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Social innovation-as-practice: establishing a social innovation program at a university

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Abstract. *Creating a culture for social innovation in universities can involve formalising and internalising processes that aim to support efforts towards using research results in society. This paper aims to contribute to the discussion on how the present higher education institution system promotes work with social innovation. The paper presents lessons from efforts to establish a (social) innovation programme in a university. The data used for this qualitative case study are board documents, motivation letters, evaluation forms, reports from working groups and a workshop with a survey. The paper approaches two research questions: (1) How can a (social) innovation programme operate within a university's existing managerial, financial and social structures to facilitate researchers' work with social innovations? (2) How can a (social) innovation programme that facilitates researchers' work with social innovation at a university contribute to building a physical, intellectual, managerial, and logistic environment that can create a culture for innovation? With the first research question, the paper maps work on the pilot projects with initial motivations, early engagements in the programme, and future participation expectations. This connects to how the programme operates within the university's existing structures. The second research question shows the implications of this work, looking at how the innovation programme contributes to creating a culture for social innovation at the university. The results show how the programme can contribute to a) support researchers in their own work by further developing their research results into actions of societal usefulness and b) establish an arena that can contribute to creating a culture for working with social innovation within the university. How this can be conceptualised as 'social innovation-as-practice' is then discussed. Based on the findings, suggestions about how the present system can be improved are offered.*

Keywords: social innovation-as-practice, social innovation, higher education institutions, social practices, entrepreneurship-as-practice.

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Introduction

With increasing societal challenges across the globe, higher education institutions (HEIs) are being called to prove their value. There are growing expectations that abstract learning and academic research should have practical utility to society if HEIs are to remain relevant (Panda & Gupta, 2014). Such a demand for societal impact has to a great extent challenged HEIs to reflect and reimagine their roles in communities and strategise how to demonstrate their civic responsibilities. This emanates from the fact that solving the "grand challenges" requires new forms of social organisation, collective action and coordination, which are oriented toward enhancing human welfare (Benneworth & Cunha, 2015). This, according to Manzini (2015), is where social innovation comes in as a process of developing and implementing solutions to complex and challenging social and environmental issues affecting humanity. By virtue of being multidimensional and interdisciplinary, social innovation is instrumental in identifying unmet social needs through the use of creative tools and novel approaches with the aim of generating innovative solutions that fill the gaps in service design and provision (Păunescu et al., 2022).

Creating a culture for social innovation in universities can involve internalising and formalising processes that aim to support efforts of using research results in society. This paper shows how a university works with establishing an innovation programme that intends to turn research results into social innovations. The paper aims to contribute to the discussion on how the present HEI system in different countries promotes work with social innovation to create social change and impact. It feeds into the discussion on how HEIs can respond to societal challenges, support positive social change and influence the international public discourse on social innovation (Păunescu et al., 2022).

Studies of social innovation in HEIs typically tend to focus more on education and community involvement in HEIs (Păunescu et al., 2022), lacking attention on how researchers can formalise work with social innovation internally as part of their university tasks, going beyond teaching and student responsibilities or dissemination duties. Further, literature on entrepreneurship-as-practice tends to be dominated by techno-centric views, leaving out social entrepreneurs in HEI environments. This paper seeks to connect and address these two research gaps. The paper, therefore, approaches two main research questions (RQ):

RQ 1: *How can a (social) innovation programme operate within a university's existing managerial, financial and social structures to facilitate researchers' work with social innovations?*

RQ 2: *How can a (social) innovation programme that facilitates researchers' work with social innovation at a university contribute to building a physical, intellectual, managerial, and logistic environment that can create a culture for innovation?*

With the first research question, the paper maps preparations, preliminary work and ongoing early work with pilot projects in the SPARK social innovation pilot programme at the University of Oslo, Norway. With the second research question, the paper elaborates on the implications of this work, looking more broadly at how the innovation programme contributes to creating a culture for social innovation at the university.

The main objective of this paper is to identify how a university can enable, internalise, and formalise work with social innovation. The paper identifies practical dimensions of social innovation work in a university and discusses how they can be implemented. The study is a single case study of a social innovation pilot programme called SPARK Social Innovation. The

qualitative case study use data from the establishment of the program, such as motivational letters, expert evaluations, board meeting documents, reports from working groups, and a workshop survey.

The paper is organised into five parts. The paper starts with the theoretical context, where social innovation in HEIs, the field of entrepreneurship-as-practice and practice components from social practice theories are presented. The following section presents the methodological approach of the qualitative study and the analytical process. Then the results are presented, and findings related to practice components are discussed, suggesting conceptualising this as 'social innovation-as-practice'. Based on the findings on social innovation in HEIs, some suggestions about how the present system can be improved are offered. Finally, the conclusions with limitations of the study and suggestions for future research are presented.

Literature review

Social innovation in HEIs

The covid 19 pandemic brought under spotlight the need for HEIs to evolve towards active engagement of the public, private, and governmental actors (Păunescu et al., 2022). Such engagement can serve as a catalyst for social change and innovation to ensure and sustain an economy that is beneficial to everyone in society. This, according to Hunt (2011), demands HEIs to undergo a restructuring process so that they become firmly embedded in the social and economic contexts of the communities they serve. This can be done in many ways, for example, by transforming teaching and research, which are the core mandates of HEIs so that they are oriented towards producing graduates with innovative mindsets and zeal to contribute to a successful society (Păunescu et al., 2022). The process requires concerted effort to develop what McDonnell-Naughton and Păunescu (2022) refer to as new, overarching, and connected governance structures characterised by distinctive and intercorrelated roles in community engagement and social integration strategies are put in place.

There are growing calls for the development of an entrepreneurial university and social entrepreneurship ecosystem that supports it (Anderson et al., 2019). The ecosystem is fundamental in integrating HEIs so that instead of them becoming isolated ivory towers, they exist in a supportive framework for socio-economic development, in which the different actors coming from diverse backgrounds and perspectives work together to create a conducive environment for social entrepreneurship (Kumari et al., 2019). HEIs are strategically positioned to take a leading role in developing, testing and diffusing social innovations as they are an embodiment of important platforms that enhance intensive knowledge exchange between different disciplines, business sectors and cultures (Anderson et al., 2018). Unlike profit-oriented organisations inclined towards economics-based opportunistic perspectives such as exploiting opportunity gaps in the market to maximise productivity (Munshi, 2010), HEIs can capitalise on social entrepreneurship to generate value based on their mission of engaged scholarship.

Studies of social innovation in HEIs typically tend to focus more on education and community involvement in HEIs (Păunescu et al., 2022), lacking attention on how researchers can formalise work with social innovation internally as part of their university tasks, going beyond teaching and student responsibilities or dissemination duties. Researchers can play an influential role in what Estensoro (2015) refers to as the creation

and maintenance of spaces for collaboration and learning in social innovation. The role of researchers is manifested in appropriating the process of change as a learning experience in terms of the development of relevant skills that enhance their ability to facilitate appropriate transformation in social relationships (Howaldt & Kopp, 2012). This can lead to the emergence of socially innovative ecosystems at HEIs in which the capabilities of the network members are developed and exploited through reflexive action from a facilitated learning process (Estensoro, 2015). The transformation can unfold in various forms, which according to Moulaert and Nussbaumer (2005), entails changes in the social dynamics that underlie networking, learning and governance processes in an organisation. The capabilities of the researchers to drive social innovation are crucial in that many innovation initiatives proliferate, but some of them are not sustainable in improving social conditions (Oeij et al., 2019). This underscores the role of researchers in changing social practices as it is not necessarily limited to improvements or changes only for the better (Butzin et al., 2014)

Entrepreneurship-as-practice

Recently, practice-based approaches have gained considerable momentum as theoretical tools for understanding entrepreneurship (Sklaveniti & Steyaert, 2020). Several examples demonstrate these opportunities, such as a structuration view that proposes that the entrepreneur and social systems co-evolve (Sarason et al., 2006) and entrepreneurship-as-practice that grounds contemporary theories of practice into entrepreneurship studies (Thompson et al., 2020). Also, entrepreneurial ecosystems, as the union of localised cultural outlooks, social networks, investment capital, universities, and active economic policies, create environments supportive of innovation-based ventures (Spigel, 2017). Entrepreneurship scholars have continued to draw on ontological and epistemological approaches and theories from other more established disciplines, such as psychology, economics and strategy, and the field of entrepreneurship-as-practice is emerging with prospects of understanding entrepreneurial action (Thompson & Byrne, 2020).

Literature on entrepreneurship-as-practice tends to be dominated by techno-centric views, leaving out social entrepreneurs in HEI environments. This is despite the fact that entrepreneurship is an important social phenomenon by virtue of generating opportunities and, consequently, reducing unemployment (Barral et al., 2018). As a result, HEIs are emerging as a critical driver that underpins social innovation. The evolving landscape HEIs is characterised by, for example, increasing social mobility, changing demographics and economic instability, exerting pressure on governments to reconsider their investments in public-funded institutions (Hannon, 2013). This creates an uncertain and unpredictable environment for the HEIs (Gibb, 2012). It invokes the need for social entrepreneurship, which challenges HEIs to realign their organisational values and culture, while changing researchers' mindsets as agents of change (Hannon, 2013). The researchers can take a leading role as individuals who are driven by their values to bring business and market-based skills to social services with the aim of eliminating societal problems (Salamzadeh et al., 2013).

Practice components

A practice approach considers practices as the fundamental unit of analysis, enabling scholars to empirically study the real-time doings and sayings of practitioners involved in, for example, entrepreneurship (Claire et al., 2020). Rather than a trivial activity, a practice

can be defined as a bundle of 'doings and sayings which are hierarchically organised to comprise increasingly complex wholes called tasks and projects' (Schatzki, 2005, p. 471).

Schatzki (1996) developed a scheme of practice components and argued that human action is performed when interlinking elements form a practice and that these practices are linked to form wider constellations of practices or fields of practices. He saw practices as being made up of four types of components: i) 'practical understandings', the 'know how' and understanding 'how to go on' with an activity; ii) 'rules', the explicit directions, instructions, admonishments; iii) 'teleoaffective structures', the normatively ordered arrays of ends, orientations, and associated affective engagements; and iv) 'general understandings', the shared multiple practices and condition the manner in which practices are carried out (Schatzki, 2002):

i) 'Practical understandings' are specific to knowing how 'to go on' with a particular practice. This is close in meaning to Giddens (1984) concept of 'practical consciousness' and to Bourdieu (1990) concept of 'practical sense'. They consist of embodied knowledge on how to act in a specific context. With this knowledge, the actor knows how to identify and react to something in the social world and perform the action required. It is not the action itself but the ability to perform the action that is important – and this ability belongs to a specific practice.
ii) 'Rules' are explicit rules on how to act – laws, regulations, written statements, instructions, and so on – made to create a specific order to a practice and to correct action. Rules refer to explicit prescriptions, procedures, and principles of proceeding.
iii) 'Teleoaffective structures' manifest in the ways that actions matter to people (Schatzki, 1996). We act because we want to express a certain purpose, desire, belief, or expectation. These are not the characteristics of an individual subject but represent the appropriate purpose of a particular action that governs what it makes sense to do when performing a practice. Unlike rules, teleoaffective structures are not made explicit: they represent all possible hierarchies of ends and projects within a practice. As such, they are normative because they indicate a certain way of performing (Schatzki, 1996).
iv) 'General understandings' are common to multiple practices. They may be articulated in the 'sayings' of various practices in a broad sense. General understandings sit across the discursive/non-discursive divide and may display intimately connected, tacit, affective, and discursive elements. They may be relatively specific to sets of practices, but they also denote fundamental concepts, values and categories and diffuse but culturally significant understandings, such as notions of convenience (Welch et al., 2020; Welch & Warde, 2017).

Methodology

Research context: SPARK Programmes

SPARK Social Innovation comes from the SPARK Global innovation programme[1] and is the world's first and currently only SPARK programme working with social innovation. Until the launch of the SPARK Social Innovation programme at the University of Oslo, SPARK Global has focused only on biomedical sciences and translational medical research. By sustaining

[1] SPARK Global https://sparkglobal.io/.

and developing international educational training courses in translational medical research, SPARK Global has aimed to create a culture of creativity, innovation & entrepreneurship in the biomedical sciences for academic researchers, clinicians, graduates, medical students, and fellows.

SPARK Global is an innovation programme that accelerates academic discoveries from laboratories to patients worldwide. SPARK Global aims to promote translational medical research and education for academic staff to more efficiently develop drugs, diagnostics, vaccines, IT health and medical devices for the benefit of humankind. The SPARK model is presented as a cost-effective way to facilitate the development of research discoveries into novel therapeutics or diagnostics. In addition to advancing research discoveries, SPARK Global educate faculty, postdoctoral fellows, and graduate students about the process of drug discovery and development. The work with training world citizens in translational research and commercialisation also aims to generally contribute to a more creative and innovative society that can tackle unmet medical needs.

SPARK Global has published a book, "A practical guide to drug development in academia: the SPARK approach" (Mochly-Rosen & Grimes, 2014), with programme mentors and gives graduate students courses. The book is aimed at newcomers who embark on the path of translating basic research or clinical findings into new therapeutics to benefit patients. This book does not give a step-by-step guide to what needs to be done. Instead, it provides a general overview of important topics in the development process. A course in biomedical innovation has been given at various SPARK GLOBAL sites. This course aims to train students to develop skills in design thinking, brainstorming, product development, and commercialisation for unmet medical needs and to become more creative, innovative and savvy in translational research in the Biomedical Sciences.

SPARK Global operates in several locations through SPARK Africa, SPARK Americas, SPARK Asia, SPARK Europe and SPARK Oceania, and several academic institutions have developed their own SPARK programs. SPARK Norway at the University of Oslo (UiO) is an innovation programme for health-related topics in the life science domain. It is a two-year innovation programme designed to increase the success rate of projects with high potential impact, addressing critical unmet needs. It is led by UiO:Life Science and supported by the University of Oslo, Inven2 and Oslo University Hospital. UiO:Life Science is an interdisciplinary strategic area that aims to strengthen quality and interaction in research by recruiting, educating and developing talents; and promoting innovation in the life sciences related to environment and health.

The programme is designed to increase the maturity of discoveries in academia and hospitals towards practical solutions through education, mentorship, advising and milestone-based funding. It is based on the original Stanford SPARK programme for clinical research. Uptake to the programme is organised through annual open calls. Ideas in all phases, from very early to more developed, are eligible. Any affiliate (faculty, hospital, postdoctoral fellow, or graduate student) team UiO, Oslo University Hospital or Akershus University Hospital can apply. However, at least one person in the project team must be employed at UiO. SPARK Social Innovation was established as a parallel programme to SPARK Norway.

UiO is Norway's oldest research and higher education institution, with around 28 000 students and 7000 employees. UiO is comprehensive and research-intensive and

celebrated its 200th anniversary in 2011. UiO has eight faculties, two museums and several centres.

Data collection and data analysis

The study is a single case study of the SPARK social innovation pilot program at the University of Oslo. The qualitative case study use data from the establishment of the program, such as motivational letters, expert evaluations, board meeting documents, reports from working groups and a workshop with a survey. The first author of this paper has worked as the manager of the SPARK programme since February 2021 and the second author is a researcher not directly engaged in the program. This combination of researchers gave access to data and exclusive information while securing impartiality in the analytical process through the external researcher.

The data for this study consists of these documents and a survey from a workshop. In addition, the material from the joint activities in the programme, such as presentations and research publications, are used. Publicly available documents from establishing the pilot programme are shown in Table 1. Table 2 shows an overview of the three types of documents from the application processes of the ten projects. Table 3 gives an overview of participants in the workshop and the questions addressed there. The workshop was held on June 7, 2022, and includes reflections from fifteen participants in various roles such as project leaders, project participants, mentors and practitioners working with social innovation in and outside academia. Questions were addressed both during the workshop and afterwards in the survey.

Table 1. Documents from establishing the pilot programme

Document (source)
Action plan for innovation 2013-2015 (https://www.uio.no/om/strategi/dokumenter/handlingsplan-2013-2015.pdf)
Award letter for 2022 University of Oslo (https://www.regjeringen.no/contentassets/a51ecc138e1c4f85b66c490415771025/statsbudsjettet-2022-tildelingsbrev-for-universitetet-i-oslo-.pdf)
Minutes from Board meeting UiO, March 13, 2018, Knowledge in use: Innovation work at UiO. (https://www.uio.no/om/organisasjon/styret/moter/2018/03-13/d-sak-1-kunnskap-i-bruk-innovasjonsarbeid-ved-uio.pdf)
Minutes from meeting Forum for Research Deans, February 12, 2021 (https://www.uio.no/om/organisasjon/utvalg/forskningskomiteen/moter/2021/FFD%2003-2021/referat-12022021.pdf)
Report from working group: An inclusive innovation lift - social innovation at the University of Oslo. (https://www.uio.no/om/organisasjon/styret/moter/2019/09-10/d-sak-1---et-inkluderende-innovasjonsloft-%E2%80%93-sosial-innovasjon-ved-universitetet-i-oslo-rapport-fra-arbeidsgruppe..pdf)

Source: Authors' overview.

Table 2. Data from the project application process

Project number	**Motivational letter from the project leader in project applications 29.01.2021**	**Expert evaluations of project proposals 10.03.2021**	**Panel evaluation report 15.04.2021**
Project #1	Motivational letter #1	Expert evaluation #1	Panel evaluation report #1
Project #2	Motivational letter #2	Expert evaluation #2	Panel evaluation report #2
Project #3	Motivational letter #3	Expert evaluation #3	Panel evaluation report #3

Project number	Motivational letter from the project leader in project applications 29.01.2021	Expert evaluations of project proposals 10.03.2021	Panel evaluation report 15.04.2021
Project #4	Motivational letter #4	Expert evaluation #4	Panel evaluation report #4
Project #5	Motivational letter #5	Expert evaluation #5	Panel evaluation report #5
Project #6	Motivational letter #6	Expert evaluation #6	Panel evaluation report #6
Project #7	Motivational letter #7	Expert evaluation #7	Panel evaluation report #7
Project #8	Motivational letter #8	Expert evaluation #8	Panel evaluation report #8
Project #9	Motivational letter #9	Expert evaluation #9	Panel evaluation report #9
Project #10	Motivational letter #10	Expert evaluation #10	Panel evaluation report #10

Source: Authors' own research.

Table 3. Overview of participants and questions addressed in the workshop and survey

Participants (N)	Project leaders (5) Project participant (1) Mentors (2) Researchers (2) Practitioners – work with social innovation in academia (3) Practitioner – work with social innovation outside academia (1) Research funder (1)
Questions about the pilot projects	*Starting the project:* What is your experience with starting the SPARK SI Project? What would you change? What would you continue with? *Increasing capability and maturity:* What is your experience with building the network, team and plan? What would you change? What would you continue with? *Reducing risk and uncertainty:* What is your experience with reducing legal, ethical and financial risk and uncertainty? What would you change? What would you continue with? *Milestone plan:* What is your experience with working with a Milestone Plan? What would you change? What would you continue with?
Questions about the pilot programme	*Call for projects and Application Process:* What is your experience with the Application Process? E.g. the call, application form, expert evaluation and panel pitching. What would you change? What would you continue with? *Mentoring Sessions:* What is your experience with the Mentoring Sessions? E.g. content, the format of meetings, NDA. What would you change? What would you continue with? *Educational Forums:* What is your experience with the Educational Forums? E.g. content, the format of meetings, participants, and presenters. What would you change? What would you continue with? *Funding:* What is your experience with the funding? E.g. budget in the project proposal, agreements, transfer of funds. What would you change? What would you continue with?

Source: Authors' own research.

The data analysis was done in three main steps. First, the data was organised and coded. The coding emerged from the research questions and core concepts from social innovation in HEI and entrepreneurship-as-practice literature. In the second step, preliminary findings were organised and linked to the research questions. Third, the analysis of how the innovation programme operates and its implications was sharpened. This three-step qualitative analysis of data is based on the Interactive Analysis Model for Qualitative Data (Miles et al., 2013). Miles & Huberman (1984) suggest that qualitative data analysis consists of three procedures: data reduction, data display and concluding. The data was organised, and the coding and analysis were done using Microsoft Word software. This allowed for the iterative process of data reduction and data displaying and approaching the research

questions for conclusions. The codes were intended to be valid (accurately reflecting what is being researched), mutually exclusive (distinct, not overlapping) and exhaustive (all relevant data should fit into a code).

Table 4 shows an overview of questions used for the analytical processes of data reduction and display, and the codes applied. For example, the data from the project application process were focused on the three areas of the motivational letters, expert evaluations and panel reports. For the motivational letters, the analysis focused on how mentoring and funding through SPARK support are helpful for the project applicant's motives and why the project leaders applied to the SPARK programme. Similar data reduction and display processes were made for the material from the joint activities in the programme, such as the presentations and research publications. Here this process centred around the joint pilot *programme* instead of the distinct *projects*. This led to a focus on three main ways the joint activities of the Educational Forums during the first year contributed to creating a culture for innovation.

Table 4. Data summary of intermediary steps of analysis

Data	Analysis	Codes
Documents from establishing the pilot programme (D)	Why was the work with establishing the SPARK Social Innovation Pilot Programme (SSIPPg) initiated? How was this work organised?	SSIPPg:Dinitiated SSIPPg:Dorganised
Motivation letter (ML)	How are mentoring and funding helpful for the SPARK Social Innovation Pilot Project (SSIPPj) applicant's motives? Why do the project leaders want to be in the SPARK programme?	SSIPPj:MLmotives
Expert evaluations (EE)	Is the project addressing an unmet need/social challenge? Is the project expected to have an impact on solving this? Is the project informed/building on an existing research basis? Is the project contributing with a new solution/novelty/uniqueness to this research basis? Is the team suitable to pursue the project? Is there sufficient motivation and competencies in the team? Is the project of interest to relevant partners or collaborators? Is the current development stage of the project idea ready to be implemented/operated at its initially planned scale? Is the project scalable? Can it be implemented at a larger scale in the future (other regions, other sectors, and/or other countries)?	SSIPPj:EEneed SSIPPj:EEimpact SSIPPj:EEresearchbasis SSIPPj:EEteam SSIPPj:EEpartner SSIPPj:EEscalable
Panel evaluation report (PER)	Why should the project be admitted to SPARK Social Innovation? Why should the project *not* be admitted to SPARK Social Innovation?	SSIPPj:PERadmitted SSIPPj:PERnotadmitted

Data	Analysis	Codes
Workshop and survey (WS)	What are the objectives of being part of the innovation processes and the project status?	SSIPPj:WSobjective SSIPPj:WSstatus
Presentation and publications from Educational Forums (PPEF)	How can universities and academics engage in work with social innovation? How can theoretical themes enlighten and invite to discussions? How can social entrepreneurs from academia inspire? How can practical tools be used to work with concrete challenges?	SSIPPg:PPEFacademictheories SSIPPg:PPEF inspirational experiences SSIPPg:PPEFpracticaltools

Source: Authors' own research.

Results and discussion

This analysis approaches the pilot projects and pilot programme to answer the research questions. First, it addresses the first research question, *"How can a (social) innovation programme operate within a university's existing managerial, financial and social structures to facilitate researchers' work with social innovations?"* Here the analysis elaborates on the pilot projects with initial motivations, early engagements in the programme, and future participation expectations. This connects to how the programme operates within the university's existing structures. With the second research question, *"How can a (social) innovation programme that facilitates researchers' work with social innovation at a university contribute to building a physical, intellectual, managerial, and logistic environment that can create a culture for innovation?"* the implications of this work is shown, looking more broadly at how the innovation programme contributes to creating a culture for social innovation at the university.

The SPARK Social Innovation programme is a pilot initiative at UiO aimed at supporting work with social innovation. The pilot consists of a two-year pilot programme with six pilot projects. In August 2018, a working group for social innovation was established at the University of Oslo. They completed their work with a report in February 2019. One of the main conclusions in the report is that UiO does not primarily need its own definition and strategy for social innovation but needs to work with a broad innovation concept and an action plan that considers the complex and multi-faceted reality of innovation.

The working group discovered a need to clarify UiO's academic breadth in working with innovation, particularly the potential in the humanities and social sciences fields. This led to a need to map the potential for social innovations across all faculties at the university. Mapping this potential revealed the need for an innovation programme targeted particularly at social innovation and laid the foundation for establishing SPARK Social Innovation.

The pilot projects

The pilot programme received ten full project proposals, and after an evaluation process, six projects were selected to participate in the program. Ten applicants submitted a project proposal, and experts assessed these. After the expert evaluation, the projects pitched their proposal to a panel. The panel ranged the project proposals, and six projects were selected for uptake into the program. Projects accepted to the SPARK programme commit to a milestone plan, are admitted for two years, and receive up to NOK 400 000 (ca 40 000 €) per

year based on the accomplishment of milestones. Mentors and advisors are assigned to the projects, and the project teams meet regularly with the mentors and coordinators. Closed Mentoring Sessions for the SPARK teams, mentors and coordinators and open Educational Forums with invited speakers in relevant areas are held monthly throughout the semester.

Unlocking the potential of research

In the motivational letters, the project leaders stated their interest in participating in the programme and elaborated on what the innovation programme could do for their projects and for them as researchers. Some emphasised that such a programme is needed at the university to formally arrange arenas that go beyond traditional research project application and dissemination processes. They all clearly stated that an innovation programme that provides new forms of funding together with new forms of administrative, organisational and entrepreneurial support is needed. They stated that such support is not found elsewhere at the university. A common theme was a wish to participate both to develop their own projects and to contribute to creating broader implications at the university. By serving as examples, they wished to communicate back to their faculties and institutions the potential for working directly with social innovation within their research roles.

The project leader of Project#1 clearly states why participation in the SPARK Social Innovation programme is needed for him to support efforts in moving from research dissemination to other activities that can create societal value more directly:

> *"The life of a researcher is rhythmed by the life of projects – from identifying knowledge gaps to designing studies allowing to fill these gaps, running the studies and writing them up as journal articles. Often, this rhythm is overlaid with teaching activities. A few times a year, dissemination of the results stemming from the studies is presented at a conference, and here and there, they reach the public via newspaper clippings or interviews. And then, rarely in the life of a social science researcher a project has the potential to have a considerable, rapid and direct impact on the public and stakeholders. Rarely in the life of a social researcher, a project presents itself as having an evident social innovation component to it. The present proposal describes one such rare event."* Motivational letter #1

> *"We have the science. What we need now is the know-how on how to tap into the immense potential of [the project]. SPARK promises to catalyse this process so that [the project] can deliver its full impact as social innovation."* Motivational letter #1

Another project leader supports the view of the need for structured organisational support from the university for the researchers to reach society. For this project leader, it was particularly important to receive support in developing research results in collaboration under other conditions than, for example, research project applications with consortium contracts:

> *"I believe it is through initiatives like SPARK Social Innovation that we can generate and provide opportunities for real change to take place. First, while limited in funding, SPARK gives institutional legitimacy and a conceptual frame for participants to invest their own time and resources in experimenting with social innovation while building experiences and*

expertise relevant for later larger applications for longer-term research. Of particular relevance to the [the project] idea is the fact that an initiative like SPARK allows for researchers from different disciplines (education, climate science, humanities) and institutional contexts and sectors to start collaborating within a broader, less constraining framework; and do so by seeking synergies in ongoing interests and projects, rather than organising around a consortium contract. From this collaboration, a more solid and genuine collaboration can be established to then scale up towards larger funding schemes." Motivational letter #6

The project leader of a health project stated his desire to both have an arena for working with efforts of taking under-used research results in use outside academia and also to improve the higher education system:

"For almost two decades, I have worked at the University of Oslo, most of the time in close contact with the 'outside world'. Rather than teaching students on the campus, I have been researching, teaching, implementing and disseminating within the health care services. Building bridges between research, clinical practice and higher education has been a guiding idea, as well as bringing different stakeholders and disciplines together. There are still too many gaps. Sometimes, research and teaching are too far from the problems it tries to solve. Other times, as is the case with [the project], evidence is largely underused… For me, social innovation is a way to close some of these gaps and may not only improve clinical practice and society but may also contribute to improving research and higher education. I think the potential for social innovation based upon research at the University of Oslo is not fully exploited, and our participation in SPARK may bring the University in Oslo one step further and contribute to developing this relatively neglected area." Motivational letter #9

These three project leaders clearly stated how the SPARK programme could be useful to unlock the potential of their research. The expert evaluations and panels agreed on this and highlighted the benefits for the broader society of structurally supporting researchers to go beyond their traditional research tasks. This discussion continued in the workshop. Here the funding, mentoring arrangement and support of the programme were addressed. Some mentioned that the funding for two years was not enough to complete their projects but was symbolically useful because it was possible to go in new directions. Such funding was apricated as helpful "on the way to something bigger".

Challenges with recipients and recognition

Even though the project leaders were optimistic about the programme's format in their motivational letters, the workshop revealed scepticism towards achieving their objectives through existing structures. They called for the need to challenge and develop certain rigid parts of the university structure.

For example, some felt vulnerable, not having traditional opportunities for working with innovation, such as through the existing infrastructure of Technology Transfer Offices (TTO) and Intellectual Property Rights (IPR). Regarding this, issues of scepticism of monetising from the research were also addressed. Although commercialisation was not the objective of the projects, they met conflicts of interest, for example, concerning non-profit/for-profit structures. This is linked to recipients and how to approach these. Some

project leaders were concerned with determining the recipients of their projects. They worked with mapping who the recipients are, how to approach these and their willingness to pay. Some mentioned that the mentoring was helpful in getting in contact with the "real world", but it was not enough to solve the issues with working with approaching recipients.

Concerns about recognition for this type of work were also raised. Some were engaged in the need for formal recognition for engaging with this type of work. They revealed that it takes a lot of extra time and effort. This pays of informally through learning about innovation processes, getting hands-on experience and building a network, but they lack formal recognition. For example, some stated that this could count in advancing academic careers or recompensing time from teaching duties.

Participants and other stakeholders discussed the objectives of the innovation processes and the status of the projects. Although the projects have different objectives and aim to solve different societal challenges, they follow similar objectives of an innovation journey. The innovation processes that the SPARK programme can contribute to support are shown in Figure 1. It summarises the main objectives of the two-year programme. First, it aims to increase capability and maturity by supporting the network, team and plan development. Second, it aims to reduce risk and uncertainty by handling legal, ethical and financial challenges. For example, working with legal challenges can require acquiring new practical tools such as agreeing on confidentiality and Non-Disclosure Statements (NDAs) and learning "do's and don'ts" from other social entrepreneurs. Financial and ethical challenges involve, for example, working with solving issues with recipients and recognition through reducing disputes over ownership and compensation.

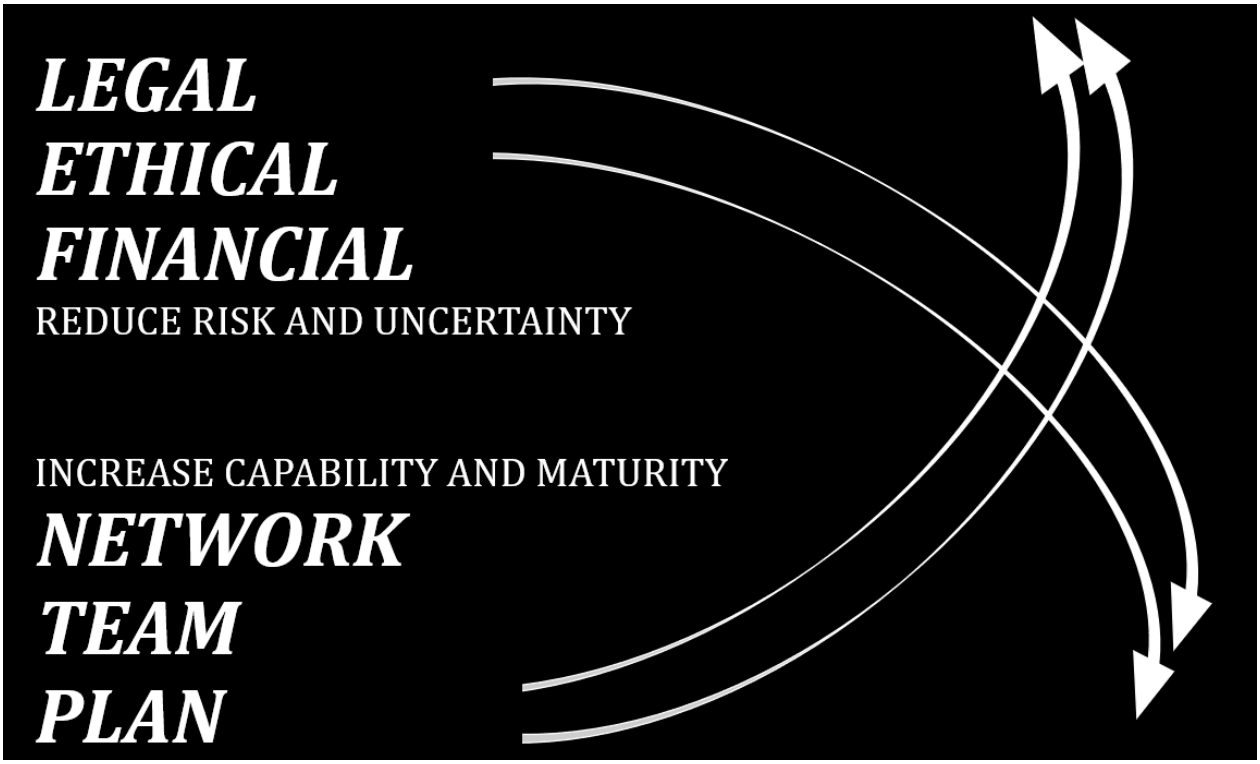


Figure 1. Main objectives of the innovation processes

Source: Authors' own research.

The pilot programme

Academic theories, inspirational experiences and practical tools to reach these objectives are provided through the core activities in the programme, as illustrated in Figure 2. The pilot program's monthly Mentoring Sessions and Educational Forums are joint activities. These are designed to support the projects' development, from research to social innovations and to create arenas for work with social innovation at the university. In this section, the paper explains how the joint activities of the Educational Forums held during the first year in three main ways contributed to building a physical, intellectual, managerial, and logistic environment that can create a culture for innovation.

The programme arranges monthly events about how universities work with social innovation. The Educational Forums are open to everyone interested in how universities and academics engage with social innovation[2]. The events are free and have been held in a hybrid format with a combination of virtual participation via Zoom and physically at the Oslo Science Park at the university campus. The forums served three general purposes: a) Learning about new theoretical themes to enlighten and invite to discussions. For example, the role of academia and universities in engaging in social innovation on the Forums held in February and April 2022; b) Sharing experiences for inspiration. For example, social entrepreneurs from academia sharing their innovation journeys on the Forums in March and May 2022; c) Practical input on how to work with concrete challenges. For example, how to approach the public sector for demand on the Forum in November 2021 and data management when moving from research to innovation in June 2022.

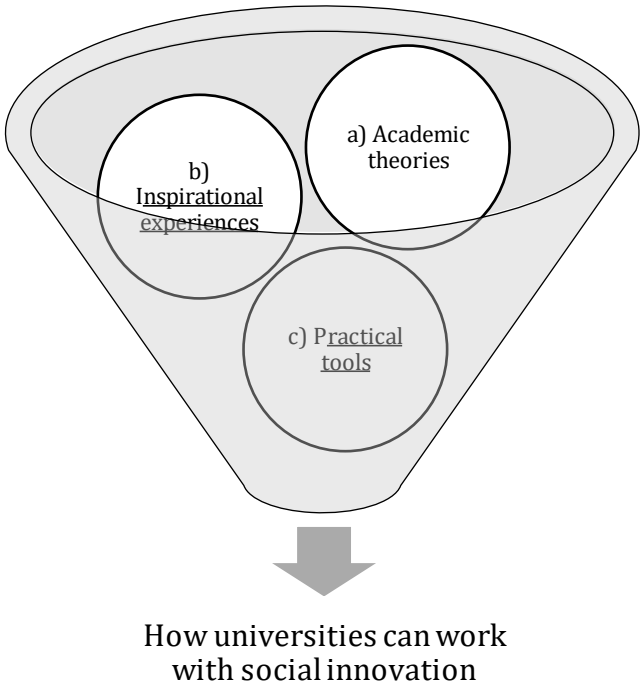


Figure 2. Three main purposes of the Educational Forums

[2] https://www.uio.no/om/innovasjon/samfunnsinnovasjon/arrangementer/.

Source: Authors' own research.

Universities and academics engaging in social innovation work

The first purpose of the forums was to learn about new theoretical themes to enlighten and invite to discussions. Academics have different motivations for external engagement, including acquiring external resources for research, contributing to society, or acquiring monetary benefits. Universities also have varying policies for rewarding external engagement. With the transition to the knowledge economy, regions are increasingly looking to universities as sources of knowledge for innovation and growth. Meanwhile, universities have increasing ambitions to contribute to development, as reflected in the increased attention to the third mission and the impact of research. However, the role of universities in regional innovation and development processes is multi-faceted and plays out across all of the universities' missions and in interaction with industry, government and broader societal stakeholders across various scales. At the February event of the SPARK Social Innovation Educational Forum, two external research projects were presented, focusing on how academics engage with society and how industry collaborates with universities for regional development.

Three researchers were invited to present their research at the SPARK event. Rune Fitjar has been the Pro-rector for Innovation and Society at the University of Stavanger since 2019 and Professor of Innovation Studies at the University of Stavanger Business School since 2013. He was the project leader for The Role of Universities in Innovation and Regional Development (RUNIN) project. Kwadwo Atta-Owusu was a RUNIN research fellow at the University of Stavanger. In May 2021, he completed his PhD on how individual and contextual factors influence academic engagement in regions. In this research, he investigates academics' external engagement (Atta-Owusu, 2019; Atta-Owusu & Fitjar, 2022a, 2022b). He finds that, although universities, as institutions, are expected to lead regional engagement, academics as individuals remain the agents that engage with external actors in practice. Thus, there is a need to understand whether and how academics engage with regional actors and the factors influencing such engagement. Utku Ali Riza Alpaydin was also a RUNIN research fellow at the University of Stavanger. In March 2021, he completed his PhD with research on University-Industry Collaborations (UICs). In this research, he investigates how proximity, being a multidimensional concept – including geographical and a variety of non-geographical dimensions such as cognitive, organisational, institutional and social – plays a bridging role between the two worlds of academia and industry and facilitates the formation of university-industry linkages (Alpaydin, 2021; Alpaydın, 2019; Alpaydın & Fitjar, 2021). His results illustrate that UICs motivated by the need for capacity development and relying on cognitive proximity are less sensitive to distance, while geographical proximity matter more for firms intending to create societal impact and build their collaboration on institutional and social proximity. The three researchers approached questions on academics working with university-industry collaboration, for example: What motivates academics who engage more broadly? What is the level of external engagement? What is the relationship between academics' motivations for engaging? What are their perceptions of the fairness of their universities' policies?

At the April event of the SPARK Social Innovation Educational Forum, the discussion continued, focusing on why and how universities can work systematically with social innovation. This event narrowed the discussion to focus in particular on how universities

formalise and internalise work with social innovation. The increasing visibility of the impact of various societal challenges, such as climate change, territorial disparity, income inequality and demographic change, has brought the role of innovation to the fore of academic and policy debates. Universities are increasingly expected to mobilise their resources to address these societal challenges through innovation, thereby contributing to regional development. The complex nature of societal challenges, however, pushes universities to diversify the scope of innovation-related third mission activities. This requires moving beyond traditional regional engagement modes such as technology transfer and industry collaboration towards engaging with other types of innovation (e.g., social) and societal partners (e.g., municipalities and citizens) as well.

Two researchers were invited to this Forum. Magnus Gulbrandsen talked about what characterises the process when research makes a difference in society, and Ridvan Çınar talked about how universities can work with social innovation and opportunities and barriers in this work. Magnus Gulbrandsen is a professor at the TIK Centre for Technology, Innovation and Culture at the University of Oslo. He leads the OSIRIS Oslo Institute for Research on the Impact of Science. Rıdvan Çınar is a social scientist with a special interest in innovation studies, regional studies and studies in higher education. He has been a candidate in the doctoral programme Responsible Innovation and Regional Development at Western Norway University of Applied Sciences. He has previously been a Marie Curie Fellow in the RUNIN project.

Gulbrandsen and Çınar approached questions on why and how universities can work systematically with social innovation, for example: What characterises the process by which research makes a difference in society? What must be present for research to be used in business or policymaking? In what ways can universities contribute to solving local challenges? How do universities change with new expectations? Under what conditions can universities transform from the entrepreneurial to the engaged model?

Gulbrandsen asked if the high-quality research at UiO can lead to a higher probability of research in use? He elaborated on what needs to happen for research to be used in business or policymaking. For example, he stated that all research-based innovation represents impact, but not all forms of impact are about innovation. He also problematised social innovation concepts, stating that innovation is heterogeneous and encompasses new products, processes, services, technologies, and practices in management and organisation. Innovation does not have to be directly commercial and is rarely about patenting and creating new firms. Research is an equally heterogeneous concept. He further talked about how universities can deal with social innovation. He stated that innovation happens outside of the main processes found inside universities. Innovation, therefore, requires consistent and broad interaction with societal stakeholders. However, the start of innovation – an understanding of a need, a problem etc. – can be tied to teaching, research and dissemination.

Ridvan Çınar also talked about how universities can work with social innovation. For his PhD., he studied how universities change with new expectations of solving local and global societal challenges (Benneworth et al., 2020; Cinar, 2019, 2020; Cinar & Benneworth, 2021; Salomaa et al., 2021). His findings highlighted that universities had moved away from merely focusing on technology-transfer offices towards more non-techno-economic activities. He suggested that earlier processes of how universities started to work with technical innovations can now be re-visited to demonstrate how further work can include arenas for developing social innovations. His advice for working with social innovation at

universities was targeted toward establishing visibility, awareness, tradition, and functional organisational structures. He specified three challenges: i) The need for stable academic identities supporting social innovation. Resources need to be channelled for non-techno-economic innovation activities; ii) The need for increased legitimacy of social innovation. The normative and over-optimistic focus on technological progress in technology disciplines should be unpacked. Governments, ministries and Higher Education actors further need to legitimise social innovation; iii) Fixing price/cost imbalances for social innovation in a university setting. It takes time to produce social innovation outcomes.

Inspiration from social entrepreneurs in academia

The second purpose of the forums was to share experiences for inspiration, for example, through social entrepreneurs in academia presenting their innovation journeys. At the March and May Forums, the focus was on examples of social innovation efforts with presentations of experiences from partnerships between public, private and social actors. In March, the Forum focused on how the research centre "Include" and the association "Pådriv" work together to solve societal challenges, cooperating to create a shared arena where they can test new collaboration models.

A researcher and a manager were invited to talk about their involvement. Ole Smørdal is part of the management of Include, a research centre for socially inclusive energy transitions, and a researcher at the Department of Education at the University of Oslo. Thomas Berman is part of the management of Pådriv Oslo. Pådriv is a partnership between public, private and social actors who work together for an improved sustainable urban development, a development that is socially inclusive, environmentally friendly and financially feasible. Smørdal and Berman approached questions on how the arena was intended to be built. What kind of projects and activities do they plan to support? How does Include build knowledge based on practical research?

In May, the Forum focused on how a social entrepreneur has proceeded to turn insights and ideas from education in the humanities into practical projects for social innovation. The social entrepreneur "Fremtenkt" uses theory and methods from future literacy studies to engage more people in the work of creating better and more sustainable societies. Behind the business are two humanists who wanted to do more than just discuss how society should be organised. The two founders were invited to talk about their experiences. Sveinung Sundfør Sivertsen is the co-founder and chairman of Fremtenkt, with a background in chemistry and philosophy. Ragnhild Nabben is the other co-founder and manager of Fremtenkt with literary studies and education background.

Fremtenkt has established several projects in close collaboration with several public and civil actors in several Norwegian cities. They work from the idea that the future belongs to everyone and, therefore, everyone must be involved in shaping it. Inspired by the democratic direction in future literacy studies, Fremtenkt has tested different ways of using the future to bring about co-creation between residents and the municipality in planning sustainable urban development. Based on these experiences, they have also worked on how universities and HEIs can contribute to education, ideas and commitment among students, research fellows and permanent employees in the humanities and social sciences to a greater extent than today to benefit society. Sundfør and Nabben approached questions on how Fremtenkt has proceeded with this work and what this experience has taught them about translating insights and ideas from the humanities into social innovation.

Practical tools to work with concrete challenges

The third topic of the forums was practical input to guide work with concrete challenges. For example, how social entrepreneurs can approach the public sector for demand in the Forum in November 2021 and data management when moving from research to innovation in June 2022. In the November Forum, the public company StartOff shared their experience linking start-ups with the public sector. StartOff is a programme designed to make it easier for public entities to take advantage of the start-up market's innovation power. To realise this, StartOff facilitates procurements that make it easier for smaller companies to become suppliers to the public sector. Through a StartOff project, public entities get experience working with start-up companies as suppliers, and start-up companies experience cooperation with public entities as clients and customers. Sissel Hoel was invited to talk about how to approach the public sector when working with social innovation and share strategies for long-term and short-term plans if a research project wants to approach the public sector for demand.

In June, the Forum focused on data management. Good data management planning can increase possibilities for future work with social innovation. Current data management provides requirements for data organisation, metadata and documentation, data classification and storage, sharing and archiving of research data, copyright and licensing and data discovery and reuse. Two Senior Academic Librarians at the University Library at UiO, Matthew Good and Agata Bochynska, were invited to talk about how researchers can work with data management throughout the process of working with research to innovation. Good works with digital scholarship, open science, open data and research data management, digital skills, research methods, and research support. He has a PhD in Innovation and Entrepreneurship from UiO, a master's degree in Innovation and Entrepreneurship from UiO and a BSc in Mechanical Engineering. Bochynska works with research data management and data sharing, digital research skills and methods, and teaching and implementing open science practices. She has a PhD in language and linguistics from NTNU, a master's degree in psychology from UiO, an MA in philosophy, and a BA in psychology.

They approached questions related to different areas of data management. For example: Who is responsible for taking care of data during and after a project? What resources are needed? How do you ensure the data is well organised and adequately documented (metadata)? How much volume and what type of data set will be generated and used? How do you ensure that the data is treated correctly, ethically and legally? Where will data be stored and backed up during the project's lifetime? How do you preserve and make available the data to others in the long run? They highlighted that research data management plans need to consider a broad spectrum of potential users, e.g. industry or potential partners outside academia.

Social innovation-as-practice

This analysis shows that the SPARK programme contributes to a) supporting researchers in their own work by further developing their research results into actions for societal usefulness and b) establishing an arena that can contribute to creating a culture for working with social innovation within the university. By addressing the two research questions through a qualitative analysis of the pilot projects and programme, the analysis reveals how

the social innovation programme operates within a university's existing managerial, financial and social structures to facilitate researchers' work with social innovations. The analysis also shows ways in which the social innovation programme contributes to building a physical, intellectual, managerial, and logistic environment that can create a culture for innovation. The programme has given both the project participants and additional attendees at the Forums tools and information on how to work with social innovation in a university setting.

Participation in such an innovation programme can be conceptualised as establishing 'Social innovation-as-practice' at the university, as Figure 3 illustrates. This conceptualisation contributes to the literature on entrepreneurship-as-practice, emphasising the work with social innovations of societal relevance within HEIs. It entails researchers adopting a different approach toward innovation, such as changing their mindsets by embracing organisational values and culture aligned to social innovation (Hannon, 2013). This is by no means due to resistance to changes as commonly experienced with other organisations, but it takes effort to appreciate the need to adjust accordingly to the changing landscape in HEIs, especially in an operating environment where resources provided by the government are becoming scarce.

The work with establishing the pilot projects and programme described earlier involve changes in the four components, which Schatzki refers to as i) 'practical understandings' that is, the 'know how' and understanding 'how to go on' with an activity; ii) 'rules' that are explicit directions, instructions, admonishments; iii) 'teleoaffective structures' that are normatively ordered arrays of ends, orientations, and associated affective engagements; iv) 'general understandings' that are common to multiple practices and condition the manner in which practices are carried out (Schatzki, 2002). This paper shows that although it is only a pilot still in its early stages of being established, the programme has the potential to contribute to developing these four components.

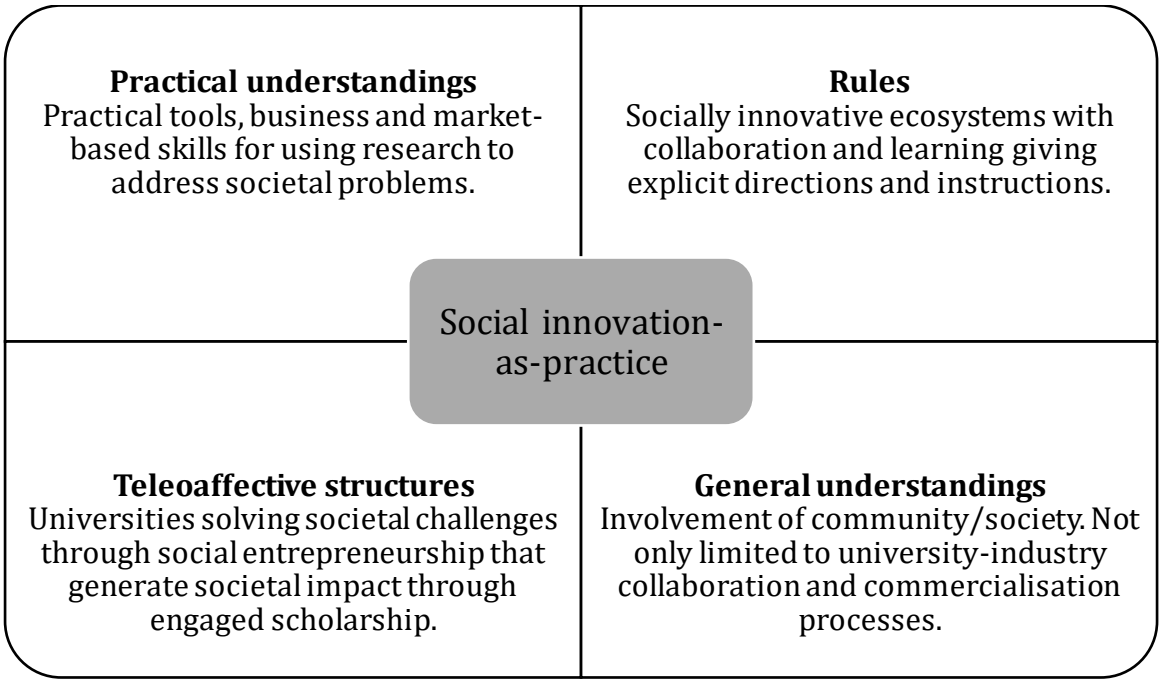


Figure 3. Four components of social innovation-as-practice.

Source: Authors' own research.

First, the projects have developed 'practical understandings' through joint activities, such as the Educational Forums, with practical tools to work with concrete challenges. The practical orientation of the projects where the researchers take a leading role in bringing business and market-based skills to social services to address societal problems, as articulated by Salamzadeh et al. (2013), can be instrumental in developing an entrepreneurial university. With reduced funding in HEIs, the urge to become innovative and contribute to society is increasing, strategically positioning the institutions as game-changers.

Second, the programme has shown examples of researchers approaching challenges concerning unclear recipients and formal recognition. Continuing these efforts by adjusting managerial, financial and social structures can generate 'rules' that can give explicit directions and instructions. The researchers in HEIs can, as argued by Estensoro (2015), contribute to the creation of functional structures by opening and maintaining spaces for collaboration and learning in social innovation, which gives rise to socially innovative ecosystems. Such ecosystems can, if properly exploited, enhance the network members' capabilities through a facilitated learning process.

Third, with increasing global societal challenges, HEIs are being called to prove their value. There are motivations for solving societal challenges and the need for universities to contribute links to 'teleoaffective structures'. With the reduction of government expenditure on publicly funded HEIs coupled with the increasing challenges affecting humanity, HEIs are being called to prove their value in society. The nature of HEIs, which are inclined toward the common good of society, holds the potential of deploying social entrepreneurship to generate societal impact through engaged scholarship (Munshi, 2010). This is different from profit-oriented organisations, which tend to be driven by economics-based opportunistic perspectives whose goal is to maximise productivity, sometimes at the expense of societal benefit.

Fourth, The SPARK programme contributes to 'general understanding' because of the involvement of community/society – not only limited to university-industry collaboration and commercialisation process. This is aligned with the assertion by Kumari et al. (2019) that social innovation brings multiple stakeholders together through a supportive framework for socio-economic development, whereby their diverse backgrounds and perspectives can give rise to an environment that is conducive to social entrepreneurship. The engagement of the different stakeholders, particularly local communities, is important in generating solutions that are responsive to the needs of the users.

A 'social innovation-as-practice' conceptualisation can contribute to operationalising efforts of establishing and developing Knowledge Transfer Offices (KTO) in HEIs. These efforts go beyond University-Industry Collaboration and Technology Transfer Office responsibilities and focus instead on knowledge transfer to the social sphere (Agrawal, 2001; Kreiling & Scanlan, 2020). A shift to entrepreneurial HEIs is highly dependent on the managers of university KTOs (Sharifi et al., 2014), and it requires institutional organisation of knowledge transfer (van der Heide et al., 2008). The role of university KTOs is not to commercialise research outputs, as stated by Zhou and Tang (2020). Instead, KTOs transfer knowledge from universities and educational institutes to industry *and* society (Arnold et al., 2012), and this is where 'Social innovation-as-practice' can contribute.

Conclusion

With the first research question, the paper mapped work with the pilot projects with initial motivations, early engagements in the programme, and future participation expectations. This connects to how the programme operates within the university's existing structures. The second research question elaborated on the implications of this work, looking at how the innovation programme contributes to creating a culture for social innovation at the university. The results showed how the SPARK pilot contributed to a) support researchers in their own work by further developing their research results into actions of societal usefulness and b) establish an arena that can contribute to creating a culture for working with social innovation within the university.

First, the analysis showed how the *pilot projects* work with unlocking the potential of research and solving challenges with recipients and recognition. It also summarised the main objectives of participating in the programme by aiming to increase capability and maturity by supporting the network, team and plan development and aiming to reduce risk and uncertainty by handling legal, ethical and financial challenges (see Figure 1).

Second, the analysis showed how the *pilot programme* contributed with academic theories, inspirational experiences and practical tools to reach these objectives (see Figure 2). The joint activities served three main purposes of a) Learning about new theoretical themes to enlighten and invite to discussions. For example, the role of academia and universities in engaging in social innovation; b) Sharing experiences for inspiration. For example, social entrepreneurs from academia sharing their innovation journeys; c) Practical input on how to work with concrete challenges. For example, how to approach the public sector for demand and data management when moving from research to innovation.

Third, how this contributes to formalising and internalising work with social innovation as a 'social practice' in HEIs was discussed. Participation in such an innovation programme can be conceptualised as establishing 'Social innovation-as-practice' at the university (see Figure 3). This conceptualisation contributes to the literature on entrepreneurship-as-practice, emphasising the work with social innovations of societal relevance within HEIs. A 'social innovation-as-practice' conceptualisation can contribute to operationalising efforts of establishing and developing Knowledge Transfer Offices (KTO) in HEIs. This involves the dual work of both specific support to researchers and projects and general efforts to establish arenas and programmes that create a culture for social innovation.

Future studies could further develop the concepts of 'social innovation-as-practice' in HEIs. This study has limitations due to its narrow scope looking only at preliminary and early work with the innovation programme and using data only from this. Further research can approach the existing internal and external university structures hindering or helping social innovation programs. Additional methods to collect more data could support such work, for example, stakeholder workshops, interviews with participants and observations. Other stakeholders that are not included here, for example, leadership positions and management staff in the university, could be included. Further studies should also consider funding bodies that drive research.

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