The state of industryacademia collaboration in the social sciences, humanities and arts

Perspectives from the Nordics and beyond



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vaikuttavuussaatio.fi ISBN: ISBN 978-952-94-8551-2



Introduction

Encouraging impactful industryacademia collaboration in the social sciences, humanities and arts

The social sciences, humanities and arts have largely been absent from the landscape of industry-academia collaboration. This whitepaper explores the relationship between these disciplines and industry collaboration and looks for ways of removing barriers to collaboration.



In recent years public debate has increasingly highlighted the relevance of the social sciences, humanities and arts (SHAPE) in understanding humanity, the functioning of society and addressing societal challenges.¹ It is widely recognised that these disciplines can contribute to the positive development of society.

The purpose of this whitepaper is to contribute to the discussion on how impactful collaboration between SHAPE disciplines and industry could be furthered to benefit academic research, industry and society as a whole. Our aim is to encourage both academics and industry representatives to engage with this information and to use it to inspire and shape future collaboration.

Collaboration with private enterprises is a key way of achieving impact for scientific research. It can provide researchers with access to unique data, demonstrate the impact of research in practice and help in scaling research findings to benefit society more broadly.² In return, collaboration can equip enterprises to better meet future challenges.

Traditionally, the STEM disciplines (science, technology, engineering and mathematics) have been more active in collaborating with the private sector when compared to the SHAPE

What is SHAPE?

We use the acronym SHAPE to refer to the broad spectrum of social sciences, humanities and arts and their role in society and the global economy. Coined by the British Academy in 2020, SHAPE is an update to the earlier acronym SSH or AHSS It stands for "Social Sciences, Humanities, and the Arts for People and the Economy".¹² The British Academy defines SHAPE as a "collective name for the social sciences, humanities and the arts - subjects which help us make sense of the human world, to value and express the complexity of life and culture, and to understand and solve global issues". Examples of SHAPE disciplines include (but are not limited to) languages and linguistics, history, psychology and cognitive sciences, economics and business, geography, media and communication, law, education, philosophy, theology and anthropology.¹³ The need for a new acronym reflects the evolving interest in including these fields in the societal and economic context.

disciplines.³ These fields are more concerned with the straightforward commercialisation of science and thus with outcomes, such as the application of patents, the selling of licences and setting up spin-out companies than SHAPE fields⁴. All these outcomes are measurable, making it easier to demonstrate the impact of STEM research.

In contrast, research in SHAPE disciplines is often more qualitative and abstract, making it harder to articulate the societal impact of this work.⁵ People working in the business sector may also struggle to see the practical applications of SHAPE research.⁶

This is reflected in the funding applications received by the Finnish Research Impact Foundation. Only 8% of all applications represent projects that involve SHAPE disciplines.7 Within SHAPE, the primary societal engagement activities are formal or informal consultation, commissioned research and public lectures,⁸ and there is more collaboration with public sector organisations than with private enterprises. However, SHAPE research can provide industries with creative approaches, analytical tools and the human perspective they need to address complex social phenomena, such as the impact of AI on work and human interaction or social and environmental sustainability issues.

Existing frameworks to measure impact and the ways impact is discussed tend to favour a particular type of collaboration between industry and academia. For example, funding models designed to support such collaboration often prioritise large-scale multidisciplinary projects and emphasise the achievement of quantifiable impacts on organisational competitiveness.9 This orientation may be alienating for SHAPE researchers, whose contributions are often geared towards activities that do not directly contribute to product and service development processes and thereby lack a straightforward and easily arguable link to organisational innovation.

The contribution of research to innovation is typically viewed from the narrow perspective of technical or scientific development within a given project, process or product. In order to enhance collaboration between SHAPE disciplines and private enterprises, innovation should rather be interpreted as a set of processes such as discovery, creativity, incubation and diffusion, alongside knowledge exchange between actors and institutions.¹⁰ Innovation can and should be seen as something that happens on all levels of an organisation, as a culture rather than a process. ¹¹

By providing in-depth understanding of human behaviour, culture, creativity, history and society, SHAPE research can drive ethical and sustainable innovation as well as the development of innovative cultures in organisations.

The next chapter presents four global trends that call for increased collaboration between SHAPE disciplines and enterprises. The second chapter describes the status quo of industry-academia collaboration from the perspective of SHAPE researchers and enterprises. In the third chapter we explore what encourages such collaboration by introducing perspectives, pilots and trials that have sought to bridge the gap between these two spheres in different countries. The fourth chapter focuses on how to move forward and enhance collaboration between SHAPE disciplines and private enterprises. We end the report with an executive summary and prompts for actions that can be taken immediately.

This report is grounded in a sixmonth-long investigation that has included a roundtable with representatives of Finnish academic institutions and other stakeholders, in-depth qualitative interviews with European experts and an online survey for Finnish academic and industry representatives. Further details about our methods are provided in part five of this whitepaper.



Part 1

Four global trends that call for increased collaboration between SHAPE disciplines and enterprises

A multitude of current trends in industry and society suggest that now is the time to investigate the value of the social sciences, humanities and arts to the private sector and our societies. Below we describe four current societal trends where collaboration between SHAPE disciplines and enterprises could have meaningful impact.

TREND 1: Societies are grappling with human problems that require multifaceted solutions.

Societies are facing major polarisation challenges: the ageing population is growing, inequality is increasing, and unemployment and mental health issues among young people are on the rise. The COVID-19 crisis has exacerbated existing societal problems and at the same time accelerated digital development and organisational changes, such as remote and hybrid work. These rapid changes have left many societies and enterprises in a state of flux and adaptation. To address and resolve these issues, SHAPE disciplines are needed to build a multidimensional understanding of humanity and the functioning of society - something that STEM fields cannot do on their own.

TREND 2: Artificial intelligence is shaping the way we work, interact and manage human relationships.

The most recent advances in AI have been brought about through interdisciplinary research and industry collaboration. The application of AI technologies presents challenges not only for technology developers but also for the workforce, policymakers and governments. They all need an understanding of what is possible not just in technological terms but also from an ethical and legislative perspective. The further evolution of AI-human interaction encourages increased involvement of researchers and experts from outside the technology space.



TREND 3: The climate crisis is not being solved by STEM alone.

Technological innovations for green energy and climate-friendly consumption depend on the ability of societies to adopt them. To solve the ongoing climate crisis and its implications on society, SHAPE fields need to be more involved in corporate and government strategies. Technological innovations rely on comprehensive knowledge about human behaviour to solve and adapt to the widespread issues caused by climate change and to bring about the necessary behavioural change.

TREND 4: Customer-centricity is the driving force behind successful businesses.

In an AI-intensive digital era, customer-centricity is more important than ever before. Companies that understand the nuances of customer needs, preferences and emotions can design products, services and strategies that resonate with their audience. The social sciences, humanities and arts can offer a deep dive into historical and cultural contexts, foster creativity and provide data about consumer behaviour, enabling enterprises to make informed By integrating decisions. SHAPE disciplines, companies can develop a holistic understanding of their customers, which will lead to better engagement, loyalty and a stronger competitive edge in today's customer-centric business landscape.



60% of the academic survey respondents think that industry-academia collaboration would help them answer their research questions.



What societal issues does your research seek to address? Top 5 themes

- 1) Sustainability transition
- 2) Social equality
- 3) Healthcare, health, and well-being
- 4) Work transformation and workplace well-being
- 5) Use and impacts of technology

The issues addressed by our survey respondents in their research are related to the top 5 themes listed above. Research questions typically span two or more themes, reflecting the interdependence of various domains. For instance, researchers may study the use of technology from the point of view of promoting health and well-being or social equality, or they may study work transformation from the perspective of sustainability.

Part 2

The status quo of industry-academia collaboration within SHAPE disciplines

We asked academics to describe what their collaboration with industry partners currently looks like and what might be hindering this collaboration. The results highlight a need for more established forms of collaboration.

It is well accepted that scientific knowledge creates an impact through interactions where different stakeholders are involved in co-creating knowledge.¹⁷ By working closely with social sciences, humanities and arts researchers, enterprises gain access to knowledge and analytical methods that can pave the way to new solutions. For researchers, industry-academia collaboration provides access to data, processes and knowledge that can help further the academic impact of research as well as teaching.18 Collaboration with private enterprises also directs research towards questions grounded in practice, which in turn can enhance theoretical and academic knowledge.¹⁹

Previous literature has shown that the most typical forms of industry collaboration within SHAPE disciplines are consultancy, public lectures and one-off research projects, while large-scale research and development collaboration is marginal.²⁰ Our survey results are consistent with these earlier findings. Consultancy and lectures are considered the most prevalent forms of collaboration. However, 38% of our respondents had prior experience of joint R&D projects (see Figure 2).

Based on our open-ended question



Figure 2 – Survey results

What kind of collaboration have you had with companies?

(Respondents: academics, n = 81)

Lecturing	46%
Consulting	44%
Joint projects	38%
Skills & competencies development	38%
Commissioned research	33%
Joint publications	20%
Thesis supervision	20%
Joint courses and teaching	19%
Regional development projects	11%
Research infrastructure utilization	10%
Patents and licences	5% 🔵
Other	13%

regarding the amount and length of collaborative projects (N=99), 13% of respondents had one to five years of experience of either a single, longterm project or several shorter projects. 18% reported a high level of business collaboration and involvement in numerous joint projects during several years. The rest of the respondents had less than 12 months or no experience of collaboration.

Our survey results show that academics see industry collaboration as a great opportunity to widen their professional networks and increase the impact of their research (see Figure 3). Having access to new contacts ties in with increasing research impact because speaking to new audiences brings the research out of the university and into the wider society. Societal impact was a benefit that came across frequently in our in-depth interviews with experienced collaborators and experts. It was also mentioned by enterprises as an important outcome of these collaborations (see Figure 5). It appears that societal impact is a key benefit that can equally motivate both parties to engage with one another.



What specific benefits or value do you see for your research in working with companies?

(Respondents: academics, n = 107)



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What stands in the way of industry–academia col– laboration in the SHAPE context?

Our data shows that both academics and enterprises can derive benefits from collaborating with one another. Yet, industry-academia collaboration is not widespread in the SHAPE context. We wanted to understand what is keeping researchers and enterprises from working together so that we could then imagine viable solutions. In our survey we asked academics and enterprises to give open-ended answers to this question and discovered several obstacles to collaboration that we then labelled under the following seven categories. Because we received significantly more replies from academics than enterprises, the categories presented here are more representative of the academic perspective.

Lack of time and different rhythms

Academics feel that collaboration with enterprises is hampered by differences in time cycles and operational tempo. This includes challenges arising from shortage of time both within enterprises and academia. Time scarcity can hinder the initiation of collaborations and the realisation of their full benefits.

Finding contacts and initiating collaboration

One of the hurdles in academic-business collaboration is the difficulty of finding suitable contacts and cooperation partners. Researchers in the social sciences, humanities and arts often work alone and may thus lack networks that could help build bridges with the private sector. Additionally, established practices of cooperation and support structures for this kind of collaboration are difficult to find within universities.

Financial constraints

Financial constraints pose a significant challenge for academics who want to collaborate with enterprises. Enterprises have limited financial resources set aside for this kind of collaboration, and alternative financing options are scarce. Academics feel that the uncertainty of securing funding for collaboration can dissuade them from instigating the collaboration.

Lack of mutual understanding

Collaboration between academia and industry is hindered by a lack of



What obstacles and challenges have you encountered in working with and creating collaboration with companies?

(Respondents: Academics and industry respondents, n = 103)



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mutual understanding. This includes researchers' limited grasp of business needs, lack of industry awareness about researchers' expertise, uncertainty about applying research in a business context, language barriers, and the presence of prejudices and fears.

Trouble identifying common interests

Academics sometimes grapple with the challenge of aligning their interests with those of enterprises. The two sets of research goals and objectives can differ significantly, as can the underlying value systems.

Cumbersome collaboration agreements

The process of reaching collaboration agreements between academics and enterprises can be laborious. This includes navigating complex negotiation processes, addressing intellectual property rights (IPR) issues, agreeing on confidentiality questions related to the research results and complying with funding conditions.

Other challenges

Aside from the challenges mentioned above, there are other obstacles that academics encounter when collaborating with enterprises. These include dealing with personnel turnover, understanding the researcher's role, assessing enterprises' commitment levels, ensuring the openness of research results, and shouldering the responsibility for building and maintaining collaboration, which often falls on the researcher.



What do enterprises gain from these collaborations?

We have learned that industry collaboration can significantly boost the researcher's work and career. But what benefits do industry partners enjoy from this collaboration? Our findings show that SHAPE collaboration can be especially beneficial for companies in the service industries.

Most industry representatives who responded to our survey agreed that research in the social sciences, humanities and arts plays an important role in developing new ideas and innovations in the company. Some of the respondents' enterprises were rooted in these disciplines, and research collaboration was seen as a prerequisite for business development. In the context of technology development, SHAPE disciplines were recognised as essential for understanding the socio-technical implications of new technologies and innovations. Some responses highlighted the significance of SHAPE disciplines in broadening the perspectives of strategic endeavours, challenging conventional ways of thinking and working, and creating a deeper understanding of customer requirements. Furthermore, they

How to solve the challenges of time, initiating collaborations and financial constraints?

Time and operational disparities pose a common challenge in SHAPE collaborations. Academic research projects span years, whereas businesses seek quicker outcomes, causing a mismatch in pace. In section three of the whitepaper, examples show how academics attempt to address this by offering faster pathways for industry partners, like streamlined reporting or specialised workshops for mutual learning.

The challenge of finding contacts and initiating collaboration was frequently mentioned not just in our survey but also in our in-depth interviews, and we struggled to identify entities focused on establishing these networks. Currently, SHAPE collaboration is often considered optional rather than essential, limiting its potential to projects initiated by like-minded individuals convinced of its benefits. More contact between academics and businesses is necessary to increase collaborations.

SHAPE research receives limited funding for industry collaboration. Typical collaboration forms, such as consultancy and lectures, do not often fit the definition of industry-academia collaboration or funded as such. As such they may resemble freelance work. This absence of systemic approaches highlights the need to develop institutionalized practices to enhance industry-academia collaboration in SHAPE. were seen as instrumental in facilitating internal organisational development, including the promotion of change and the enhancement of organisational culture.

Industry representatives also agreed that collaboration with SHAPE researchers could help them solve future challenges such as ensuring a skilled workforce, dealing with sustainability concerns, and securing sufficient funding and profitability for their business. Most of our respondents had prior experience of research collaboration and saw it as an opportunity to develop the enterprise's competitiveness both from a product and service perspective and from a skills, knowledge and brand perspective (see Figure 5).

In our survey, 40% of the respondents represented service industries. This explains why the development of new services was seen as a pivotal benefit from the enterprises' perspective. However, previous research shows that SHAPE collaboration can be especially useful for service industry businesses.

A 2023 report prepared for the British Academy analysed commercial innovation through four comprehensive case studies with Tesco, Phoenix Group, Accenture and Netflix.²¹ The study found that as innovation in the services sector is primarily centred on meeting customer needs, SHAPE disciplines assume a pivotal role in the innovation efforts of service-based businesses. Research areas such as psychology, behavioural science, sociology and ethnography can be of crucial importance to companies whose success depends on how well they understand their customers' behaviour.

The study also shows that formal R&D projects are just one part of the services sector's innovation investment. The sector also depends heavily on internal sources of innovation. These internal sources can be ideas generated organically within the business, internal research and data, client and customer feedback, open innovation channels, partnerships with external innovators, partnerships with external consultancies and experts, ideas derived from market and competitor analysis, and collaboration with academia. The forms of academic collaboration mentioned by the interviewed companies included everything from fellowships and PhD programmes to research and student projects, commissioned research and gathering insights from existing academic research. This broader view of innovation invites us to examine academic research as an important contributor to



What specific benefits or value do you see for the company in working with researchers in the human sciences?

(Respondents: industry representatives, n = 26)



corporate innovation on multiple levels. If service and product development is not limited to traditional R&D functions, SHAPE academics could potentially add value to companies' innovation capacity by developing the ways in which ideas spread and move inside organisations and help employees stay innovative. These types of research collaborations are traditionally categorised under the title of organisational development rather than innovation.

The absorption of new knowledge,

strengthening skills and increasing operational efficiency may all be considered to contribute to the development of new services and products in one way or another. This encourages us to take a broad view when analysing the impact of SHAPE-industry collaboration, weighing the added value it generates across operations rather than considering its direct contribution to a specific service or product.

The close relationship between

SHAPE disciplines and the service industry has the potential to act as a positive case study that demonstrates the importance of these fields to commercial success. Considering that the services industry accounts for around 70% of the EU's GDP and employment,²² effective collaboration between SHAPE research and industry partners could lead to significant innovation potential and economic growth.



Part 3

What encourages collaboration between SHAPE researchers and enterprises? Perspectives and case studies

Systemic approaches to industry-academia collaboration in the context of SHAPE are still in their infancy, but discussions, trials and pilots are underway around Europe. We used our networks to find perspectives and case studies that could help inform the development of future collaboration. As we have learned so far, the motivations behind industry-academia collaboration are many and varied, and there is no single hurdle to be conquered and no magic bullet that could bring the SHAPE disciplines closer to corporate partnerships. However, some clues can be found by analysing prior successes.

In our survey, we asked both academics and enterprises what they thought had made their prior collaborations successful. The open answers (N=81) show that existing contacts and networks are crucial to finding the right collaborators and setting up the collaboration. Other key factors named by the academic respondents included finding a mutually interesting research topic and having a partner that was genuinely interested in the research, identifying and committing to clear targets, and having an understanding of the corporate world. Some respondents also said that trust and communications were key to delivering a collaborative project. Furthermore, access to existing funding was seen as a driver for collaboration.

Surprisingly, both the academics and the industry representatives attached more importance to finding the right problems to solve together with the industry partner (see Figure 6 and Figure 7). Accordingly, being able to make a societal impact was the third most important factor to encourage academics to collaborate with companies. Neither group of respondents considered financial returns a top priority.

Industry representatives, in turn, seemed to highlight the importance of their staff competencies in delivering these collaborations (see Figure 7). Our study has made it clear that these collaborations often result from personal contacts and some understanding of the social sciences, humanities and the arts as fields of science. If employees lack educational experience and connections with these disciplines, it may be hard for them to envision a project that relies on their expertise and to initiate such a project.

Agile funding mechanisms and support for establishing contacts could help initiate collaborations

Because the Finnish Research Impact Foundation provides funding specifically for industry-academia projects, we were especially interested in what kinds of support and/ or funding mechanisms could facilitate these collaborations in the SHAPE context. The academics' open answers (N=74) emphasised the following structures:

• Support structures aimed at fostering interactions between researchers and businesses, including organisational support for establishing contact with enterprises and platforms for engaging potential industry partners.

- Preparatory funding was identified as a valuable tool for identifying common interests, project planning, and launching collaborative pilot initiatives with enterprises.
- Funding that would enable companies to employ researchers for training periods.
- Agile, streamlined funding models with minimal bureaucratic hurdles, ensuring rapid responses when collaborative opportunities arise.
- Refinement of reward systems within universities and research organisations to incentivise collaboration with industry partners.

Industry respondents' suggestions (N=13) regarding support structures closely mirrored the preferences expressed by researchers. They emphasised the following structures:

- Agile funding models that can respond quickly when collaboration needs arise.
- A staged funding model that ensures longer term funding on condi-

tion that the objectives set for each stage are achieved. This approach would not only reduce barriers for industry partners to participate in collaborative research but also facilitate funders' commitment to supporting novel partnerships.

• Enhancing researchers' comprehension of business-related information needs.

To gain a deeper understanding of what kind of activities could enhance industry-academia collaboration within the SHAPE disciplines, we interviewed 16 experts and experienced collaborators whom we discovered through our networks. We quickly learned that the United Kingdom has been especially active in redefining the role of the social sciences, humanities and arts in relation to the economy and society, and we therefore decided to give space to a few expert voices from the UK. We also found interesting examples and perspectives from Sweden, Denmark and Ireland.

The following interviews and case studies offer insight into some key elements we found to be beneficial to increasing collaboration between SHAPE disciplines and industry partners.



What would encourage you to start or increase collaboration with companies?

(Respondents: academics, n=110)





What would encourage you to start or increase collaboration with researchers?

(Respondents: enterprise representatives, n=25)



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Interdisciplinary teams can forge connections between SHAPE researchers and enterprises: case Human+ at Trinity College

Human+ is a five-year interdisciplinary fellowship programme at Trinity College Dublin that brings together computer scientists and arts and humanities researchers in projects that focus on foregrounding the human experience in technology development. Dr. **Caitriona Curtis**, Executive Director of Trinity Long Room Hub, discusses its merits.

"The Human+ programme aims to provide opportunities for researchers from the arts, humanities and computer sciences to come together to address the challenges posed by technology. It also seeks to provide researchers with an opportunity to have deep interaction with the real world scenarios of industry and enterprise. Human+ is a partnership between Trinity's Arts and Humanities Research Institute, the Trinity Long Room Hub, and the ADAPT Centre for Digital Content Technology funded by Science Foundation Ireland. It involves interdisciplinary teams from computer sciences and engineering, and the arts and humanities to work together with an enterprise partner. Enterprise is defined in its broadest sense and includes cultural, civic and non-government organisations as well as businesses.

Establishing these connections requires a lot of brokerage and guidance from our team. Matching supervisory research expertise and interests and identifying potential enterprise alignment as well as forging interdisciplinary collaboration amongst the diverse backgrounds of the fellows is a demanding effort. But when it works, it is incredibly exciting for all involved and has great potential to be a vehicle for cross-cutting theme explora-

"At Human+ we believe the deep perspectives of the arts and humanities have a lot to offer in the space of human-centred technology."

tion and nurturing a community of cross-disciplinary experts.

The computer scientists have a lot more experience of engaging with industry than the arts and humanities and they bring their existing connections to the programme. It's been quite a steep learning curve for the arts and humanities side of the programme.

We actively sought enterprise partners who expressed interest in collaborating with these teams. Big consultancies, such as Accenture, recognise the potential of social sciences, humanities and the arts in their foresight exercises and appreciate the latitude that our disciplines can bring. For example, Accenture's human insights lab funded a lecture series with the Trinity Long Room Hub on what it means to be human and then became involved in our Horizon 2020 funded Shape-ID project on how to forge greater inter and transdisciplinary collaborations. They then became involved as an enterprise partner for Human+.

Other collaborations forged through Human+ have included companies such as AI-education company Adaptemy, AR & VR company Vologram and healthcare robotics company Akara.

In these projects, our researchers have been able to, for example, advance research on the ethical framework for AI and digital technologies, incorporate machine learning for new forms of customised learning and explore design dynamics between robot and user using feminist theories.



I can see the benefits a dedicated business development specialist could bring to the arts and humanities. Someone who understands and can translate what the deep insights and critical approaches of these research disciplines can offer to enterprise could help forge meaningful pathways and partnerships. They could help package the research goals and outcomes in a way that resonates with businesses. A specialist like this could fast-track these collaborations.

Pioneering initiatives like Human+ foster new collaborations and procedures within the research culture of the university and dismantle existing barriers. We know interdisciplinarity and cross-sectoral collaboration will take time to embed, this is just the beginning."

Summary

Interdisciplinary programmes can facilitate SHAPE-industry collaboration by

- dismantling existing barriers within the university
- nurturing a cross-disciplinary community
- helping connect SHAPE researchers with industry partners through other researchers

To be successful interdisciplinary programmes require:

 brokerage between different disciplines as well as external partners

Evidence on research impact is crucial to inspire policy-level change: a conversation with Hasan Bakhshi

One of the greatest debates around SHAPE industry-academia collaboration concerns the need to provide quantifiable data and evidence about the efficacy and impact of that collaboration. We discussed this matter with **Hasan Bakhshi**, who is director of the UK-based Creative Industries Policy and Evidence Centre and Professor of Economics of Creative Industries at Newcastle University Business School.

"Since the COVID-19 pandemic, we have seen an increasing interest towards SHAPE disciplines in the UK. This is because many of the societal consequences of the pandemic require human solutions. However, without proper evidence and data, the momentum built will unlikely lead to sustained progress," Bakhshi says.

He is currently working on improving the evidence base because he knows ministries won't make any funding decisions without economic evaluations of cost and effect. "We're sort of stuck in a position in the UK where we appreciate the importance of these disciplines for business innovation, or at least it's increasingly acknowledged, but there's no obvious way to act on that insight at the moment."

When politicians ask him how much he thinks UK businesses should invest in the social sciences, humanities and arts in their R&D, Bakhshi struggles to answer. "The problem is, we can't measure the impact of these disciplines using the conventional measures of R&D."

To measure the link between SHAPE disciplines and innovation, Bakhshi emphasises the need for well-designed pilot programmes like the 2009/2010 Creative Credits project, which ex"It's one thing acknowledging the importance of the humanities and social scientists, and another thing understanding how it specifically impacts business innovation."

plored how small and medium-sized companies engaged with creative industries.

Creative Credits, a business-to-business voucher system, was trialled in the Manchester city region in 2009– 2010. The participating SMEs received £4,000 in credits for purchasing creative services from their choice of creative services provider and contributed at least £1,000 of their own funds. The research employed a unique mixed-method approach that combined a randomized controlled trial, quantitative evaluation of the business impacts, and an in-depth qualitative study of what factors determined and shaped the impacts.

The results showed that Creative Credits fostered new connections between creative enterprises and SMEs, increasing the likelihood of SMEs undertaking innovation projects with new creative partners by 84%. Six months later, this collaboration was still a driving force for product and process innovations within the SMEs. The use of creative services also enhanced the SMEs' sales growth. However, the research revealed that longer-term impacts dissipated especially in cases where the enterprise viewed the collaboration as transactional rather than as a relationship which should be nurtured with future collaboration in mind.

The Manchester pilot focused on business-to-business collaborations, but it also holds relevance for research-business collaboration, notably through the concept of 'additionality'. Bakhshi believes the ability to show evidence on additionality is key in convincing decision-makers about the relevance of these kinds of collaborations. He and his team assessed network additionality, which involved creating new innovation networks through Creative Credits; output additionality, indicating quantifiable increases in innovation and business performance; and behavioural additionality, evaluating changes in organisational behaviour resulting from collaboration.

Bakhshi would like to see well-de-

signed, international trials across Europe as a means to gather robust data on research collaboration between SHAPE disciplines and enterprises.

Government bodies play an important role in defining voucher schemes and providing tax reliefs on R&D collaborations, but funders can also make an impact through the design of funding calls. Bakhshi suggests that the EU Horizon Europe programme as well as the various private SHAPE funders could create cross-national trials to gather a relevant and high-quality evidence base. "Practice informs policy and definitions, and policy then feeds on practice. Unless we get that sort of virtuous cycle going, this debate will never progress."

Summary

Creating trials to improve the evidence base can facilitate SHAPE-industry collaboration by:

- communicating the importance of these collaborations in a language that decision-makers are familiar with and thus impacting the premises for this collaboration, such as taxation, financial incentives, and voucher schemes
- showcasing quantifiable results that can inspire private enterprises to seek this kind of collaboration
- creating networks between funding agencies in different countries

To be successful the evidence base requires:

- well-designed and large-scale trials that can provide the necessary depth and scale of data
- a shared understanding of the R&D and impact terminology

Targeted funding can be an effective enabler but requires effort from universities – the Swedish case of Flexit funding

The Swedish Riksbankens Jubileumsfond runs a Flexit funding programme to enhance connections and knowledge transfer between SHAPE disciplines and society. Flexit funding is available for researchers in the social sciences and humanities, and it is intended to support collaborations with private, public and third-sector organisations. We discussed the funding with the foundation's representatives Torbjörn Eng and Robert Hamrén.

Participation in a collaborative project can significantly boost a researcher's career. According to Riksbankens Jubileumsfond, 31% of Flexit-funded researchers have received career opportunities outside academia, and those who have returned to academia after the project have typically been very successful in their academic careers.

Motivations to apply for Flexit funding range from general frustration with the academic system to uncertainty about career prospects. Some researchers use it as a way to continue their academic research and stay in academia, whilst others view it as a safe way to explore career paths outside academia. The funding is seen as an opportunity to connect theory to practice, solve real-life problems and find meaning for academic work.²³

Research manager **Torbjörn Eng** from Riksbankens Jubileumsfond says that organisations have been very satisfied with the knowledge transfer and have benefitted from having access to an in-house researcher.

However, the foundation has learned that knowledge transfer has been less efficient the other way around. Some of the Flexit-funded academics have reported that they struggled to consider the work they did for the organisations as 'real knowledge' as they felt it didn't meet their academic standards.²⁴ "It seems like universities have not been able to use the knowledge created by these collaborations to enhance their academic work. We have tried to solve this issue by involving the universities from the start of the project to define goals and objectives for each party involved" Eng explains.

Eng and his colleague, research

manager **Robert Hamrén** conclude that the biggest difficulty with the funding relates to finding researchers who want to apply. "Flexit funding receives fewer applications than our other calls and we believe it's due to the lack of networks. We hope the universities and institutions could help researchers build these connections," says Hamrén.

Summary

Targeted funding calls can facilitate SHAPE-industry collaboration by:

- reaching the right audience of collaboration-minded researchers
- providing examples of collaborations to motivate researchers and organisations

To be successful targeted funding calls require:

- university collaboration to reach the researchers and help them build networks with external partners
- clearly stated benefits for both parties involved

How does industry collaboration change the academic identity and skillset? Three researchers share their thoughts

Will engaging in industry collaboration erode the researcher's credibility within the academic sphere? Or will it allow an academic to make an impact that is not achievable within academia? Our interviews with academics showed that enhancing industry-academia collaboration is not merely a matter of mechanisms, but it also raises discussion about what it means to be an academic who operates in different spheres. We discussed the question of academic identity with anthropologist consultant Liubava Shatokhina, professor Alf Rehn and principal lecturer Johanna Vuori.





Liubava Shatokhina pursued degrees in the philosophy of culture and later in social sciences and anthropology. Living in Russia at the time, she engaged in political activism, organising events and gatherings in support of disadvantaged, anti-fascist and feminist groups. It was purely coincidental that she was approached at her university to assist with an applied business research project.

"I had mixed feelings about working for the benefit of companies. It was fun and interesting, but I was also very anti-capitalist at that time."

However, the opportunity led Shatokhina to undertake freelance work for companies outside of Russia, helping them gain insights into Russian culture and sparking her interest in applied social research. She began to contemplate the idea that perhaps there should be individuals who engage in dialogue about the changes they aspire to bring about, whether that dialogue took place with the capitalist system or the government.

"I still believe in political activism, but I also see a clear need for individuals who contribute to improving aspects of society that are not functioning optimally."

Presently, Shatokhina combines her anthropological background with business through her research role at Gemic, a global consultancy specializing in strategy and innovation. She is also a board member at Human Sciences in Strategy, an association dedicated to fostering a community of human scientists interested in business strategy work. In these roles, Shatokhina feels she can contribute to business development from within and speak to people in power.

"In strategy consulting, you are there to understand. Most of the time, you can even criticise what the company is doing but then you need to suggest alternatives. This is different to academic or activist critique, where you just state your opinion without helping to facilitate the change."

Shatokhina knows that many small companies and NGOs have difficulty allocating resources for consultancy services, yet this could help to forge research collaboration with academia. This approach, particularly from the academic standpoint, offers a valuable means to identify pertinent research topics instead of selecting them at random. Stepping into a more consultancy-type role alongside academia can also create a different rhythm of work for an academic as well as a sense of achievement.

"I appreciate the straightforward nature of project-based consulting work. There is no contemplation about whether I have exhaustively researched every possible aspect or read every existing source. You complete the work and move on."

Professor **Alf Rehn** believes that the depth of research work may well be the most significant distinguishing factor between academic research and consultancy-type re-



search. It's possible to delve into the same research topics but on vastly different timelines, and this is a skill that academic consultants often need to acquire. Rehn holds the position of professor of innovation, design, and management at the University of Southern Denmark and actively engages in both academic and consultancy work as well as in joint research projects. He believes there are important advantages to having the ability to operate in both contexts.

Rehn says he fully acknowledges the challenges of maintaining high academic integrity while striving to produce results within a timeline set by a business partner. He notes that for academics, the idea of conducting research within a three-week timeframe can be quite bewildering as it contradicts the traditional academic approach. "In my experience, many researchers feel uneasy about anything less than full-scale academic research efforts," Rehn says.

Through years of experience with companies, Rehn is confident that companies don't have the time to read academic papers and need something easier and faster to make use of research. To bridge this gap, Rehn has found a solution in producing condensed versions of reports for companies within their timelines and subsequently using the same con-



tacts to conduct more rigorous academic research for his own scholarly purposes.

"I've come to understand that in order to establish and maintain collaborations with corporate partners, I must adhere to my academic principles where applicable but also remain flexible enough to meet the company's needs," says Rehn.

He believes that producing what he humorously calls 'quick and dirty' versions of academic reports need not conflict with a researcher's identity but can, in fact, open up new channels for knowledge dissemination.

"People who are willing to operate within these intermediate spaces can have a profound impact on the dissemination of research. They are the ones who can bring knowledge into arenas to which traditional academics do not have access." Johanna Vuori, a principal lecturer at the Finnish Haaga-Helia University of Applied Sciences, has dedicated nearly her entire research career to academia-industry collaborations, as her primary research interest resides in management studies. Having worked closely with corporate partners, she possesses a deep understanding of the essential skills required to establish connections and foster mutually beneficial collaborations.

She places particular emphasis on the value of teamwork and sales processes as instruments for facilitating collaborations that generate value for all parties involved. When referring to teamwork, she highlights the practices used by academic teams when writing funding applications and negotiating corporate partnerships. She provides an example where her team used shared documents and Excel sheets to manage the 'sales process' of a research project. "We collectively decided who would contact which organisation and when. Each team member had to pick up the phone and get involved," she says.

In Vuori's projects, the team has consistently presented companies with a clear proposal outlining how the collaboration would benefit the company and the specific actions that would be undertaken.

In the MoDe project funded by Business Finland, the team conducted research into self-managing organisations and offered participating enterprises ten masterclasses that enabled them to engage in discussions with their peers. "These gatherings were the most significant benefit of this research-industry collaboration because they provided an invaluable safe space for companies to learn from one another," she remarks. Vuori firmly believes that communication and sales skills are essential for academia-industry collaborations, irrespective of the scientific field. She encourages academics to view social media as a channel for building networks that can ultimately lead to collaborations. "If researchers actively participate in social discourse and recognise the advantages it brings to their work, the divide between researchers and companies can be bridged."

Summary

An open conversation about the academic identity can facilitate SHAPE-industry collaboration by:

- breaking down beliefs and prejudices about industry collaboration
- developing the academic's intrinsic motivations for these collaborations
- understanding the skills and mindset required to become successful and satisfied researcher in these collaborations

To be successful the conversation about the academic identity requires:

· honesty and vulnerability to welcome all views, fears and doubts

Existing knowledge creation practices can encourage enterprises to connect with researchers – The case of pension fund Ilmarinen and Uniarts Helsinki

The Finnish pension fund Ilmarinen was encouraged to collaborate with The University of Arts Helsinki (Uniarts) because they wanted to publish new insights about the well-being of Finnish pensioners. Data analyst **Jouni Vatanen** from Ilmarinen shares his experience of collaborating with arts research.

"Our collaboration with researcher Tuulikki Laes from Uniarts began through personal connections. Jaakko Kiander, our Director of Communications and Corporate Responsibility, had pre-existing ties with researchers at Uniarts. After several discussions, we realised that exploring the relationship between pensioners and the arts would make for an intriguing topic for our annual seminar, iAreena. This seminar serves as a vital platform for presenting new knowledge relevant to pensioners, motivating us to delve into their lives and well-being. Without this seminar, it's uncertain whether this collaboration would have materialised.

The research topic itself was pro-

posed by the researcher. She had previously been investigating the role of arts and culture in the lives of children and adolescents as part of a strategic research project called ArtsEqual and expressed an interest in extending this research to include pensioners. Finding common ground between Laes's research and the mission of Ilmarinen took some time. Our legal team insisted that the research should stay closely aligned with the realms of workplace well-being and work capacity. Consequently, we introduced some research questions that would yield insights most pertinent to our business.

Ultimately, the research centred on how and why pensioners engage in "Arts research can best support business when we are creating something entirely new, rather than validating pre-existing assumptions."

arts and cultural activities and how this engagement influences their perceived well-being. This research provided us with valuable insights into the significance of art and culture in the lives of pensioners. Additionally, the seminar where this research was presented garnered significant success and attracted interest from our collaborator, The Finnish Association for the Welfare of Older Adults, as well as the Finnish media.

Although we didn't actively seek specific impacts or measure them, the research and its presentation at the seminar likely had a positive effect on our brand. It prompted us to reflect on the connection between pensioners and art and its importance in their well-being, a topic that might not have otherwise crossed our minds.

I believe the value of collaborating with arts and humanities research lies in it offering fresh perspectives and uncovering underlying needs. It would be highly beneficial if there were a more systematic way to facilitate such collaborations. A service or platform could forge connections and help us find research that is most relevant to us."

Summary

Existing knowledge creation practices within private enterprises can facilitate SHAPE-industry collaboration by:

- motivating the need for new and different research collaboration
- establishing networks with academics
- developing an understanding of the varied benefits of industry-academia collaboration

To be successful in delivering multidisciplinary research perspectives, existing knowledge practices require:

- key people within the organisation who are already connected to SHAPE fields
- brokerage from universities or researchers

A new language for entrepreneurship and innovation could inspire more industry-academia collaboration: insights from Aspect

Aspect is a SHAPE Platform for Entrepreneurship, Commercialisation and Transformation which describes itself as a network for organisations looking to make the most of commercial and business opportunities from SHAPE research in the UK. Aspect discovered that choice of language can play a pivotal role in fostering industry-academia collaboration.

The realm of entrepreneurship is often dominated by catchwords such as wealth creation, profit, investments, commercialisation and innovation. Aspect has conducted a comprehensive study on the significance of language in motivating SHAPE academics to engage with the private sector. Their findings have shown that language associated with social impact is more likely to spark the interest of SHAPE academics than language tied to economic impact. In fact, the use of business jargon may put SHAPE academics off altogether. Consequently, institutions that aim

to support and encourage academics to embark on private sector engagement projects or to set up their own enterprises may need to reconsider how they present and communicate the potential of entrepreneurship, commercialisation and industry collaboration. A more nuanced and socially impactful approach to 'selling' these opportunities could yield more favourable results and spark an entrepreneurial mindset.

To find the right language, Aspect has compiled a list of do's and don'ts for adapting entrepreneurial language to suit the interests of SHAPE academics. This list recommends, for example:

- Avoiding jargon such as 'disruptive 10x return' and 'high-growth enterprises' and giving preference instead to an understanding of entrepreneurship that is inclusive to all different sizes, including freelancers and small businesses.
- Understanding the different motivations behind becoming an entrepreneur, especially those that go beyond making a profit and focus on delivering societal impact.
- Accepting that innovation can also mean changes to policy, development or other practices in addition to business development.²⁵
- Using phrases such as 'private sector engagement' instead of 'business engagement'.
- Speaking of 'impact through commercial markets' might be a good way of phrasing the various opportunities available to SHAPE researchers in the private sector instead of forcing upon them a specific type of collaboration, such as creating a startup.²⁶

By unlocking the meaning of language used about private sector engagement, we can start to understand how different universities and funding agents should approach industry-academia collaboration and what kind of support academics need to initiate this collaboration.

Language is an important vehicle for creating mutual respect. It allows both parties to become proficient in each other's dialect. For academics, it is useful to have the ability to convey the significance of their work from various perspectives and through multiple linguistic lenses. One language might pique an academic's interest, while another might captivate their enterprise partner. Collaborative goals can be effectively shared, even when expressed in two distinct linguistic frameworks.

Aspect has since continued its work by providing SHAPE academics with a wealth of online training materials together with its member universities.

Summary

Changing the nuances of business language to suit the interests of SHAPE researchers can facilitate SHAPE-industry collaboration by:

- giving SHAPE academics more control over how and why the collaboration is interesting and innovative
- increasing intrinsic motivation for collaboration
- creating a common, inclusive language that both parties can relate to

To be successful the development of new nuances requires:

- a mutual desire from all involved parties to understand each other
- developing skills to adapt language according to each audience's needs



Learn more

Examples of organisations and ongoing initiatives in Europe that strive to increase the impact of SHAPE disciplines

<u>SHAPE-ID</u> is an EU-funded project addressing the challenge of improving interdisciplinary cooperation between the social sciences, humanities and arts and STEM and other disciplines.

<u>University of Cambrige Enterprise</u> facilitates collaboration between academics and enterprises through academic consultancy opportunities, discovery of robust technologies, investment opportunities and commercialisation of scientific ideas.

<u>Creative Informatics</u> is a research and development programme based in Ed-

inburgh which provides funding and development opportunities that enable creative individuals and organisations to explore how data can be used to drive groundbreaking new products, businesses and experiences.

Edinburgh Futures Institute brings together 21 schools across Edinburgh to collaborate at scale with businesses.

<u>Ekip Engine</u> project is a European Commission project that strives to develop innovation policies for the cultural and creative industries.

EPIC is a global community of researchers, creators, innovators and leaders doing ethnography for impact in businesses and organisations.

Part 4

How to move on and enhance collaboration between SHAPE disciplines and private enterprises

Our findings conclude that the task of enhancing collaboration cannot be accomplished by any one funder, academic organisation, researcher, academic or enterprise alone. The necessary changes may be structural, political and technical, but none of these changes can happen without dialogue and collaboration among all the parties involved.

Executive summary

We started this investigation by asking why the social sciences, humanities and arts do not feature more prominently in the landscape of industry-academia collaboration. We identified three main challenges and outlined potential solutions based on our findings to overcome these obstacles.

01 Systemic approaches to collaboration need to be developed to increase collaboration

The challenge: SHAPE researchers and enterprises share a mutual interest in working with each other but struggle to make this happen. The birth of successful collaborations is dependent on individual awareness and interest, and on chance. A more systemic approach requires involvement on the part of universities, academic organisations, researchers, funders and enterprises.

Potential solutions could include:

- Creating funding calls that are targeted at SHAPE disciplines and that encourage industry-academia collaboration.
- Supporting academics and enterprises to set up mutually beneficial projects.
- Increasing diversity in corporate leadership to include people with backgrounds in the social sciences, humanities and arts or educating current staff about the benefits these disciplines can offer.
- Facilitating open-minded discussions about what it means to be an academic who collaborates with the private sector, exchanging experiences with other academics and defining the benefits of this type of collaboration from the academic's perspective.

02 Industry-academia networks are key in facilitating collaboration

The challenge: SHAPE academics typically work in very small teams or alone and on small budgets. The lack of teamwork and largescale projects limits the number of potential contacts for these academics and means they cannot create extended networks through other team members. Without appropriate networks, it is hard to imagine a collaborative project, contact potential collaborators or apply for funding.

Potential solutions could include:

- Building interdisciplinary research teams that help to broaden networks and make new connections.
- Creating networking events where researchers and enterprises can meet.
- Encouraging brokerage from academic organisations to establish relationships and connect the right academics with the right enterprises.
- Creating easy-to-access digital platforms or university consultancies that can help enterprises get in touch with the right researchers.

03 We need more versatile means to discuss and evaluate research impact

The challenge: In private enterprises, the language and discourse of impact are typically focused on economic outcomes and quantifiable results. Success is measured in terms of patents, products and revenue, which are typically not areas in which SHAPE disciplines can bring most value. Because of this, SHAPE disciplines are often excluded from traditional innovation and R&D spaces but rather employed in other areas of business, such as organisational development. This is not necessarily a problem, but it can limit the potential of academia-industry collaboration and reduce its impact.

Potential solutions could include:

- Increasing data and evidence on the impact of collaboration through carefully designed trials.
- Developing impact measures that reflect the unique nature of SHAPE research.

- Defining the added value that SHAPE disciplines can bring and communicating it effectively, also through quantifiable measures.
- Challenging the language of innovation and impact to embrace not just economic but also societal, environmental and other types of impact.
- Providing academics with the necessary skills to talk about their research from the perspective of impact.
- Demonstrating case studies of successful collaborations and their impact on both parties involved.

The next steps that each organisation involved in this space can take

This investigation has shown that SHAPE disciplines hold untapped potential that can enrich the ways in which companies innovate and develop their current practices. We are still far from systemic approaches to enhance this collaboration, but that does not mean these approaches are inconceivable.

In this moment, we need to effectively communicate the potential and the proven benefits of these collaborations to help them gain wider traction among academics and enterprises. We also need to increase dialogue between academia and the private sector to establish a shared language and build networks.

We firmly believe that the social sciences, humanities and arts can provide deeper insights into the future of humanity; foster creativity to innovate in unprecedented ways; and help build bridges between cultures and groups. These are all aspects that enterprises must grasp and build upon for future success.

The next steps that academic organisations, funders, enterprises and academic researchers can take

We invite every reader of this whitepaper to ask the following questions within their organisation:

Academic organisations: How could we make it easier for enterprises to find relevant social sciences, humanities and arts research and set up collaborative projects? How could we make it easier for our academics to connect with the private sector and find partners that can help them create societal impact through their research?

Funders: How well do our current funding calls reach SHAPE academics? Is there something that we need to understand or change in our funding calls to better serve this group?

Enterprises: Have we recognised the potential of social sciences, humanities and arts research for our business? Do we have people in-house who could help establish an understanding of the impact of these fields and create connections with universities to see what they have to offer?

Academic researchers: What is my current understanding of private sector collaboration and its benefits for my research? Is there someone at my university or in my existing networks who could help me understand this better and forge connections with potential corporate partners?

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Part 5

Authors, methodology and references

This section introduces our methodology, the authors of the report and the references and sources mentioned in the text.

Our methodology and acknowledgements

The views presented in this paper are based on the results of a six-month investigation of the current status and future prospects for collaboration between enterprises and the social sciences, humanities and arts. The investigation has included a roundtable with representatives of Finnish academic institutions and other stakeholders, in-depth qualitative interviews with European experts and an online survey for Finnish academic and industry representatives. This whitepaper is not an academic paper nor should be treated as such.

All the graphs in this whitepaper are based on the results of our online survey.

The survey was open from 15 August 2023 to 15 September 2023, and we used a snowball method to recruit respondents and disseminate the survey to Finnish universities and research organisations and to the Finnish Research Impact Foundation's business networks. The respondents were academics who had actively collaborated with industries, or who had intended to do so but had not yet had the opportunity. We received 137 responses, 81% of which were from academia and 19% from businesses in Finland. Thank you to everyone who responded or shared the survey within their networks.

In addition to the survey, we conducted in-depth interviews with 16 people from Finland, Sweden, Denmark, Ireland and the United Kingdom. These people were chosen because they possess extensive experience or expertise in industry-academia collaboration and have been at the forefront of developing new practices to nurture these partnerships. We discovered that the UK has been most active in initiating this discussion and in advancing the roles of SHAPE disciplines in society. This is why the whitepaper includes several British examples.

The people we interviewed for this whitepaper are listed below. We wish to thank each of you for your participation and insight and hope to continue our discussion in the future: Hasan Bakhshi, Caitriona Curtis, Jaana Erkkilä-Hill, Torbjörn Eng, Robert Hamrén, Maarit Haataja, Tuulikki Laes, Nando Malmelin, Solveig Roschier, Merja Sagulin, Liubava Shatokhina, Tiia Saarinen, Kati Uusi-Rauva, Jouni Vatanen, Johanna Vuori, Alf Rehn.

About the authors

Aurora Airaskorpi is the first author of this whitepaper and conducted the in-depth interviews. Specializing in scientific and societal topics, she is an independent writer and coach and works closely with the Finnish Research Impact Foundation. Her 2022 book *Freedom Seekers* explores questions of creativity, freelancer culture and artist careers. Through her company High on Hope, she coaches entrepreneurs, creatives and researchers with projects and businesses that strive for societal impact. She holds a Master's Degree in social sciences.

Outi Vanharanta is Research Impact Officer at the Finnish Research Impact Foundation and the second author of the whitepaper. She was responsible for the online survey and the literature review that informed the initiation of this work. She is dedicated to unravelling the wide range of impacts of industry-academia collaboration and developing new ways to foster partnerships between academic researchers and industry. She holds a PhD in Economics and Business Administration and has over ten years of experience in research collaboration with large companies and SMEs.

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