

ACCOMPLISSH



ACcelerate CO-creation by setting up a Multi-actor PLatform for Impact from Social Sciences and Humanities



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ACCOMPLISSH

DELIVERABLE:

Work Package 2:

Quadruple Helix Co-creation in SSH- Experiences, Considerations, Lessons Learned

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Recommendations in brief

This report is part of Work Package 2 in the ACCOMPLISSH project. It includes the results and conclusions from 14 focus group interviews with quadruple helix partners in 12 countries. Having considered, planned and worked with quadruple helix collaboration and co-creation in the fields of Social Sciences and the Humanities (SSH), the authors of the report can come with the following recommendations:

- *Allocate reasonable time, sufficient financial funds and adequate human resources*
- *Involve all stakeholders when defining the common area of concern from the outset*
- *Nurture stakeholder relationships*
- *Address differences in institutional logic, rationale, incentives and roles*
- *Address differences in nomenclature, language and modes of communication*
- *Challenge one's own and each other's thinking*
- *Provide platforms and spaces for interaction*
- *Make use of facilitators and translators, and intermediaries to optimise collaboration*
- *Learn from good practice and research*
- *Address questions of impact, validation and valorisation from the outset*
- *Make the case for SSH*

Introduction

Europe 2020, the European Union's ten-year growth strategy, aims at delivering smart, sustainable and inclusive growth. The strategy sets targets in the areas of employment, research and development, climate change, education and poverty, and social exclusion for the coming decade. It is within this context that the Horizon 2020 scheme highlights impact, co-creation, and quadruple helix cooperation vehicles for innovation and in response to societal challenges. It is also here that the knowledge and research results of the social sciences and humanities (SSH) play a crucial role.

At the same time, definitions and understanding of such concepts are ambiguous if not even contradictory, which makes it difficult to determine their applicability and effectiveness. This being said, there is a need for clearer definitions and viable and measurable valorisation processes to determine the value and outcomes of such processes. By the same token, there is a need to move beyond concepts and models into the actual work with these matters: to talk to the people from academia, government, industry and societal partners about their experiences with co-creation and the considerations these experiences have involved and the lessons that have been learned.

To move beyond traditional and linear valorisation approaches (i.e. from academia to society), it is frequently claimed that quadruple helix actors need to be committed to and actively engaged in co-creation. Yet, due to its being boundary transgressive, co-creation is multifaceted and seldom naturally occurring. Also, collaboration and co-creation are often obstructed by differences in organisational culture, organisational logics and ideological disagreement among the actors involved.

For all the reasons above, the ACCOMPLISSH consortium, made up of 14 universities from 12 countries (representing a range of SSH sub-disciplines), is engaged with a variety of quadruple helix partners from government, industry and society.

By setting up a multi-actor platform for SSH impact, ACCOMPLISSH is in the process of establishing a platform for dialogue wherein academia, government, industry and societal partners, jointly and equally, identify barriers and enablers of co-creation – with the intent of initiating, widening and optimizing co-creation. An integral part of reaching this objective is "analysing co-creation in theory and practice", as stated as the desired outcome of Work Package 2 in the first year of the project cycle. More specifically, the scope of Work Package 2 is to analyse SSH impact, co-creation frameworks and methods of valorisation. Project deliverables are (see also Appendix 1):

- Protocols and guidelines for focus group interviews
- Conducting focus group interviews
- Report on focus group interviews
- Focus group sessions in each country, with quadruple helix stakeholder representation

To meet these deliverables, a comprehensive *state-of-the-art review* on existing research and

good practice in the field and *focus group interview sessions* on the impact from the humanities and social sciences have been completed.

The state-of-the-art literature review has mapped and analysed existing scientific discourse on co-creation and impact. The review includes current discussions on the definitions of impact as well as epistemological, sociological and informational tools that can provide in-depth structural information about the pathways of SSH research. Also, it discusses potential SSH impact on the business environment, the third sector, cultural and creative industries, public institutions, media narratives and public policymaking.

For the focus group interviews, a standardised protocol in and for the quadruple helix networks has been designed and tested. Using the protocol, information at regional events was collected, specifically, on-site focus group interview sessions were held by each consortium partner.

With the objective of identifying barriers and enablers of co-creation, these sessions revolved around lessons learned from quadruple helix co-creation and impact-driven collaboration. In focus were the first-hand experiences of representatives from academia, government, industry and society in terms of barriers and enablers of co-creation.

Designing and conducting the focus group interviews

The focus group interview is a common qualitative data-collection method. To shed light upon a given topic or issue, a focus group interview can be described as a loosely organised discussion between six to eight people, guided and monitored by a skilled facilitator. In a relaxed manner, it allows participants to describe, discuss and elaborate on a given theme. By making use of group interaction dynamics, the aim of focus groups is to enable a more in-depth understanding of a given topic, rather than seeking horizontal generalisations.

In this case, each consortium partner was responsible for organising at least one focus group interview session, lasting between one and two hours. The responsibility included offering a functional interview setting, assigning an interview facilitator, and providing a high-quality audio-recording and subsequent transcription of the interview. To ensure a high level of consistency between the on-site interview sessions, a methodology workshop was organised in Stockholm where research ethics and the interview design were discussed and focus group guidelines and protocols were provided (see Appendices 2, 3 and 4).

For the focus group sessions, an interview guide was designed (see Appendix 2). It involved a set of broad themes – based on the project objectives and the preliminary findings of the state-of-the-art literature review. Particular attention was given to challenges and inherent possibilities of co-creation in the different partnerships. This meant identifying and discussing five to seven significant obstacles when it comes to quadruple helix collaboration. Examples of questions were: How are these obstacles problematic? How can they be overcome? How can they be explained? How do or did you go about to resolve them? Similarly, the focus group participants were asked to identify and discuss five-seven significant enablers when collaborating. Questions to be answered were for instance, as follows: How are these enablers

important? How can they be used and further explored? How can they be explained? How do or did you go about to use or explore them?

Before the focus group sessions commenced, the facilitator provided the participants with written information about the aim, approach and methodology of the ACCOMPLISSH project as well as about the purpose and set-up of the interviews. Participants were also briefed on research ethics – i.e. they were informed about their right to terminate their participation at any point in time without having to give reason for such a decision (see also Appendix 3). By the same token, they were informed that interview extracts in subsequent project reports and scientific articles would ensure interview participant confidentiality – e.g. by using pseudonyms, by altering names of places and events when this is deemed necessary, by omitting redundant and irrelevant information, and by storing data in a safe location inaccessible to unauthorised persons. It was stated that stewardship of non-edited material collected is held by the University of Groningen. Information was also given about the fact that all edited material can be used for future analysis by any interested party since all edited material will be publicly available and data will be publicly available by way of the PURE (CRIS – Current Research Information System) system. The participants were given an opportunity to ask additional questions and receive further clarification. If the participants decided to participate, they completed a consent form (see Appendix 4). The interview facilitator made back-ups of the consent forms and stored them safely to ensure participant confidentiality.

A minimum of at least four quadruple helix representatives participated, where at least two came from government, industry and societal partners – that is, normally between five to nine participants. The interview session was managed by a facilitator from the consortium partner universities. The facilitator introduced the interview themes facilitated spontaneous, respectful and worthwhile group interaction, with the aim of producing multiple ideas from a number of angles on a theme from as many participants as possible. Also, she or he came with additional questions or asked for possible clarifications if this was deemed necessary.

Moreover, to enable the participants to elaborate on and problematise the theme at hand, the focus group sessions were held in the national language of the consortium partner. They were recorded, and each consortium partner was asked to upload their audio file to Unishare. However, due to technical problems, it was decided that each consortium partner should upload it to a secure location at their respective university. The interviews were transcribed verbatim and translated into English by a professional translator, and then sent to the Work Package 2 researcher group as a Word file in a template. The on-site consortium partner validated the translation into English.

The interview data was subject to a qualitative analysis. First, each interview was read by the two primary researchers independently. By accounting for the interview guide themes, the interview data was subject to an initial and preliminary categorisation, where the words, themes and stories from the different interviews were compiled into a document. The categorisation was then discussed by the researchers. Second, based on this categorisation, the data was analysed more closely as a means to identifying commonalities and differences pertaining to challenges and enablers in quadruple helix co-creation. Based on this, a meta-categorisation was completed – where a set of new cross-cutting themes were singled out and discussed. Drawing

upon the aim of Work Package 2, these were then discussed and the basis for the conclusions drawn.

In the 'Results' section, the results are presented according to a structure consistent with the interview themes. For the sake of illustrating and thereby enabling an in-depth understanding of the complexity of quadruple helix collaboration, we present relatively extensive interview transcripts. However, the interview extracts have been edited – e.g. longer quotations have in many cases been shortened, and words added or omitted – for the sake of clarity for the reader. After the results section follows a section wherein the results are discussed; this is followed by a section where these results are discussed. In the appendices, we have included the following documents:

- Interview Guide for Focus Group 1: Data Collection 2016 (Appendix 2)
- Work Package 2. Methods and Principles (Appendix 3)
- Consent Form: ACCOMPLISSH Work Package 2 (Appendix 4)

Methodological considerations and challenges

One area of methodological consideration pertains to the translation of interview transcripts into English. National nomenclature, concepts and cultural and national idiosyncrasies are not easily translated into another language: for example, in some cases, cooperation, collaboration, and co-creation were used interchangeably, whereas in other instances an exact equivalent of a term was lacking in the national language of the consortium. Simply put, an analysis of the interviews demonstrated that there were instances when co-creation was discussed but the term was not used, and at other times, the term co-creation was used when the statement referred to a more loosely organised form of cooperation. For these reasons, the researchers scrutinised the translated transcripts to go beyond the conceptual usage and instead lay bare the meaning of these terms.

A second area of consideration refers to the quadruple helix categorisation of focus group participants. The consortium partners indicated the participants a quadruple helix belonging – that is, as belonging to academia, government, industry or societal partners. In three cases the researchers detected ambiguity or unclearness in the categorisation and requested clarifications. In these cases, the ambiguity or unclearness stemmed from mistakes in the categorisation.

A third area of consideration refers to the indicated composition of quadruple helix partners from each consortium university in the application (see Appendix 5), and the *actual* composition of quadruple helix partners of each consortium university that participated in the focus groups (see Appendix 6). While we accepted this change in composition, it resulted in the following: The suggested composition as shown in the application in many cases mirrored ongoing and actual collaboration efforts, which could have provided an in-depth understanding of ongoing collaboration and co-creation efforts as groups. The actual composition as shown in the focus groups in many cases did *not* mirror ongoing collaborative efforts, which resulted

more often than not in the fact that individuals met for the first time and could thus not reveal their experiences and the benefits at the group level, only at the individual level.

Results

In the following the results from the 14 focus groups interviews are presented. Using the interview themes as the overall structure in the presentation accounts on quadruple helix collaboration and co-creation are presented. As far as possible the intention has been to have a fair balance between accounts from the four quadruple helix sectors – i.e. academia, civil society, industry and the government. Similarly, the goal has been to have an equal representation of material from each focus group interview conducted by the consortium partner. It should be noted that given its relatively loose structure, focus group interview by and large follows the natural flow of human interaction. Therefore, there are quotes that would fit under several interview themes and they have been placed where the discussion gains from it the most. Contents from the accounts presented are then the basis for the subsequent discussion section.

Definitions of "collaboration" in social sciences and humanities

How would you want to define "collaboration" in SSH and its outcomes?

Before closing in on an understanding among focus group participants of what "collaboration" in the area of social sciences and humanities (SSH) is, there were several statements of where SSH knowledge is missing in collaboration and how it can contribute, or otherwise also be understood as collaboration. The first example is about language technology, the second is about art in public housing, and the third is about adult education:

I think that humanities and social sciences should be involved in two ways. The first way would be the reactive way, i.e. let's see how society uses these advances, or how they influence society; or how society can accept the results of new research. The other way would be the proactive way, where humanities and social sciences researcher should create or even, if I may use that word, produce. Produce not just ready-made knowledge on the basis of which products can be created, but products themselves. From my experience, and my narrow field of interest is very specific, we can end up with finished products. I work in what is, on the theoretical level, called computational linguistics or corpus linguistics, while on the practical level it is called language technologies. So, wherever the word technology crops up, you are already within the sphere of production, turning resources into products through a standardised, industrialised sequence of procedures. So, language technologies, in a certain way, have enabled the creation of an entire range of products, starting with those you have here: when you type your SMS message, your mobile phone offers to complete your word for you. That is a result of language technology. The fact that you can dictate messages to your phone, talk to Siri, those are also the results of language technologies. – Academic Partner

Well, I am personally involved in a major project. It is a hospital project in which our consultancy firm has won the right – or won the contract – to use 1 percent

of the total construction costs on art. It corresponds to around 5,4 million Euros in the project. The goal is to use art, architecture and design to promote patient recovery. So, in the project we need concrete experience and knowledge derived from the humanities to answer questions like: What is art and culture really? What is for example space? What characterises the spaces in which we live and work and why do different spaces look the way they do? What do the architects think when they draw a space and take the responsibility of a 540 million Euro project designing a major hospital that has to be there for many, many years? And where hundreds of thousands of people walks through every year? Here we can observe a gap in the knowledge that architects and other good people have. Also, the professionals, chief physician, consultants and others who are in charge of logistics and financial planning of such a large project. We can observe a gap in what can be called welfare technology. So, we want to make a research project grapping hold of humanities researchers like yourself. And try to see whether we can create a bridge across this gap. Try to create some evidence and knowledge that ultimately will be worth a lot of money. Of course, this requires humanists who think strategically and are application oriented and interested in providing, generating and delivering this type of knowledge. – [Industry Partner](#)

From the point of view of adult education, which I represent, an important form of collaboration is very concrete collaboration in projects. Be it that methods of adult education are carried into the university, there have been examples of that, or be it that adult education enables so-called non-academic target groups to participate in educational opportunities offered by universities during their professional development process. That is what is now being emphasised under the slogan of "opening up universities". – [Societal Partner](#)

* * *

Rare examples state that collaboration in the SSH domain just does not work as well as in technological areas:

Perhaps it's more often the case with technology that there are discussions about certain solutions when people are, you know, working with a problem-oriented solution for a technical construction or a measurement or whatever the case may be, and in those cases, things aren't always as clear with the Social Sciences. – [Academic Partner](#)

* * *

According to the focus group participants, quadruple helix collaboration entails a multitude of aspects – including existing relationships, modes of communication and, in a more or less systematic fashion, the transgression of organisational and sectorial boundaries. A recurrent

claim from the focus group participants is that collaboration is about moving outside your comfort zone.

In collaboration, you linger in your comfort zone, in fact, and you can define very good like: Look, I'll work on this, you work on that, these are my things and you work on that, we put it together. But yeah, then you have something of an improvement, but no innovation. – Government Partner

* * *

Several participants describe collaboration as an intrinsic goal or necessity of their mission and work:

Collaboration is not primarily a value: it is primarily a necessity. (...) We actually collaborate because this is necessary to achieve an aim that we wouldn't be able to achieve alone (...). I have always claimed that collaboration must be done with specific, precise matters and not with vague or abstract matters, because it's beautiful to collaborate etc. You talked about places of unity of socio-physical space, where the special dimension emerged as a crucial element. – Academic Partner

* * *

Collaboration is viewed as reciprocal process – of giving and taking – with the intent to achieve the involved parties' respective goals.

For me, in my point of view, collaboration is to give and receive, if both sides obtain benefits (...). It is the possibility of creating spaces of reciprocal recognition. – Academic Partner

* * *

Collaboration is about trust, respect, mutuality and shared meanings. Here, respect entails equality and, as far as possible, a symmetrical relationship when it comes to setting the parameters for the collaboration.

Equality is a big part in that, so it's not driven by one partner but that all partners involved are part of the earlier stages of co-creation, of designing the research, not the classical method as researchers think of a project and go and find a research field out there, whether it's an NGO or an industry, things like that, and then expect full collaboration on this research. It means that they have developed, it goes a bit further, when you're designing it, that all the partners involved are there and start. – Societal Partner

I always believe that if you collaborate with one another that you in fact have two fields of expertise coming together. You don't collaborate with someone who

does exactly the same thing as you and that will bring both partners to a higher level. – [Societal Partner](#)

Collaboration is three things for me. One is that it is proactive. I think quite often in the council, by the time someone has tapped me on the shoulder and said: "Have you heard of the fantastic research that just has been published or has been talked about?" it's almost too late because we are set upon a course of policy development or action so sometimes that's proactive I think. I think the second element for me is that collaboration should tell us something we don't know, it should genuinely challenge your thinking. I think validating what we already know is sometimes quite useful but someone coming along and saying: "We've done some research and it shows there's a really strong correlation between disadvantage, health inequalities and educational inequalities", that's sometimes helpful in terms of validating things but tell us something we don't know about. Then the third probably more contentious thing for me in terms of how we would define is that in that collaboration there should more space for failures. – [Government Partner](#)

We are speaking about collaboration at the level of persons or at the level of institutions. For the university, both are essential. On the one hand, this is one of the three main aims of the university, which means that all the faculties or sectors here contribute to it. The university won't always conclude an institutional agreement; a great number of people participate in all kinds of assemblies and projects like staff members of the university without any framework agreement. There are different levels here. – [Academic Partner](#)

Actually, to be more precise, there are also enterprises who cooperate with universities or the university without a framework agreement; very often many things depend on relations, on concrete people. – [Government Partner](#)

* * *

The importance of mutuality and mutual trust is also stated in the conversation between a societal partner participant and a government participant:

I'd speak about collaboration along several dimensions. On the one hand, it is firstly required that all actors trust each other. In my opinion, that's a vital element. It often can be a part of the process of establishing this partnership, but trust is an important factor. I'd then identify an area of shared goals. Each member of this collaboration has their own organisation's particular objectives, or even their own personal goals. But if we do not find a lowest common denominator of objectives, the collaboration can become very difficult. I'd also point out another element: we need one of the actors to be the leader, a leader

who is strong enough to pull the initiative forward, and at the same time who is integrative enough for the rest of the members to their projects. – [Societal Partner](#)

In addition to that, I'd say that in order to cooperate we need to share in the first place all the ideals that move us forward, whether they are specific (material) objectives, or other kind of goals. Secondly, we need to have the co-responsibility of all stakeholders. In the third place, we need complementarity; it is really hard for identical organisations to work in partnership, because it makes no sense at all. They need to be complementary organisations in terms of services and other aspects. Finally, there's no real collaboration if the benefits of the action are not shared by every participant in the project. – [Government Partner](#)

* * *

Mutuality is thus a dimension that makes collaboration (relational transaction) different from consultancy (monetary transaction):

I will say that we also do direct consultation, for example when a business approaches us and says: "We want to do a really clever staff survey. Can you advise us?" Then we would also make demands on the form of this advice. I will say, for example, we will not just write your survey, because we don't really believe in that type of, so to speak, one-sided inquiry, that is of course debatable. But we would want to have some influence on the way the survey is carried out methodologically, and on the ways of feedback, too, that is, how will the results feedback to whom, in order to also see for ourselves, well, what are the results of such a thing? That is this two-sidedness. – [Academic Partner](#)

If a public-sector organisation needs competence that can be found at the university to investigate an issue, then they could just as readily hire a consultant from wherever. In that case, we're not really talking about collaboration. The competence required has been bought for a purpose. So, the prerequisite is that the organisations have a mutual need to work together towards mutual goals or their own goals in some way. This, I feel, is one way to make both definite and clear why something should be done, and collaboration can always be consensual in this way. – [Academic Partner](#)

I was thinking about this when you were talking, (name), that collaboration is, in some way, about doing something that is both a question of space and of time – you know, we wouldn't say that we are collaborating with a consultant. We would say that we have hired the services of a consultant because the space is limited. We are cooperating with a sole individual, not with all of McKinsey just because the consultant comes from McKinsey, so collaboration is something

more... something bigger. There is a sort of spatial dimension. – Academic Partner

* * *

Experiences of "collaboration" activities

What experience do you have of "collaboration" activities between academia and external partners and the outcomes of such activities?

Most of the focus group participants have experiences of quadruple helix collaboration. Overall, they are positive to such collaboration, see great value in it and view it as an integral and natural part of their interaction with actors outside their organisation. It is in this interaction that new knowledge is produced, and more specifically, in many different parts of society also beyond universities.

What do we actually understand by knowledge and by contributing? Knowledge is something that is not only being developed within the walls of the university. It develops in private companies, in public institutions. We need to calibrate the concept of knowledge to reflect society we're living in. – Industry Partner

* * *

Collaboration with universities, and the knowledge researchers produce, are crucial and sometimes hard work for the policies the government formulates.

There are many similar lines in our particular case. All too often, both the government and the societal partner base their actions upon knowledge developed in universities. For instance, in the field of economics, where I come from, they seek input from university's experts on issues like knowledge economy, innovation, or creative sectors. When an issue begins to take social and political relevance, we also need to develop knowledge about it. Today, green economics would be an example. These are lines of action that somehow need to rely on the academic experts' contribution in order to develop a powerful knowledge basis about them. – Government Partner

* * *

Thus, at the same time collaboration is not easy – one reasons being differences in goals, nomenclature and the fact that knowledge production always require effort and a sufficient time allocation. For actors from industry and the society the incentives of academics come across as obscure and quite far off from their own everyday realities

I work a lot together with companies and naturally you want to test new products and further develop them and you also want to collaborate, not only with the university but also with applied science institutes in the region. It is still quite difficult because people speak a different language, knowledge is not always just there for the picking. – Industry Partner

We hold different kinds of relationships with the university depending on the different initiatives. These are relationships that are highly conditioned by the fact that we usually "pay for" the project. This kind of collaboration is not transposable to other circumstances for researchers have their own interests. They want to publish their findings in certain journals, and everything apart from that is outside their everyday life. If you don't pay them, they won't do the effort. That's what we are finding. – Societal Partner

* * *

The focus groups give good practice examples of collaboration, one in the area of radicalisation and extremism.

The municipality would like to have research done on the effects of radicalisation in the city and what we can do about it. We are involved on behalf of the societal partner, a welfare organisation, and I think that the information we have received from research so far, is very enlightening and gives you input on what to focus on. – Societal Partner

* * *

Another example regards collaboration between adult education providers and universities.

The adult education provider was founded over a hundred years ago by a handful of professors from the university. And in the language department, for example, I approached the Department of English Language Teaching and asked if a collaboration between the university and the adult education provider were possible, simply because the Department of English Language Teaching teaches a certain method, which is lucky of course, which is drama education in foreign language teaching, and I wanted to offer English drama weeks at the adult education provider which opens up a pedagogical field to the students. That means that the adult education provider, offers the university pupils that develop a production of an English language play in the context of a project in the school holidays. And the students can get proof of performance, practical performance, at the university. They can either visit a school and sit at the back of the classroom or they can, in this case with very motivated pupils, work on the production of a play in English. It is an incredible benefit. On the one hand, society participates, because children that enjoy the English language, that enjoy theatre, get the chance to pursue those interests, and on the other hand, the university has a pedagogical field which allows the students to put what they learn in their lectures into practice. – Societal Partner

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Yet another example is a monthly newspaper in plain language, e.g. for newly arrived in a country.

There is this project we have been implementing with further partners since end of 2015, which is this monthly newspaper in plain language. The collaboration partners are the local City Daily, the centres offering employment for disabled persons and the university's central institution for teacher training. The latter offers a course on easy reading. Students learn how to write texts in plain language, take part in our editorial board meetings, and the articles are published in this newspaper. – *Societal Partner*

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Additional examples of fruitful collaboration are when universities are involved in what traditionally was referred to as third stream activities – public lectures, information sessions or involving students in the citizen-oriented activities. These are, and have for a long time, been integrated parts of the externally directed work by European universities and extend beyond producing things, to changing attitudes, culture and promoting learning of a larger segment of the population.

The traditional activity in the academic world – research activities, educational activities, the third mission – are all those activities that go from the implementation of scientific researches and results in the technological, economic, organisational, medical field, but as well as the psychological psychiatric field therefore life sciences from one side but also in the activities that influence on social politics and on cultural politics, our department of educational sciences does not produce new machines, we don't produce control system, we produce adequate culture for instance to understand the difficulties that are to be found in the understanding of the complexity or an absolutely innovative mode. – Academic Partner

* * *

Roles as a partner in a collaborative project

How do you view your role as a partner in a collaborative project between government, civil society, industry and universities?

The theme of what roles different partners have is merely loosely discussed in the focus groups. Here are some illustrations of what different roles partners see for themselves and for others. For some societal partners, their role is to be accepted as equal partners in the societal realm compared to the government.

What I mainly expect, not really in the case of civil society - civil society collaboration, but rather concerning the collaboration of civil and state organisations, is that the state organisation should treat us like an actual

partner. So, for me this is an expectation. I can't express it better, so they should get off their high horse when it comes to discussing collaboration. – Societal Partner

* * *

Others have stated that societal partners complement the role of that in the government.

We try to address those aspects not yet totally covered by the government administrations. We place great emphasis on accuracy, both from a methodologic point of view and from the point of view of the assessment, whose importance has been on the rise during the last few years. I've collaborated in partnership with government administrations in the past and been surprised by the lack of assessment they have. This is something we are trying to encourage from our societal organisation. We want to bring efficient and proven models to society, and we want to be very transparent with the outcomes. Everyone who has both scientific and non-scientific knowledges need to bring them about and share them with society. – Societal Partner

* * *

Academic partners used to collaboration, expect ongoing relationships to underlie future collaboration activities rather than that new contacts lead to collaboration. The relations underlying mutual collaboration takes time to develop, and needs to be nurtured as well.

It's a value too. But my thought is, if you had got my name from a colleague and he had said this: "I have a problem with this, and we need help from the university." And then you had sent me an email saying that we have a problem and we need to discuss this with somebody. Do you have somebody at the university? And then I had sent somebody to attend a meeting and you had to. There is a difference compared with the fact that we together have over time discussed the concerns affecting our respective organisation and prioritised and established areas of focus, and then we apply resources for that on a somewhat more ongoing basis. I think there is a difference with these two. (...) You know what I normally say when we establish a project? We are not consultants. None of us is a consultant. Rather, we have our own goals. We want to make our own contributions. And when we get it right and when we all find things that we can work together on and contribute with. – Academic Partner

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Academic partners see several roles for them to fill; one is to make sure to work towards the university vision of being a collaborative or co-creation university. Another role is described in the responsibility that universities have to foster change and impact of knowledge in society, although not taking on political roles such as to foster regional and economic growth. These reflections are shown in the extracts below from two academic partners:

You know, I think that I have a number of roles to play in this. In one way, I represent the university here in this group and it's a university that has decided to work with collaboration to be successful in what it does. So, it's sort of maintenance and development the objectives. A kind of ambassadorship to live the vision and therein lies the maintaining of relations when other parties – they are some of our most important collaborative partners. Also, to see to it that we maintain – we, you know, are successful in terms of the collaboration. That is of great value for universities. I feel I have a role of responsibility in this. Another role is that the university wants to make a difference – to contribute to positive social development, particularly when it comes to sustainable urban development. We want to make an impression locally, nationally, internationally in terms of issues of sustainability and so forth. And this becomes a forum – a platform from which we can deliver in that regard. But then I also feel that I have a responsibility to see to it that we engineer the projects we decide on and the initiatives we take, and contribute directly to the attainment of the university's goals when it comes to sound education and research. That it generates back a direct sense of value for our primary mandate in terms of education and research too. – [Academic Partner 1](#)

I was going to say that. Our responsibility is operative – the other academic partner and mine – to make something of the steering committee's discussions. Therefore, the responsibility is clear: to transform what we talk about in our meetings into concrete actions and to see to it that resources are used in a way that is in keeping with the activities that first are in line with projects' vision and the vision of the strategic partnership, of course. And to be able to do that, I feel that we are very much dependent on – now I'm getting into expectations – on the involvement of the steering committee's members' involvement during the meetings and between meetings. So, we are dependent on the will to collaborate. We depend on their will to stand behind what they should be basing a decision on and what they discuss ideas about, because if we do not get the support, nothing will happen as was discussed. This, I think, is a challenge because the fact is, you know, that all committee members have many roles, and it is not always easy to achieve results in the exact way you would like and at a point in time you might like. – [Academic Partner 2](#)

But I feel, just to change position – I say that the increased growth in the city is not the university's issue. Of course, we are committed to the city and to the prosperity of the city, but that part about contributing towards positive growth in terms of business and industry, it is not part of our job at the university. Instead, we should be involved through working with other things that can contribute in a positive way to the development of business and industry in the city. So, we cannot make that our agenda; rather, our contribution is knowledge and understanding about how business and industry function in various situations. We'll contribute, you know, technology and skills that the business

can use and base its innovations on. But the positive development of the municipality is not what should be on our agenda. – Academic Partner

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The idea of being useful for society is also picked up by another academic partner:

The challenge of innovation at the university is at the interfaces of knowledge, in cross-sector collaborations. Here's where we can be more useful to society. We are talking about a kind of innovation that arises from transdisciplinarity, where we unite teams and people from different fields who can offer an important, confirmed, critic added value that can constantly interact with society. – Academic Partner

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Some would say that the role of government partners is to look after the public interests first, which for instance can entail to ensure that human competence is promoted in training activities.

The role of a public organisation is to look after the public interests. For that matter, there are some non-transferable aspects. Beyond that, I think we need to be very open to the oncoming proposals and judge them according to their importance. The lack of collaboration by public entities makes a lot of money to be spent to do the same things. In general, that's unacceptable, but even less in a context of financial crisis. We need to rationalise expenditures. We cannot offer the same thing 50 times, because so very often it will be a failure. A public manager is obliged to watch for this kind of things. – Government Partner

Public institutions such as the city council, besides defending the public interest need to establish a vision, through our democratic representatives, of the city model we need, focusing on issues that can be a priority at some point. That can result in the creation of new researches. Today, there are issues common to cities all around the world, such as inequality, climatic change, housing, foreign population, and integration. In order to manage all that, we need a city project and we need to produce and develop knowledge. And the university role is key here. On the other hand, we have about 200,000 college students in the region of the city, and a growing capacity to attract students from other countries. In today's society, the ability to attract this kind of talent, who can interact with the city in new ways, is very important. And our city needs to know how to manage this asset. From my societal partner's point of view, we totally agree with the fact that there are many more things to do with the university as far as entrepreneurship is concerned. And the promotion of employability is also very important. Here, training plays a key role. Municipal policies about the

promotion of employment need to be even more and better aligned as far as the training offer is concerned. And I'm here also thinking of that not-so-formal training offer I mentioned before. – Government Partner

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The focus group participants also discuss the roles of different partners. As part of industry, media play a particular role in collaboration with universities and civil societies as this dialogue illustrates:

So, in thinking of the broadcasting company, you see the role of the universities as providing loads of information and potential stories and you are the platform for getting it out there, rather than being a co-productive partner? – Facilitator

My colleagues at TV work on longer projects, they might see it as something they can collaborate on. Being radio, it is a faster turnaround. There seems to be this disconnect between science, because it's sometimes hard to understand when you see the press release, and people who can explain it really well. But on our side, we are looking for stuff. – Industry Partner

But you can also imagine problem-solving, co-production with the broadcasting company, understanding audiences, the key things we are all talking about the public understanding of whatever discipline we're in, and I know that the broadcasting company has commissioned market research but I don't know if a collaboration with social scientists in the university would get more depth about the barriers to understanding basic science or the rationale behind the science. You are describing the 'inform and entertain' side of it but the broadcasting company must have research questions it needs answered. – Societal Partner

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Expectations of other partners in collaborative projects

What expectations do you have of other partners in collaborative projects between civil society, government, industry and universities?

A general expectation of partners from other sectors is that all partners should be open-minded, interested and willing to overcome barriers of different types:

But that was only possible because the people being present were open-minded enough to do so. So, I think we would need a change of mindset. So maybe, we should introduce such an approach or subjects to education that would embed this collaborative, cooperative mindset in people from different fields. But I don't know how this could be conveyed. – Academic Partner

Everyone has to be open. – [Societal Partner](#)

Perhaps I'd talk about the feedback on practical experiences – how would we get this from the industry. Research in principal is working with universal questions – creating and testing theories and so on, the industry on the other had has practical questions. Let's say I'd need not an idea or a prototype but an actual realisable object. We are at the different universes. To overcome these barriers, this is of course something we already talked about. – [Academic Partner](#)

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While listening, an open mind is focusing on the other in a relationship, it is also important to articulate your own expectations early on in a relation and project.

I think it depends on the terms of reference at the start of the collaboration. Generally, collaborations are difficult but if you put in enough time up front, and your expectations of each partner are clear, then it will be better. Think about what each party brings to the table. You have to articulate up front and think about how to manage that collaboration. If you don't articulate from the beginning, it won't work. – [Government Partner](#)

The partners are not abstract things; they are people. If you're a leader, you appreciate certain qualities in your people – devotion, motivation, keeping to deadlines. It is not different with partners, exactly the same thing. You appreciate the same things in your partners, and expect them from them; they are no aliens; they are people like we are. – [Academic Partner](#)

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An understanding of conditions and culture of the other participating partners is a good start:

I don't think we're always terribly clear about which aspect of the university that we're talking about or relating to when we're talking to you and which bit you're particularly interested in at the time too. So, I'm just drawing out that it's not so much a barrier but just an understanding that the university is not one thing, it's lots of different things. – [Societal Partner](#)

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Time and money should be equally distributed among participating partners:

Another thing with research for us, a small grassroots organisation, is time and money. The university partner who drives the research comes with time and money but expects the research field, us, to do this voluntarily, without time and

money being paid for. That's the great inequality in many research projects, especially with NGOs. – [Societal Partner](#)

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Long term stability in the societal context is expected:

Society elects the government and then the government says what we should do. But for policy and structure it is a bit unreliable. Say you started something and it takes a few years before you have something up and running. Then the focus changes completely and you have to tell the people for whom you're doing this for, sorry but... – [Societal Partner](#)

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Some of the focus group participants have used their quadruple helix collaboration in a more systematic fashion to identify expectations when collaborating. The next illustration is from a dialogue between two academic partners discussing four things that academic partners expect from other partners:

I expect basically four things, which I personally find interesting, when collaborating with others. First of all, that they provide access to data, well knowledge of those women or housing corporations, that I am allowed to conduct interviews, can study archives. That's what I think. Secondly, I expect some type of financing, that they admit they have a problem and therefore offer money so you can do research or the municipality organises an expert meeting or things like that. The third thing that I expect in these cases, and that is rather difficult, but it's related to what the other focus group participant just mentioned, that they don't take over control. So, if I think the municipality is not doing a good job, that the municipality is the problem or the housing corporation, well that I can just say it and that I can also publish. So, that's what I also expect. And fourth, and that is the last one and maybe, I don't expect this, but it's more a hope that they actually use the outcome, so that I can see it as a social laboratory, if I feel that the procedure is too difficult and I think we can do it better than the corporation, the municipality, or the institution, so that I can watch and see whether it has improved. For me, this is the basis on which I want to collaborate, if this does not work well or if they can't be clear on this, then I'll simply not do it. But often it works out very well; everybody actually understands that especially with regards to the taking over issue. This works out well. – [Academic Partner 1](#)

Can I add to that? – [Academic Partner 2](#)

Yes. – [Facilitator](#)

It's funny that you put it like that. Because I work with a lot of researchers who are in the process of building a network and really need to do this. What I

tell them is not to have any expectations, just go over to them and talk and find out what their expectations are. Because you can't just walk in and start demanding money and asking for focus group discussions or whatever or they we tell you to take it easy. In that sense, I think that the university is actually more supporting with regards to society and the government and to a certain extent, the industrial sector. And it should really be a two-way process. But firstly, leave your expectations at home and just talk for a while. And I think that after this you. – Academic Partner 2

Of course, I won't go to the government with my list of four demands. – Academic Partner 1

No, but you will be amazed how many just that do. – Academic Partner 2

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Obstacles to collaboration activities

What are the obstacles to collaboration activities between industry, civil society, universities and government?

When entering a collaborative relationship, with the prospect of working in a co-creative fashion, there are a set of challenges and obstacles. In the focus groups interviews, a variety of such obstacles are discussed. Stemming from a general sense of austerity in Europe today, are that time and money are focal areas in quadruple helix collaboration. From the researchers' point of view much time (often non-paid) must be invested in collaborative relationships – in many cases with none or little return.

I think it also has to do with, well, that's my experience right, I'm not in the centre of the research, I only see the meta-situation: a lot of researchers tell me: but that will disturb my process completely. I would like to continue on that research with stakeholders, that's what I'll take a starting point. Me personally, I only got a limited amount of time and money to do my research and I don't actually have the luxury to involve that whole group of stakeholders. – Academic Partner

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There are also varying perceptions of vagueness and uncertainty as to collaboration projects:

I am a fan of collaboration projects but generally they seem to be too vague. Collaboration between different organisations, moreover from different cities or different countries, the collaboration will get dispersed. – Government Partner

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One obstacle to collaboration is simply that incentives in academia for collaboration lack, as this dialogue between two partners from the government discuss:

Collaboration should somehow be identified as part of real work. Not, that I do my main work in the daytime and then, in the evening, I do some collaboration somewhere with some extra groups. – Government Partner 1

But sometimes this is very difficult; when I take school as an example again, when the teachers' lessons end, they consider their working day is finished, and if they have to do some groupwork or collaboration, they'll ask why, will I get paid for it if I come. – Government Partner 2

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Another obstacle for collaboration is that individuals from different sectors have little or no understanding for the incentives and conditions of each other's work, goals, and efficiency; that they so to speak talk different languages and use different nomenclatures.

I think a big problem I also have to deal with is the confusion of tongues. That the language academics use is so different from the language used by corporate leaders, and hugely different from the languages used by creatives. We don't understand each other. (...) We have to understand each other before we co-create. – Industry Partner

Considering that I come from the same institution, the issue of time and objectives and the issue of the languages that sometimes are different in different institutions is really an issue. – Academic Partner

I guess we talk languages that are a little bit different. And I guess that it's our fault maybe. I guess we must learn somehow to talk with others, with other institutions, other areas, namely with industry. Here I guess that perhaps some help is missing in that collaboration procedure and even in making links, even in connecting. – Academic Partner

I think that's a problem of definitions. Because your expertise, your academic expertise can also be viewed as research. I don't necessarily feel that there is a wig between it, but in the definitions in our system, there is a wig. And you almost have to have clearly and apparent output, right, a publication, a project. – Academic Partner

For instance, the language issue: it's very interesting the problem of the difficulty in speaking. One of the social sciences' tasks is often to produce the language that allows communication and translation. Or, at least, to facilitate

that interlocution. But that doesn't mean that the language differences would disappear which is a big collaboration problem. It's a condition that allows collaboration. Collaboration exists only if there are, in fact, different positions. And different positions, at the same time, with their different languages, are a condition of collaboration but they can also be a problem for the collaboration. (...) And it's important that they really exist because if they didn't exist we would dilute completely all that allows exactly the conversation, the debate and the progresses. But this shows exactly that collaboration is a very difficult thing and a very rare one. – [Academic Partner](#)

I think the researchers are very bad at communicating what they can contribute with. What are you contributing with? Well, education of character and all that. That's empty speak. Just clichés. Somebody was not paying attention to the societal agenda. In relation to what you said, the design school and school of architecture just decided to calibrate the entire education according to development aims. All master programmes have to address UN's aims. That's a radical project to change 250 years of tradition like that. Now it's all about society. That takes courage. And they met a lot of resistance from within the institution. The rector followed a very interesting strategy. I think that their projects will only get better. I don't think the artistic level will drop. They are afraid of that. I think it will be put more on the line. It becomes more meaningful for the students without having to give up on artistic ambitions. Could you make a parallel with the humanities or social sciences? I think you could. It's not a devaluation of knowledge. – [Industry Partner](#)

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In academia, in comparison with research publications, grants from research funding agencies or state-of-the art knowledge production quadruple helix collaboration is often not viewed as a merit.

I would like to jump in here. There are two points. I think that what has been mentioned is a tension between interests that one has to cope with somehow. And I mean, two things come to mind that are also problematic. (...) It is becoming increasingly difficult to win young researchers for this kind of collaboration-oriented research. And that has to do with the criteria of academic career building today. Young people are educated in such a way as to orient themselves towards publishing a maximum of so-called highly ranked journal articles, in the English language if possible, which doesn't have all that much to do with the needs of the medium-sized company they might be doing their research in. And that means that one must somehow bring these employees to, I don't want to say force, because force doesn't work, but actually bring them to do something, against their professionally imposed interest, that doesn't

really count academically. (...) And that is one difficulty which hinders such collaboration. – [Academic Partner](#)

I think that some people feel that they would rather write than go to such a focus group or such an interview group because in the end, there, is no money, a bit cynical and harsh but that is a point we have to make. – [Academic Partner](#)

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Differences in languages and logics are part of another theme, namely different cultures or mindsets in different sectors of society, for instance the view of academic freedom and how academics work.

But that's that academic freedom, and that's deeply ingrained in the DNA of universities, like: Yeah, we're not going to attempt to organise it all, there has to be.... Okay, then it's our job as an organisation to make those people impact-competent. And competent in communicating. And that's how you start right. Well yeah, it sounds like a lot of fun. But there is a lot opposition. – [Academic Partner](#)

Yeah, but that academic freedom can't be a permit to conduct research without any form of societal responsibility. I mean, there are limits, right. – [Industry Partner](#)

There is, above all, linked to culture, the corporate culture, so linked to the strong presence, for instance, of a manager that this culture brings inside and does not want to change. – [Industry Partner](#)

We agree that we should have certain creativity and freedom, but on the other hand we are being forced into a straitjacket by governmental institutions and financial institutions. We need to work according to all sorts of data-management paragraphs. It's frustrating. It crushes any creativity and many researchers do not enjoy it but we are forced. So, on the one hand we stress the necessity of working in a creative manner and solve problems, making the city more vibrant, more exciting but on the other hand you end up in all sorts of legal procedures. – [Academic Partner](#)

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Linked to culture are the following thoughts from a dialogue with the government on how your boss, colleagues and you can create obstacles to collaboration based on the mindset and culture of the working place and sector

I'll first share what I wrote down, which is, I believe, a three-way partition; your boss, your colleague, and you. And before that, I wrote down: culture, management style, bureaucracy, regulators, and money. But I believe that it all comes down to your boss, your colleague, and yourself. – Government Partner

Yes, and can you elaborate on this? – Facilitator

Yes, your boss because he determines what is not allowed. A comment was previously mentioned about the freedom you have to do what you would like to do, the time that you get and how you'll be judged on it. Well the way my performance is measured falls under the domain boss. That is why I cannot collaborate in the way I actually want to. Because collaboration is the basis, the way we started today; I might see an opportunity and I would like to get together with someone, but I don't feel free enough in the sense of what I can or what I cannot do. Second issue, the colleague. "Well, that's not how we work here", "We never go to knowledge institutions" or "That's not our culture". So, if you do that then that means it will be expected of me as well and I don't appreciate that because it will take more time that I don't have. So that is basically the environment in which you work in and they are frightened, or it's just not how things work here. Finally, you yourself, and in that order of importance because I have noticed this myself; "It probably won't be possible." That's perhaps the biggest limitation, because you are conditioned in a certain way with all its restrictions, and it is very difficult to do something new. A good example, based on my own experience, we are busy setting up a knowledge-network to find ways to solve knowledge questions, questions I am confronted with in my work, to get broader responses as I find it difficult and I don't know how to deal it. Recently my children got an app in which they can share their most personal feelings with people from around the world and receive solutions from across the globe. As a parent, when I heard about this I was frightened, because I thought child molesters were lurking around the corner. But then, after ventilating my emotions, I thought, about it a day later, well this is what the next generation learns. If I have a question, there is no need to go to my friends or to my parents, there is an app on which I can pose my question, I can collaborate with the whole world on this issue. So that is the difference between the generations, but it is also a personal barrier that I have to face. I am not equipped to do this yet, I need help with this. So, to kick things off, your boss, your colleague, and yourself. – Government Partner

Nicely put. Does anybody recognise this three-way partition? – Facilitator

Yes. – Societal Partner and Industry Partner (both saying yes)

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Although digital platforms for communications enable further collaboration once relations are established, they can also be an obstacle if relations are not well established.

Yes. There has to be a physical get together. I think we all experienced the era of digital platforms and it's great, but face-to-face, really being together in a room, that's really important. And that we have to return to that. – Industry Partner

Yeah, because sometimes the idea is that colleagues often think like: You, you always want to do things online, right, because – that's your job? But I do agree that you can use that online thing as support. And that you can tell that when that's not coupled with physical contact, that it never gets off. Or when it gets off, it dies a slow death. So, I do think that a physical get together still has some components that the online story doesn't have, or at least has a fewer amount of. – Societal Partner

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Another obstacle to collaboration activities is the ambition by university management to have the faculty to document and illustrate all good collaboration activities, which, paradoxically, can be counterproductive, since such administration may take extra time from the faculty to do their job in education, research and collaboration.

I have to fill out a form every year that says what I've done is knowledge exchange and impact and I can detail my activities, the bit that is not that clear to us as academics is what we get back from the other side of the exchange, what the value is of that. My primary job is to get better treatment for my patients but spending time just putting information out there, it's hard for me to justify that. – Academic Partner

I think that some of the attempts at accountability are really crude. It might be much more sensible for you to be accountable by just doing your research and it might be a waste of your time. The lecture you might give could be a waste of your time and could be given by someone else without your level of expertise. The focus on impact can be very crude. One of the key roles is broker and that is my role, to translate between academics and colleagues. Using people's time well is crucial. And I think it would be much easier if there were more brokers in the university who could identify the people we could work with more easily and don't waste your time. Academics and experts need to be more accountable but it's about identifying where in the pathway from idea to impact is the bit you do. – Societal Partner

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Also, collaborating activities mean hard work and is not easy to undertake.

Collaborating with the industry, specifically, what I was able to notice is that those are two worlds that speak a completely different language. So, the

industry basically expects concrete results in the short term, a specific solution to their problem, an upgrade to a technological or working process, and time is a very important element for them, while on the other hand you have the academic community which is, truth be told, a bit more relaxed when it comes to that. It often happens that this scientific side isn't informed enough, the problems of the real sector are not familiar enough for them to be able to find an adequate solution. So, there are a lot of obstacles to such a collaboration. Something which is also characteristic and which kind of drives the industry and companies away from the idea of collaborating with colleges or institutes is this rigidity. – [Academic Administration Partner](#)

Unless we are talking about technical colleges. – [Academic Partner](#)

Okay, fine, by default, they have an easier time functioning and collaborating, and maybe even building, as part of their study programmes, possible future partners in the industry. But otherwise, the industry has difficulties collaborating because on an institutional level they do not have any partners on the other side. Not just on a professional level, but on an administrative one as well. So, by the time you get support or an official document or any kind of signature, a lot of time has passed. – [Academic Administration Partner](#)

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An interesting take on obstacles to collaboration is that the knowledge monopoly of universities has been broken since knowledge today is distributed among many individuals, organisations and sectors. This comment from an industry partner also states, that knowledge *should* be distributed in society, thus enabling a fundamental mutuality in collaboration efforts.

The belief that knowledge is developed only at universities is not true at all. Knowledge is created everywhere in private companies, public institutions etc. When a hospital is being build, a lot of knowledge is being created. As mentioned, we're living in times of scarcity. You must understand that you're a piece in a larger puzzle. At the hospital, that is an understudied field. There are the medical companies, the public authorities, but they don't share knowledge. We want to introduce the humanities here. You're not going to be involved in everything but there are important parts that you can be involved in. But it requires that you show up at the medical companies or the public authorities with an open mind and don't think that your basic research is going to trickle down and spread. You have to think more operationally or instrumentally. And that requires willingness. That's the conservatism. There is a culture that knowledge is something very exclusive. I don't see it like that. I see knowledge as something dirty that pops up everywhere. But the idea that knowledge is something exclusive is dangerous. – [Industry Partner](#)

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Individuals in some fields, both academic partners and societal partners, mention a lack in leadership when it comes to lead organisations, for instance when it comes to funding initiatives to EU calls in fields of social sciences and humanities, or among leaders and teachers in society.

The university leadership clearly says that European programmes are sub-activities. And if you think about it, we have the year 2016, and now the university leadership is beginning to think about whether maybe we need not only an international, but a European strategy after all. We are now also taking part in the foundation of a European network, The Guild of European Research Intensive Universities, which probably everyone here has followed. But what I really mean to say is that we had to bring these other disciplines, the social science and humanities disciplines, or rather still have to bring them to engage with those issues. – Academic Partner

What I find is missing is leadership and passion, there's a lack of forward-looking thought, we aren't really thinking about where we want to head for, which are the problems we'll be facing in 10 or 15 years, and which steps must be taken for us to be well prepared when that moment arrives. There's no way to achieve that because, when future challenges are placed on the table, you inevitably find it very hard and people chose to ignore them. This is a real obstacle, because what we are doing now can be applied to reality today, but not tomorrow. We won't get nowhere in the innovation field if we only change the methodology, which is something easy to do. The difficult part is not the methodological change, but changing the real paradigm that demands teachers to accompany their pupils along all their real training processes. Who is considering this? What kind of training do we need to have this sort of teachers in 10 years' time? – Societal Partner

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Obstacles to impact from collaboration activities

What are the obstacles to impact from collaboration activities between universities, industry, government and civil society?

The focus group participants talk about differences in organisational logics, that is, the underlying principles for the workings of academia, civil society, industry and government.

We should ask ourselves: If we want to make a societal or economic point, companies will want to measure it, that's the problem with the processes we are providing (...). That's that measurability, because immediately he wants to know: Yeah but what will it cost me and what will it produce. We don't live,

except in the academic world, we don't live with that luxury: We can experiment.
– [Industry Partner](#)

You have that a lot with organisations and it comes from that focus on return and efficiency. And that's where there are often big obstacles towards co-creation. That maybe we should think about ways to fix that so we can promote co-creation, to create a space in which we are able to experiment. To just for a while invest the time, to strike a conversation and to see what we can get out of it, without knowing beforehand if it will produce something. Eventually it's the focus on return that, at universities as well as at companies or with stakeholders, holds you back. Because you are in a process in which you normally know what the result will be. But co-creation means getting out of your comfort zone, and then you don't know at first what kind of result it will produce. So, you succeed in getting people away from that focus on return from time to time, even if it's the government that is making money available for specific co-creation processes with the idea of: we don't have to have a clear result, but this way we can try and look if we're stimulating innovation, considering that one third of our projects would fail. – [Academic Partner](#)

Sometimes I blame the universities. Universities have a strong focus on the past, and a focus on output, like: The evidence. But colleges are more focused on innovation. And they will engage in that concept of co-creation more often. – [Industry Partner](#)

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Similarly, there are differences within academia – between faculties and subjects

Also, through the university we've got some good projects – they are approached with a concern and they direct the clients to us due to their lack of resources. Bigger problem here is that as a humanitarian I know how to conduct a research but, at least two years ago, I had no idea on how to price the work, communicate it or create relations. If we are talking about the collaboration with institutions outside the university, we lack the tools needed for this. It can be normal in the industry field to start off with a company without knowing what to do but I think this could be an aspect where students and personnel can be helped out. Secondly, there is a lack of skills in communicating with the media. Media can really help us and also communication managers. – [Societal Partner](#)

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Another difference is the view on being self-critical – to SSH-researchers a significant part of their professional deed, which by others are less aware of.

The companies have a problem that they do not know their problems. – Industry Partner

Maybe the lack of knowledge or inner motivation of the partners is an obstacle. I think that three components associated with the word 'resource' should be included here – human resource, time resource and money. When talking about the hospital – now and on different occasions there are so many important issues to deal with that there is just a lack of human resources for this, we then just have to focus on the health of the people and use the resources we have. There is no time to think outside the box. Perhaps this is one of the obstacles. – Academic Partner

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Many focus group participants from academia view the university funding system as problematic or even counterproductive to quadruple helix collaboration and impact-driven co-creation.

There are also quite a lot of problems within the way that universities work and the way universities are funded, which drive a lot of academics away from this sort of approach (...) I worked on a big national research programme which was funded by the research councils. It was an interdisciplinary programme, social and natural sciences, involved lots and lots of different academics. That was great and we were able to demonstrate a lot of impact but afterwards, certainly there were academics who felt that they were suffering in career terms because the drive is always for publishing in very highly rated journals, which are generally, I mean not interdisciplinary journals, so that is a problem. That's what they're being measured on. – Academic Administration Partner

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By the same token, there are also scarce resources in the industry

In the context of industries – today the IT companies do not have enough money to invest it. If there were some external foundations to support this. For example, the university of technology has some kind of a project school that supports companies in carrying out technologic innovations. It's basically supporting collaboration between the university and the private company. If there were something similar for sociology, humanities something in line with developing the entrepreneurship culture. But it is very difficult to point out that. – Government Partner

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Quick and unplanned shifts towards possible funding is another area where the focus group interviewees see differences between academia and other sectors – where there is a dissatisfaction with the lack of time for more systematic, long-term planning.

There is a structural problem on this respect, we complain so much for the lack of funds but then we always use shortcuts in order to take them. – Government Partner

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Partners from government, society or industry may view academics as a bit disconnected to the harsh realities – from what characterises “the real world”. As an example, the gap between university education and the needs of the labour market is brought to the foreground.

I don't question at all that universities give a tremendous education and training for business. Just to clarify a little bit, and I'm going back here to the '70s, '80s, there was a big thing about university students coming into industry, being taken on and they were taken on literally as managers and people like this straight away and it was an absolute disaster. It did more damage, in my view, to the universities because they just had no idea. But they had, within themselves, a tremendous feeling of we know it all, which they did, theoretically, but there was none of the practicality. That's really, I think, what I'm looking at where when they come, even with apprentices from these stupid business things that say they're doing apprenticeships. Oh yes, they know all about computers. Yes, they know about Twitter, Facebook and what not, but they don't know actually how to use it within the environment they've gone into. Sorry, I just thought I'd clarify that a bit more than just blindingly saying universities are not training them for work. – Industry Partner

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To facilitate collaboration the necessity of simplifying communication from universities is emphasised.

That's very successful but again, the sort of barriers that you encounter there I think are very typical in that people who are working in these contexts, they have very little time. You have to try and make things that are accessible to them and communicate in a way that is convenient, they can digest easily. That's a constant tension but if you can do it, I mean that's really successful for us because by accessing those people, we're actually getting out to an enormous number of others that they have contact with every day. So that's just perhaps some examples about how we try and do it but it's never easy. It's always about time and it's always about money and it's always about trying to speak a common language. – Academic Administration Partner

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On the other hand, the academics their work and is the real world.

For me, this is the real world. I'm in the real world too but it's a different world. All of my collaborations have been about trying to get the fit right, the language right but also working with different structures. – Academic Partner

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Another obstacle lies in the fact that the competencies within universities are limited and that staff allocation to various activities and tasks does not account for co-creation

It may be the case that there is only one person with that particular kind of competence within the organisation and that person is already completely taken up with something else, for example, and you understand that in theory, this could really be very good if only person x, y or z could be made available within the organisations, but they are already too busy. – Academic Partner

That means that we have different traditions, different cultures in, for example. We have different ways of thinking about how we do things and how we budget or how our work with budgets should be conducted. Our way of doing things differ. How we direct things and follow up on them. – Academic Partner

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Enablers to collaboration activities

What are the enablers to collaboration activities between civil society, government, industry and universities?

Albeit it may sound like a truism, collaboration must entail mutual commitment and enthusiasm – and a common interest:

There is also dedication and interest. You need these if there is to be a result. There's got to be an interest in collaborating. You should be able to see why it is worthwhile. – Academic Partner

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Collaboration must be fun!

I started thinking that it is difficult and many people have a lot of work; therefore, I think what to do tomorrow with my new cooperation initiatives so that cooperation would be more fun. That it would also be something awesome, not only sitting at the café, but it can be done so that it would be cool. Using cool methods, cool ways, in the style of a briefing, so that each meeting would have more of its own agenda, so that it would change. Yes, cooperation must be more fun; we take all things too seriously. – Government Partner

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To facilitate mutual commitment and enthusiasm – and a common interest – the existence of arenas for collaborative activities and face-to-face meetings and interactions are essential according to this dialogue.

The physical aspect of collaboration is important because, to me the baseline of collaboration is some kind of mutual respect and trust, and you can only start to build up trust when you've seen the person in front of you. Mailing each other can sometimes be good. I'm still in support of working with different channels because not everyone feels at ease in a group. And that could influence other people and so on. So, I think they both have advantages, but the physical aspect strengthens the personal interaction. – Academic Partner 1

For me it's very important that you have good facilitators; good intermediates that can not only shape the conversation, so that everybody who's part of the group can be heard. But that you are able to do that translation and that you can collectively conclude: ah, that's actually the endpoint we would love to work towards. – Academic Partner 2

I'm not sure if those people are the ones that need to go looking for it. I think there should be some kind of translator, because you can't do everything. So, a translator that shows what's available within his field of study. A person that actually makes a connection. I don't think that those researchers, not everyone is working on that, and is good at it. – Industry Partner

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Personal motivation to collaborate can originate in academic mobility, which in turn becomes a pre-stage to institutional collaboration.

What has been important in the past is a very personalised collaboration of persons that are active both in civil society and in academia, as researchers or research associates who then carry their expertise, their social theories, and in our case mainly in the area of gender studies, into adult education and see, well, how does this work, so to speak, in civil society structures that work politically, that work on a voluntary basis, that work in the area of self-help. How can the concepts from gender studies contribute to this work and how does that function, so to speak? Is that unrealistic? Can the identities or the ways of working not be grasped in this way? Are the concepts of any use to them, or is this the ivory tower, if I may say so? And here we are at the level of individual projects, events, conferences, which we carry out in interpersonal collaboration. Institutional collaboration has so far proved to be a bit, shall I say, difficult, that is only just beginning at individual points. – Societal Partner

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Geographic proximity is often said to be enabling factor for collaboration and innovation, but collaboration is also dependent upon if the relation of relational character (collaboration) or of transactional character (consultancy)

In my opinion, the location. I mean, for ten years I worked for the city government, and now I am in another city and how much schools cooperate with the university, and how little they actually did in my previous city, then the difference is rather big. Maybe more cooperation is done with those with whom it is more convenient to do it. It is actually a matter of money, too. Actually, there are many different things here, but I think that location is also one of them. – [Government Partner](#)

In the present-day information society? – [Academic Partner](#)

Yes, even here, it still is. Maybe relations too. – [Government Partner](#)

Well, in my company, on the contrary, the location of the client does not play a role; the clients may be in another city and I here in this city. – [Industry Partner](#)

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Timing of mutual needs and mutual benefits must overlap in somewhat the same time slot.

I think that I have started good cooperation when someone approaches me, the initiative for cooperation comes from the outside, but I must somehow have an urgency for it, that I cannot do without it. Let's say, five years ago, a proposal came from the languages department that they have students who speak many different languages, would you need them somehow, perhaps we might cooperate. Well, I tried to think how to use it, but I did not feel any great need. Then today, I think about immigrants and refugees, I think that all kinds of interpreters are needed – the need is quite different, and I'm greatly interested in this cooperation. That timing, timeliness, perception of the topicality of themes in the society, making the cooperation proposal at the right time; that is one thing that seems important. – [Government Partner](#)

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Even though partners should be mutual when it comes to needs, benefits and effort put into the collaboration project, one partner needs to take the initiative for collaboration.

There are many cases where you have to lead, and others where you just go along and make your contribution on the run; then it's different; it really depends, yes. – [Government Partner](#)

What do the others think about their area? – [Facilitator](#)

I understand that I am relatively more often an initiator and keeper and communicator, resulting from the tasks of my work. And for the both sides, mediator into the university and also mediator to the companies. Such a go-between, to each side. – Academic Partner 1

I think that I am a representative of both sides – being the head of a certain structural unit, I definitely have to look for cooperation and initiate it. On the other hand, the other side invites us to certain projects or assemblies. This is a bilateral activity; one cannot say which is more predominant – offering oneself to somewhere or acceptance of the offers of the others; it goes both ways. – Academic Partner 2

And of course, to accept an invitation for cooperation is much simpler than to initiate it. If you initiate it yourself, everyone expects that you'll be leading it because it is your greatest interest, the others simply come along, think along, help a little, but the leading role belongs to you. – Societal Partner

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Even if personal motivation, superimposed goals and institutional commitment serve as a base for collaboration additional resources are needed to proceed to a more systematic collaboration. One idea came up that universities should be helped by brokers, intermediaries or relationship managers for collaboration. The support staff at universities, supporting faculty in collaboration activities, is an important and sometimes underestimated resource.

We have so many relationships with the university that our relationships management wanted a memorandum of understanding, and we refused because it would have required our entire legal budget to go into that. We have so many contracts, and reducing the bureaucracy would be ideal. – Societal Partner

It's about trust. And also, there's still a huge amount of competition among universities. How many universities and colleges do you need in one city? – Government Partner

We will never turn the entrepreneur into an academically thinking person and we will never turn the academic into an entrepreneurially thinking person. And they don't have to. But that means that we need an intermediary level that translates between these languages and so on. – Industry Partner

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Such support staff can help to establish and nurture platforms for meetings and dialogue between individuals in different sectors.

The main portion of cases where it's about bringing business and academia together are not quite as straightforward, so that you have a delimited problem and a delimited solution, but it is more about bringing the two sides into dialogue. There has to be some kind of culture of conversation between those parties. And to build that is of course a longer-term task. – Academic Partner

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A common language – including an appreciation of each other's nomenclature – is an enabler.

Another experience is in finding a common language, an understanding that we are talking about the same thing. If a company says 'now' this should be 'now' for the researcher also. For one the 'now' is tomorrow and for the other the 'now' is in four months – how could we understand each other? I have good and bad experiences with the government. On the critical side, it has come so far that all the projects have to correlate to an understanding that the cheapest project wins. In this case, there are situations where not the science but a pseudoscience wins. The work is done cheaply but it will not fill in the requirements of the science. – Academic Partner

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Also, the importance of listening (rather than talking) in quadruple helix dialogue is stressed.

When talking about dreams then it's unlikely I have any dreams about this. I'd rather ask you to keep things real. If you are working in a company where you see where the money comes from and what is the real life; you see the real problems that need solving, then well this would be a great contribution. – Industry Partner

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Communication skills also ties in the perspective-awareness:

work within its own perspective, there should be this win-win situation that both of the partners have a genuine interest and motivation to create synergy. Then the outcome will be great. And to put this in practice then, not to do something just for the reports and not to have any real outcome for the results later on. Overall I cannot imagine that there wouldn't be collaboration projects. We definitely need them. – Academic Partner

I think as well with collaboration, you have to make sure you have the right people in the room and not always the people at the top. So, say if it was children and young people, the people who live and breathe those situations every day. I totally get the academic side and the business side and the buzz words you're

talking about. That might mean something in that world but it actually doesn't mean much in our world. – Societal Partner

One of the barriers for academics from a council perspective is: where do they get into the council? On a really basic level, it's about opening our doors and signposting the right academics and researchers to the right people to work with and opening our minds to the new ideas that those people bring. I see that as quite a big bit of my role, it's around that relationship and, in part, as an introducer, just finding out what's happening in the universities and elsewhere and making sure, going and having the conversation with colleagues across the council. It's a big and complex organisation in itself, I'm sure you all know. But being that introducer and introducing the right academics to the right subject matter experts and then sometimes being a bit of a talent spotter. So, it's about us opening our doors and our minds. It's almost like a dating agency, getting the right people introduced and giving them the support. – Government Partner

I think it's a great idea. It's a matchmaker. It's an impact matchmaker. I think academics would really benefit from that too in the institution. One person, as you were saying, who could be the point of contact but then perhaps with a small team around them. But then I don't know whether the university would invest in something like that. – Academic Partner

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Moreover, a mix of short-term and long-term perspectives in collaboration is emphasised.

The problem is undoubtedly long-term. Yet this is a project with a start date and a defined end date. And there – if you don't reflect fully from day one – the strategic partnership remains an exercise in collaboration. It doesn't become a permanent fixture. I believe it to be important that if a person is serious about collaboration, then he needs to look beyond the project. Create an institution around the collaboration. It is so important. If we feel that we are attaining so much. In that case, there needs to be longer term thinking. I think that is a great limitation. – Academic Partner

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An academic in gives an illustrative description of collaboration skills and what set of communicative skills for instance may be incorporated in collaboration skills.

As a researcher, I believe it is crucial to consider how to better formulate your research questions and problem or how to market it. We are often viewed as boring, remote, sitting in our ivory tower and it doesn't have to be this way. We are not trained enough to deal with putting something in a societal context, but

I think we should. As an example, I collaborated with many corporations on a research project concerning evictions. Every year approximately 23.000 people or households are evicted in this country. That's quite a number. As a lawyer you might think, "Oh that poor tenant. Those poor people have all kinds of problems and will now also be homeless, what a shame". A justified thought. However, when I thought about this a bit longer I grew aware of all the other stakeholders involved. Consider the interests of, for example, the neighbours of these troublemakers, the ones who have to wait for a very long time before these people are evicted. So that is the problem we want to solve. Housing corporations use a lot of manpower in compiling files etcetera. What if we make this more effective, what if we do not focus on evicting people but on different measures that can save money. Basically, making some sort of business case, not only for the consumer but also for the manager who is questioning whether to participate or not, whether it will earn him money. And eventually also for society. It is very costly to evict people because you need to re-house them. So, the national research fund, please give me subsidies so that I can prevent people from becoming homeless more effectively. You can choose to only focus from this perspective. On the other hand, if you tell us to avoid making people homeless then we are forced to do something else and help victims sooner. So that was a very interesting exercise in which I collaborated with a group of people. Interesting because you start of in some sort of think tank. If I had approached housing corporations with the idea to prevent people from becoming homeless they would have responded negatively. But if I had told them that they would save money and improve their services towards other tenants... Well we did that at one stage and five corporations participated and invested in it. Simply by using this little trick, reformulating. The research question actually remains the same. So, I believe that this is something we as scientists can do better. We should receive training or support. Funding officers already work in this way, but there is room for improvement. – [Academic Partner](#)

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Sometimes a mental mindset of risk-taking and taking on responsibility is needed to enable collaboration activities; "do not ask for permission upfront, but inform afterwards".

A good example is a project encouraging participation of youth and students in neighbourhoods in which the municipality collaborates with the applied science, the societal organisation, and increasingly also with the university. This idea emerged from a thesis written by someone who is now currently my colleague. Students are deployed to do their assignments in the neighbourhood. They have to complete or write their theses. It's in the bachelor- or master-phase. In the context of this project we actually sought out collaboration with the applied science and the university. This was difficult at first to set up but there were a few people, a few teachers in this case, who were very enthusiastic, which got the collaboration going. Just using common sense and informing people, such as

your boss, instead of asking for permission. Those are crucial elements for me. (...) Just start, without asking permission first. So, in a way it's a type of bottom-up collaboration. In another way, you are almost forcing it. Because, once you have started you can't get out of it now. That's the idea behind it as well. The project encouraging participation of youth and students in neighbourhoods didn't start with an agreement, it simply started and now the directors have all given it a role. – [Government Partner](#)

I think that we may need to add another point; a certain level of independence. (...) With regards to having a certain amount of freedom, you have reached a certain amount of freedom when you are financially independent but also when you can set something up without having to consult everybody. A few years ago, during the time of regulations of the European Science Foundation and about daily routines and such, we came up with an idea and discussed this with our stakeholders. It was to set up an activity, a training course for women entrepreneurs from home. With the help of the college and subsidies we were able to develop this further and support this for two or three years. By that time, we could show the results and present this to the municipality, who took it over basically. It is very important that we are not too dependent on policy otherwise you don't have any opportunities to change things around. – [Societal Partner](#)

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If lack of adequate leadership is an obstacle, then of course the presence of an adequate leadership is also an important enabler.

Our impression is that it is absolutely crucial what kind of cooperative culture exists in the university leadership, what is passed down towards the level of faculties and departments, what do they want, which strategic priorities are set. Is it excellence or is it the economy or is it also opening up towards other target groups? – [Societal Partner](#)

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Seed money for collaboration activities is still needed.

Actors in adult education are always fighting for structural funding and not always jump from one project to another and try to get money in that way. And that to me was one of the "aha" moments, that we, whether from the industry side or from societal partners' side, adult education does not have this structure yet and the insight that it is necessary in order to really have an eye-level collaboration in order to really achieve impact. And secondly, that, if there are to be projects, one must also look into possibilities for funding projects, collaboration, which jump the pigeonholes and make something possible from different perspectives. – [Societal Partner](#)

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Enablers to impact from collaboration activities

What are the enablers to impact from collaboration activities between government, civil society, industry and universities?

A key enabler of collaboration is to be able to communicate the value of research.

The problem is not just the researchers. There are definitely also private companies and governments that don't know what to do with research. If you can't see it, you don't do it. It's a bout communication. I really believe in the people's movement for research. Because, if the public, I know this sounds elitist, but if the public discovered what you can use research for: 20 years ago, nobody had a smartphone. That's research. It's technological, but it's also humanistic and anthropological. Many people don't know that this is a product of research. In the minds of many people this is just a product. It's hard to show the value of creating new knowledge. If the project of the other industrial partner becomes a big success and the patients at the hospital recover faster and it is a consequence of the art works, then that's a success story. We are terrible at showing what kind of value, whether economic or life quality, we are creating. We need the researchers to help us tell that story. And they don't really do it right now. They don't necessarily tell what difference it made for a lot of people or for economic development or something else. They need to show off more. – Industry Partner

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Focus group participants also point to the necessity of a greater proximity between researchers and end-users – patient, clients or industry.

A closer connection between research (in this particular case) and caregivers can be beneficial in those moments when news sometimes may be not entirely accurate. – Academic Partner

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An enabler is to consider aspects of rights and ethics – e.g. property right and intellectual property.

Yes, evidently, when you participate in platforms you always got the concept of privacy lurking around the corner. Property rights, also intellectual property rights. – Government Partner

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At the same time, this is less of a problem in SSH as opposed to for instance the technological and medical sciences.

But often that's what the problem is, right. There is a lot of fundamental research happening, and then, up until now the expectation often was: at the end of your research you communicate, it doesn't matter if it gets picked up or not. Now there is a trend towards, that you should try and form a strategy of what you will do with your research. – Academic Partner

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For academia, skills to convince others of the importance and necessity of research is an enabler:

I think that it also depends on who orders the research. Ultimately, it's still often the case that universities order a research. We have to convince the corporate world, organisations and the policymakers of the fact that when you want to reach something that you need to conduct research to reach your goal. And they are the requesting party so they should pay for it. – Industry Partner

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Here success stories – or examples of best practices – play a key role:

Yes, we have big success stories. It's just that you have to organise them on a small scale and hope that you can try open the eyes of others. – Industry Partner

I'd add that telling success stories or sharing case studies is a one way – Academic Partner

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Such success stories also serve a purpose.

There are two kinds of benefits here – benefits for our members and benefits for us. So, the EU projects, as a rule, always bring some benefits. They can be financial, educational, or benefits for someone, the recipient of a service or something like that. Specifically on the project of the Enterprise Europe Network, what we do is help network partners on the international level, so companies which benefit from us can easily, without much trouble, find partners in any EU country, and beyond, through our network which enables and mediates in finding partners, provides some guarantees about the partner, because the project is backed by chambers of commerce and universities in other countries, and, in the case of technological collaborations, by scientific and technological partners as well. The benefits in that sense, for our partners, are many, not just in networking. We also provide information about the sources of

financing, both in our country, and from EU funds, and for sources abroad, because if you want to open a subsidiary or an office in another country, it might be useful for you to know which incentives are in place for, for example, hiring domestic or foreign workers, which can reduce the costs of opening your subsidiary and hiring staff. The main benefit for the institution is visibility, of course, recognition among partners as a place where international collaboration can be easily achieved. Another benefit is networking with all these institutions, because the project is present in more than seventy countries in the world, which means over six hundred organisations like chambers of commerce, technology parks, universities, development agencies and so on. So, one additional value is the recognition of partners from our country, which is, in a global sense, perhaps less visible than some larger countries such as Great Britain, Germany and France, but through the Enterprise Europe Network project it can have a greater impact in an economic, entrepreneurial segment. That is a benefit both for the institution and its partners. In addition, of course, whenever you can find financial benefits for your project, that is a good thing, because you can get a return on investment on your own activities and thus reduce the burden on you. – [Government Partner](#)

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Universities can also be better at clarifying the impact of research.

Even an individual researcher should be writing some kind of impact paragraph. In my research as a historian I would have gotten a bit stuck in it. I could say I was able to make contact with this or that organisation, but I wouldn't have a clue on how to validate my research on something that has happened 120 years ago. – [Academic Partner](#)

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The third mission of universities can also provide a leverage of co-creation.

The third mission means giving stakeholders a central position, starting from students, families and all actors; for example, when we have to redefine the education offering – and this is part of the university system – we need to interrelate with those who profit from our service. – [Academic Partner](#)

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Evaluation of projects, also those in the SSH area, should be financed and built into any project design, which the following quote illustrates:

We have a new project, it's based in the city, on the topic of gender equality, gender justice in the context of migration and especially through the strong influx of refugees to our country. And that is supposed to be a state-wide unit for

education and networking, towards voluntary and salaried work with refugees and so on. And I spoke about it with the person concerned, we met coincidentally one day, and I told her about it. She said: "We must really conduct an evaluation of that, so that we know what use it is, what comes of it and so on." I said: "Yes, of course", but of course that wasn't intended in the project proposal. So, what I mean is, we have certain guidelines, but there's the university, the ministry of science and culture and there's adult education, and we are financed by the ministry of social affairs, because the refugee-migration-issue is in their domain. So, there are also structural, shall I say, impediments to this transfer of knowledge, through the financing options for projects. – Societal Partner

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A focal enabler is communication skills – that is, to adjust communication, information and vocabulary depending on the target group

I spend my whole life trying to tell people not to use jargon, not to use acronyms, to talk in normal language that people understand. I have a session with some students next week, a lot of it is going to be about that. I think what you as an industry partner is saying about the real world is very pertinent. I think what you say about universities not training people for jobs, I don't agree with that actually because I think universities educate. I think training probably happens elsewhere but that's a side issue. – Academic Administration Partner

You have to start by talking about things and there is a mutual interesting, there is a mutual connection and that's what creates the energy to try and do something. But where it goes after that is anybody's guess really, what happens. – Societal Partner

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There are divergent views of the meaning of impact stemming from collaboration and co-creation.

Impact to me means bringing about change. I always want to know how this is going to bring change to our young people, to families. How is this going to bring change to our organisation and how is this going to bring change to other similar organisations and other young people and children outside. That's what impact means for us, for the work we do, whatever we get involved with, with the university. – Societal Partner

And there you can find indicators for how to be successful in terms of collaboration because in actual fact the indicators supporting the goals can be

found in another fashion. That discussion I thought we could take to the steering committee meeting later. – Academic Partner

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Value created by collaborative projects

What value is created by collaborative projects for you?

The focus group participants agree that the goal of collaboration and co-creation is some sort of value:

Companies say something like: "Yeah, I did pay for it, right, and these are not the results we expected." – Academic Partner

When talking about a project or a research there is always a question of what profit it may accumulate. Could you guarantee that the profit will double? – Societal Partner

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The following dialogue illustrate several values of serving society, recruiting staff from universities, personal mobility between sectors or simply providing opportunities as guest lectures.

One of the three great tasks of the university is serving the society. The university would not exist either if we didn't collaborate, for example, with industry. Definitely, one motivation is money; this is simple. If there are some European projects, then collaboration is done to have the government as a partner, or the government has to take the university as a partner. – Academic Partner 1

I forgot a very essential added value – I have obtained most of my best staff through collaboration. I simply see the very good handwriting of some other organisation, and it is cool to have them work for me; this is collaboration. This is the added value of collaboration. Absolutely fair, in my opinion. I have given away my good staff the same way. I think that nowadays, when there is a shortage of labour, it is the best way to find a good worker. – Government Partner

In absolutely any kind of cooperation I have done representing the university and cooperating with industry, the best perhaps, like Academic Partner 1 said, is serving the society. For example, when a person from industry comes to deliver a lecture, this actually is cooperation. If we are alone, or if our lecturers had delivered this lecture, not that they would have done it badly, but it enriches the students' world of thought or their field of vision and their

perception of what is happening in society. In addition, usually the partner who came to deliver the lecture perhaps did not even like the idea at the beginning when we agreed upon it, but then he said that it was awfully beneficial for him. That he systematised his ideas and delivered them, got new and interesting ideas offered by the students. – Academic Partner 2

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Yet, the value stemming from collaboration and co-creation is diverse.

I would say that broadening your mind, so getting to know different mindsets, and thus, broadening of what is characteristic of all areas, a narrow-minded thinking, which can of course lead to higher efficiency and productivity for all parties later on. – Societal Partner

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The value of collaboration can also be indirect, and not always directly visible.

Another is the fact that there are just so many research questions where this direct usefulness relationship is not a given. I will elaborate. We are working on a research project at the moment which is financed by the research funding foundation and the International Project which addresses the question: In comparable situations, in the same businesses, how does personnel policy in a wider sense, that is, everything to do with personnel, relate to the life plans and life perspectives and development opportunities of employees? That is a pretty important research question. To be able to do that, you must go to businesses and win them over so that you can get access and can talk to employees. And when the business representatives then ask you: "What do I get out of it?", then I honestly say from the beginning, "In the first place, you will only get work (...) and on the other hand you will somehow contribute to a consolidation of common knowledge that may benefit you indirectly one day." – Academic Partner

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A value is the expansion and refinement of existing knowledge:

A wider knowledge across the board, an understanding, this is from my point of view of value, and gives a better chance of working together later. – Industry Partner

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There are also different kinds of knowledge that is produced:

The project in which we managed to connect different knowledges: the knowledges from experience, the political knowledge, the medical knowledge and the expertise. – Academic Partner 1

But it's not as obvious sometimes exactly what a social sciences centre can bring to certain diseases for a reason which is that lots of the needed abilities to deal with what are the problems, those recognised problems – such as the those which Academic Partner 1 talked about – they are often already formulated and they appear in the process itself in which the organisations and associations will create their own platforms: they have the vocabulary, the problems are identified, they don't speak exactly the same language as the social sciences, but often it's not that easy to see what the social sciences and humanities can add. – Academic Partner 2

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Collaboration creates an understanding of others, their conditions and their logics.

If you concentrate on crafts, then you can immediately forget 97 per cent of all journals, so that the risk becomes extremely high for them. (...) At the same time, we must deal with it, right? And one of the strategies we have developed within our group is that we bring the businesses further in, show them our lifeworld, too, yes, show them which clock we tick by and at the same time identify their concrete needs. And then we don't find so much that there are bridges to be built in the sense that the worlds move closer to one another, that is hardly ever possible, but more likely bridges of understanding can be built, over which one then suddenly says things like: "OK, we are ready to do that again." And to build such a network, is very, very crucial and that has been our recipe for success, that it maintains this network. – Academic Partner

I think that cooperation helps to see the view of the other side. I look at it from my own viewpoint, but to develop cooperation or an idea, how the others see it and what they bring along, this is an opportunity, or in cooperation things are simpler to do. – Government Partner

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The focus group participants point to the value of SSH research.

The project was also an attempt to show how the social sciences in certain conditions also could help to create projects and to create ways of joint work in solving some kinds of problems that weren't even formulated by the social scientists. They were problems brought to the social scientists. – Academic Partner

We shouldn't be limited and say: "Scholars from the humanities and social sciences are here to give us a context for the social usage of our results". No, we need to turn things around the other way. How can their insights help create new products? Can small-scale model replicas of stone huts unearthed by archaeologists, become souvenirs in our region? Can they? Specifically, they have. Archaeological or ethnological knowledge is something that will in a way shape our society in the 21st century; the type of non-material heritage that the UNESCO tends to recognise. This country is in the top three countries in the world when it comes to recognised non-material items, so individual elements of non-material heritage, starting from the local dialect of a language, to the close-interval scale of the city, including, you would not believe this, the peculiar game played at the specific beach in this beach resort, which has been recognised as non-material heritage. Of course, everybody loves prosciutto, we know that. Those are products, but humanities and social sciences scholars could directly participate in branding these various products. So, not just souvenirs. You have this story of the stone huts. What is a stone hut? How do you sell the old city and its walls? Everybody stops and stares. Why is this particular olive oil branded like it is, and not the same as something else? That is the point. When branding these things, we need to include the key element, if you will, at the national level. The key element, one of the key branches of our national economy is tourism. Tourism is not just about selling the sun and sea breezes, somebody needs to, but people want something more. Okay, the global adventure move was a godsend. A godsend, phenomenal both for the beach and for the city. But that is not the only thing. There is autochthonous content. You have to tell them a story. It doesn't even have to be true. It can be a fairy tale, it can be made up, or it can be something out of National Tales of Long Ago. But that is all heritage that exists in this language, in this cultural and social community, it has been preserved on an individual, family or national level, which can be brought out into the light of day and made into a product. For example, I can envisage a collaboration between humanities and social sciences scholars, if you will, and direct commerce. Tourism is a form of direct commerce, not just attraction-based commerce. How do you make the minister of economy hire a literary theorist who will tell him: "Listen, you have some really special folk tales up there on the particular plateau. – [Academic Partner](#)

This depends, of course, on the market, and the required speed of results is different. For example, if you take waste management as a segment, it is natural that you need research about how a certain segment of waste management will influence the environment, and beyond the environment, how society will accept a certain way of gathering and managing waste. That is just one study which encompasses all sciences and is by no means short, but the companies in that segment understand this, while, for example, IT projects or the IT industry,

which is dynamic by nature, you simply do not have two years to develop a new product, and any kind of research takes time. That's a situation where you have to spend a certain amount of time studying something, especially if we are talking about influences on society, or innovation, or social influences within a large business unit or corporation, where you need to apply the principles of psychology, sociology, economy, and management, in order to keep the whole ecosystem operating at a certain level. – Government Partner

Linguistics, specifically, is de facto a part of fundamental sciences. It is one of the fundamentals of humanities and social sciences; fundamental, at least, for those sciences in which the object of research is language itself, or mediated through language or text – which is quite a broad field. From sociology, where they call it content representation, which is basically the interpretation of text, to psychology, all the way to economy, ultimately, where you have PR agents and so forth. So, wherever you have communication, you have basic linguistics, and, let me stretch that a bit further, semiotics, a general science of signs. – Academic Partner

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A particular value to the government of collaboration with universities lies in the quality and methods used to create knowledge.

From the municipal point of view again, our goal is simple: We want to have quality. And you are much more likely to get that if you are close to research institutions, to universities, develop projects together with them and then see how they are dealt with. I want to show it by two examples, one in the cultural sector, one in the social sector. They actually brought companies in to work on those two problems, not university, but free consultants that were floating around somewhere, because collaboration with research institutions would have been necessary at this point, but wasn't far enough advanced. In the cultural sector: we spent 70.000 Euros for something any of us would have been able to develop in one afternoon, it was incredibly bad methodologically. But we had to accept it as it was, because they refused to further revise it and make something sensible out of it, we would have had to give them that amount of money again, which we didn't have. In the social sector we did that once, we got a report on a certain sector, said: "That is methodologically so lousy that we won't accept it." They had to revise it and brought it back to us. That, however, prolonged the process enormously. So really that was unacceptable to. Things would have gone much better if we had actually already had this collaboration with research institutions. (...) And from that point of view collaboration with established research institutions would be tremendously helpful actually for the decision-making processes at this level. – Government Partner

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For SSH researchers it is sometimes hard to market their knowledge and expertise, or even to be taken seriously.

We aren't capable of selling ourselves, demonstrating ourselves as important and irreplaceable in certain things and, because of that, others do not take us seriously. This is not only a feature of the national system, but in general as well. Certain experiences of mine, like participating in a large project of the European Science Foundation, which has ended and which we would like to continue as part of the COST framework or another package, indicate that what is needed is this interaction, the applicability of our research in a wider sense. My field of expertise specifically is cognitive linguistics, so I am pretty much in the loop as far as cognitive science is concerned, and while writing the project application it was never even considered that linguistic research wouldn't be able to have some concrete applications, for example in medicine, in the form of language-based disabilities, or monitoring the development of linguistic and cognitive abilities and so on. However, something happened while applying for the project. A colleague, a potential project leader, had a lot of problems finding partners from other disciplines, because the starting point was linguistics, and the potential partners from several life science institutes were not really interested: "What would we do, are we supposed to be your helpers?" So even at an international, European level, it was difficult to find an institute which would provide support of this kind, based on neuroscience or medicine, on basic biomedical sciences. And we think that is our problem, we are not taken seriously enough, and we are not propulsive enough on the other hand, because you can't describe language without knowing the basics about how language works. – [Academic Partner](#)

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Sometimes it is a matter of clever dissemination and smart packaging of SSH knowledge:

There are two obligatory work packages: coordination and dissemination. Those are the basics, they are indispensable. We had the fortune – or misfortune, however you want to see it – that on every project we were invited to join, we didn't have to force our way in, we never actively sought partners, we were invited into a consortium, and we were always in charge of the dissemination work package. So, my experience has led me to this. You can do it with students and so forth, but you really need to turn to professionals, camera-men and directors and so forth. On several of our projects, we created short video clips, two minutes each, explaining how the individual components are produced. The number of viewers they reached was through the roof. – [Academic Partner](#)

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Research sheds light upon things to be explored or challenges to be met.

You see the value of working cross-functionally. That was interesting. This we had when our group was mixed and that's where you see the benefit. There are areas that, you know, touch on each other and as I see it, it would be completely possible to understand and develop because it will help me and the municipality to use the term sustainable development so it is much clearer for many municipalities. But I do not believe that there is an understanding as to what that involves since it can involve anything and everything. It's a case of finding synergy, because then it's actually a triple helix. – Government Partner

There are a great many values. I agree that the most important point is what you are talking about here: we create something more when do so together. It's sort of a basic value. But it's clear that to achieve more instrumental values and for the university, we took the initiative to open up discussions about the strategic partnership, and so that was also a matter of the volume of research. There should be no pretence that this is not the case. It is a university with relatively low funding for research, which puts pressure on the university in many ways in terms of its existence and activities and effect on the region where it is active. So, there is the dimension of strengthening the university. And that for a university is actually enormously valuable. And then we do this by way of collaboration and coproduction but contribute to that more and better research is simply conducted here. And this affects us greatly as an organisation, and that is highly valuable, I would like to add. – Academic Partner

Important issues discussed in the focus groups

What was the most important issue that we have talked about today?

At the end of the focus groups we also asked what had been the most important issue the groups had dealt with, e.g. any eye-catching comment or anything particularly smart that had been said. One idea illustrates human relations as the basic building block in collaboration and opportunities to meet with others, for instance by different collaboration platforms for interactions and meeting over sectors boundaries.

I believe that the collaborations and human relations are the most important. – Government Partner

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I think the most important issue is how to create a system that makes it possible for private companies and researchers to meet somewhere midway and know what they can learn from each other. To create knowledge exchange, sharing and development in collaboration. To dare to kick in the doors in order to apply

the knowledge that's actually being produced. And we don't necessarily do that today. – Industry Partner

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In my opinion the most important thing is meeting each other and sharing experiences and I think we have succeeded in that. – Government Partner

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Yes, it's all about collaborating, connecting. That is an important aspect and great to have different parties here at the table and exchange thoughts with one another! Good initiative! Normally you can't organise this yourself and normally it doesn't happen, so I enjoyed it. – Societal Partner

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Other comments were on the differences of culture and mentality, and the importance to create an understanding for other sectors and their underlying logics.

To me the most important subject is communication. Our problem is the differences in the perception. – Government Partner

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Yes, terminology but more the mentality – how we think. If we think of one thing then what do the others think? How do we understand them? – Academic Partner

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I really liked that you pointed to the time perspective. We really do have different timeframes – the university's now is not now for the industry. To combine these – what would be the middle-way? – Government Partner

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Well, to me it was interesting. We see all this from the university and funding perspectives, and I thought it was quite interesting to sit here with different players, how it can work, or what is lacking in this collaboration and certain points I simply hadn't thought about before. That might not advance our work directly, but all in all I believe it was pretty good for understanding. – Academic Partner

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Topics not covered in focus groups

What topics have we not covered today?

Then we also asked if there is any important idea, theme, topic that we had not touched upon in the focus group. One theme regards groups missing from the focus group, another theme regards topics not covered. The first theme regarding groups point at two groups of actors that had not been part of their focus groups; citizens and funding organisations.

We've never talked about citizens; we never met them. I believe that the key word is citizens. – Government Partner

There is an issue for me, it's come up a couple of times, we've not really identified it. It goes back to something that you were saying, NN, about the research councils. It's all very well for us to have this conversation but actually, until partner organisations can be costed properly in funding applications, there's always going to be a one-sided relationship actually. So, it's about having that, feeding back to research councils about the funding and how partners get written into bids. – Academic Partner

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The other topics not covered is entrepreneurship and societal challenges such as inequality, in a time when an increasing number of universities use the 17 Global Development Goals of the United Nations as goals also for university collaboration, education and research.

I think we could have discussed entrepreneurship a bit deeper. We haven't discussed it too deeply and in other sectors, as a driver of knowledge to create these alliances. – Societal Partner

I would have discussed our challenges as society a bit further. We've mentioned the issue of inequality and the issue of equity, and we must think what we need to mobilise in order to overcome all our future challenges. We need to identify those challenges because otherwise our collaboration will be harder. Only when we identify the relevant milestones to achieve, we'll be able to search what dynamics to follow and what networks we need to build. Network construction is very important. Not everything is the city. The municipal dimension is a concern, because the system of municipalities we currently have in our country doesn't help consolidate municipality-based models, apart from our city and other big cities. How will we do it in cases of 50,000 inhabitants or less? We need to create supra-municipal dynamics that do actually work. – Societal Partner

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Other interesting observations

Beside the traditional Humboldtian tasks of universities such as teaching and research, collaboration with actors in the surrounding society has grown increasingly important over the past few decades. Collaboration by itself should arguably lead to high quality in teaching and research. As a means to how such skills should be gain further traction in the increasing demands of universities to address needs and challenges in society on a global, regional and local scale, for instance to address the 17 Global Developmental Goals of the United Nations, collaboration skills next to research skills and teaching skills need to be addressed and incentivised.

In a nutshell, it's about the setting of incentive systems for academia and for young academics. That is the central problem and you have already elaborated on that. Those incentives are set in such a way that they aren't interested, cannot be interested, in collaboration with reality, with the economic and social world. And I think we are now at a point where this would be possible. – Government Partner

At an individual level, something akin to career paths must be possible in a way that collaboration promotes career progress rather than hindering it. I think that was in the ACCOMPLISSH papers that in other countries it is necessary already at the application stage and in career-building steps to build in the later uses of research, or networks, into the grant applications in order to receive funding. That would certainly be something that would support collaboration at a local level very much. – Societal Partner

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Another interesting topic in the wake of collaborative skills is to address alternative career paths beyond universities, as also mentioned in the quote above by the societal partner. Not all universities can host tenure track positions for PhD-educated scholars. Given the positive nature of collaboration skills, individuals with merits and experiences from different sectors such as intermediaries moving between working places in academia, government, civil society or industry, are increasingly asked for.

In my opinion one should show a third career path very much more strongly, equipped with the corresponding incentives, that would fulfil exactly this, to offer an impact for society. That means to intensify collaboration with business, with institutions at the municipal and regional level, with players in economy and society. But these players would have to bring more to the table, so that one could say: "We actually offer employment for example in these organisations, in chambers, or in organisations, that can take on these academics that are more practically oriented and offer them areas of activity." Currently they have to become self-employed in some way, work as consultants in small firms. That is very unattractive. I think, societal players must create a field in which these

people can find an area of activity. And that should really be put much more into focus by universities as a third path for a post-doc career. – [Government Partner](#)

I find it very important, this question of alternative career paths. Because, I will say, the institutes like ours, actually all these institutes that are active in the field of work life research, we are all grown-up researchers that didn't make full professorship. In fact, there are many people who don't necessarily want that, but who are quite content to work continually, professionally in this form, that is in research institutes and to do work that is close to reality. But the thing is, there are hardly any structures for that. – [Academic Partner](#)

A lot of chamber employees went, when the East opened, into the universities of applied sciences, diffused into this intermediate area between practice and academia, chose a different path and became intermediaries in that way. I don't know if that can be organised that way. (...) We are always very successful when the company manager has been active in consulting or even actually came from university. So, there is a new generation growing that knows these worlds too. We just have too many academics. – [Industry Partner](#)

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Example of a particular collaboration activity, as illustrated by academic mobility from universities to other quadruple helix partners:

A very talented colleague has made collaborations with the university for a special industrial research programme. Right now, you have industrial PhDs and you have industrial post docs, but we want to actually get an associate professor or a professor and be able to place them in a company for six months or a year tied to a specific project. They can then gain access to empirical data from the company and vice versa the researcher can solve very specific problems for the company where there is a need for research based knowledge. – [Industry Partner](#)

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Discussion and conclusions

The focus group interviews provide a clear indication of the ambiguity of concepts such as cooperation, collaboration and co-creation. This observation is consistent with the existing literature in the area and is, therefore, less surprising. More intriguing is the richness and "density" of the reflection upon and accounts of practices related to these concepts – which the focus groups provide.

One way or another, for the quadruple helix partners to achieve their goal, some level of

collaboration must be an intrinsic if not necessary goal. Yet, the value and outcomes of collaboration and co-creation are seldom clear at the onset: they are diverse and viewed differently by the parties involved. Quadruple helix partners differ in culture, mentality and institutional logics, and, to some extent, views on research and knowledge are also mentioned. The same goes for their concern with aspects of rights and ethics – e.g. client, patient and customer rights, property rights and intellectual property.

The focus group participants from all quadruple helix sectors depict collaboration as being a reciprocal process firmly anchored in mutual relationships. In the relationships, the parties involved perceive and claim they are affected by differences in power, status, resources and motivation to collaborate. Thus, these relationships are the nexus of collaboration and are ultimately about giving and taking – with the common intent to achieve the slightly divergent goals of and foreseeable benefits for the parties involved. This said, the focus group participants argue that all parties must be involved in the initial phase of defining the common problem or concern.

According to the focus group participants, co-creation too often remains a matter of rhetoric that aims at recognition, visibility and attractiveness rather than being an embedded organisational approach with focus on the attainment of tangible outcomes – e.g. knowledge development, research results, education and training, or policy alterations. In comparison with a great deal of other collaboration, the focus group participants therefore agree that more systematised and extensive co-creation pertains to a higher level of ambition and additional areas of consideration. However, such ambitions are many times held back by austerity, and ambiguous or contradictory messages from policy-makers and top management, a lack of long-term and robust strategies, a lack of competence, and a lack of individual motivation. A self-chosen academic seclusion, and what a bit provocatively can be referred to as scientific self-centredness, in SSH, compared to other disciplines, adds to this.

All the quadruple helix partners point to the overall role of research – i.e. shedding light upon aspects to be explored or challenges to be met. Similarly, the need and value of SSH research is emphasised, and its value in co-creation is primarily seen as the expansion and refinement of existing knowledge. At the same time, the quadruple helix partners agree that it is harder to market and receive funding within the SSH field than in other fields, such as technology and medicine. Also, SSH researchers are often reluctant to convince – or are poor at convincing – representatives of other quadruple helix partners of the importance and necessity of their research, while universities do not prioritise the tasks of disseminating and clarifying the impact of SSH research.

Based on what has been said in the focus groups, co-creation extends beyond collaboration – in other words, it moves from consultancy and monetary transactions to relational transactions. For this to happen, establishing a sense of trust, respect and mutuality as well as a minimal set of shared meanings is essential, in addition to the ambition of being involved in symmetrical relationships. Rather than solely seeking new contacts for collaboration, the academic partners emphasise using ongoing relationships to facilitate co-creation and impact-driven research. Such relationships take time to develop and must be nurtured. Linked to this is the realm of what kind of competence and skills future teachers and researchers at universities must attain in order to foster high-quality and highly relevant teaching and

research. As such, some discussions in the focus groups were about how collaboration skills and activities should be given the same value and incentives when it comes to recruitment of academic staff or allocation of resources in research grants or basic funding for teaching as scientific skills and teaching currently are. This would also open up for intermediaries to move between quadruple helix partners and organisations in other sectors, the result being an increase in quality and relevance in terms of teaching and research as well as an increase in the number of translators who will serve to foster understanding between different sectors.

Furthermore, different sectors as well as organisations and subdivisions of these adhere to different nomenclatures – that is, the same concepts may have different meanings, and the same meaning may be ascribed different concepts. The result of this, for instance, is that co-creation can be defined in different ways. At times, it is used interchangeably with the terms collaboration or cooperation, whereas at other times it is given a highly specific meaning. In addition to this, national contexts and language considerations result in co-creation being translated in different ways (which here also has constituted a methodological challenge).

Moreover, communication is so much more than words. This means that the style, purpose and structure of and areas designated for communication vary. Discussion, debate and linguistic precision are key characteristics of academic communication. In other sectors, indirectness, humbleness, or, for that matter, candidness, characterise verbal interchange. A full appreciation of these variations requires time and an open climate between the potential co-creators.

The academic partners see several roles for themselves, one being to render credibility to the vision of being a collaborative or a co-creative university. Another is the responsibility of universities to promote change and achieve societal impact. Considering these responsibilities, intra-academic differences between institutions, subject areas and countries become evident. SSH researchers tend to be less accustomed with or more skeptical towards these matters than other disciplines, according to some focus group participants. There is a reluctance to advocate ideological roles or to accept responsibility to assist companies so as to maximise financial returns or to ensure regional and economic growth. It is also within this context that questions of academic freedom and integrity, and the meaning of impact-driven research and accountability to the individual tax payer move to the foreground of academic debate.

Government partners are in place to prioritise the public interest and needs of citizens, be it to provide adequate health and welfare services, education or long-term competence provision. To fulfil these goals, SSH knowledge is both needed and requested. Time and human resources are, however, often scarce, which hinders further ambitions in terms of modes of co-creation. Simply put, it is difficult for government stakeholders to allocate money and people to be involved in co-creation projects. Also, the ways in which government institutions are organised can pose a challenge – when it comes to access and transversal co-creation projects.

Overall, societal partners have fewer resources at their disposal than do the other quadruple helix partners and they are less able to provide funding beyond in-kind contributions for co-creation projects. As idea-driven organisations, they are narrower in scope; at the same time, they have close community ties. The latter are crucial for co-creation projects, especially given the goal of increasing public engagement and the long-term prospect of encouraging open science and citizen science. For SSH, societal partners are focal target groups.

When it comes to partners from the industry, there is a long tradition of collaboration and co-creation with universities and research institutes, be this, however, more in the fields of the medical, natural and technological sciences. Overall, in the industry the value of SSH research is frequently underestimated. This notwithstanding, there is an increasing openness towards SSH collaboration and a relative willingness to set aside resources for this purpose, at the same time as there are explicit expectations as to a monetary return on investments made.

Stated as being an enabler in any quadruple helix sector is top management that has a favourable attitude towards allocating – and a willingness to allocate – resources (including ‘seed money’) for co-creation. By the same token, the availability of good experiences and competent brokers, facilitators and intermediaries – that is, people with good insight into the logics, language and obstacles: finding ways of avoiding these is crucial. These can also provide success stories and ‘good practice’ examples, and have a key role to play in closing the distance between and introducing potential collaborators to one another; in providing arenas for dialogue when it comes to formulating joint projects; and in guiding the actors as they seek funding for such activities. Within academia, the focus group participants stress the availability of university research management supporting the faculty in collaboration activities.

Other factors that can enable co-creation, as mentioned in the focus group, are that the parties involved possess mutual knowledge of one another (rather than unquestioned stereotypes), as well as their respective incentives, interests, needs, funding opportunities or other structural conditions circumscribing co-creation. The willingness to move beyond one’s comfort zone and adopt a mindset of risk-taking and pro-activeness at the same time as accepting responsibility are also crucial factors; as one person said: “Do not ask for permission upfront, but inform afterwards”. Taking the other person’s perspective, flexibility and openness to alternative views and ways are additional factors for success. Seeking to get to know the interests, needs and incentives of the other actor are other essential areas of consideration. If co-creation is to be fruitful, the points mentioned above, along with a sincere willingness to compromise and yet ensure professional and organisational integrity, are decisive enablers.

When it comes to language and communication, a focal enabler is communication skills – to be receptive and able to listen, as well as to adjust communication, information and vocabulary depending on the target group, context and purpose of a given discussion and a genuine appreciation of quadruple helix variations. The development of these requires time and an open climate between the potential co-creators. Therefore, to the focus group participants a common conceptual and communicative community for collaboration is an enabler. Yet another enabler is the ability to identify joint goals and accommodate for differences. For this to happen, a platform for communication is an is needed.

Such a platform narrows the gap – real or imagined – between the co-creation stakeholders. Hence, the focus group participants point to the necessity of greater proximity between researchers and end-users – i.e. patients, clients or an industry. Here events, networks or more permanent arenas are tools to accomplish such proximity. Providing and communicating the availability of organisational entry points – so that external stakeholders can gain access to organisations – is also an important enabler.

It is also said that when collaboration is underway, scheduled checks (in the

ACCOMPLISSH project referred to as "turning points") to monitor the work progress are useful. In addition to these, the aforementioned platform enables recurrent communication about upcoming problems or needs for modifications in work processes. This shared control of collaboration makes it easier to utilise the available freedom in the organisations involved.

Moving on, the focus group participants see a lack of validation and valorisation models for co-creation and impact as a problem, particularly models suitable for the specific nature of SSH. To add to this, funding for this part of co-creation is often not given by funding agencies. Apart from these four sets of quadruple helix partners, the focus group participants point to the fact that two groups of actors are often overlooked, namely, citizens and funding organisations.

Recommendations

Based on the results, discussions and conclusions from the focus group interviews, a set of recommendations can be made when considering and working with quadruple helix collaboration and co-creation in the field of SSH.

- *Allocate reasonable time, sufficient financial funds and adequate human resources*
Top management must commit itself to collaboration. It should be part of the organisation's long-term planning, and 'seed money' and personnel should be set aside for the work that needs to be done.
- *Involve all stakeholders when defining the common area of concern from the outset*
To ensure commitment to the collaboration, all stakeholders should be engaged right from the initial phase of the project. Involving them in defining the common task at hand will decrease the likelihood of misunderstanding, convince them of the benefits, make them accepting of the investment needed, and help avoid divergent expectations and friction as the collaboration progresses.
- *Nurture stakeholder relationships*
Collaboration is never more solid than the relationships between the people involved. Therefore, interact frequently with your partners, be receptive to them and nurture your relationships with them.
- *Address differences in institutional logic, rationale, incentives and roles*
By sharing institutional logics, rationale, incentives, roles and financial matters, the parameters for collaboration become clear. By doing this, misunderstanding and/or conflicts are avoided. One way is to put the mission statements and policies of the organisations that are involved on the table and discuss the implications for collaboration. Another way is to clarify each other's roles and views on professional integrity, and on the potential benefits and risks of collaboration, while giving credit to the individuals involved for their efforts.
- *Address differences in nomenclature, language and modes of communication*
Make differences (and similarities) in terminology, language and communication visible. This prevents communicative misunderstanding or breakdown. One way is to put examples of such differences on the table and let each stakeholder share his/her interpretation of the meaning and value of a given term or way of working.
- *Challenge one's own and each other's thinking*
Address and challenge mutual stereotypes as early as possible. Also, think beyond dichotomies – e.g. academics-non-academics, industry-government – and work actively and systematically with attitude change by, for example, de-dramatising academia and counteracting perceived status differences.
- *Provide platforms and spaces for interaction*

Establishing and maintaining strong relationships between stakeholders is essential for successful collaboration and, in turn, relationships are dependent on interaction. For this reason, work actively to create durable and accessible intermediate spaces for co-creation and innovation.

- *Make use of facilitators and translators, and intermediaries to optimise collaboration*
Many organisations have people with long and valuable experience of collaboration and co-creation. To optimise collaboration, these individuals can mediate between stakeholders. They can serve as translators when it comes to nomenclature and language, facilitate interaction and help stakeholders to navigate in what initially may be perceived as unknown territory.
- *Learn from good practice and research*
There are many examples of well-functioning collaboration and co-creation. Additionally, there is a growing body of research in this field. Let this knowledge infuse and enrich discussions on collaboration beyond anecdotes and rhetoric. Develop tools to learn from success stories and good-practice examples (i.e. models of systematic organisational learning) – so that they are transferable to planned or existing collaboration.
- *Address questions of impact, validation and valorisation from the outset*
With austerity, demands for efficiency and pressure for results in mind, address questions of evaluation and valorisation at the very initial planning phase. Discuss the foreseeable outcomes and impacts at the very outset of collaboration. Make sure they can be documented and assessed. The clearer and simpler the approaches to validation and valorisation are, the higher the level of credibility and legitimacy when it comes to the collaboration.
- *Make the case for SSH*
In many cases, other fields have a head start when it comes to impact-driven co-creation. Therefore, produce an arsenal of good-practice examples and arguments for the value and potential of SSH research without risk of being put in a defensive position. SSH is essential when it comes to addressing the so-called great challenges of our time.

In closing, the focus group interviews provide rich material in terms of the experiences with and lessons learned from quadruple helix co-creation in general – and with regard to impact-driven research within the realms of SSH in particular. This notwithstanding, we call for more research on implications for co-creation stemming from differences between quadruple helix sectors, intra-academic differences, cross-national differences and cross-cultural differences when it comes to expanding knowledge on the conditions for, and potential outcomes of co-creation. This, however, remains a task for the future. Another future task is to produce a handbook on co-creation – with all quadruple helix actors as its targets group. This, we argue, is a more urgent matter.

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Appendix 1:
Structure and contents of ACCOMPLISSH Work Package 2

Work package number	2		Start Date or Starting Event										M1	
Work package title	Analysing co-creation in theory and in practice													
Participant number	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Short name of participant	RUG	UoG	UCPH	MDH	UNBW	UniZg	UT	CIRPA	UGOE	UD	UGent	UB	TLU	CES
Person/months per participant	1.7	1.7	13.7	5.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7

Objectives

Deliver a comprehensive review of literature and existing SSH impact initiatives within the European Union and other countries (from theoretical-conceptual models of valorisation to empirical indicators and best practices for evaluating SSH impact). Furthermore, deliver a standardized protocol to be used in the local Quadruple Helix networks in order to collect data and evidence about the progress of SSH impact practices and stakeholders.

Description of work (where appropriate, broken down into tasks), lead partner and role of participants

Task 1: Mapping the existing theoretical, conceptual and empirical literature on effectiveness of SSH valorisation (LERU, Impact EV, Rathenau Institute, HERA Value etc.).

Task 2: Develop a comprehensible model for SSH impact and innovation concepts that will be used as shared point of reference for other WPs and partners, taking into account prior and existing projects e.g. within FP7 and H2020.

Task 3: Establish and introduce a protocol for interviews with local stakeholders involved in the ACCOMPLISHH quadruple helix activities. This protocol will be used as an information-gathering device in order to establish comparative data among the participants.

Task 4: Evaluate relevance and effectiveness of co-creation models for the different regional partners, and formulate generic European-wide guidelines for best practices.

Task 5: Organise peer learning activities among the ACCOMPLISHH participants to validate the model and get maximum insight into the "practices" of translational SSH research with critical input from High Level Experts.

Deliverables

- A report with analysis, literature review, state-of-the-art and conceptual model to be distributed and discussed among all ACCOMPLISHH partners. (M18) (Milestone)
- Protocols for testing co-creation models among regional partners in order to produce comparative data at EU-level. (M6)
- Establish a database with best practices, barriers and examples of the SSH value chain. (M12-24-36) (Milestone)
- Focus group reports based on stakeholder needs (SSH needs consultation (M12-24-36)
- Regional events to test and refine co-creation models in different settings (M1 to M24)
- Map of the various factors influencing co-creation practice across the European Research and Higher Education Area (M18) (Milestone)
- Evaluation report, description of co-creation models and recommendations for implementation, with relevance for different objectives and sectors, and implications for impact capture and assessment. (M24) (Milestone)

Appendix 2:

ACCOMPLISSH Interview Guide for Focus Group 1: Data Collection 2016

Overall structure of the focus group

The focus groups will follow the basic outline discussed at work package 2 Arlanda workshop on September 8, 2016.

Aside from the introduction with information, presentation of participants, signing of the consent forms, and the conversational rules of focus groups, the interview part of focus group will go from very general questions to more specific questions by use of the so called "funnel model" going from general issues to specific issues:

- Introduction
- Opening questions: Impact and collaboration in general
- Key and focus questions: Impact and collaboration between academia and external partners
- Closing questions

We have planned for an overall 90 minutes, with a 30 minute buffer.

Introduction- 15 min

Facilitator: Welcome everyone! Then ask for permission to record the session. Check the equipment, including the quality of the recording, and start recording. Start by giving an introduction with information about the focus group method, principles and consent. Presentation of and by participants. Conversational rules of the focus group conversation.

Opening questions - 15 min

1. How would you want to define "collaboration" in the area of social sciences and humanities and its outcomes? (*Let all speak up*)

Instructions: Participants may talk about impact and collaboration in general. Make sure that all participants get the chance to speak up. And: Make sure to take note of the first turns participants take when speaking up, in order to help the transcription people later).

2. What experience do you have of "collaboration" activities between academia and external partners and the outcomes of such activities? (*Let all speak up*)

Instructions: If the conversation runs smoothly, just let it keep going. It does not matter if they move on and start talking about the more specific issues in the key and focus questions below.

Key and focus questions - 45 min

Roles

3. How do you view your role as a partner in a collaborative project between government, civil society, industry and universities?

Expectations

4. What expectations do you have of other partners in collaborative projects between civil society, government, industry and universities?

Obstacles

5a. What are the obstacles to *collaboration* activities between industry, civil society, universities and government?

5b. What are the obstacles to *impact* from collaboration activities between universities, industry, government and civil society?

Enablers

6a. What are the enablers to *collaboration* activities between civil society, government, industry and universities?

6b. What are the enablers to *impact* from collaboration activities between government, civil society, industry and universities?

Value

7. What value is created by collaborative projects for you?

Closing questions -15 min

8. What was the most important issue that we have talked about today?
(*eye-catching comment or anything particularly smart that has been said*)

9. What topics have we not covered today?
(*any important idea, theme, topic that we have not touched upon in the focus group*)

Appendix 3: Work Package 2. Methods and Principles

Background	1
Roles and Structure	1
Methodological Design	1
Principles of Documentation and Analysis	3

Background

The overall aim of ACCOMPLISSH (ACcelerate CO-Creation by setting up a Multi-actor PLatform for Impact from Social Sciences and Humanities) is to create an innovative valorisation concept that will strengthen the position and impact generation of social sciences and humanities research and contribute to innovation for a variety of lead-users and end-users. For additional information, also regarding definitions of concepts, please see <http://www.accomplish.eu>.

The ACCOMPLISSH consortium consists of 14 universities from 12 countries and partners from industry, governments and civil society in these countries. ACCOMPLISSH will set up a dialogue platform where these partners equally can contribute in identifying barriers and enablers of collaboration and co-creation. The experiences of the actors and results from both practice and the theory of collaboration and co-creation will be the basis for the formulation and testing of a valorisation concept to make it transferable, scalable and customized for academia, industry, governments and civil society partners in Europe.

Roles and Structure

ACCOMPLISSH is divided into eight Work Packages (WPs) with their respective foci and structures. In WP 2 the aim is to collect first-hand experiences of both academic and non-academic actors to identify barriers and enablers of collaboration and impact. To fulfil this aim we will complete an overview of existing research and policies in the field and conduct a primary data collection using mixed method approach, including one focus group for data collection, a second focus group for validation, and a follow-up survey.

Methodological Design

Focus group is a qualitative data collection method. To shed light upon a given topic or issue, a focus group is a discussion between six to eight people under the guidance of a skilled facilitator (in the case of ACCOMPLISSH, a person assigned by each consortium partner). In an informal setting, it enables participants to describe, discuss and elaborate on one or a few themes related to social sciences and humanities impact and co-creation initiated by the facilitator.

To collect data each consortium partner is responsible for organizing at least one such focus group, lasting between 1 to 2 hours. This includes providing a functional interview setting, assigning an interview facilitator, and ensure a high-quality audio recording of the interview and subsequent transcriptions of the recording (see below). In the interviews 2 to 3 researchers from the consortium partner should participate as well as up to 5 participants from partners of at least two of the (quadruple helix) groups of academia, industry, governmental organization and civil society.

The role of the facilitator is to introduce the interview themes, facilitate spontaneous, respectful and fruitful interaction between the participants with the aim of producing as many ideas or angles on a question as possible from as many participants as possible. It is also, when needed to provide or ask for possible clarifications as questions or concerns may occur.

For the focus group interviews we will provide the facilitator with an interview guide¹, including instructions and a set of relatively open interview themes. Before the focus group begins the facilitator is to give the participants written information on the aim, approach, methodology and ethical consideration (see below) of the ACCOMPLISSH-project as well as instructions on the purpose of and set up of the interviews. Participants are also to be given an opportunity to ask additional questions. Participants should sign a consent form in order to participate.

Prior to the focus group, participants are informed about the project's purpose and design. They are also informed that they have the right to terminate their participation at any point in time and without giving a reason for this decision. If the participants decide to participate, they are to complete a consent form².

Two different types of focus groups will be carried out:

- In 2016, **focus group 1 for data collection** will be carried out. Based on input from the literature review, the focus group for data collection will identify key obstacles and enablers for co-creation and impact of social sciences and humanities knowledge. Facilitators are assigned by each consortium partner and trained by the WP2 leadership team. The focus group will be held in the native language of the participants, recorded electronically, transcribed and translated in their entirety by the consortium partner in charge of the focus group.

- In 2017, **focus group 2 for validation** will be carried out. Based on the results of focus group 1, a second round of focus groups for validation will be carried out. Participants can be either the same as in round 1 or others. The focus group will be held in the native language of the participants. The facilitator will provide an English summary to WP2 leadership team.

¹ Please see the document entitled "ACCOMPLISSH Interview Guide for Focus Group 1: Data Collection 2016" with the PDF file name of "160912_WP2_ACCOMPLISSH_Interview_Guide.pdf".

² Please see the document entitled "Consent Form: ACCOMPLISSH Work Package 2" with the PDF file name of "160912_WP2_ACCOMPLISSH_Consent_Form.pdf".

Please note that participants of focus groups may differ between focus group 1 for datacollection and focus group 2 for validation.

Follow-up Survey

Informed by the results of the literature review and the two focus groups a follow-up survey consisting of a list of key obstacles and enablers will be distributed electronically to focus group participants during 2018. The purpose of the follow-up survey (multi-choice type) is to identify the top most relevant obstacles to and enablers of co-creation and impact of social sciences and humanities knowledge at the platform-wide, pan-European level.

Principles of Documentation and Analysis

Background

Prior to your involvement in activities of WP2 in ACCOMPLISSH, this section provides you with a basic understanding of how data from focus groups and follow-up survey will be used. The principles rest on established rules, guidelines and research ethics as formulated in the university sector and the European Research Ethics by the European Commission.³ The aim is to ensure a safe use of material established in the ACCOMPLISSH WP2 for documentation and analysis.

Information Principle

ACCOMPLISSH should inform you as a participant about your role in the documentation and what principles underlie your participation, that it is voluntary and that you have the right to withdraw from the project even if the focus groups have been completed or the survey filled out. => The Information Principle is fulfilled when you have shared in on this information.

Consent Principle

ACCOMPLISSH shall obtain the consent to participate from you. This means that you give your consent to participate in focus groups and a survey, that material from these methods is documented and analysed by signing a specific consent form. => The Consent Principle is fulfilled for focus groups when you have signed the one- page consent form, and for surveys, when you have filled out and submitted surveys. You are aware that you can withdraw from participation in the focus group at any time during and up to 2 months after the focus group. A withdrawal would mean that no utterances will be used in the analysis and report.

Confidentiality Principle

The WP2 leadership team will ensure that all participants in the WP2 activities will be granted confidentiality when it comes to utterances, comments, opinions. While confidentiality is granted for individual utterances, comments and opinions, meaning that no individual will be linked to specific utterances, comments and opinions, the documentation will list participating organisations. => The Confidentiality Principle is fulfilled when documentation and analysis are undertaken by anonymized transcripts of focus groups and survey.

³ <http://www.ethicsweb.eu/node/590> (accessed on May 24, 2016). See also: <http://www.codex.vr.se/en/> (accessed on April 15, 2016) and <http://ethicsweb.eu/node/590> (accessed on April 18, 2016).

Usability Principle

The stewardship of non-edited material collected in WP2 focus groups and the survey is held by the WP2 leadership team. The edited material collected in WP2 focus groups, where confidentiality is ensured, can be used of any consortium member (e.g. confidential transcripts of focus groups and confidential surveys). An archive of all edited material is ensured by WP2 team leaders; an archive of all unedited material is ensured by each ACCOMPLISSH consortium partner. WP2 team leaders ensure that confidential material will only be used for documentation, analysis and publication linked to ACCOMPLISSH, and will under no circumstance be used for commercial reasons. => The Usability Principle is fulfilled when the above is ensured.

For additional information about e.g. purpose, design or data collection of **focus groups**, please contact:

- professor Jonas Stier (joi@du.se) or
- professor Peter Dobers (peter.dobers@sh.se).

For additional information about e.g. purpose, design or data collection of **literature review** and **follow-up survey**, please contact:

- associate professor David Budtz Pedersen (davidp@hum.aau.dk) or
- research assistant Lasse Johansson (lassegj@gmail.com)
- research assistant Jonas Grønvad (jonas@groenvad.dk).

Appendix 4: Consent Form: ACCOMPLISSH Work Package 2

This consent form is about participating in focus groups with ACCOMPLISSH partners from academia, industry, governments and/or societal partners in the EU Horizon 2020 project of ACCOMPLISSH (ACcelerate CO-creation by setting up a Multi-actor PLatform for Impact from Social Sciences and Humanities).

The aim of the project is to create a platform for dialogue in order to foster co-operation and co-creation between academia, industry, governments and societal partners. You are asked to participate in a focus group ACCOMPLISSH where impact from social sciences and humanities will be discussed. Please read the text carefully and give your consent by signing at the appropriate line below.

The focus groups you are participating in will have about 6-8 participants and it will last up to 2 hours. The information you give in the focus group will be used to study collaboration and impact from social sciences and humanities. Your participation is voluntary. Confidentiality will be granted for your individual utterances, comments, and opinions and you will not be personally linked to specific utterances, comments, and opinions. You can withdraw from participation in this focus group the project at any time during and up to 2 months after the focus group. A withdrawal would mean that no utterances will be used in the analysis and report.

Stewardship of non-edited material collected in focus groups is held by the University of Groningen. All edited material can be of use for future analysis to all interested parties as all edited material will be made publicly available. Data will be made publicly available through the PURE (CRIS (Current Research Information System) system.

If you have additional questions e.g. purpose, design or data collection of focus groups, please contact:

- Professor Jonas Stier (joi@du.se) or
- Professor Peter Dobers (peter.dobers@sh.se)

You can also turn to the person who is running the focus group at your country.

Consent

- I have taken part of information about ACCOMPLISSH and the focus group. I am also aware of how the focus group will take place.
- I have been given the opportunity to ask questions regarding the focus group before it starts and I know to whom I should turn with further questions.
- I willingly participate in the focus group and have been informed about the purpose of my participation.

160912_WP2_ACCOMPLISSH_Consent_Form.docx

- I am aware of the option to withdraw from participation in this focus group at any time during and up to 2 months after the focus group. A withdrawal would mean that no utterances will be used in the analysis and report.
- I give my consent to ACCOMPLISSH to document, analyze and store the information collected in the focus group, and that results from the study can be published. Material from focus groups will be treated confidentially in a way that your name and your organizational belonging will not be linked to individual statements.

City and Date

.....

E-mail address

.....

Signature of participant

.....

Printed name of participant

.....

City and Date

.....

E-mail address

.....

Signature of facilitator

.....

Printed name of facilitator

.....

Appendix 5: Quadruple helix partners per consortium partner as indicated in the ACCOMPLISSH application in 2015

	Academic Partners	Societal Partners	Government Partners	Industry Partners	Total
Aalborg	-	1	2	-	3
Barcelona	-	-	-	-	-
Coimbra	-	4	-	-	4
Dalarna	-	-	4	-	4
Debrecen	-	1	-	-	1
Ghent	-	-	1	1	2
Glasgow	-	1	-	2	3
Groningen	-	1	1	1	3
Göttingen	-	2	1	-	3
Newcastle	-	1	1	1	3
Rome	-	-	-	5	5
Tallin	-	3	-	2	5
Tartu	-	2	1	-	3
Zagreb	-	-	1	2	3

Appendix 6: Quadruple helix participants at the focus groups carried out by each consortium partner during the fall of 2016

	Facilitators	Academic Partners	Societal Partners	Government Partners	Industry Partners	Total (excl facilitator)
Aalborg	1	-	-	1	2	3
Barcelona	2	1	3	2	-	6
Coimbra	1	4	2	-	-	6
Dalarna	2	3	-	2	-	5
Debrecen	3	1	3	1	-	5
Ghent	1	3	1	-	1	5
Glasgow	2	2	3	1	1	7
Groningen	2	2	2	2	1	7
Göttingen	1	4	3	1	1	9
Newcastle	2	2	3	1	1	7
Rome	1	3	1	2	2	8
Tallin	1	3	1	1	1	6
Tartu	1	2	1	3	1	7
Zagreb	1	3	-	1	-	4