ELSEVIER

## Contents lists available at ScienceDirect

## **Technovation**

journal homepage: www.elsevier.com/locate/technovation





# How do accelerators emerge and develop in entrepreneurial universities?

Monica Masucci <sup>a,\*</sup>, Roberto Camerani <sup>b</sup>, Nicoletta Corrocher <sup>c</sup>, Mariarosa Scarlata <sup>d</sup>

- <sup>a</sup> University of Sussex, Department of Strategy and Marketing, Jubilee Building, Falmer, BN1 9SL, Brighton, UK
- <sup>b</sup> University of Sussex, Science Policy Research Unit, Jubilee Building, Falmer, BN1 9SL, Brighton, UK
- c ICRIOS, Bocconi University, Via Sarfatti 25, 20136, Milan, Italy
- <sup>d</sup> University of Bergamo, Via dei Caniana, 2, 24127, Bergamo, Italy

#### ARTICLE INFO

#### Keywords: Accelerator University Intrapreneurship Ecosystem

#### ABSTRACT

This paper explores the creation and development process of an accelerator by a European business university, investigating the factors that led the university to found its own accelerator and that guided its set up process in terms of choice of focal activities and governance structure, as well as the mechanisms through which it creates value for its internal and external ecosystem. Relying on an in-depth case study approach, we conducted several interviews with members of the accelerator, key university stakeholders, and external partners. Our empirical evidence points to the existence of both internal and external drivers that led to the emergence of the university accelerator and suggests that its operating and governance structures were strategically designed to leverage the university's internal strengths and resources and to balance integration and autonomy needs. It also underscores the key roles played by the top management of the university and by the internal champion in aligning views, building consensus, and negotiating solutions in this process. Finally, it reveals how by strategically orchestrating the relationships with internal and external stakeholders a university accelerator can build internal and external legitimacy and successfully balance the need of creating value for both the university and the broader ecosystem in which it operates.

## 1. Introduction

Over the past decades, policymakers and researchers have increasingly recognized the key role that universities play in driving economic growth and development in ways that go beyond research and teaching. This expanded role encompasses activities such as nurturing entrepreneurship within regional and national contexts, often referred to as their third mission. Universities have, hence, evolved into dynamic institutions that actively promote entrepreneurship through the establishment of new ventures and the dissemination of entrepreneurial culture and knowledge (Klofsten et al., 2019).

As part of their third mission activities, entrepreneurial universities play a societal role by fostering entrepreneurial attitudes and behaviors in ecosystem participants (Klofsten et al., 2019). To achieve this, they continuously integrate and reconfigure their teaching, research, and entrepreneurial activities to generate knowledge spillovers within their ecosystem (Guerrero et al., 2015). Through such spillovers, entrepreneurial universities foster the creation of new ventures and contribute to the economic development of the regions where they operate

(Compagnucci and Spigarelli, 2020; Breznitz and Zhang, 2019; Klofsten et al., 2019; Guerrero and Urbano, 2014).

Traditionally, entrepreneurial universities were those engaging in the commercialization of research outcomes obtained by faculty members with the support of technology transfer offices (TTOs) (Wright et al., 2017; De Wit-de Vries et al., 2019; Metcalf et al., 2020; Breznitz et al., 2018). More recently, entrepreneurial universities have broadened their scope, serving as a platform for collaboration, creation, and dissemination of knowledge through the orchestration of multi-stakeholder partnerships and networks involving public and private organizations (Leydesdorff and Meyer 2003; Inzelt 2004; Guerrero et al., 2016a; De Keyser and Vandenbempt, 2023). This sometimes culminates in the creation of university-based accelerators (UBAs), i.e., new organizations specifically designed to support entrepreneurial action, growth, and survival of new ventures within the ecosystem.

The emergence of entrepreneurial universities and the creation of UBAs, however, pose important challenges. First, an entrepreneurial university engaging in the creation of its own UBA needs to develop intrapreneurial capabilities, i.e., the "ability to engage in innovative

E-mail addresses: m.masucci@sussex.ac.uk (M. Masucci), r.camerani@sussex.ac.uk (R. Camerani), nicoletta.corrocher@unibocconi.it (N. Corrocher), mariarosa. scarlata@unibg.it (M. Scarlata).

https://doi.org/10.1016/j.technovation.2024.103053

Received 15 April 2023; Received in revised form 19 May 2024; Accepted 27 May 2024 Available online 24 July 2024

0166-4972/© 2024 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

<sup>\*</sup> Corresponding author.

activities within its existing organizational boundaries" (Audretsch et al., 2021, p. 1). Second, an entrepreneurial university that aims at exploiting its intrapreneurial capabilities needs to strike a balance between traditional academic activities involving research and teaching, and more commercial/entrepreneurial endeavors (Shekhar et al., 2023; Perkmann et al., 2019; Guerrero and Pugh, 2022; De Keyser and Vandenbempt, 2023). Third, the inherent complex structure of universities, which includes several different – and often diverging – subcultures, departments, and isolated subunits, poses organizational challenges that may hinder the mobilization of resources needed for the pursuit of intrapreneurial endeavors (Klofsten et al., 2021).

Despite the growing focus on this subject in the literature and the widespread acknowledgment of the role of UBAs in promoting entrepreneurship within academic institutions (Cohen et al., 2019; Shekhar et al., 2023), there has been limited attention to the processes that drive their establishment and the factors that facilitate their effective operation, especially in the case of business universities (Bergman and McMullen, 2022; De Keyser and Vandenbempt, 2023). The literature on university-based accelerators has, in fact, mainly concentrated on institutions with a scientific or technical expertise (Shekhar et al., 2023). These institutions, by nature, have the capacity to generate new scientific discoveries or inventions with the potential to evolve into entrepreneurial ventures and rely on the presence of TTOs. In contrast, business universities have no direct access to scientific and technical knowledge and hence need to orchestrate collaborations with complementary partners.

In this paper, we aim to address the gaps highlighted above by answering the following research question: how do accelerators emerge and develop in entrepreneurial universities? In particular, we seek to shed light on: a) how universities decide to engage in the creation of an accelerator and on the main internal and external drivers behind this choice; b) how the actual development of an accelerator takes place in terms of the choice of governance structure and operational activities, and the main challenges and tensions that this process may involve; and c) how an accelerator orchestrates its relationships with internal and external actors to attain legitimacy and create value for both the university and the broader entrepreneurial ecosystem.

To address our key research question, we conducted an in-depth case study investigating the creation and development process of an accelerator housed in a European business university. We based our analysis on a series of semi-structured interviews with members of the university leadership team and the newly created UBA, other internal and external stakeholders, as well as on a rich set of archival data (internal presentations, reports of activities, and memos) and site visits. Our case evidence allowed us to capture the whole establishment process of the UBA, including what prompted the creation of the accelerator (antecedents), how it was operationally designed and how it orchestrated its key activities and relations (process), and how it created value for the university and the external ecosystem (outcomes). We also identified the main actors who played a role in this process, the main challenges that were faced, and the key mechanisms that were instrumental for the successful development of the accelerator (i.e., negotiating with internal actors, orchestrating relationships with internal and external stakeholders, and creating value for the university and the ecosystem), contributing to the literature on intrapreneurial universities and university accelerators in multiple ways.

The paper is structured as follows. First, we review relevant literature on entrepreneurial universities, intrapreneurship in the university context, and UBAs. Then, we illustrate our data and methods, and describe our research setting. Next, we present our findings and discuss how they contribute to extant literature and practice. We then conclude by highlighting the key limitations of our study and identifying possible avenues for future research.

#### 2. Background literature

## 2.1. Entrepreneurial universities

Universities have experienced a significant evolution in recent years, spurred by increasing pressure to expand their traditional teaching and research roles and embrace third mission activities aimed at advancing societal progress (Compagnucci and Spigarelli, 2020). By disseminating knowledge and fostering entrepreneurship and innovation through pervasive collaboration with stakeholders across their ecosystems, universities have become pivotal catalysts for the socio-economic development of the regions where they operate and key agents of change (Klofsten et al., 2019). The growing literature on entrepreneurial universities further underscores their crucial role (Audretsch et al., 2012; Forliano et al., 2021; Guerrero et al., 2016b). It suggests that, driven by their third mission agendas, universities are increasingly engaging in activities aimed at nurturing entrepreneurial talents and culture, as well as facilitating new venture creation (Henry and Lahikainen, 2024). In so doing, they are emerging as important catalysts for entrepreneurial action within their ecosystems (Klofsten et al., 2019).

Extant research shows that, traditionally, entrepreneurial universities have advanced their third mission agenda by actively pursuing the commercialization of research results via patenting, licensing, and spinoff activities, often with support from technology transfer offices (Mascarenhas et al., 2017). Yet, more recently, they have broadened the scope of their entrepreneurial endeavors (Abreu and Grinevich, 2013; Audretsch, 2014; Etzkowitz, 2013; Siegel and Wright, 2015a), engaging in a wide array of programs, partnerships, and support activities aimed at fostering the development of entrepreneurial skills and the founding of new businesses (Breznitz et al., 2018).

As entrepreneurial universities strive to realize their third mission agenda and expand their entrepreneurial activities, they commonly encounter significant organizational challenges (Philpott et al., 2011). These challenges involve navigating the complexities of university environments to effectively balance the logics and demands of traditional research and academic activities with those of managing entrepreneurial endeavors (De Keyser and Vandenbempt, 2023; Engzell et al., 2024; Klofsten et al., 2019). Further challenges arise from the need to establish internal and external legitimacy for their entrepreneurial activities (Tracey et al., 2018). This involves meeting the expectations of both internal and external ecosystem stakeholders (Miller et al., 2021), with whom universities must actively engage to secure the resources needed to expand their entrepreneurial agenda (Bitektine and Haack, 2015).

Guerrero and Urbano (2012) suggest that a university's capacity to advance its entrepreneurial agenda while maintaining a balance with its teaching and research activities hinges on two sets of factors: environmental and internal. The former encompasses both formal elements such as infrastructure, governance, and supportive measures for entrepreneurship, and informal ones like entrepreneurial attitudes and culture. Internal factors include university resources and capabilities (e.g., human, physical, and financial resources, status and reputation, networks) that can be leveraged to support entrepreneurial activities. While the extant literature emphasizes the importance of these factors in shaping the development of entrepreneurial universities, it offers limited insights on how they can be effectively orchestrated to foster university environments where entrepreneurial activities can flourish. Achieving this typically requires a strategic rethinking of existing structures and processes, as well as the development of new capabilities (Martin et al., 2019).

In fact, the organizational and governance structures of universities are known to be hierarchical and bureaucratic, often proving ill-suited to support their entrepreneurial endeavors (Kirby, 2006). Hence, as highlighted by Cunningham et al. (2022), entrepreneurial universities must design and implement new organizational architectures that better align with their objectives and needs. This often entails establishing new

organizational units that go beyond traditional TTOs, including entrepreneurship centers, incubators, accelerators, and other entities geared towards supporting different types of entrepreneurial activities (Siegel and Wright, 2015b). However, the integration of these units into the wider university context, alongside the definition of their governance structures and resource endowments, can become significant sources of tension for entrepreneurial universities, potentially jeopardizing their efforts to bolster support for entrepreneurial activities (Cunningham et al., 2022). Legitimizing their role within the university environment is, then, crucial to minimize resistance from internal stakeholders and thus mitigate some of those tensions (Lundqvist and Williams-Middleton; 2024; O'Kane et al., 2015). Gaining legitimacy within the broader external ecosystem is equally important for these units (Nafari et al., 2024; Suchman, 1995; Van der Steen et al., 2022). To effectively play their role, they must engage with various external stakeholders, including academic and industry partners, government agencies, investors, and community organizations, whose support is pivotal for the success of their entrepreneurial efforts.

Previous studies suggest that universities must embrace entrepreneurial cultures and behaviors, and develop new capabilities and approaches to adeptly navigate the organizational transformations necessary to achieve their entrepreneurial agendas and tackle associated challenges (Guerrero et al., 2014; Klofsten et al., 2019). Recent work highlights that this requires substantive leadership, as well as the orchestration of effective intrapreneurial responses enabling universities to create value for their internal and external ecosystems (Abreu and Grinevich, 2024; Flores et al., 2024; Stolze and Sailer, 2022).

### 2.2. Intrapreneurship in the university context

Recent studies suggest that to advance their third mission activities and remain relevant in an increasingly competitive environment where the demands of students and stakeholders are rapidly evolving, entrepreneurial universities must actively embrace intrapreneurship (Guerrero et al., 2021; Henry and Lahikainen, 2024; Miller et al., 2021).

Intrapreneurship, defined as "entrepreneurship within an existing organization" (Antoncic and Hisrich, 2003, p. 9), was originally investigated in the corporate context (Pinchot, 1985). It refers to the process through which individuals within an established organization identify opportunities for innovation, renewal, and growth, which may result in the creation of new businesses, products, services, or processes, or may even instigate changes in the organizational culture (Sharma and Chrisman, 1999). Research shows that by fostering the development of intrapreneurial capabilities within their organizations, firms can achieve a sustained competitive advantage and enhanced performance (Klofsten et al., 2021). Acquiring a deeper understanding of how these capabilities can be nurtured, especially within academic contexts where entrepreneurial endeavors typically face various challenges and constraints, is, then, crucial (Flores et al., 2024).

While all aiming at fostering entrepreneurial attitudes and behaviors, intrapreneurial activities within universities can manifest in various forms (Schmitz et al., 2017). A common one, prevalent in STEM (Science, Technology, Engineering, and Mathematics) disciplines, involves faculty members founding academic spinoffs to capitalize on the value of their scientific discoveries through knowledge commercialization (Audretsch et al., 2024; Burkholder and Hulsink, 2022). Evidence shows that this founding process stimulates intrapreneurial behaviors and leads to the development of crucial capabilities among university employees (Valka et al., 2020). Although academic spinoffs have garnered significant attention, intrapreneurial activities within universities extend beyond them, involving not only faculty members but also various other university stakeholders such as students, support staff, and alumni, who may be driven by different aspirations and goals (Shekhar et al., 2023; Wright et al., 2017).

Recent work suggests that to effectively enact intrapreneurial processes, universities need to overcome significant challenges related to

their complex governance and operational structures, and to the heterogenous and often conflicting demands of their stakeholders (Klofsten et al., 2021). This requires the development of intrapreneurial capabilities, defined as "those higher-level competencies that determine that entrepreneurial organizations will be able to improve/transform their routines into entrepreneurial actions to integrate, build, and reconfigure internal/external resources" (Guerrero et al., 2021, p. 4). University leaders can play a pivotal role in the successful development of these capabilities. By garnering support for their entrepreneurial vision and goals, they can facilitate the transformative organizational change required for the delivery of the entrepreneurial agenda and overcome the associated challenges (Stolze and Sailer, 2022). Moreover, by combining strategic thinking with capability development, university leaders can contribute to shaping an organizational architecture that allows to simultaneously support intrapreneurial and entrepreneurial activities while satisfying different stakeholders' interests over the long term (Klofsten et al., 2019; Leih and Teece, 2016).

## 2.3. UBAs as intrapreneurial vehicles in entrepreneurial universities

UBAs are accelerators founded and supported by a university. They act as vehicles to facilitate intrapreneurship within entrepreneurial universities (Shekhar et al., 2023) and have the twofold objective of supporting the transition of ideas from the lab to the market and fostering entrepreneurial skills among students (Cohen et al., 2019; Maritz et al., 2021). Like traditional accelerators, they typically offer entrepreneurship-related training programs over a fixed and short period (three to nine months) and provide services like office space, mentorship, coaching, and advisory by leveraging the resources and network of the university (Mansoori et al., 2019). Sometimes, they also invest in the accelerated startups, which are subject to a strict selection process (Breznitz and Zhang, 2019; Wright et al., 2017).

UBAs are one of the many entrepreneurial support organizations (e. g., incubators, science and technology parks, co-working spaces) that, over the past decade, have emerged in the broader entrepreneurial ecosystem with the purpose of helping entrepreneurs survive and grow through the provision of valuable resources (Bergman and McMullen, 2022; Ratinho et al., 2020; Stam, 2015). By leveraging the resources and network of the founding university, UBAs strive to orchestrate multiple relationships with various ecosystem actors, including investors, corporates, and other academic institutions, to gain access to complementary resources and bolster the support they can offer to the startups they work with (Caccamo and Beckman, 2022; Cohen et al., 2019; Stam and Van de Ven, 2021; Wright et al., 2017). In so doing, they effectively act as brokers between entrepreneurs and external stakeholders, thereby legitimizing their role in the ecosystem (Bergman and McMullen, 2022; Crisan et al., 2021).

While research has shed light on the activities carried out by UBAs and on the services that they typically offer (Cohen et al., 2019), little is known about the process and decision-making dynamics underlying the creation of such organizational units, as well as the intricacies involved in their founding and development.

Cunningham et al. (2022) suggest that three main factors typically drive the decision to set up a UBA within an entrepreneurial university. First, the delivery of the third mission agenda (Compagnucci and Spigarelli, 2020). Second, the need to provide entrepreneurial training for students (Wright et al., 2017; Guerrero and Urbano, 2012). Third, increased inter-university competition (Klofsten et al., 2019).

Extant literature highlights the importance of anticipating possible tensions and challenges associated with selecting a specific operating model and governance structure for a UBA (Abreu and Grinevich, 2013; Cunningham et al., 2022). These tensions typically revolve around issues of operational autonomy and institutional control (Debackere and Veugelers, 2005; Nelles and Vorley, 2010), which need to be effectively balanced to ensure that a UBA can be flexible in providing entrepreneurial support while being integrated into the wider university context

(Clark, 1998). While such integration can foster beneficial relationships with other departments and units, it also entails adhering to university norms and procedures, which may constrain freedom and agility in decision-making (Perkmann et al., 2019).

A critical concern for UBAs is also their ability to mobilize the necessary resources for effective operation (Guerrero and Urbano, 2012; O'Shea et al., 2005). Within the university, they often face competition from other units and departments, leading to tensions over resource allocation, particularly during the early stages, when they are still establishing their internal legitimacy (O'Kane et al., 2015). Once legitimized, UBAs may access resources more easily and encounter lower resistance. However, as previous studies highlight, the risk of a mismatch between the resources that universities are ready to invest and their entrepreneurial ambitions is not uncommon (Clarysse et al., 2005). Therefore, it is imperative for UBAs to effectively engage with the broader entrepreneurial ecosystem to access complementary resources (Bergman and McMullen, 2022). By forging partnerships and gaining endorsement from other ecosystem actors, they can build credibility and establish external legitimacy (Drori and Honig, 2013). This requires systematic alignment with the demands and needs of other ecosystem actors, as well as significant operational agility (Link and Scott, 2005; Grimaldi and Grandi, 2005).

Evidence shows that, to effectively support the development of a UBA, entrepreneurial universities need to build intrapreneurial capabilities enabling them to effectively orchestrate internal and external relationships, particularly in the context of business universities, which typically lack direct access to STEM skills (Greco and Tregua, 2022; Link and Scott, 2005; Smilor, 1987). How these capabilities can be nurtured, however, has not been adequately explored in the extant literature, thus constraining our understanding of how UBAs can be used as effective vehicles to foster intrapreneurship (Flores et al., 2024).

## 3. Data and methods

To gain an in-depth understanding of how a university-based accelerator (UBA) emerged and developed, we employed a qualitative research approach (Miles and Huberman, 1994). We used a single exploratory case study method (Yin, 2014) to investigate the drivers and decision-making dynamics that led to the creation of a focal UBA, to identify the key actors involved in its organizational setup and in defining its main aspects, and to explore how internal and external resources and networks were mobilized and orchestrated to support its functioning and its capacity to create value. Despite the growing interest in university accelerators and the proliferation of studies on this topic in recent years, research on the phenomenon is still emergent and many aspects related to the successful set-up and functioning of a university accelerator are yet to be fully investigated. Therefore, the choice of an in-depth case study method appears particularly suitable, especially as, according to Dubois and Gadde (2002: 554) it allows to capture the interaction "between a phenomenon and its context". Moreover, this research method allows to directly capture the lived experiences and tacit knowledge of the actors involved in the creation of a focal UBA. Below we describe our context of investigation and how we collected and analyzed our data.

## 3.1. Research setting

The chosen case for our study is an accelerator, referred as Beta hereafter, housed in a university that focuses on education and research in the fields of business and management. Beta was founded in 2019 with the aim of making the university better at instigating and supporting innovation and entrepreneurship, which had been recognized by the top management as key pillars of its future development.

Organized as a division within the university, Beta has a team of 11 people with varied expertise in academia, business consulting, and venture capital, and is led by an operating director who reports directly

to the university's top management. Beta offers two main programs to support entrepreneurs: a pre-acceleration program and an acceleration program, whose target participants are aspiring and early-stage entrepreneurs, respectively. Access to these programs is based on a competitive selection process. Since its creation, Beta pre-accelerated more than 100 teams and accelerated more than 40 startups. While the preacceleration program is a structured training aimed at helping individuals with no prior entrepreneurial experience validate their initial business ideas and develop an MVP (Minimum Viable Product), the acceleration program aims to help early-stage startups that are already incorporated, move from prototype to achieve PMF (Product-Market Fit), and involves an upfront equity investment by Beta. Participants in both programs are supported by dedicated mentors and advisors, and are offered legal support and other perks through affiliated service providers. Beta systematically collaborates with faculty members and other units within the university, as well as various external actors, including other universities in the region, operational partners, and investors.

In selecting this case for our investigation, we were guided by three main factors. First, Beta is part of a university that doesn't provide education in STEM disciplines, but only in business and management. To date, most available studies on UBAs have focused on science and technology-based universities. Since the goals, focus, structure, and collaboration strategies of an accelerator may be significantly influenced by the university context in which it is embedded, the case we decided to study may provide original insights on those aspects.

Second, Beta offers support to both aspiring and early-stage entrepreneurs by means of pre-acceleration and acceleration programs. Pre-acceleration programs are a relatively recent addition to the range of support systems available to entrepreneurs, and there is limited empirical evidence on them (Merguei, 2022; Merguei and Costa, 2022). As we were particularly interested in understanding how a UBA can promote the diffusion of entrepreneurial knowledge and skills among university students and staff, the presence of a pre-accelerator program was a key selection criterion for us.

Third, Beta operates in the region with the highest density of startups in the country where it is located (StartupBlink, 2022). As one of our key research objectives was to understand how a UBA can strategically orchestrate its relationships with external actors to build a supportive ecosystem enabling its successful functioning, the fact that our selected accelerator was operating in a thriving entrepreneurial environment made this context particularly suitable.

## 3.2. Data collection and analysis

Given the nature of our study, which aims at exploring the creation and development process of Beta, at identifying the key internal and external actors involved, as well as the resources mobilized to make it succeed, our data collection strategy relied on multiple sources of information. Primary and secondary data were gathered both from the university and the accelerator, and from some of its internal and external stakeholders. Primary data were collected through 23 semi-structured interviews conducted in three separate rounds between June 2022 and January 2023. Interviews ranged in duration between 30 min and 1 h and were conducted via video-call, recorded, transcribed, and submitted to interviewees for verification. In selecting our 23 interviewees, who include members of the university's top management, and of the accelerator's teams, as well as relevant internal and external actors, we aimed to ensure that key aspects of Beta's emergence and development and of the interactions established within the internal and external ecosystems in which it operates could be fully understood. Since our interviewees had been involved in Beta's development process and its initiatives in various capacities (see Table 1 for an overview of interviewees), we were able to gather diverse views and information from a variety of internal and external actors, enabling us to mitigate potential biases (Gioia et al., 2013).

Table 1
List of interviewees.

M. Masucci et al.

Category	Organization	Role
Internal stakeholders	University	Dean Associate Dean of Innovation Managing Director Alumni Officer Grants Officer
	Accelerator	Operating Director Acceleration Program Manager Pre-Acceleration Program Manager Head of Vertical A Head of Vertical B Head of Vertical C Legal Support Coordinator Operation Manager Team Member A Team Member B Team Member C
External stakeholders	Partner University A Partner University B Partner University C Scientific Research Center Scientific Research Center Governmental Investment Agency Innovation platform and accelerator	Senior Manager Senior Manager Senior Manager Senior Manager Project Manager Project Manager Director

Our interview process proceeded as follows. First, to gain an in-depth understanding of what drove the creation of Beta and of the decision-making dynamics that underlay this process, we interviewed individuals who held top management positions at the university and who were directly involved in decisions related to the founding of Beta. Specifically we interviewed the University Dean, Managing Director and Associate Dean of Innovation. We asked them questions aimed at uncovering the main objectives that the university intended to achieve by setting up Beta, the actual process that led to its creation, the challenges faced, as well as the strategic considerations that influenced decisions regarding Beta's portfolio of activities, governance model, operational structure, and external partnerships. These initial interviews helped us identify target respondents for the subsequent round.

The second round of interviews, which focused on the accelerator's structure, activities, and operating model, involved all members of the accelerator team, including its operating director, program and operations managers. While interview guides were partially adapted to fit the interviewees' roles in the accelerator, most of the questions we asked aimed at gaining a comprehensive overview of how Beta is organized, the key areas of activity, the main facets of its programs, and the range of resources and services that are made available to support entrepreneurs. Moreover, we explored the range of collaborations that Beta has established both within the university and with external actors who are part of its entrepreneurial ecosystem. Through snowball sampling (Biernacki and Waldorf, 1981), and with the help of Beta's team, we were able to identify relevant target respondents for our third round of interviews.

This subsequent round of interviews, which involved internal and external actors with whom Beta is cooperating more closely, aimed at enriching our understanding of the network of relationships that the accelerator has established with the purpose of building an internal and external supportive ecosystem enabling its successful functioning. In addition to individuals working in other units within the university, such as the alumni or grant office, we also interviewed external actors with whom the accelerator has established institutional and operational partnerships, such as other universities and accelerators. This helped us capture the objectives behind these collaborations, the nature of the joint initiatives and activities envisaged, and gather their views on the value that the accelerator brings to the ecosystem.

In addition to conducting interviews, we also relied on archival data, including internal documentation (e.g., presentations and reports) made

available by Beta, and on information gathered from public sources such as videos, press and websites (see Table A.1 for an overview of our data sources). Moreover, we conducted site visits to the accelerator, as it has a physical space, and participated in events organized by Beta. This gave us the opportunity to further enrich our understanding of the activities run by the accelerator and the ecosystem in which it operates, and to interact with the startups participating in its programs. By using different data sources and multiple informants we aimed to ensure data triangulation and control for retrospective biases (Eisenhardt and Graebner, 2007; Yin, 2014).

In analyzing our data, we followed the logic of single case-study research (Yin, 2014). To expedite the coding process, we began by importing all interview transcripts and archival documents into NVivo (a qualitative data analysis software package). We then immersed ourselves in a thorough reading of the data, which allowed us to familiarize with them and to start detecting initial patterns. To code our data, we engaged in thematic analysis (Braun and Clarke, 2006; Flick, 2006). In line with our research objectives, we searched for statements referring to the creation and development of the UBA, to its organizational structure, and to the actors involved in the process. We, subsequently, labelled each statement based on the concept presented in the corresponding segment of text, thus, obtaining an initial list of first-order codes. Through a process of continuous iteration between our data and relevant literature, we organized and grouped related first-order codes together, which allowed us to develop broader second-order themes. In the final step, by further abstraction, we were able to categorize the identified second-order themes into five main aggregate dimensions, which effectively encapsulate the key elements conveyed by our data regarding the development of the UBA. These dimensions are summarized in Table 2, which reports our final coding structure. Throughout the data analysis process, the coding team, systematically interacted to validate codes and themes, and to iteratively refining them until agreement was reached (Saldaña, 2021).

<sup>&</sup>lt;sup>1</sup> We also conducted 21 interviews with startups who had participated in the programs offered by the UBA with the aim of triangulating the information on the support services and activities that we had collected from other sources.

First order codes	Second order themes	Aggregate dimensions	
Entrepreneurship and innovation recognized as strategic priorities for the university University top management aiming at creating a university ecosystem dedicated to entrepreneurship Internal champion creating a sense of urgency and aligning views/overcoming initial reluctance	Enacting top management vision		
Demand from students for more entrepreneurship-related courses and activities Faculty members craving more opportunities to research, train and mentor entrepreneurs Entrepreneurship-related initiatives as a means to potentially enhance alumni engagement	Addressing internal needs	Prompting the accelerator creation	
Key competitors have already set up accelerators to spur innovation and entrepreneurship To retain its ranking position the university needs to maintain its reputation as talent developer Embracing an active entrepreneurial role can help the university achieve its third mission	Meeting external pressures		
Reaching consensus on areas of specialization for the accelerator Aligning views on program offering and target participants Defining activities and services to support entrepreneurs	Defining focus and operating model of the accelerator	Building the accelerator	
Discussing and establishing a governance structure for the accelerator Negotiating the allocation of dedicated resources and staff Assembling a team of people with mixed competencies	Organizing the accelerator		
Coordinating entrepreneurship-related activities within the university Integrating practices and aligning procedures with other university divisions Mobilizing internal resources	Embedding the accelerator within university activities	Orchestrating the internal ecosystem	
Raising awareness about the accelerator and its activities Engaging with and gaining support from other actors within the university Seeking shared goals and opportunities for collaboration	Building internal legitimacy		
Forging partnerships to gain access to complementary resources and skills Community building and network development	Building collaborations and engagement with external stakeholders		
Engaging in external outreach activities Connecting with and gaining endorsement from relevant external actors	Seeking external legitimacy	Orchestrating the external ecosystem	
Entrepreneurial initiatives involving university faculty, students and alumni Innovation in the way the university carries out its own activities	Intrapreneurial outcomes		
Attraction and growth of external entrepreneurial talents Startup launch, fundraising, job creation	Entrepreneurial outcomes	Creating value for the university and the ecosyster	

#### 4. Findings

Our case evidence has led to the identification of four macro dimensions through which the emergence and development of Beta can be explained, as well as one additional dimension referring to the outcomes of its value creation process. First, what prompted the creation of the accelerator, i.e., the drivers and motivations that led to its establishment. Second, how the accelerator was built, i.e., the definition of its focus, operating model, organizational and governance structures, and resource endowment. Third, how the accelerator orchestrated its internal ecosystem, building internal legitimacy and getting integrated within the university. Fourth, how the accelerator orchestrated its external ecosystem, engaging in collaborative partnerships and seeking external legitimacy. Finally, how the accelerator created value both for the university and the broader ecosystem.

## 4.1. Prompting the acceleration creation

Our case evidence shows that the decision to establish an accelerator within a business university without a TTO or STEM focus was driven by various factors and motivations, including enacting the university top management's vision, addressing internal university needs, and meeting external pressures. The presence of an internal champion able to create a sense of urgency within the organization and align views within the leadership team was pivotal in moving the accelerator creation process forward from its inception stage.

#### 4.1.1. Enacting top management vision

A key driver behind the creation of the accelerator was the shared vision of the university's top management team and, in particular, of the University Dean and of the Associate Dean of Innovation, who recognized entrepreneurship and innovation as strategic priorities. The Dean had a longstanding commitment to promoting innovation, both internally through educational programs and externally through a strong engagement with the broader ecosystem. "I wanted to have a strong emphasis on innovation and entrepreneurship in my tenure as Dean" (University Dean). This led him also to appoint, for the first time in the university's history, an Associate Dean of Innovation.

In addition to promoting innovation and entrepreneurship within the university, their aim was also to nurture a university ecosystem that could effectively contribute to the growth of the broader entrepreneurial ecosystem. "We intended to contribute to boosting entrepreneurship in the country and to make it more attractive by creating new employment opportunities" (University Associate Dean of Innovation). To realize this vision, they believed that creating an organizational unit within the university to facilitate and expedite the growth of innovative startups could be an effective approach. The plan to create an accelerator gained momentum towards the end of the first Dean's tenure, when it was explicitly included in his re-election mandate statement.

While the vision championed by the Dean and the Associate Dean of Innovation to make entrepreneurship and innovation central to the university's strategic agenda was largely supported by other members of the leadership team, not everyone was initially convinced that creating an accelerator was the most effective approach. It was an entirely new venture for the university, which required the allocation of significant resources, and, as with all strategic initiatives pursued by the university, it needed vetting and approval by the board of directors and executive committee. "Without their support, initiatives such as this one have no future" (University Dean).

The Associate Dean of Innovation, who acted as a true internal champion, played a pivotal role in persuading top management about the viability and merits of this initiative. With the backing of the Managing Director and other influential members of the executive committee, he managed to overcome some initial reluctance and align views within the leadership team, thus helping push the creation of the accelerator forward. "The Associate Dean of Innovation was able to

navigate this process effectively and steer the organization in the right direction" (University Managing Director).

## 4.1.2. Addressing internal needs

The creation of an accelerator was seen as instrumental in meeting the university's internal needs and aspirations, particularly in fostering entrepreneurship among students, faculty, and alumni, as well as in promoting intrapreneurship.

For students attending a business university, entrepreneurship was increasingly becoming an appealing job prospect. While the university had already a rich teaching portfolio of innovation and entrepreneurship courses, students were increasingly looking for experiential learning opportunities on how to start and run their own ventures. "The university leadership team realized that experiential learning, such as learning through concrete projects, was becoming increasingly important and, thus, the accelerator could also function as a training lab" (University Associate Dean of Innovation).

A similar demand was also coming from faculty members, particularly those teaching innovation and entrepreneurship courses, who were willing to embed a more practical and experiential component into their curricula. "Teaching certain topics without a practical component is somewhat limiting. It's like teaching chemistry and physics without laboratories." (Beta Head of Vertical B). The presence of an internal accelerator could serve that purpose and give faculty members the opportunity to connect with, train and mentor real entrepreneurs, something that many of them had long awaited.

In addition to addressing students' and faculty members' needs, the creation of an accelerator could also open new opportunities for alumni engagement, which was a strategic priority for the university. The alumni community included a large pool of international graduates with varied expertise, who could get involved in the activities of the accelerator in different ways. "They could become mentors or investors or get support, through the accelerator, to launch their own startups" (Beta Team member C).

## 4.1.3. Meeting external pressures

Competition, the need to maintain reputation, and growing expectations for third mission activities were additional pressures that led the university to create an accelerator.

The focal university operates in a highly competitive environment which requires a systematic peer benchmarking: "We constantly compare ourselves to our peers, specifically universities that are ranked higher than us" (University Managing Director). Most peer universities had already established an accelerator, thus gaining a competitive edge in attracting top students, faculty, startups, and investors. "Recognizing that other business schools or universities similar to us were creating accelerators or incubators has been an important driver for the advancement of this project" (University Dean). Without an entrepreneurial hub, able to serve as a platform to support entrepreneurial initiatives, the university risked that its students and alumni would seek alternative opportunities to fulfil their entrepreneurial aspirations, with a potential threat to its competitiveness.

Lagging behind their peers in terms of provision of entrepreneurial support was a pressing matter also from a reputational standpoint. "There was also a reputational issue. I found it somewhat concerning that the university was not taking a stance on this matter. It had started creating reputational problems for us both domestically and internationally" (University Dean). The creation of an accelerator was, hence, seen as a crucial step for the university to maintain its reputation as talent developer and to meet the growing expectations for engagement in third mission activities. "In addition to research and teaching, universities are expected to contribute to the so-called third mission, which involves making a social impact" (University Dean). The accelerator could potentially serve as a catalyst, within the university, for innovations addressing societal challenges.

#### 4.2. Building the accelerator

The second macro dimension emerging from our data relates to how the accelerator was built, with reference to both the definition of its operating and organizational models and to the allocation of dedicated resources. These aspects were the subject of internal negotiations which ultimately shaped Beta's current structure, focus and activities.

## 4.2.1. Defining focus and operating model of the accelerator

Beta was founded with the aim of attracting promising entrepreneurs and promoting innovation and entrepreneurship both internally and within the broader entrepreneurial ecosystem. While Beta's objectives were clear from the outset, its focus and activities, as well as the target individuals and startups that could benefit from the support offered by the accelerator were the subject of intense internal discussions and negotiations. For over a year, the university leadership team debated such issues as there were divergent views about what should be the accelerator's focus and operating model.

As in the gestation phase that led to the decision to create the accelerator, also during its building process, the Associate Dean of Innovation played an important role in helping reach consensus on its structure and scope. Building on a thorough benchmark analysis of business accelerators, he formulated a proposal for a possible operating model that, after a series of iterations and discussions with the leadership team, was eventually approved. "We've had a year of negotiations with the executive committee, with many meetings to define the operational details, so it was really not a trivial matter, and I have to give credit to the Associate Dean of Innovation for that" (University Dean).

One of the initial decisions to make was about the choice of possible areas of specialization for the accelerator. The internal debate primarily revolved around whether it should be a generalist or a sector-focused accelerator. "We deliberated on whether we should specialize in certain areas, and which ones. We also considered how we could differentiate our accelerator from other accelerators and incubators" (Beta Head of Vertical C). The final decision, resulting from these discussions, fell somewhere in the middle. It was agreed to have an accelerator open to ventures across sectors but to prioritize three vertical areas of specialization where the university already had significant business expertise, a reputation for research or teaching activities, and an established network with companies and other stakeholders.

The second key set of decisions the university leadership team had to make concerned the program offerings and target audience. "Initially, the idea was to offer just an acceleration program which would guide startups towards achieving product-market fit and becoming investment-ready. However, as Beta's development plan took shape, it became clear that there was a growing demand for supporting entrepreneurs at even earlier stages than those targeted by the acceleration program" (Beta Pre-Acceleration Program Manager). It was, then, agreed that Beta would offer, in addition to the acceleration program, also a pre-acceleration one, aimed at providing dedicated training and support to the growing community of aspiring entrepreneurs within the university ecosystem. They required a different type of support than the one generally provided through the acceleration program, as they were typically working on embryonic projects and lacked entrepreneurial experience. "The pre-acceleration program can help individuals understand if they have what it takes to become an entrepreneur with the project they are working on" (Beta Operating Director).

The definition of the target participants for Beta's programs was also subject to internal debate. On one hand some believed that support for the entrepreneurial efforts of students, faculty members, and alumni should be prioritized. On the other hand, there was a willingness to contribute to the broader entrepreneurial ecosystem and attract people with different skillsets. Therefore, the idea of restricting program access only to individuals who were part of the university community was deemed too limiting and initial consensus was found on extending access also to individuals from institutions with whom the university had

partnered. "We began by accepting applications from institutions with which we had previously signed collaborative agreements, and over time, we were able to expand and open the accelerator to a wider audience" (University Dean). Indeed, a few months after Beta's launch and following further internal discussions, the initial approach was revised, and it was decided to open the accelerator's programs to anyone potentially interested.

Finally, decisions had to be made about the specific activities, resources, and services that Beta would arrange to support the entrepreneurs admitted to its programs. A benchmark analysis of national and international accelerators helped identify commonly provided services and, following an internal debate, define those worth including in the accelerator's provision. This provision varied significantly between the pre-acceleration and acceleration programs, as described in the research setting section.

#### 4.2.2. Organizing the accelerator

Deciding on Beta's governance structure was challenging and involved lengthy discussions, as views within the university leadership team were not aligned. Some members advocated for solutions enabling operational agility, while others for those allowing better integration with the university's overall activities. Various options were explored, including organizing Beta as a university division or establishing it as a structurally separate legal entity. Eventually, it was decided that Beta would be a new division of the university, hence, in need to be compliant with its rules and procedures, but that it would be granted some autonomy on specific matters. "Although Beta is formally part of the University, I must acknowledge that the University has granted us a substantial degree of autonomy. For instance, we maintain our distinct logo, LinkedIn page, and we adopt a distinctive profile when publicizing our activities" (Beta Operating Director).

In parallel with defining Beta's governance structure and operating model, other aspects had to be negotiated, particularly the allocation of dedicated resources enabling the accelerator's effective functioning. "We had to make a significant amount of resources available. We had to build a new organizational unit from scratch. So, the initial effort was twofold: first, clearly define the financial requirements for the initiative and the timeframe, and second, identify a core group of individuals who could build this new unit" (University Managing Director). This entailed defining a budget, identifying office space, and building a team for the accelerator.

A crucial role in negotiating and securing those resources was played not only by the Associate Dean of Innovation but also by the Operating Director of the accelerator, who was appointed during the early stages of its development process. "The first step was to bring onboard the operating director, who would be operationally responsible for the initiative and would begin to set up processes. We found a person with great experience in the field, who also had familiarity with our university" (University Associate Dean of Innovation). Together, they assembled the rest of the accelerator team, choosing to involve and hire individuals with diverse skills and work experiences, including academia, business consulting, and venture capital. Some team members held academic roles at the university, while others were recruited externally and oversaw different operational activities within Beta. The decision to build a team with diverse competencies and profiles was motivated by the need to address the varied demands that a university-based accelerator must tackle.

## 4.3. Orchestrating the internal ecosystem

In order to operate effectively, the accelerator needed to be integrated within the university's internal ecosystem and gain internal support. Our case evidence shows that this process required significant coordination of activities, orchestration of relationships with university stakeholders, as well as the creation of internal legitimacy for the accelerator.

## 4.3.1. Embedding the accelerator within university activities

Beta was envisioned to become a central hub for entrepreneurship

within the university and to play an active role in fostering the development of entrepreneurial skills and culture. To achieve this, a significant coordination effort was required from the Beta team, involving the alignment of entrepreneurship-related activities across various university departments and stakeholders who were used to single-handedly pursuing those initiatives. "We thought that it was essential for the accelerator to get fully integrated with other entrepreneurial initiatives that were already taking place within the university in order to realize synergies" (University Dean).

Integrating Beta into university activities also involved aligning Beta's procedures and practices with those employed by other university divisions, such as finance, human resources, communication, alumni, grants, etc. with which the accelerator systematically interacted to run its operational activities. "Part of my job is to ensure that we are compliant with the rules and procedures of the university and to coordinate effectively with other units" (Beta Operations Manager). Establishing seamless cooperation with those units was instrumental in mobilizing various resources and services that Beta could, then, make available to entrepreneurs. A significant effort was also devoted to engaging with the university's faculty members, with the twofold aim of gaining access to their expertise through their involvement in the accelerator's activities and leveraging their networks to mobilize further resources.

Bringing together resources, stakeholders, and expertise from across the university was deemed essential to achieve Beta's goals. "We've strived to foster a sense of overall belonging within the university in support of this initiative. However, the accelerator's work is niche compared to the core activities of the University, so it's important that it doesn't operate in isolation" (University Managing Director).

## 4.3.2. Building internal legitimacy

To be able to effectively mobilize internal actors and resources, Beta first had to build internal legitimacy. This was a challenging process. "Embedding a new accelerator within the university was not easy, as many units compete for resources" (University Associate Dean of Innovation). Conveying how internal stakeholders could benefit from the existence of Beta was, therefore, essential to gain support and win possible resistances.

Creating awareness about Beta and its services was a central part of this legitimacy-building process. It involved engaging with different groups within the university, starting from the student community. "I believe that the most important thing for us should be creating a strong awareness of Beta's existence, and we can foster that in the classrooms" (Beta Head of Vertical A). Student associations were also a key channel to reach and entice students to get involved in Beta's activities. "One of our key priorities was to disseminate entrepreneurial knowledge among students, interact with various associations, and stimulate them to come up with new initiatives" (Beta Team member B). Beta's awareness-building efforts were not confined to the student community. They also targeted faculty members, alumni, and other university groups, some of whom became active supporters of the accelerator's activities. As a result of this increased awareness, some university departments joined forces with Beta to explore opportunities for collaborative initiatives that could yield reciprocal benefits.

Despite these encouraging outcomes, "some people at the university still wonder what the purpose of this unit is. Internal legitimacy is not fully there yet" (Beta Head of Vertical B).

## 4.4. Orchestrating the external ecosystem

Our case evidence shows that in parallel with the orchestration of its internal ecosystem, Beta engaged in a similar process with external stakeholders. Collaborations with partners having complementary skills were pursued from its inception, and significant efforts were made to build a supportive community and gain external legitimacy.

4.4.1. Building collaborations and engagement with external stakeholders

The university leadership team had recognized the importance for

Beta to forge partnerships with external stakeholders having complementary resources and skills from its inception stage. "I view partnerships as crucial for Beta since they give us access to skills that we wouldn't otherwise have in-house. We don't offer education in scientific disciplines, and we don't have a TTO, so the only way for us to access business ideas of that nature is through collaborations" (Beta Pre-Acceleration Program Manager).

Therefore, since its early days, Beta began orchestrating a collaborative external ecosystem. The initial steps involved establishing institutional partnerships with three other universities in the same region that offered education in STEM disciplines, along with a scientific research center. "The principle underlying our partnership approach was building an ecosystem with local universities" (Beta Team member A). Complementarity was the main driver behind the initiation of these collaborations. The focal university is a leader in business education while its partner institutions have a solid reputation in scientific and technical disciplines. "Therefore, the (focal) university was a privileged partner compared to other entities because it perfectly complements our work" (Project Manager, Scientific Research Centre).

In addition to forging selected institutional partnerships, Beta actively engaged in building relationships with various other external actors, such as accelerators, incubators, government agencies, service providers, angel investors, and venture capital funds, thus creating a community that could help support startups at different development stages.

## 4.4.2. Seeking external legitimacy

Being located in a region characterized by a vibrant entrepreneurial ecosystem helped Beta in its initial community-building efforts. However, it also posed challenges as competition was fierce. As a newly established accelerator, Beta lacked a track-record and clear positioning, facing typical hurdles associated with the liability of newness that could potentially hinder its partnership development strategy. "We needed to establish connections with a network of potential partners who may not have initially deemed us interesting or relevant" (University Managing Director).

To gain external legitimacy and overcome those challenges, Beta actively engaged in various outreach activities aimed at promoting its initiatives and building credibility in the external ecosystem. As Beta's goal was to develop an extended network of collaborations, it was crucial to prevent any perception of competitive rivalry and to adopt an open stance towards potential external partners. This led to the decision to make participation in Beta's programs open to everyone. "By opening the application process to everyone, we are implicitly indicating that our university provides a platform to support individuals with valid entrepreneurial aspirations. This approach certainly improves the university's positioning and reputation" (Beta Operation Manager).

This openness helped Beta gain endorsement from relevant external actors and build external legitimacy. It also contributed to stimulating reciprocity in the ecosystem. "Although we work with potentially similar startups, there is a willingness to collaborate and share projects with each other. Our common goal is to provide greater added value to entrepreneurs, irrespective of the organization we belong to" (Partner University B).

## 4.5. Creating value for the university and the ecosystem

Beta was established with aim of creating value for both the university and the broader external ecosystem. Our case evidence shows that the accelerator was yielding tangible results, both in terms of intrapreneurial and entrepreneurial outcomes, proving that its operating model and internal and external orchestration strategies enabled the accelerator to effectively deliver on its mission of promoting entrepreneurship within the university and beyond, with positive effects on its credibility and recognition.

### 4.5.1. Intrapreneurial outcomes

The creation of Beta and its collaboration with other university

departments have nurtured a culture of innovation within the university and have had a twofold effect on fostering and strengthening the development of intrapreneurial capabilities.

The first outcome has been stimulating entrepreneurial initiatives among university members. As a result, numerous students and alumni have participated in the pre-acceleration and acceleration programs offered by Beta to get support for their entrepreneurial projects. Moreover, several faculty members and alumni have joined Beta's mentoring scheme or served as guest speakers. Furthermore, some course leaders have developed innovative strategies to connect their students with Beta. "In a new venture development course offered by the university, students must present innovative ideas, and those with the most compelling ones are invited to participate in a dedicated pitching session organized for preacceleration program" (Beta Pre-Acceleration Program Manager).

A second effect has been prompting innovation in the way the university manages certain activities and services, and/or the creation of new ones. A relevant example is an intrapreneurial initiative that originated from the need to provide legal counselling to the startups supported by Beta. The university's Law School showed interest in collaborating with Beta and arranged dedicated legal advisory sessions with the support of their students and faculty members, as well as of law firms in their network. "This initiative has had a strong impact on students who have been engaged in highly innovative activities that have added significant value to their education" (Beta Legal Support Coordinator).

Further intrapreneurial initiatives triggered by the existence of Beta involved the placement and grant offices, as well as the alumni division. Specifically, students now have the opportunity to work as interns for startups supported by Beta as part of their placement. "Students can gain experience in startups as part of their academic journey. In this way, they can support them, and at the same time, understand what it means to work as an entrepreneur" (Beta Operating Director). Moreover, the grant office has broadened the scope of the support services it offers including also monitoring for startup grants. "Beta was an ideal partner to collaborate with and helped us discover new funding opportunities related to startups and innovation" (University Grant Officer). The identification of innovative ways to engage the alumni community has also been a direct outcome of the collaboration between Beta and the alumni division. "The initial strategy for engaging alumni revolved around encouraging their participation in the accelerator's programs. This approach evolved over time and eventually led to their potential involvement as mentors and potential investors" (Alumni Officer).

### 4.5.2. Entrepreneurial outcomes

Besides creating value for university, Beta has also contributed to the

development of the broader external ecosystem by attracting and nurturing entrepreneurial talents from all over the country and generating positive economic and social impacts. "To date, we have supported dozens of entrepreneurs, and among them, we see a richly diverse mix of skills and backgrounds" (Beta Acceleration Program Manager).

Through its pre-acceleration program, so far, Beta has provided entrepreneurial training to more than 100 teams of aspiring entrepreneurs both from inside and outside the university. The acceleration program has also yielded significant results, supporting about 40 startups who have been able to raise more than  $\[Ellowedge]$ 15 million in funding and create about 100 new jobs since joining the program (Beta internal documentation).

Beta's efforts have not only resulted in tangible outcomes, such as the creation of new ventures and the provision of entrepreneurial training but have also led to a wider contribution to the local entrepreneurial ecosystem. Through its participation in a collaborative project involving other partner universities in the region, Beta has played an active role in the exchange of ideas, knowledge, and resources, positively contributing to the development of a network of entrepreneurial support, as recognized by one of its partners. "If I have to evaluate the interaction we had with the accelerator, I would say it has yielded excellent results. In the sense that this is the scheme we had in mind, and it has proven to be effective" (Partner University A).

## 5. Discussion and conclusion

In response to recent calls for a deeper understanding of intrapreneurship within entrepreneurial universities (Klofsten et al., 2021), this paper examines the creation of an accelerator within a business university as a vehicle to foster intrapreneurship. It reveals the intricate process that led to the emergence and development of the UBA, unravelling the challenges involved. Fig. 1 depicts the underlying dynamics, illustrating the *antecedents* that prompted the creation of the accelerator, the *process* by which the UBA was established, and the *outcomes* of this process. Fig. 1 also identifies the main actors involved, along with three mechanisms that were crucial to the successful development of the UBA: negotiating with internal actors, orchestrating relationships with internal and external stakeholders, and creating value for the university and the broader entrepreneurial ecosystem within which it operated.

Our findings indicate that the university leadership team played a pivotal role in prompting the creation of the accelerator, particularly the University Dean and the Associate Dean of Innovation, who effectively translated internal and external pressures for the university to become more entrepreneurial into a forward-looking vision. This vision

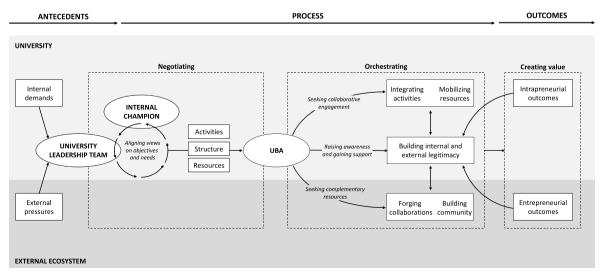


Fig. 1. Emergence and development of the accelerator.

strategically prioritized entrepreneurship and innovation, and ultimately paved the way for the creation of a UBA as a vehicle to spur entrepreneurship within the university.

Turning the intrapreneurial ambitions set out in the vision into reality required an extended internal negotiation process, which was led by the Associate Dean of Innovation, who championed the entire initiative. He played a vital role in persuading decision-makers of the feasibility and benefits of creating a UBA and was able to overcome initial resistance and align views on the need to move forward with its development. The actual set up of the UBA, starting from the definition of its key operational aspects, also proved to be challenging. Universities bear the liability of being, often, highly bureaucratic and internally divided (Kirby et al., 2011). The focal university was no different, experiencing internal divisions related to the vision for the UBA and divergences regarding its focus, operating model, resources, and governance structure. As highlighted by Cunningham et al. (2022), decisions about these aspects are often complex, as they require balancing the need for operational autonomy and institutional control. Thanks to the adept negotiation process led by the internal champion, an agreement on those aspects was eventually reached, allowing the actual set up

Once established, the UBA actively engaged in an orchestration process involving both the internal university ecosystem and the broader external entrepreneurial one. Building collaborative relationships with both internal and external actors was essential for accessing and mobilizing resources, as well as for legitimizing and garnering support for its activities. Our findings indicate that a critical part of the internal orchestration process involved integrating the UBA into the university's activities and building internal legitimacy. As shown by other studies on entrepreneurial universities, this typically poses significant challenges, as academic institutions are made of different departments with their own objectives, procedures, and norms (Bienkowska and Klofsten, 2012; O'Kane et al., 2015). Our evidence suggests that, by strategically managing its relationships with internal actors and aligning their goals, the UBA was able to both mitigate integration and legitimacy challenges, and mobilize the internal resources needed to run its activities.

In parallel to the orchestration of a supportive internal ecosystem, the UBA was also involved in orchestrating collaborative relationships with external ecosystem actors. To be operationally viable and compensate for the lack of in-house scientific and technical skills, the UBA built partnerships with external stakeholders who could effectively support its activities through the provision of complementary skills and services, and this required aligning their goals and incentives. Our findings show that, like any newly created entrepreneurial entity, the UBA also faced the challenge of building external legitimacy (Tracey et al., 2018). Therefore, as part of its orchestration efforts, the UBA actively worked on both raising awareness about its initiatives through outreach activities and gaining endorsement from relevant external actors.

By strategically orchestrating its internal and external ecosystem relationships, and by striving to build internal and external legitimacy, the UBA was able to create value for the university and for the broader entrepreneurial ecosystem, as illustrated in Fig. 1. Besides stimulating and supporting the entrepreneurial efforts of students, faculty members, and alumni, the presence of the UBA also triggered intrapreneurial initiatives in other parts of the university that, as a result, started providing new services or innovating their existing ones. In addition to these intrapreneurial outcomes, the UBA also contributed to the broader external ecosystem by supporting the growth of external entrepreneurial talents and startups. Our findings suggest that, by yielding tangible results that proved the initial effectiveness of its operating model and orchestration strategy, the UBA was able to further enhance its internal and external legitimacy.

By uncovering the intricate process through which an accelerator emerges and develops in an entrepreneurial university, our study contributes to the existing literature on accelerators, academic intrapreneurship, and entrepreneurial universities, while also offering valuable insights for managerial practice. These contributions are detailed in the following subsections.

#### 5.1. Contributions to the literature

Our study contributes to the existing literature in several ways. First, despite the increasing recognition of UBAs as relevant vehicles for the provision of entrepreneurial support within universities, there has been surprisingly limited examination of the processes leading to their establishment (Bergman and McMullen, 2022; De Keyser and Vandenbempt, 2023). Prior research on university accelerators and incubators has primarily focused on identifying their activities, resources, and services (Cohen et al., 2019; Metcalf et al., 2020; Vanderstraeten and Matthyssens, 2012), leaving the dynamics of their founding and development relatively unexplored (Tracey et al., 2018; Shekhar et al., 2023). Our study addresses this gap by shedding light on how a UBA was established, uncovering the underlying mechanisms, the key actors involved, and the challenges faced, thus providing a nuanced understanding of the intricate dynamics involved in the creation and development of UBAs. By delving into the granular aspects of this process and revealing how issues of autonomy and integration were balanced in defining the operating model and governance structure of the UBA, our study informs research on the organizational architecture of entrepreneurial universities and sheds light on how to address related challenges (Clark, 1998; Cunningham et al., 2022). Moreover, by unpacking the mechanisms through which the UBA sought to establish internal and external legitimacy, and overcome the hurdles associated with the liability of newness, we add to extant research on legitimacy building in entrepreneurial universities (Nafari et al., 2024; O'Kane et al., 2015).

Second, we contribute to the literature on academic intrapreneurship by elucidating the relevance of a committed university leadership team and an engaged internal champion in fostering intrapreneurial endeavors by building consensus, mobilizing resources, and garnering support from internal and external stakeholders. When enacting intrapreneurial processes in academic environments, tensions often arise due to the complex and multifaceted structure of universities, where various and often conflicting interests coexist (Engzell et al., 2024; Klofsten et al., 2021). Recent studies suggest that developing intrapreneurial capabilities is essential for overcoming those challenges, and that university leaders can play a pivotal role in that (Guerrero et al., 2021; Klofsten et al., 2021; Stolze and Sailer, 2022). We contribute to this line of enquiry by unravelling the negotiating mechanisms that enabled an internal champion to garner support for the entrepreneurial vision and to align views on defining an organizational architecture conducive to the effective functioning of the UBA.

Third, existing research on intrapreneurial universities has mainly concentrated on institutions with a STEM focus and/or a TTO, which leverage their technological and scientific expertise to commercialize research findings through activities such as patenting, licensing, and academic spinoffs (Audretsch et al., 2024). Therefore, it offers limited insights into how business universities can effectively spur intrapreneurial action (Shekhar et al., 2023). Our study addresses this gap by shedding light on how a business university, enacting intrapreneurship through the creation of its own UBA, overcomes the challenges stemming from the lack of a STEM focus by strategically orchestrating collaborations with external partners. It suggests that effectively engaging with external ecosystem actors to access complementary resources is especially crucial in this context, highlighting the importance of legitimizing intrapreneurial activities within both the internal university ecosystem and in the broader external entrepreneurial one, as recently advanced by Nafari et al. (2024).

#### 5.2. Contributions to practice

This paper holds significant implications for university managers and UBA administrators. First, given the bureaucratic and complex nature of university environments, along with the often-conflicting logics of different subunits, the successful development of a UBA requires strong and committed leaders with a clear entrepreneurial vision. Our evidence also underscores the importance of identifying an organizational champion who can act as catalyst and guide the process of UBA creation, aligning views among key decision-makers and effectively navigating the extended negotiations typically inherent in this process.

Second, our paper suggests that identifying an appropriate operating and governance structure is crucial for enabling a UBA to effectively perform its entrepreneurial support role. These structures should enable the UBA to be agile in decision-making and maintain a certain degree of operational autonomy, while being seamlessly integrated into the university environment and engaging in productive collaborations with other departments and units. Since effective integration typically requires adhering to university norms and procedures that may constrain freedom and agility, university managers and UBA administrators should carefully balance autonomy and integration needs when defining operating and governance structures.

Third, while UBAs are typically led by academic staff within the university, our study highlights the importance of forming UBA teams with diverse skills and backgrounds. While the involvement of academics can enhance integration within the university, the presence of non-academic members with specialized skills is equally essential as it can help build credibility when engaging with external partners and the broader entrepreneurial ecosystem.

## 5.3. Limitations and directions for future research

While the present work provides valuable insights, it is important to acknowledge its limitations. First, we rely on a single case study of a business-focused university, renowned internationally for the quality of its research and teaching activities. The university's prestigious reputation likely facilitated the establishment of relationships and fruitful collaborations with various external ecosystem actors. This, however, could prove more challenging in the context of a lower-tier university. Future research could hence comparatively explore the orchestration of

external relationships across different university contexts, unravelling potential variations.

Second, our study focuses on a UBA that adopted a specific governance and operational structure, which integrates well into the academic context while maintaining a certain degree of autonomy as a separate entity. Future research could investigate whether the challenges encountered during the creation and development of UBAs influence the organizational architecture chosen for accelerators or other entrepreneurial support organizations.

A further limitation concerns the assessment of value generated for the broader ecosystem and related outcome evaluation. While our study demonstrates the UBA's effectiveness in launching new startups, its recent establishment prevents us from assessing their long-term viability or their potential contribution to ecosystem growth. Future research could conduct a longitudinal study to evaluate the UBA's value creation process and outcomes over time.

## CRediT authorship contribution statement

Monica Masucci: Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization. Roberto Camerani: Writing – review & editing, Writing – original draft, Formal analysis, Data curation, Conceptualization. Nicoletta Corrocher: Writing – review & editing, Writing – original draft, Conceptualization. Mariarosa Scarlata: Writing – review & editing, Writing – original draft, Conceptualization.

#### Data availability

The data that has been used is confidential.

## Acknowledgements

We gratefully acknowledge the support received by the accelerator team and by the leadership team of the university on which this case study is based. Their valuable insights helped us tremendously in shaping the direction of our research. We also extend our gratitude to all the interviewees who generously took the time to participate in our study. Finally, we would like to thank the editor and the two anonymous reviewers for their excellent guidance and constructive feedback.

## Appendix A

Table A.1
Sources of data

Source of data	Type of data	Main focus and use in the analysis
Interviews	Round 1: Top management of the university directly involved in the genesis of the accelerator (3)	The first round of interviews focused on the factors motivating the establishment of the accelerator, the primary goals that the university aimed to achieve, the decision-making process that led to its formation as well as the main challenges, and the key individuals involved in this process. Additionally, the interviews encompassed the process that led to the definition of the specific accelerator's operational framework, governance, scope of activities, and external partnerships.
	Round 2: Accelerator top management and staff (11)	The second round of interviews focused more in detail on the specific operational model of the accelerator, its main focus, the characteristics of its programs, key services provided to startups, its role and positioning within the university's internal ecosystem, and information about key external partnerships.
	Round 3: Internal and external stakeholders collaborating with the accelerator (9)	The third round of interviews focused on the network of relationships that the accelerator has established with the purpose of building a supportive internal and external ecosystem enabling its successful functioning. Questions about the motivations underlying these collaborations, their expected and achieved benefits and possible challenges were asked.
Internal documentation	Internal management presentations	This includes a series of presentations and reports given to the university leadership team, which served to illustrate the initiative's purpose and define the accelerator's goals and operational

(continued on next page)

#### Table A.1 (continued)

Source of data	Type of data	Main focus and use in the analysis
		structure. It also encompasses benchmarking of national and international accelerators, which played a crucial role in this process. This data enabled us to trace the various iterations and steps involved in the internal negotiation process and the role of the internal champion within it.
	Presentations to external partners	This encompasses presentations used to introduce the initiative to potential external partners and the agreements that formalized the scope of its partnerships. These data were instrumental in assessing the nature of the relationships the accelerator aimed to establish with external stakeholders and how it sought to promote itself to them.
	Archival data	This comprises a rich set of documents illustrating the accelerators activities, structure, programs, and initiatives.
Public sources	Accelerator website     Video presentations of members of the accelerator team     Press releases of the university and the accelerator	This information has been collected to triangulate data obtained from other sources and access upto-date data regarding the entrepreneurial outcomes the accelerator has contributed to achieving.
Direct observation	Events attendance     Visits to the accelerator's office space	These included pitch sessions made by entrepreneurs participating in two programs to a diverse audience of experts and potential investors, and other events hosted by the accelerator to introduce new initiatives, and other public speaking events. We also had the opportunity to visit the physical co-working space where the accelerator is located. The data collected during these events consisted of direct observations, handouts, and personal research notes. This data collection was undertaken to enhance our understanding of the context within which the case study is situated, and to analyze the behaviors and interactions among the individuals involved in the case, as well as their interactions with external partners.

#### References

- Abreu, M., Grinevich, V., 2013. The nature of academic entrepreneurship in the UK: Widening the focus on entrepreneurial activities. Res. Pol. 42 (2), 408-422.
- Abreu, M., Grinevich, V., 2024. Intrapreneurial ecosystems in academia and their overlooked outputs: Graduate employability and wellbeing. Technovation 133, 102996
- Antoncic, B., Hisrich, R.D., 2003. Clarifying the intrapreneurship concept. J. Small Bus. Enterprise Dev. 10 (1), 7–24.
- Audretsch, D.B., Belitski, M., Scarra, D., 2024. Intrapreneurship activity and access to finance in natural science: evidence from the UK academic spinoffs. Technovation 129, 102888.
- Audretsch, D.B., Hülsbeck, M., Lehmann, E.E., 2012. Regional competitiveness, university spillovers, and entrepreneurial activity. Small Bus. Econ. 39, 587–601. Audretsch, D.B., 2014. From the entrepreneurial university to the university for the
- Audretsch, D.B., 2014. From the entrepreneurial university to the university for the entrepreneurial society. J. Technol. Tran. 39 (3), 313–321.
- Audretsch, D.B., Lehmann, E.E., Menter, M., Wirsching, K., 2021. Intrapreneurship and absorptive capacities: the dynamic effect of labor mobility. Technovation 99, 102129.
- Bergman, B.J., McMullen, J.S., 2022. Helping entrepreneurs help Themselves: a review and relational research agenda on entrepreneurial support organizations. Entrep. Theory Pract. 46 (3), 688–728.
- Bienkowska, D., Klofsten, M., 2012. Creating entrepreneurial networks: academic entrepreneurship, mobility and collaboration during PhD education. High Educ. 64, 207–222.
- Biernacki, P., Waldorf, D., 1981. Snowball sampling: problems and techniques of chain referral sampling. Socio. Methods Res. 10 (2), 141–163.
- Bitektine, A., Haack, P., 2015. The "macro" and the "micro" of legitimacy: toward a multilevel theory of the legitimacy process. Acad. Manag. Rev. 40 (1), 49–75.
- Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. Qual. Res. Psychol. 3 (2), 77–101.
- Breznitz, S.M., Clayton, P.A., Defazio, D., Isett, K.R., 2018. Have you been served? The impact of university entrepreneurial support on start-ups' network formation. J. Technol. Tran. 43 (2), 343–367.
- Breznitz, S.M., Zhang, Q., 2019. Fostering the growth of student start-ups from university accelerators: an entrepreneurial ecosystem perspective. Ind. Corp. Change 28 (4), 855–873.
- Burkholder, P., Hulsink, W., 2022. Academic intrapreneurship for health care innovation: the importance of influence, perception, and time management in knowledge commercialization at a University's Medical Centre. J. Technol. Tran. 1–29.
- Caccamo, M., Beckman, S., 2022. Leveraging accelerator spaces to foster knowledge communities. Technovation 113, 102421.
- Clark, B.R., 1998. Creating Entrepreneurial Universities, Organisational Pathways of Transformation. Pergamon for IAU Press.
- Clarysse, B., Wright, M., Lockett, A., Van de Velde, E., Vohora, A., 2005. Spinning out new ventures: a typology of incubation strategies from European research institutions. J. Bus. Ventur. 20 (2), 183–216.
- Cohen, S., Fehder, D.C., Hochberg, Y.V., Murray, F., 2019. The design of startup accelerators. Res. Pol. 48 (7), 1781-179.
- Compagnucci, L., Spigarelli, F., 2020. The Third Mission of the university: a systematic literature review on potentials and constraints. Technol. Forecast. Soc. Change 161, 120284.

- Crisan, E.L., Salanță, I.I., Beleiu, I.N., Bordean, O.N., Bunduchi, R., 2021. A systematic literature review on accelerators. J. Technol. Tran. 46, 62–89.
- Cunningham, J.A., Lehmann, E.E., Menter, M., 2022. The organizational architecture of entrepreneurial universities across the stages of entrepreneurship: a conceptual framework. Small Bus. Econ. 59 (1), 11–27.
- De Keyser, B., Vandenbempt, K., 2023. Processes of practice in the realm of theory: Unveiling the dynamics of academic intrapreneurship. Technovation 126, 102811.
- De Wit-de Vries, E., Dolfsma, W.A., van der Windt, H.J., Gerkema, M.P., 2019. Knowledge transfer in university-industry research partnerships: a review. J. Technol. Tran. 44. 1236–1255.
- Debackere, K., Veugelers, R., 2005. The role of academic technology transfer organizations in improving industry science links. Res. Pol. 34 (3), 321–342.
- Drori, I., Honig, B., 2013. A process model of internal and external legitimacy. Organ. Stud. 34 (3), 345–376.
- Dubois, A., Gadde, L.E., 2002. Systematic combining: an abductive approach to case research. J. Bus. Res. 55 (7), 553–560.
- Eisenhardt, K.M., Graebner, M.E., 2007. Theory building from cases: opportunities and challenges. Acad. Manag. J. 50 (1), 25–32.
- Engzell, J., Karabag, S.F., Yström, A., 2024. Academic intrapreneurs navigating multiple institutional logics: an integrative framework for understanding and supporting intrapreneurship in universities. Technovation 129, 102892.
- Etzkowitz, H., 2013. Anatomy of the entrepreneurial university. Soc. Sci. Inf. 52 (3), 486–511.
- Flick, U., 2006. An Introduction to Qualitative Research. Sage, London.
- Flores, M.C., Grimaldi, R., Poli, S., Villani, E., 2024. Entrepreneurial universities and intrapreneurship: a process model on the emergence of an intrapreneurial university. Technovation 129, 102906.
- Forliano, C., De Bernardi, P., Yahiaoui, D., 2021. Entrepreneurial universities: a bibliometric analysis within the business and management domains. Technol. Forecast. Soc. Change 165, 120522.
- Gioia, D.A., Corley, K.G., Hamilton, A.L., 2013. Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. Organ. Res. Methods 16 (1), 15–31.
- Greco, F., Tregua, M., 2022. It gives you wheels: the university-based accelerators in start-up ecosystems. Int. J. Enterpren. Small Bus. 45 (2), 235–257.
- Grimaldi, R., Grandi, A., 2005. Business incubators and new venture creation: an assessment of incubating models. Technovation 25 (2), 111–121.
- Guerrero, M., Cunningham, J.A., Urbano, D., 2015. Economic impact of entrepreneurial universities' activities: an exploratory study of the United Kingdom. Res. Pol. 44 (3), 748–764.
- Guerrero, M., Heaton, S., Urbano, D., 2021. Building universities' intrapreneurial capabilities in the digital era: the role and impacts of Massive Open Online Courses (MOOCs). Technovation 99, 102139.
- Guerrero, M., Pugh, R., 2022. Entrepreneurial universities' metamorphosis: Encountering technological and emotional disruptions in the COVID-19 ERA. Technovation 118, 102584.
- Guerrero, M., Urbano, D., 2012. The development of an entrepreneurial university. J. Technol. Tran. 37, 43–74.
- Guerrero, M., Urbano, D., 2014. Academics' start-up intentions and knowledge filters: an individual perspective of the knowledge spillover theory of entrepreneurship. Small Bus. Econ. 43, 57–74.
- Guerrero, M., Urbano, D., Cunningham, J., Organ, D., 2014. Entrepreneurial universities in two European regions: a case study comparison. J. Technol. Tran. 39, 415–434.

- Guerrero, M., Urbano, D., Fayolle, A., 2016b. Entrepreneurial activity and regional competitiveness: evidence from European entrepreneurial universities. J. Technol. Tran. 41, 105–131.
- Guerrero, M., Urbano, D., Fayolle, A., Klofsten, M., Mian, S., 2016a. Entrepreneurial universities: emerging models in the new social and economic landscape. Small Bus. Econ. 47 (3), 551–5063.
- Henry, C., Lahikainen, K., 2024. Exploring intrapreneurial activities in the context of the entrepreneurial university: an analysis of five EU HEIs. Technovation 129, 102893.
- Inzelt, A., 2004. The evolution of university-industry-government relationships during transition. Res. Pol. 33 (6–7), 975–995.
- Kirby, D.A., 2006. Creating entrepreneurial universities in the UK: Applying entrepreneurship theory to practice. J. Technol. Tran. 31, 599–603.
- Kirby, D.A., Guerrero, M., Urbano, D., 2011. Making universities more entrepreneurial: development of a model. Can. J. Adm. Sci. / Rev. Canad. Sci. Adm. 28 (3), 302–316.
- Klofsten, M., Fayolle, A., Guerrero, M., Mian, S., Urbano, D., Wright, M., 2019. The entrepreneurial university as driver for economic growth and social change—key strategic challenges. Technol. Forecast. Soc. Change 141, 149–158.
- Klofsten, M., Urbano, D., Heaton, S., 2021. Managing intrapreneurial capabilities: an overview. Technovation 99, 102177.
- Leih, S., Teece, D., 2016. Campus leadership and the entrepreneurial university: a dynamic capabilities perspective. Acad. Manag. Perspect. 30 (2), 182–210.
- Leydesdorff, L., Meyer, M., 2003. The Triple Helix of university-industry-government relations. Scientometrics 58, 191–203.
- Link, A.N., Scott, J.T., 2005. Opening the ivory tower's door: an analysis of the determinants of the formation of U.S. university spin-off companies. Res. Pol. 34 (7), 1106–1112
- Lundqvist, M., Williams-Middleton, K., 2024. Making the whole university entrepreneurial-decades of legitimacy-building through Chalmers School of Entrepreneurship. Technovation 132, 102993.
- Mansoori, Y., Karlsson, T., Lundqvist, M., 2019. The influence of the lean startup methodology on entrepreneur-coach relationships in the context of a startup accelerator. Technovation 84, 37–47.
- Maritz, A., Nguyen, Q., Hsieh, H., 2021. Exploring the strategic intent and practices of university accelerators: a case of Australia. Sustainability 13, 10769.
- Martin, L.M., Warren-Smith, I., Lord, G., 2019. Entrepreneurial architecture in UK universities: still a work in progress? Int. J. Entrepreneurial Behav. Res. 25 (2), 281–297.
- Mascarenhas, C., Marques, C.S., Galvão, A.R., Santos, G., 2017. Entrepreneurial university: towards a better understanding of past trends and future directions. J. Enterprising Communities People Places Glob. Econ. 11 (3), 316–338.
- Merguei, N., 2022. Venturing out: Designing effective pre-acceleration programs. Technovation 116, 102500.
- Merguei, N., Costa, C., 2022. What are pre-acceleration programs? J. Bus. Ventur. Insights 18, e00324.
- Metcalf, L.E., Katona, T.M., York, J.L., 2020. University startup accelerators: startup Launchpads or vehicles for entrepreneurial learning? Entrep. Educ. Pedagog. 4 (4), 666–701.
- Miles, M.B., Huberman, A.M., 1994. Qualitative Data Analysis: an Expanded Sourcebook. Sage Publications, Thousand Oaks.
- Miller, K., Cunningham, J., Lehmann, E., 2021. Extending the university mission and business model: Influences and implications. Stud. High Educ. 46 (5), 915–925.
- Nafari, J., Honig, B., Siqueira, A.C.O., 2024. Promoting academic social intrapreneurship: developing an international virtual incubator and fostering social impact. Technovation 133, 103024.
- Nelles, J., Vorley, T., 2010. Constructing an entrepreneurial architecture: an emergent framework for studying the contemporary university beyond the entrepreneurial turn. Innovat. High. Educ. 35 (3), 161–176.
- O'Kane, C., Mangematin, V., Geoghegan, W., Fitzgerald, C., 2015. University technology transfer offices: the search for identity to build legitimacy. Res. Pol. 44 (2), 421–437.

- O'Shea, R.P., Allen, T.J., Chevalier, A., Roche, F., 2005. Entrepreneurial orientation, technology transfer and spinoff performance of US universities. Res. Pol. 34 (7), 994–1009.
- Perkmann, M., McKelvey, M., Phillips, N., 2019. Protecting scientists from Gordon Gekko: how organizations use hybrid spaces to engage with multiple institutional logics. Organ. Sci. 30 (2), 298–318.
- Philpott, K., Dooley, L., O'Reilly, C., Lupton, G., 2011. The entrepreneurial university: Examining the underlying academic tensions. Technovation 31 (4), 161–170.
- Pinchot III, G., 1985. Intrapreneuring: Why You Don't Have to Leave the Corporation to Become an Entrepreneur. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship.
- Ratinho, T., Amezcua, A., Honig, B., Zeng, Z., 2020. Supporting entrepreneurs: a systematic review of literature and an agenda for research. Technol. Forecast. Soc. Change 154, 119956.
- Saldaña, J., 2021. The Coding Manual for Qualitative Researchers. Sage Publications, London
- Schmitz, A., Urbano, D., Dandolini, G.A., de Souza, J.A., Guerrero, M., 2017. Innovation and entrepreneurship in the academic setting: a systematic literature review. Int. Enterpren. Manag. J. 13, 369–395.
- Sharma, P., Chrisman, J.J., 1999. Toward a reconciliation of the definitional issues in the field of corporate entrepreneurship. Enterpren. Theor. Pract. 23 (3), 11–28.
- Shekhar, H., Satyanarayana, K., Chandrashekar, D., 2023. Role and contributions of an incubator in academic intrapreneurship—An examination. Technovation 126, 102821.
- Siegel, D.S., Wright, M., 2015a. Academic entrepreneurship: time for a rethink? Br. J. Manag. 26 (4), 582–595.
- Siegel, D.S., Wright, M., 2015b. University technology transfer offices, licensing, and start-ups. Chicago Handb. Univ. Technol. Transf. Acad. Entrepreneur. 1 (40), 84–103
- Smilor, R.W., 1987. Managing the incubator system: critical success factors to accelerate new company development. IEEE Trans. Eng. Manag. 34 (3), 146–155.
- Stam, E., 2015. Entrepreneurial ecosystems and regional policy: a Sympathetic Critique. Eur. Plann. Stud. 23 (9), 1759–1769.
- Stam, E., Van de Ven, A., 2021. Entrepreneurial ecosystem elements. Small Bus. Econ. 56 (2), 809–832.
- StartupBLink, 2022. Global Startup Ecosystem 2022. Available from. www.startupblink.
- Stolze, A., Sailer, K., 2022. Advancing HEIs' third-mission through dynamic capabilities: the role of leadership and agreement on vision and goals. J. Technol. Tran. 47 (2), 580–604.
- Suchman, M.C., 1995. Managing legitimacy: Strategic and institutional approaches. Acad. Manag. Rev. 20 (3), 571–610.
- Tracey, P., Dalpiaz, E., Phillips, N., 2018. Fish out of water: Translation, legitimation, and new venture creation. Acad. Manag. J. 61 (5), 1627–1666.
- Valka, K., Roseira, C., Campos, P., 2020. Determinants of university employee intrapreneurial behavior: the case of Latvian universities. Ind. High. Educ. 34 (3), 190–202.
- van der Steen, M.P., Quinn, M., Moreno, A., 2022. Discursive strategies for internal legitimacy: narrating the alternative organizational form. Long. Range Plan. 55 (5), 102162.
- Vanderstraeten, J., Matthyssens, P., 2012. Service-based differentiation strategies for business incubators: exploring external and internal alignment. Technovation 32 (12), 656–670.
- Wright, M., Siegel, D., Mustar, P., 2017. An emerging ecosystem for student start-ups. J. Technol. Tran. 42, 909–944.
- Yin, R.K., 2014. Case Study Research, Design and Methods. Sage Publications, Thousand Oaks.