

Quadruple Helix Co-creation in SSH

Experiences, Considerations, Lessons Learned in a Pan-European Study in 12 countries

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Abstract

The impact work leading to the in-depth understanding of quadruple helix co-creation in social sciences and humanities is based on the ACCOMPLISSH project, that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 693477. This paper is based on one of the reports written up there, shows illustrations of co-creation as discussed in focus group interviews of quadruple helix partners at 14 European universities and presents first-hand excerpts of the report. Our ambition is to rewrite the paper into an article publishable in peer-reviewed academic journals and based on previous studies published in other academic journals.

Keywords: co-creation, collaboration, focus group interviews, SSH, quadruple helix

1. 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 universities¹ 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

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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.

To meet these deliverables, a comprehensive state-of-the-art review on existing research (Pedersen et al, 2017) and good practice in the field and focus group interview sessions on the impact from the humanities and social sciences (Stier and Dobers, 2017) have been completed. This paper presented at the conference, is based on excerpts of the latter report.

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.

2. Methods

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 where research ethics and the interview design were discussed and focus group guidelines and protocols were provided (Stier and Dobers, 2017).

For the focus group sessions, an interview guide was designed. 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 (Stier and Dobers, 2017). 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.

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 unclarity in the categorisation and requested clarifications. In these cases, the ambiguity or unclarity 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, and the *actual* composition of quadruple helix partners of each consortium university that participated in the focus groups (Stier and Dobers, 2017). 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.

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.

For those interested in conducting focus groups, please also see the further readings and the end for the paper.

3. Results and Recommendations

Based on the results, discussions and conclusions from the focus group interviews (for details, please see Stier and Dobers, 2017), 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.

4. 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.

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