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Aromaa, E., Eriksson, P., Hirvonen, P., and Palo-oja O.-M. (forthcoming 2024). Societal Entrepreneurship and University–Industry Collaboration: A Case Study of an Academic Research Community. In Costa, S., Liñán, F., Groen A. & Fayolle, A. (eds), *Stimulating Entrepreneurial Activity in a European Context: Reflections on Programs, Courses and Cases*. Edward Elgar Publishing Ltd.

Societal Entrepreneurship and University–Industry Collaboration: A Case Study of an Academic Research Community

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Abstract

This chapter draws attention to societal entrepreneurship in universities. More specifically, it explores how researchers give meaning to university–industry collaboration in the context of a neuroscience research community engaged in solving global health challenges. The intensive case study explores how the experiences of university–industry collaboration in this context are constructed around two key metaphors. The ‘together–apart’ metaphor illuminates the relational aspects of collaboration, such as researchers’ awareness of the positions, goals, and significance of communication, as well as the different interests of the collaborating parties. The ‘pace of change’ metaphor illustrates the temporality of collaboration, such as time needed and the unpredictable tempo of collaboration. This chapter demonstrates the potential of the societal entrepreneurship research approach when aiming to better understand university–industry collaboration that extends beyond commercial and competitive aspirations concerning entrepreneurial activities in universities.

Keywords: societal entrepreneurship, research community, university–industry collaboration, entrepreneurial activity, global challenges, intensive case study

INTRODUCTION

This article explores university–industry collaboration by using the societal entrepreneurship lens (Berglund et al., 2012; Ratten & Dana, 2019; Åslund & Bäckström, 2015) that provides a fruitful alternative to the study of commercial and competitive aspects of entrepreneurial activities at universities. Much of the literature on entrepreneurial universities (Hytti, 2021) foregrounds the economic sphere, often emphasising the commercially oriented impacts, such as technology transfer (Eriksson et al., 2021a). Our case of an academic brain health research community illustrates how collaborative relationships between researchers and companies are constructed in the context of solving global health challenges. In a nutshell, with the societal entrepreneurship lens, we draw attention to university–industry collaboration that is not only interested in the economic and commercial aspects of these relationships, but has a broader social focus.

The concept of societal entrepreneurship effectively challenges the dominant discourse of competitive, commercial, and market-driven entrepreneurship in the university context. Drawing from societally oriented scholars of everyday entrepreneurship in organisations and society (e.g. Berglund & Wigren, 2012; Gartner, 2010; Garud et al., 2014; Hjorth & Steyaert, 2004; Steyaert & Bouwen, 2019), we approach societal entrepreneurship as a vehicle for acknowledging the enterprising capacity of university researchers, groups and communities who may not, however, identify as entrepreneurs in the context of academic work.

According to the definition given by Berglund et al. (2012), societal entrepreneurs may work in all sectors in society where they ‘become enrolled in entrepreneurial activities without viewing themselves as entrepreneurs in the first place’ (p. 3). In this article, we present an intensive case study (Eriksson & Kovalainen, 2010, 2015) of societal entrepreneurship in the neuroscience research community (NEURO RC) of a Finnish university. At this university, societal entrepreneurship for increased societal impact, including company collaboration, was supported by two structures connected to the university strategy: the commitment of the university to solve specific global challenges and building new research communities to advance this objective.

From these starting points, our research question is: How do neuroscience researchers give meaning to their collaborative relationships with companies? The primary contribution this study makes to the societal entrepreneurship literature is the application of the concept in the context of universities.

This chapter begins by theoretically framing the societal entrepreneurship concept and research. Following this, an intensive case study and data are presented. The case study shows how collaboration with companies is given meaning by researchers through two metaphors: ‘together apart’ and ‘pace of change’. The first metaphor refers to the relational aspects of collaboration and the second to the temporal aspects of university–industry collaboration. We conclude by suggesting that the study of societal entrepreneurship offers an opportunity to extend research on entrepreneurial activities in universities beyond the dominant discourse of economic, commercial and competitive interests.

SOCIETAL ENTREPRENEURSHIP LENS

Berglund and Wigren (2012) criticised the grand narrative of emphasising private entrepreneurship, capitalism and turnover growth. Instead, they suggested a novel perspective that focuses on the

production of societal impact through entrepreneurial activities. Resonating with this critique, Berglund and Johannisson (2012) used the concept of societal entrepreneurship to illustrate and analyse how actors working in different sectors collaborate and jointly engage in entrepreneurial activities to create societal value.

The main objective of societal entrepreneurship is to create value for society at large (Ratten & Dana, 2019; Åslund & Bäckström, 2015). This means taking advantage of opportunities for social change and improvement rather than pursuing profit maximisation (Zahra et al., 2009). Societal entrepreneurship tackles complex social problems, often called global challenges, and seeks solutions to them (Rado et al., 2021), either by balancing economic goals and social welfare (e.g. MacMillan, 2006) or focusing on welfare only (e.g. Pless, 2012). Overall, societal entrepreneurs reinvigorate society by developing socially meaningful ideas and projects (Bjerke & Karlsson, 2013).

Åslund and Bäckström (2015) emphasise that societal entrepreneurship takes place at the intersection involving various actors in collaborative activities, such as intersection of public universities and private companies, as in our case study. Individuals and groups working in the collaborating organisations break down sectoral barriers in the production of societal value (Berglund & Johannisson, 2012). The context-related resources, such as the new research communities in our case, guide collaboration to yield different outcomes (Rado et al. 2021).

Recently, many universities have attempted to tackle global problems through multi-stakeholder initiatives (Dentoni & Bitzer, 2015). In these collaborations, researchers provide scientific knowledge and facilitate collaboration with companies and other stakeholders to create societal value. Such work to address social challenges and problems is possible if the university management understands and supports diverse collaborative efforts as part of their ‘third task’ (Montonen et al., 2021a) and makes these legitimate and desired (Kroll & Schubert, 2023).

Societal entrepreneurs do not necessarily identify as entrepreneurs (Berglund et al., 2012). However, they work in an entrepreneurial manner when dealing with the societal problems identified in their communities and networks and when creating new opportunities for them. Societal entrepreneurs may occupy several positions in their work environments, as they are in contact and share knowledge with other actors across organisations (Lundqvist & Williams-Middleton, 2010). In this context, entrepreneurial activities seem natural and continuous, which allows new ideas and projects to emerge, possibly from scratch and often without a clear goal (Berglund & Wigren, 2012).

Previous research on entrepreneurial activity has been criticised for understanding individuals as atomistic actors who work in already established contexts (Garud et al., 2014). To fill this gap, the societal entrepreneurship lens emphasises collective action for the benefit of the community. Acting like an entrepreneur in a university context, heroic deeds or glorious achievements are not required; instead, everyday work to solve issues important to the community is valued (Bjerke & Karlsson, 2013). In other words, ‘societal entrepreneurship is about an engagement in and for the community’ (Gawell et al., 2014, p. 111). For Gawell and others (2014), a community is any kind of unit in society that involves entrepreneurial activity.

Referring to Sundin (2009), Åslund and Bäckström (2015) point out that value to the community varies from context to context, and societal entrepreneurs themselves are closely related to the environment and time in which they operate. Thus, to understand entrepreneurial activities and their societal value,

one must know the context in which these activities take place (Welter, 2011). The next section outlines our case and discusses the context of the study.

CASE NEURO RC

This intensive case study (Eriksson & Kovalainen, 2010, 2015) provides an analysis of researchers' interpretations of university-company collaboration in the context of the University of Eastern Finland (UEF), the strategy of which focuses on four global challenges: 'ageing, lifestyles and health', 'environmental change and sufficiency of natural resources', 'cultural encounters, mobilities and borders' and 'learning in the digitised society'. The UEF's commitment to solving these global challenges has been combined with a strategic initiative to build broad research communities around these challenges. In 2019, 14 research communities were established. One was NEURO RC, which comprised 17 research groups working together to study neurodegenerative diseases and epilepsy from the perspectives of biomedicine and clinical medicine, data sciences, innovation management, as well as social sciences and law (Liikanen et al., 2019).

The first task of the new research communities was to write self-assessment reports, which included their visions for future research and societal impact extending to 2030. In addition to basic and clinical neuroscience research, the NEURO RC report described the objectives of two new research areas, which increased the interdisciplinarity of the RC. One of the new research areas was called 'neuro-impact and innovation', which was led by the innovation management research group at UEF Business School. The other one was called 'neuro-ethics and law' and led by the elderly law research group at UEF Law School. In 2019, an external panel of experts evaluated the selected research communities based on their self-assessment reports, and NEURO RC received the highest score of 6/6 (Liikanen et al., 2019).

In 2022, the number of personnel in the NEURO RC had grown from 100 to over 150, and external research funding had increased from 6 to over 10 million euros. As planned in the evaluation report, UEF Business School applied successfully for an interdisciplinary and cross-sectoral MSCA-COFUND doctoral programme called Neuro-Innovation, which started in May 2021. The programme trains a new generation of neuro-innovation leaders with boundary-spanning skills across academia and industry. The programme has 30 external partners, including local, domestic and international companies and patient organisations.

Overall, the NEURO RC strategy emphasises the production of societal impact through a variety of means, including company collaboration. The research groups in the community engage in a variety of collaboration modes with companies focusing on, for instance, health care, medical technology, pharmaceuticals and biomedical data analysis. The first author conducted a baseline survey on entrepreneurial activity within the community in January 2021. The survey results illustrated that companies were identified as key stakeholders to collaborate with in research. However, the respondents also indicated that more knowledge of the prospects and challenges related to university–industry collaboration was needed. The interviews analysed in this study were carried out to respond to some of these requests. However, the theoretical framing of societal entrepreneurship (Berglund & Wigren, 2012) and the methodological framing of intensive case study (Eriksson & Kovalainen, 2010, 2015) provided a deeper understanding of the case characterized by relational and time-related issues.

This guided us to ask: How do neuroscience researchers give meaning to their collaborations with companies?

METHODOLOGY

This qualitative study examines societal entrepreneurship and university–industry collaboration, reorienting us away from the individualistic, competitive and profit-oriented images of entrepreneurship (Steyaert & Katz, 2004). The research was carried out as an intensive case study (Eriksson & Kovalainen, 2010, 2015), where a group of actors who engaged in entrepreneurial activities within an interdisciplinary research community was studied. Aligning with more recent constitutive approaches to societal entrepreneurship, our study pays attention to the meaning-making processes in the research community that were guided by the university as a loose structure that shaped the co-creation of collaborative contexts.

In addition, our qualitative analysis focuses on the ways in which actors contextualised their entrepreneurial activity through temporality and relationality (Garud et al., 2014). This guided our research interest in elucidating how entrepreneurial actors make sense of what has happened, coordinate what is currently unfolding and imagine what is possible in the future (Garud & Giuliani, 2013). The analytical focus also aimed to elucidate how relationality is enacted by describing specific entrepreneurial activities, such as the aims of collaboration, to be comprehensible to other actors (Martens et al., 2007).

An intensive case study approach emphasises the interpretation and understanding of the case (Eriksson & Kovalainen, 2010, 2015). The main aim is to develop a theoretically informed understanding from the perspectives of the people involved in the case and to learn how a specific and unique case works (Dyer & Wilkins, 1991). The research process is characterised by a continuous interplay between theory and empirical data that often draws on an inductive approach to the assessment of qualitative research data (Eriksson & Kovalainen, 2015). The overall purpose of the intensive case study is to construct a narrative that is worth hearing (Dyer & Wilkins, 1991), which involves exploring a case in its cultural, social, economic and historical context (Eriksson & Kovalainen, 2015).

Data Collection

To better understand the researchers' collaborations with companies, we interviewed 14 researchers working in the interdisciplinary NEURO RC between March 2021 and August 2022. The interviews were carried out in the following research areas: biomedical research, clinical neurology and neurosurgery, innovation and patient rights. The gender-balanced group of interviewees (men = 6, women = 8) consisted of senior researchers (N = 7), post-doctoral researchers (N = 6) and doctoral students (N = 1), thus representing different career stages. The interviewees were chosen based on their company collaboration experiences or interest in reflecting on their understandings of company collaborations. Most interviewees had decades of experience in business collaboration.

We initially approached the target researchers via email to outline the purpose of the study. All who were asked agreed to participate. The length of the semi-structured thematic interviews varied from 30 to 90 minutes, but most commonly, they lasted for about 60 minutes. All interviews were conducted

over Zoom by two authors collectively. All interviews were conducted in Finnish, audio-recorded and transcribed into text.

In the interviews, we encouraged the interviewees to share with us their experiences and concrete examples of their collaborations with various stakeholders. We asked with whom, how and why they collaborated with different stakeholders in the course of their research projects. We reminded the interviewees of the open-ended nature of the interviews and encouraged them to talk freely about the topics we mentioned.

Data Analysis

The data analysis involved sections from all interviews in which the interviewees discussed their collaborations with companies. These data were analysed using qualitative content analysis (Eriksson & Kovalainen, 2015) to depict the multifaceted elements of the interviews. After an initial reading of the interview transcripts, the data on collaboration with companies were coded into first-order categories, second-order themes and metaphors (adapted from Gioia et al., 2013) to provide a nuanced analysis of the temporal and relational themes described by researchers from the NEURO RC. The data structure is summarised in Figure 1.

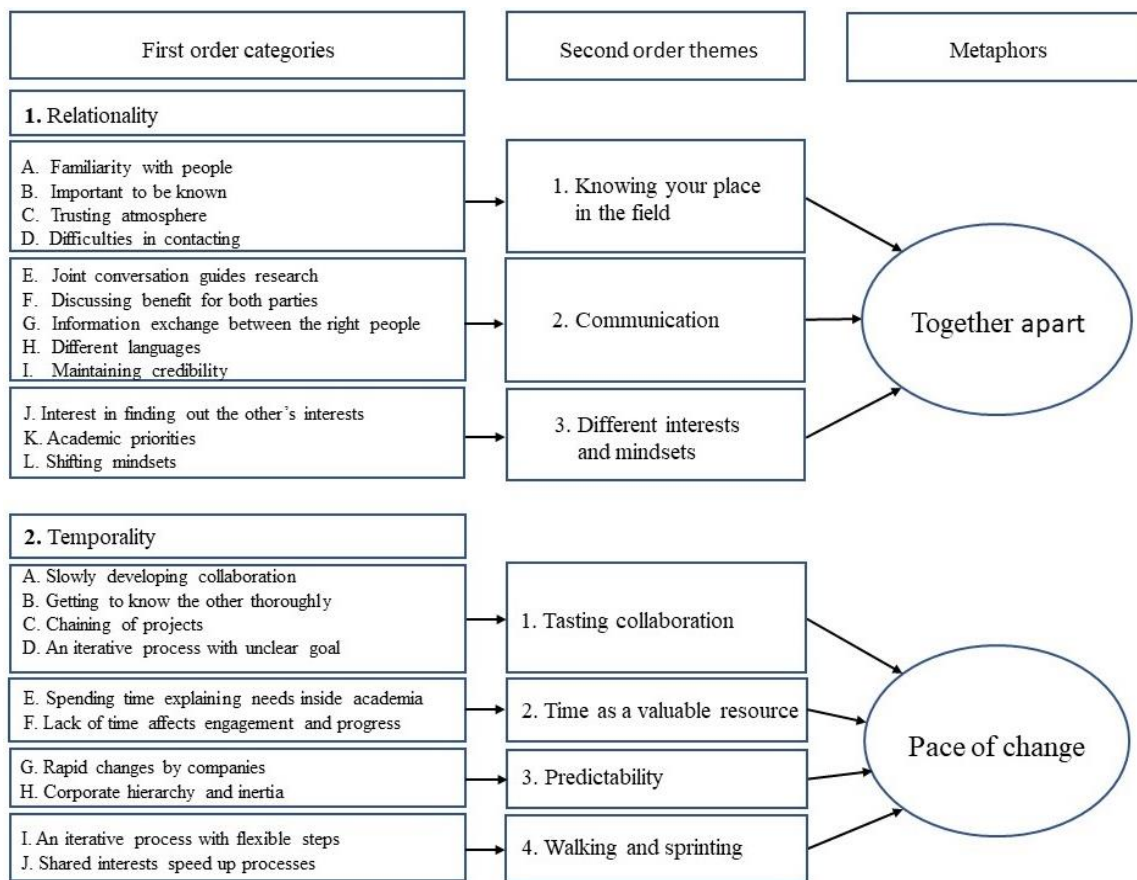


Figure 1. Data structure

In the first phase of the analysis, we coded the first-order categories from our interview data concerning the meanings that the NEURO RC researchers assigned to their collaborations with companies. Drawing from the constitutive approach of societal entrepreneurship, we coded the researchers' experiences of themselves and of the companies as collaborators. All four authors participated in the coding process, in grouping the quotations by the codes and in searching for similarities and differences across the first-order categories. Based on the first phase of the analysis, the first-order categories were labelled under temporal and relational themes based on the content of the first-order categories. In the second phase of the analysis, we grouped the first-order categories into second-order themes by moving back and forth between them until we reached a satisfactory consensus.

Finally, we created contextual metaphors that illustrated the temporality and relationality of collaboration in the NEURO RC. In the second phase of the analysis, we analysed the fine-grained meanings of the temporality and relationality of societal entrepreneurship in the NEURO RC. These are summarised in Table 1. and Table 2. that illustrate our analysis with the help of quotations from our data, focusing on the nuances in key meanings that researchers attached to university-company collaboration.

Table 1. Meanings given by the researchers to university–industry collaboration in the together apart metaphor

Second-order themes and first-order categories	Representative data illustration
TOGETHER APART	
1. Knowing your place in the field	
A. Familiarity with people	'About 35 people, who move back and forth, get some business experience, and then come back here'. (R4)
B. Importance of being known	'You need to know people and their research. You should be known in the field'. (R3)
C. Trusting atmosphere	'We have a trusting society. Any contacts, it is quite easy to gain admission [from a company] ... very favourable for cooperation'. (R12)
D. Difficulties contacting others	'Hard to find connections, they come unexpectedly. It's a challenge for me to go out there to the business side'. (R10)
2. Communication	
E. Joint conversation guides research	'A completely different matter from what the pharmaceutical company wants to know. The joint conversation guides our research'. (R11)
F. Discussing benefits for both parties	'This [collaboration] is beneficial for them and us'. (R7)
G. Information exchange between the right people	'They have kept in direct contact with each other to exchange and share information'. (R5)
H. Different languages	'Using a lay language makes it easier to communicate the results of our study'. (R8)
I. Maintaining credibility	'It's scientific credibility and trust... Making sure that the messaging is consistent across the board'. (R2)
3. Different interests and mindsets	
J. Interest in finding out the other's interests	'Very important to know how companies are thinking'. (R2)
K. Academic priorities	'It is always worth taking advantage of a company as a partner, if this is in line with our research objectives'. (R6)
L. Shifting mindsets	'As a guiding principle, you must remember that it's a tough international business'. (R3)

Table 2. Meanings given by the researchers to university–industry collaboration in the pace of change metaphor

Second-order themes and first-order categories	Representative data illustration
PACE OF CHANGE	
1. Tasting collaboration	
A. Slowly developing collaborations	‘When the first developments of the biomarkers ... came about, then the patients, then the postdoc research and the foundation’s project’. (R1)
B. Getting to know each other thoroughly	‘... a continuum of discussions and negotiations. It does benefit us eventually’. (R2)
C. Chaining of projects	‘I have had several research collaboration projects with the pharmaceutical company’. (R8)
D. An iterative process with unclear goals	‘In clinical trials the significance of PPI [patient and public involvement] will certainly grow and be part of a variety of activities’. (R9)
2. Time as a valuable resource	
E. Spending time explaining needs inside academia	‘Got through all hierarchical levels [at the university] to justify the need for a new medical device. [In the company] just a decision from the head office [and the company] ordered the device the next day’. (R4)
F. Lack of time affects engagement and progress	‘A deadline for sending [an application] is in two weeks and you start contacting a company too late. All key research tasks [decided] already. The company cannot influence the content. Then, you cannot expect much of a commitment from the company’. (R12)
3. Predictability	
G. Rapid changes by companies	‘If the head office makes a decision to move the company to Shanghai, it takes one day. That’s it’. (R4)
H. Corporate hierarchy and inertia	‘A decision is needed from the [company] top level, which takes a long time’. (R14)
4. Walking and sprinting	
I. An iterative process with flexible steps	‘Quite many times, collaborations with companies progress steadily’. (R4)
J. Shared interests speed up processes	‘We [researchers] have to be quick [with the companies]. The firms have a faster pace than the academic world’. (R4)

The data extracts highlighting our findings are presented and discussed in the Findings section that follows.

FINDINGS

The analysis produced two key metaphors—*together apart* and *pace of change*—that crystallised the relational and temporal meanings given to the collaborations between the researchers and companies. Both metaphors capture the meanings given to researchers as collaborators with companies and to companies as collaborators with researchers. The *together apart* metaphor illuminates the relationality of university–industry collaboration in the NEURO RC, and it emphasises researchers’ awareness of their positions in the field, including their own goals, as well as their awareness of the centrality of communication and of the different interests of the collaborating parties. The *pace of change* metaphor illustrates the temporality of university–industry collaboration in the NEURO RC, in which collaboration requires some ‘tasting’ before it begins. Ongoing collaboration, in turn, was narrated as

requiring time, being unpredictable and moving at varying speeds. In the following, we analyse the narrative, illustrating meaning-making around these metaphors in greater detail.

Together Apart

The together apart metaphor illustrates how researchers in the NEURO RC construct similarities and differences in the relational dynamics between academia and companies.

Knowing Your Place in the Field

During their careers, researchers may work in different positions, both in a university and in the corporate field. When researchers move between the worlds of academia and business, the business practices of companies become familiar to them. Basic and translational neuroresearchers often change positions and employers between academia and business in a relatively small geographical area, which is an advantage when initiating collaborations. For this reason, researchers may not only understand their own positions but also the positions and goals of the businesses in the field. However, if they do not already know the players, it may be more difficult to make contact:

Connections, because everybody knows everybody. It's a reasonably small research area. A lot of the company's personnel are former researchers who keep shifting back and forth. We know them from times when they were in academia, and then, five years from now, they will come back to academia and then back to the company. So there's a lot of this ebb and flow. (R2)

A trusting atmosphere created by knowing one's place in the field was regarded as an integral part of university–industry collaboration. This was referred to as 'typical' in the Finnish context. A culture and atmosphere of mutual trust and honesty were considered fundamental cornerstones of collaboration. Compared to collaborations outside Finland, gaining access to companies and collecting data were seen as far easier in Finland. In these circumstances, previous contact with companies and knowledge of their positions in relation to businesses were considered important. This was seen to help bridge gaps in collaborations between researchers and companies:

We are an exceptional country, and it is often said that we are a trusting society. People generally trust that they will not be deceived. When you go abroad, accessing companies and collecting data are, in many ways, more challenging. If you have any contacts in Finland, it is quite easy to gain access, and they are very favourable for collaboration. (R12)

Communication

Communication and a common language were relational aspects of university–industry collaboration that were mentioned. Through joint conversations and negotiations, a common understanding of collaboration is sought, which paves the way for collaboration. Joint discussions are held for the benefit of both parties, but sometimes, the challenge is to communicate one's own work in a way that can be understood by the other party. Continuous communication was seen as important for the coordination of different ways of understanding the research purposes from the perspective of the companies:

Research must be done to get it published. What the pharmaceutical company wants to know about the mechanism we are studying is a completely different matter. The conversation with them guides our research. (R11)

Getting the right people to communicate with one another and avoiding possible organisational boundaries created by bureaucracy were considered important. Accordingly, direct communication between collaborators on both sides was seen to facilitate knowledge sharing during both face-to-face and remote meetings. Comprehensible and active communication supports cooperation and makes cooperation credible without requiring the approval of supervisors whose scientific or technical expertise may be limited:

The aim of this project is to develop an organ-on-a-chip model. Our student has been able to call or send a message to the company to get technical and practical help, and the company's personnel have been visiting here. It does not have to go through the boss and the upper echelons. They have been able to get in direct contact with each other to exchange and share information. (R5)

Selling research projects and identifying like-minded partners for collaboration from the company side were described as rather easy due to shared language. This was contrasted with communication with those who lacked knowledge in the same scientific field, such as investor companies. When there were researchers on both sides, a similar scientific background and know-how facilitated collaboration and commitment to the project:

Investors, especially in Finland, do not understand drug development or biology. I've been thinking a lot about communication, how to tell the story, how to present my project to make the partner feel that our project is a perfect match for them. When we engage in discussions with pharmaceutical companies, there are researchers on the other side as well. Their researchers do understand the things we are talking about. We speak the same language. (R11)

Different Interests and Mindsets

The 'together apart' metaphor directs attention to the fact that coordinating different interests and mindsets does not inevitably mean giving up one's own interests. Differences were identified between the researchers and the commercial actors, as well as between researchers from different scientific disciplines, and these were constantly discussed. Even in collaboration, scientific research goals remained a priority, and in that sense, the scientific and business worlds did not merge into one. However, in describing these relationships, the different power dynamics between collaborators were mentioned, as the financiers and investors were considered to have some power over the research topics:

To turn our project, originally funded with public money, into a company-funded one, pharmaceutical companies and investors were needed. They, who are financing our business, also direct our research quite a bit. It's kind of like weaving our way between two customers; however, everything must be based on the science. (R11)

When researchers negotiate projects with the people representing a company who are familiar with them based on their shared history in academia, they need to be reflexive on the changed position of the person familiar to them and change their mindsets. A shift in mindset may involve the adoption of a perspective that combines research activities and finding new practical solutions to health challenges, such as adopting a clinical prevention perspective. Furthermore, it may be necessary to adjust and shift

lenses between various perspectives, such as that of a researcher, a clinician and a company representative who collectively aim to advance brain health with their shared intervention:

I'm used to talking to a specific person in an academic context. But now, I'm talking to them because they represent a company. The mindset shift is... well, it takes a bit of getting used to. What we have is a programme. You could see it from the R&D perspective because that was how it was designed. But you could also see it from a more clinical perspective as a form of prevention. (R2)

The together apart metaphor illustrated how familiarity, recognition and mutual trust among the researchers and companies increased companies' interest in collaboration. In the researchers' experience, concrete action was required to build familiarity with the companies; for instance, they needed to actively communicate the research results to the company representatives. Participating in various events, having discussions with different partners (Lundqvist & Williams-Middleton, 2010) and communicating the benefits of their research in a way that could be understood (Martens et al., 2007) that is typical for societal entrepreneurship were all seen as routine activities that could open avenues for collaboration (Garud & Giuliani, 2013). Another aspect of relationality involved the challenge of finding a common language among the collaborating partners. Researchers experienced the need to maintain their credibility by engaging in active communication with the companies, thereby facilitating collaboration. At the same time, knowledge of the researchers' mutual interests—and not only the companies' interests—was experienced as opening opportunities for collaboration in new networks, new projects and new roles (Lindgren & Packendorff, 2003). For instance, when actors moved back and forth between the university and the business world, this was particularly important.

Pace of Change

The pace of change metaphor illuminates how researchers in NEURO RC construct similarities and differences in the temporal dynamics of academia and companies.

Tasting collaboration

While describing their experiences of collaborating, especially with the large companies to which they lacked industrial relationships and personal contacts, the researchers depicted collaborations as not necessarily straightforward or proceeding rapidly but rather as something that required 'tasting' and time to develop. Stories of tasting included descriptions of the gradual development of collaboration and of taking time to get to know the collaboration partners thoroughly, to know how projects are chained to one another and to know how iterative processes of collaboration are temporally flexible.

The researchers described how collaboration develops slowly and how it results in the chaining of projects. The theme of 'tasting', as a description of the pace of change, highlights the experimental and exploratory nature of the first initiation and then the deepening of collaboration. The next data extract depicts the chaining of projects as the result of collaboration. Here, collaboration occurred between researchers from another university where patient data were collected and then shared as part of a collaborative project. Gradually, this led to further collaboration with a particular company. However, collaborations take time to develop, often years, and they can take different forms before they finally solidify:

We got the first biomarker when hunting for a [specific disease] pathology and then biopsies from patients. Then came postdoc research and a project funded by a foundation. Then, working on [a specific technology] a couple of years later gave birth to collaboration with a company. (R1)

Collaboration can also be initiated by companies, in which case they explore possibilities for collaboration and seek specific competencies from university researchers. When a confidential relationship develops, the content of the collaboration can finally be discussed. Collaboration progresses iteratively, usually with a flexible aim that is not necessarily clear when the collaboration begins. A company may start a collaboration, which can be triggered by events and meetings, as described in the following extract:

The first meeting is usually a conversation in which no confidentiality agreements are shared. It's a chat where the company tries to figure out what we can do and what we have done. Usually, they read our literature and might know us either directly or indirectly. In the next meeting, by which time confidentiality agreements have been signed, they share with us what they really want to do. After that, we are able to talk about what we can do [together]. Then, they present a long-term plan for our collaboration. (R4)

Time as a Valuable Resource

Understanding collaborations with companies from the lens of the pace of change metaphor also allowed us to elaborate on time as a valuable resource. However, time as a resource was considered both a requirement and a scarcity when collaborating with companies. For example, time is needed if diverging interests come to exist between the university and company collaborators or even between actors within universities.

In addition to ongoing negotiations with companies, negotiations concerning the interests of the research team and the university also need to take place, indicating that time is a valuable resource when developing a shared understanding among the researchers:

There is constant negotiation with the company directly, but also because we are not so [independent], our team is technically a university team. There have been many occasions when the interests of our team and the university started to diverge. It starts to feel like a three-party negotiation, not a two-party negotiation. It takes a lot of time just to explain that this is what we need. Once we spend this time and put effort into fixing the issues, then things go; things move. (R2)

The researchers also described instances in which there was a lack of time for collaboration with companies. Their many simultaneous tasks and other endeavours created circumstances in which a lack of time for collaboration could cause problems. Engaging in collaboration with companies is time-consuming, and communication with companies requires timely responses:

Time. Then, I think it becomes the ability to engage efficiently with the project so that you say that you need time to respond and reply and to manage your tasks and move them forward. I think if there are too many things going on, then it just becomes a time issue. And if there's no time, then things stand still. And then they don't progress. (R14)

Predictability

The changing pace metaphor illuminates how collaborating researchers often live with unpredictability. Sudden turns in how the collaboration proceeds can create uncertainties and force researchers to come up with contingencies. Companies are seen to wield a lot of power in how collaborations proceed. For example, a company's strategic turnaround or invitation to another organisation to collaborate may unexpectedly change or end the collaborative effort:

The company decided to drop a project that we had been carrying out collaboratively for several years. It was an internal company decision to leave that type of research. The problem with companies is that they can suddenly decide that this specific area of interest is no longer in the company's pipeline. (R14)

This unpredictability can also alter researchers' expectations about how companies operate. Although companies were generally seen as agile, flexible and moving rapidly, their fixed and hierarchical structures were also seen as creating challenges in moving collaborations forward:

If a decision is needed from the [company] top, it takes a long time to get that 'yes' or 'no' because it needs to go from my local contact, or my peer contact, further and further. So, then it takes time before that communication is achieved. (R14)

Walking and Sprinting

The pace of change metaphor illuminates the variety of temporal rhythms in university–industry collaboration. The researchers experienced collaborative processes as proceeding both slowly and rapidly, which required both patience and quick reactions from the parties involved. Accordingly, collaborations with companies can be understood as both walks and sprints: collaborating researchers must adjust to making rapid changes in their schedules.

In general, university–industry collaborations were described as iterative processes in which researchers gradually developed their projects based on feedback received from the company. This might lead to a collaborative relationship in which partners hold different positions of power, and the progression of the researchers' work becomes dependent on a company's decisions and schedule. Mutual discussions and dialogue were seen as crucial in these situations:

It was interesting that they [the funding company] asked us to present our idea with just a very short paper. It was a kind of stakeholder discussion. They evaluated whether they were interested and only then would we create a proper plan. If the idea was not worth funding, then it would not continue. If it looked as though we'd got the green light, then a decent plan would be made. They would give us feedback along the journey. (R1)

Researchers found that companies differed in many ways, and therefore, the details of collaboration with each of them varied. For example, the size of a company can affect the speed at which a collaboration progresses. A genuine interest will promote progress in all sorts of ways, and collaboration may start very quickly. Researchers found that they needed to be alert and prepared to adapt to the companies' tempos and rhythms, especially when they were collaborating with large international companies:

The bigger the company you're dealing with, the more it [the collaboration] can just get buried there. But suddenly, if they have an interest in it, it will happen quickly. If they're after something, then suddenly, in two weeks, they will send you the papers. If we are after something, we will never get anything out of them, but we must respond quickly because otherwise, we will be side-lined. (R1)

The pace of change metaphor illustrated how, for the researchers in our case study, collaboration meant adjusting to the other's concepts of time, specifically those preferred and prioritised by the company. There was a need for temporal flexibility (Garud et al., 2014), such as adapting to the variable schedules of the companies. While making adjustments, the researchers were aware of the need to keep their own academic interests and goals in mind and not lose their agency. However, they also experienced temporality in the collaboration as an iteration and exploration of new possibilities (Berglund & Wigren, 2012), with differing interests that needed to be tasted first so that they could see how they felt about engaging in collaboration. Sometimes, the process of getting to know each other ended up in collaborative activities that were different from those anticipated or planned. When collaborators got to know each other thoroughly, both previous and ongoing projects could turn into a chain of collaborative projects that served as a structure for collaboration that sometimes led to things proceeding quickly. However, things would proceed slowly, despite long-term collaboration and established relationships with the company actors.

The pace of change metaphor illustrates that strong mutual interests can speed up the decision-making processes within companies. However, a loss of interest can lead to the sudden end of a collaboration and the loss of the entrepreneurial opportunity (Garud & Giuliani, 2013). This puts pressure on the researchers to be constantly alert and flexible in their relationships with companies, and it requires them to allocate extra time to maintain ongoing collaboration. Overall, the temporality of the collaboration was experienced as a non-linear accomplishment (Garud & Gehman, 2012).

DISCUSSION AND CONCLUSIONS

In this paper, we have provided an intensive case study (Eriksson & Kovalainen, 2010, 2015) of university-company collaboration in the context of the University of Eastern Finland that supported such a wide range of entrepreneurial activities with specific strategic initiatives, making these activities legitimate (Kroll & Schubert, 2023). The societal entrepreneurship literature (e.g. Berglund et al., 2012; Berglund & Wigren, 2012; Bjerke & Karlsson 2013) provided a fruitful lens to study researchers meaning making from the perspective of creating value for society at large (Ratten & Dana, 2019; Åslund & Bäckström, 2015) by solving societal problems (Dentoni & Bitzer, 2015) and searching for new solutions (Dees, 1998) without the pursuit of economic profit and its maximisation (Zahra et al., 2009). Importantly, the societal entrepreneurship literature provided a lens through which to study entrepreneurial activity in a research community, in which not many researchers consider themselves commercially-motivated entrepreneurs (Berglund et al., 2012).

In our study on societal entrepreneurship at the interface of public universities and private companies, we adopted qualitative research methods to analyse interpretation and meaning making by the NEURO RC researchers. The findings illustrate how two metaphors, together apart and pace of change,

illuminate the relational and temporal aspects of university-company collaboration in the studied research community. The differences between researchers' and company partners' social worlds—that have also been reported in prior research (e.g. Eriksson et al., 2021b; Moilanen, 2022; Montonen et al., 2021b)—informed the meaning making around both of these metaphors.

The findings further illustrate how the researchers understood the objectives, interests and expectations of the companies that they had interacted with. The findings indicated that a key meaning that researchers attached to university–industry collaboration refers to researchers' academic interests, goals and resources. Within both metaphors—together apart and pace of change—the researchers' own academic interests and mindsets were constructed as being prioritised. Therefore, of the collaborative research strategies identified by Eriksson and Woiceshyn (2021), and Montonen and others (2021b; see also Eriksson et al. 2021b), the fair play strategy that illuminates the integrity of researchers in university-industry collaboration was preferred in our study. In researchers' interpretations, the academic and business worlds were not seen to come into close proximity although discussions with companies could move researchers' interests in new directions. These could possibly lead to the adoption of the organic dialogue strategy identified by Montonen et al. (2021b). The organic dialogue strategy—emphasising a continuous and generative dialogue of researchers with companies—might provide opportunities for neuroscience researchers to strengthen their competence of acting as societal entrepreneurs in their research community.

The value of this intensive case study lies in testing the societal entrepreneurship lens in the context of a university, the strategy of which is based on solving global challenges by means such as developing research communities that cross disciplinary and sectoral boundaries in their activities. The case study also provides self-understanding for researchers who may not think of themselves as commercially oriented entrepreneurs. We suggest that the concept of societal entrepreneurship might be helpful for researchers and university management in understanding how various entrepreneurial activities can be connected to solving complex global challenges. It would also help researchers to reflect on their interactions with companies (and other collaborating organisations) in a more comprehensive and detailed manner.

We conclude by suggesting that the societal entrepreneurship lens provides an opportunity to extend the research on entrepreneurial activities in universities. For instance, achieving the aims of strategic initiatives that resonate with the idea of societal entrepreneurship requires new understanding of the experiences and interpretations of the actors involved. Attention to this opens new avenues for further research into how industry representatives make sense of their collaboration with researchers.

ACKNOWLEDGEMENTS

The first author wishes to thank The Foundation for Economic Education for the financial support.

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