany), as a practice partner, the ERLab gains access to an attractive and growing innovation ecosystem in one of the economically strongest regions of Europe. The ERLab aims to offer relevant benefits for entrepreneurs and ecosystems by stimulating the exchange between science and practice in the Brandenburg region as well as by generating synergies with the Heilbronn ecosystem. The Viadrina Founders Center acts here as an interface of researchers, teachers and students and integrates Viadrina's transfer and start-up ideas (Campusfounders, 2023).

#### **4.6. The university ranking "Think Tank" of the Business Plan Competition Berlin-Brandenburg**

The Business Plan Competition Berlin-Brandenburg (BPW) is Germany's largest and most successful regional start-up initiative. The free and practice-oriented support program gives participants the opportunity to work with more than 300 professional consultants to continuously develop a business concept. The BPW is aimed at anyone who has a good idea and is planning to implement it in Berlin or Brandenburg. The Viadrina Founders Center supports students every year in the development and submission of business plans on site as well as in the participation in the BPW. Moreover, the BPW awards the Think Tank ("Ideenschmiede") to the most active universities in Berlin and Brandenburg. The European

University Viadrina has already achieved first place five times in the BPW's "Think Tank" university ranking as the most successful university in the field of start-ups in all of Brandenburg (e.g. in 2018 and 2021) (<https://www.b-p-w.de/de/hochschule/>, 2023). As part of support for university start-ups, the Viadrina Founders Center cooperates with financial institutions, such as the Investment Bank of the State of Brandenburg (ILB) and the Investment Bank Berlin (IBB) which are the organizers of BPW. The banks provide tailor-made funding and financing options for start-ups in the form of grants, loans, guarantees and venture capital. Top place in the university ranking "Think Tank" of BPW for many years has been another confirmation of the Viadrina Founders Center contribution to the development of entrepreneurial mindset of students and the high level of professional support offered.

#### **4.7. The university ranking in "Start-up Radar" - Top position as a founding university**

In the University ranking "Start-up Radar" 2022 of the Donor's Association for German Science, funded by the Federal Ministry of Economics and Climate Protection, the European University Viadrina took the 4th place nationwide among 77 medium-sized universities for start-up support. It should be emphasized that the European University Viadrina has been in the top position for years (in 2019-2020 it took the 2nd place). The Viadrina Founders Center was able to convince again its contribution to strengthening the start-up network and development of the entrepreneurial ecosystem in the region. The high ranking of the European University Viadrina in the "Start-up Radar" 2022 certifies particularly good performance in the categories "start-up awareness and qualification" and "start-up anchoring". Here it occupies the top positions in a comparison of medium-sized universities in Germany (Start-up Radar, 2023).

#### **4.8. The start-up area in the future coworking space "The One"**

In its start-up program, workshops, events and consultations, the Viadrina Founders Center not only aims to encourage potential founders, but also to convert their ideas into a real business and form a strong community. Currently the Viadrina Founders Center is creating synergies with coworking spaces in Frankfurt (Oder) to offer common workspace for students and employees. An example of such cooperation are joint initiatives organized by the Founders Center with BLOK O, Kulturmanufaktur Gerstenberg, Roman & Fritz, Spree-Hub. The future coworking space "The One", co-created by the Founders Center at the European University Viadrina, is to contribute to even greater involvement of students in the implementation of their own business ideas and to provide appropriate infrastructure. The employees of the Viadrina Founders Center promote the implementation of a "Future Skills Makerspace" at the university. Together they design, develop and test ideas for Viadrina's future Coworking Space (planned opening in 2023).

Every ecosystem must be composed not of specific isolated actors but of the interactions among them. The Viadrina Founders Center acts as a catalyst for a variety of actors (e.g. universities, chambers of commerce, founding teams, start-up community, government institutions in the State of Brandenburg and local level, private business consultants) to encourage the creation of programs and favorable conditions that build awareness of the local start-up community, stimulate the flow of new founders but also support further development of established entrepreneurs. The manager of the Founders Center emphasizes that "without our students, with their diverse backgrounds and great business ideas, these start-up successes would not be possible" (2020).

Summarizing the research results, it should be emphasized that the wide range of services and initiatives offered by the Viadrina Founders Center brings the expected results in terms of building entrepreneurial attitudes and developing a sustainable entrepreneurship ecosystem.

## 5. Conclusions

In the studied university-based entrepreneurial ecosystem, the Viadrina Founders Center undoubtedly plays a key role as a driver, which operates in a highly complex manner, trying to connect the most powerful actors that create and support the entire ecosystem. The Founders Center supports both students, graduates and researchers, starting from finding the right idea and ending with practical preparation to establish a company. It offers free events and workshops, provides experienced experts, introduces potential founders to the start-up community and is the first point of contact for all projects and questions.

The rationale for providing a conducive environment for the incubation of academic start-ups is that they have significant spill-over effects that are beneficial to the emergence of other founders and start-ups in the same locality. In addition, they can increase the transfer of research results from universities to the market, stimulate productivity growth, create new jobs, and promote the internationalization of business. There is also evidence that growth-oriented start-ups are an important enabler for entrepreneurial ecosystems, increasing both competition and collaboration, promoting innovation, increasing the efficient allocation of resources and investing heavily in human capital. However, the study of the entrepreneurial ecosystem requires consideration of its origins, stimuli, as well as the processes by which it becomes self-sufficient.

The presented examples of good practice prove the great commitment of the Viadrina Founders Center, the implementation of well-thought-out ideas and well-organized activities for the development of the regional ecosystem. The awards and high rankings in competitions for the best founding university are a confirmation of the professionalism of employees and honoring the actions taken.

The Viadrina Founders Center as the "driver" of the university-based start-up ecosystem seeks to shape and strengthen networks and relationships between key stakeholders of the ecosystem in such a way that the academic support landscape can be stimulated and start-ups successfully created and developed. Nevertheless, to ensure the development of the sustainable entrepreneurial ecosystem, it is necessary to implement more systemic forms of support for key members. This requires e.g. moving away from enterprise-specific interventions towards more holistic activities that focus on creating and developing networks, interrelations, building new institutional capacity and fostering synergies between different stakeholders. The research results emphasize the importance of studying the interdependencies between the key actors of the start-up ecosystem in order to provide them with access to tangible and intangible resources enabling their development, and thus the sustainable development of the entire ecosystem. The future research line includes assessment of the significance and direction of the relationships between the key actors of the university-based start-up ecosystem. It is advisable to examine the interdependencies within the networks that affect the creation of new value at the regional level and the range of services and facilities necessary to create an environment conducive to the emergence and development of start-ups. This narrower focus allows for a more thorough examination of what kinds of internal organizational attributes and exogenous regional factors support scalable entrepreneurial endeavors.

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## References

1. Adner, R., Kapoor, R. (2016). Innovation ecosystems and the pace of substitution: re-examining technology S-curves. *Strategic Management Journal*, Vol. 37, Iss. 4, pp. 625-648.
2. Adner, R., Oxley, J.E., Silverman, B.S. (2013). *Collaboration and competition in business ecosystems*. Bingley: Emerald.
3. Alvedalen, J., Boschma, R. (2017). A critical review of entrepreneurial ecosystems research: Towards a future research agenda. *European Planning Studies*, Vol. 25, Iss. 6, pp. 887-903. <https://doi.org/10.1080/09654313.2017.1299694>.
4. Autio, E., Nambisan, S., Thomas, L.D.W., Wright, M. (2018). Digital affordances, spatial affordances, and the genesis of entrepreneurial ecosystems. *Strategic Entrepreneurship Journal*, 12(1), 72-95. <https://doi.org/10.1002/sej.1266>.
5. Autio, E., Thomas, L. (2014). Innovation Ecosystems. In: *The Oxford Handbook of Innovation Management*. Oxford: Oxford University Press.
6. Badzińska, E., Alt, R. (2021). Providing a Nurturing Environment for Start-up Incubation: An Explorative Study of a University-based Entrepreneurial Ecosystem. *European Research Studies Journal*, Vol. 24, Spec. Iss. 5, pp. 15-29, doi: 10.24917/20833296.171.
7. Ben Letaifa, S. (2013). A methodology for ecosystem creation: how organizations can shift from supply chain to ecosystems. In: S. Ben Letaifa, A. Gratacap, T. Isckia (Eds.), *Understanding business ecosystems. How firms succeed in the new world of convergence* (pp. 86-95). Brussels: De Boeck.
8. Blank, S., Dorf, B. (2012). *The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company*. Pescadero, Calif.: K&S Ranch, Inc.
9. Brown, R., Mason, C. (2017). Looking inside the spiky bits: a critical review and conceptualisation of entrepreneurial ecosystems. *Small Business Economics*, Vol. 49, Iss. 1, pp. 11-30, doi: 10.1007/s11187-017-9865-7.
10. Buła, P., Schroeder, T. (2020). Selected Aspects of the Co-Evolution of the Polish Entrepreneurial Ecosystem. *Organization Review*, Vol. 10, Iss. 969, pp. 20-27, doi: 10.33141/po.2020.10.0/3.
11. Businessplan-Wettbewerb Berlin-Brandenburg. Retrieved from: <https://www.europa-uni.de/de/struktur/verwaltung/gruendungszentrum/4-Finanzierung/BPW/index.html>, 20.05.2023.
12. Campusfounders. Retrieved from: <https://campusfounders.de/erlab/>, 20.05.2023.
13. Chan, S. (2001). *Complex Adaptive Systems, ESD*. 83 Research Seminar in Engineering Systems. 31 October / 6 November.
14. Delgado, M., Porter, M.E., Stern, S. (2010). Clusters and entrepreneurship. *Journal of Economic Geography*, Vol. 10, Iss. 4, pp. 495-518, <https://doi.org/10.1093/jeg/lbq010>.

15. Freiling, J. (2008). SME Management – What Can We Learn from Entrepreneurship Theory? *International Journal of Entrepreneurship Education*, Vol. 6, pp. 1-19.
16. Freiling, J., Baron, T. (2017). A Resource-based View of Entrepreneurial Ecosystems. In: W. Burr, M. Stephan (Eds.), *Technology, Strategy und Organisation* (pp. 65-84). Wiesbaden: Springer Gabler. [https://doi.org/10.1007/978-3-658-16042-5\\_4](https://doi.org/10.1007/978-3-658-16042-5_4).
17. Gilbert, B.A., McDougall, P.P., Audretsch, D.B. (2008). Clusters, knowledge spillovers and new venture performance: an empirical examination. *Journal of Business Venturing*, Vol. 23, pp. 405-438.
18. Glinka, B., Czakon, W. (2021). *Podstawy badań jakościowych*. Warszawa: PWE.
19. *Gründen mit dem Businessplan-Wettbewerb Berlin-Brandenburg (BPW)*. Retrieved from: <https://www.b-p-w.de/de/hochschule/>, 20.05.2023.
20. *Gründungsökosystem an der Innovationsachse Spree-Oder*. RKW-Kompetenzzentrum, Retrieved from: <https://www.rkw-kompetenzzentrum.de/gruendung/gruendungssoekosysteme/gruendungssoekosysteme-in-den-neuen-bundeslaendern/gefuerderte-initiativen/gruendungssoekosystem-an-der-innovationsachse-spre-oder/>, 20.05.2023.
21. *Gründungsradar*. Retrieved from: <https://gruendungsradar.de/gesamtranking/mittlere-hochschulen-2020>, <https://gruendungsradar.de/gesamtranking/mittlere-hochschulen-2022>, 20.05.2023.
22. Hayter, C.S. (2016). A trajectory of early-stage spinoff success: the role of knowledge intermediaries within an entrepreneurial university ecosystem. *Small Business Economics*, Vol. 47, Iss. 3, pp. 633-656.
23. Isenberg, D., Onyemah, V. (2016). Fostering Scale Up Ecosystems for Regional Economic Growth. In: *Innovations: Technology, Governance, Globalization* (pp. 71-97). Special Edition for Global Entrepreneurship Congress.
24. Isenberg, D.J. (2010). How to Start an Entrepreneurial Revolution. *Harvard Business Review*, Vol. 88, Iss. 6, pp. 40-50.
25. Isenberg, D.J. (2011). *The entrepreneurship ecosystem strategy as a new paradigm for economy policy: principles for cultivating entrepreneurship*. Babson Entrepreneurship Ecosystem Project. Babson College, Babson Park: MA.
26. Klimas, P., Czakon, W. (2021). Species in the wild: a typology of innovation ecosystems. *Review of Managerial Science*, January, pp. 1-34, <https://doi.org/10.1007/s11846-020-00439-4>.
27. Mason, C. (2008). Entrepreneurial dynamics and the origin and growth of high-tech clusters. In: C. Karlsson (Ed.), *Handbook of Research on Innovation and Clusters: Cases and Policies* (pp. 33-53). Cheltenham, UK and Northampton, MA, USA: Edward Elgar.
28. Mason, C., Brown, R. (2014). *Entrepreneurial Ecosystems and Growth Oriented Entrepreneurship: Final Report*, Vol. 30, pp. 77-102. Paris, France: OECD.
29. O'Connor, A., Stam, E., Sussan, F., Audretsch, D.B. (2018). Entrepreneurial ecosystems: The foundations of place-based renewal. In: A. O'Connor, E. Stam, F. Sussan,

- D.B. Audretsch (Eds.), *Entrepreneurial ecosystems: Place-based transformations and transitions*. Springer.
30. Ries, E. (2011). *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. New York: Crown Business.
  31. Scaringella, L., Radziwon, A. (2018). Innovation, entrepreneurial, knowledge, and business ecosystems: Old wine in new bottles? *Technological Forecasting and Social Change*, Vol. 136, Iss. 7, pp. 59-87, <https://doi.org/10.1016/j.techfore.2017.09.023>.
  32. Spiegel, B. (2017). The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice*, Vol. 41, Iss. 1, pp. 49-72, doi: 10.1111/etap.12167.
  33. Spiegel, B. (2020). *Entrepreneurial ecosystems: Theory, practice, futures*. Cheltenham: Edward Elgar.
  34. Stam, E. (2015). Entrepreneurial ecosystems and regional policy: a sympathetic critique. *European Planning Studies*, Vol. 23, Iss. 9, 1759-1769, doi: 10.1080/09654313.2015.1061484.
  35. Stam, E., Bosma, N. (2015). Local policies for high- growth firms. In: D.B. Audretsch, A. Link, A. Walshok (Eds.), *The Oxford handbook of local competitiveness*. Oxford University Press.
  36. Stam, E., Spiegel, B. (2016). Entrepreneurial Ecosystems. *USE Discussion Paper Series*, 16-13, 1-15.
  37. Stam, E., Spiegel, B. (2017). Entrepreneurial Ecosystems, Forthcoming. In: R. Blackburn, D. De Clercq, J. Heinonen, Z. Wang (Eds.), *Handbook for Entrepreneurship and Small Business*. London: SAGE.
  38. Stam, E., Spiegel, B. (2018). Entrepreneurial Ecosystems. In: R. Blackburn, D. De Clercq, J. Heinonen (Eds.), *The SAGE Handbook of small business and entrepreneurship*. Sage.
  39. Stam, E., Van de Ven, A. H. (2021). Entrepreneurial ecosystem elements. *Small Business Economics*, Vol. 56, pp. 809-832, <https://doi.org/10.1007/s11187-019-00270-6>.
  40. Stam, E., Welter, F. (2020). Geographical contexts of entrepreneurship: Spaces, places and entrepreneurial agency. *Working Papers*, 4. Bonn: Institut für Mittelstandsforschung (IfM).
  41. Stańczyk-Hugiet, E.I. (2015). Strategicznie o ekosystemie biznesu. *Prace Naukowe WWSZIP*, Vol. 32, Iss. 2, pp. 395-409.
  42. Stangler, D., Bell-Masterson, J. (2015). *Measuring an entrepreneurial ecosystem*. Ewin Marion Kauffman Foundation.
  43. Sułkowski, Ł. (2012). *Epistemologia i metodologia zarządzania*. Warszawa: PWE.
  44. The Start-up Radar (2020). Retrieved from: [https://www.europa-uni.de/de/struktur/unileitung/pressestelle/viadrina-logbuch/auszeichnungen/20210312\\_gruendungsradar/Beitrag/index.html](https://www.europa-uni.de/de/struktur/unileitung/pressestelle/viadrina-logbuch/auszeichnungen/20210312_gruendungsradar/Beitrag/index.html), 20.05.2023.
  45. *The university ranking "Think Tank" of the Business Plan Competition* (2018). Retrieved from: <https://www.europa-uni.de/de/search/index.html?q=Ideenschmiede>, 20.05.2023.

46. Theodoraki, Ch., Messeghem, K., Rice, M.P. (2018). A social capital approach to the development of sustainable entrepreneurial ecosystems: an explorative study. *Small Business Economics*, Vol. 51, pp. 153-170, doi: 10.1007/s11187-017-9924-0.
47. Thomas, L.D., Autio, E. (2013). The fifth facet: the ecosystem as an organizational field. In: *Proceeding of the Conference on DRUID Society: Innovation and Entrepreneurship*. Group Working Papers. Copenhagen: CBS.
48. Tomski, P. (2018). Ekosystem jako poszerzona perspektywa postrzegania przedsiębiorczości. *Przedsiębiorczość i Zarządzanie, Firmy rodzinne – zarządzanie, rozwój, przedsiębiorczość*, Vol. 19, Iss. 7, Part 3, pp. 113-129.
49. Wallisch, M., Gorynia-Pfeffer, N., Morgenstern, K., Ahluwalia, R.D., Koch, A., Depner, H., Fernández-Sánchez, N., Wolff von der Sahl, J., Starke, Ch. (2019). *Gründerökosysteme gestalten. Handbuch zur Unterstützung von Gründungen und Startups*. Eschborn: RKW Kompetenzzentrum.
50. World Economic Forum (2014). *Entrepreneurial ecosystems around the globe and early-stage company growth dynamics*.
51. Yin, R.K. (2013). *Case study research: design and methods*. Thousand Oaks: Sage Publications.
52. *Zwei Brandenburger Projekte erfolgreich bei Förderaufruf „Best Practice Gründerökosysteme in den neuen Bundesländern“*. Ministerium für Wirtschaft, Arbeit und Energie (MWAE) Land Brandenburg. Retrieved from: <https://mwae.brandenburg.de/sixcms/detail.php?id=972187>, 20.05.2023.