

GUIDE TO CO-CREATION



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CORRESPONDING AUTHORS

Ghent University (Faculty of Psychology and Educational Sciences)

Kristof Vandael (kristof.vandael@gmail.com)
Prof. Alexis Dewaele (alexis.dewaele@ugent.be)
Prof. Ann Buysse (ann.buysse@ugent.be)

Ministry of Makers

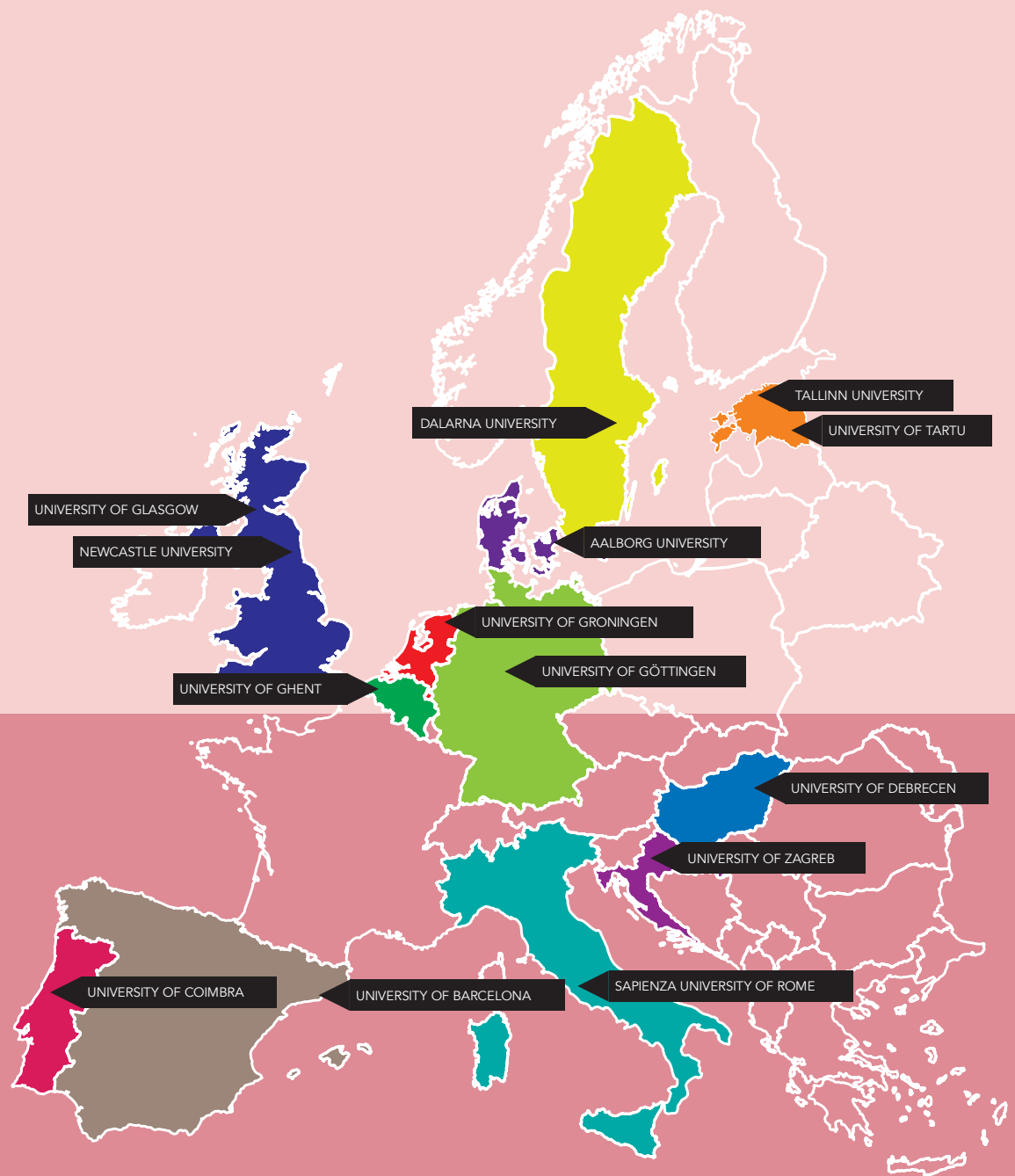
Saskia Westerduin (saskia@ministryofmakers.be)



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

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GUIDE TO CO-CREATION

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INTRODUCTION

This document provides some basic guidelines and tips for setting up and conducting co-creation partnerships in a quadruple helix setting. It is key to understand that there is no single model for how a co-creation should work in order to make a difference. There are many examples of well-functioning collaborations and co-creations. This document is intended as a guideline based on good practice and research, and has been created as part of the EU Horizon 2020 project ACCOMPLISSH. Its purpose is to provide guidelines on how to develop, organise and complete (or carry through) a co-creation project. This guide is for anyone who is interested in organising a co-creation trajectory.

In this manual we will first explain how we define 'co-creation'; furthermore we will take a look at what kind of challenges can be tackled, who can participate and what the function of a facilitator can look like. Next we will take a look at how the co-creation process may develop and how to deal with participants with a wide variety of backgrounds. Added to this manual is a tool to monitor the co-creation process and an introduction on how to use it.

WHAT IS CO-CREATION?

“Co-creation is collaboratively defining and tackling challenges.”

In the present context co-creation refers to collaborations in which various actors actively join forces to tackle a shared challenge. Participating actors can belong to any sector of society, such as industry, government, civil society and academia. These four major sectors are commonly referred to as the ‘quadruple helix’. Co-creation in a quadruple helix setting is a vehicle for structured and purposeful interaction among a divergent set of organisations, groups and/or individuals. The participants each bring, and make use of, their own experiences, skills, knowledge and networks. All parties offer information and know-how to aid the problem-solving process and participate in both defining and solving the problem in collaboration with one another. In other words, co-creation involves collaboratively defining and tackling challenges. By merging different areas of expertise and experience, new and innovative solutions and knowledge are created that would not have been possible if each actor were to tackle the challenge individually.

We note that, to some extent, many activities such as planning councils, steering committees or advisory boards have the same purposes and characteristics as co-creation. However, there are significant differences, as co-creation principles are based on equality (e.g. in expertise contributions), an open source mentality and creating a win-win situation for actors with different goals. Tackling the ‘bigger challenge’ of the thing being co-created collectively produces new information and innovations, and therefore benefits all actors. Consequently these actors are often referred to as “stakeholders” as they all have a stake in the co-creation, and they all have something to gain from it.

Key features of co-creation include that it:

- Brings together various stakeholders from all over society, with their respective expertise/experience;
- Has a purpose; it is not a finalised thing in itself, but means to some other end;
- Tackles a ‘bigger challenge’ while helping each stakeholder to achieve their own goal(s);
- Needs structure yet it should also remain open to individual proposals and approaches. It needs to enhance creativity and problem solving;
- Is a non-linear process of thinking and creating.



CHALLENGE

First of all, a general challenge that surpasses the capabilities of any single actor is required in order to get several people or groups motivated and moving. To begin with the challenge can be vague and complex. Narrowly delineating the challenge before involving the stakeholders should be actively avoided; involving them early on 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. In other words, engaging stakeholders right from the initial phase of the co-creation helps to ensure commitment to the collaboration. On top of this, stakeholders need to have the freedom to keep refining and reshaping the challenge throughout the rest of the process. Whatever the initial challenges and roles of a co-creation, they should be revisited and reshaped over time.

A challenge can, for example, be a so-called unsolvable problem (e.g. global warming, poverty) that has no optimal solution, and is complex, interdependent and multidimensional. However, at the very least, partial solutions can be achieved. Less complex challenges can also be addressed by co-creation, although some level of complexity is needed to make it worth the effort of combining forces. Some co-creation processes may lead to tested, functional solutions, while others may lead to more conceptual solutions. Usually, exact results cannot be predicted beforehand and therefore co-creation cannot have a pre-determined end result. The goal of co-creation is to create something new and inspiring.

“Stakeholders need to have the freedom to keep refining and reshaping the challenge.”

PARTICIPANTS

When recruiting members, it is crucial to identify the 'right kind' of participants, both in terms of experience and expertise, and in terms of cognitive and social qualities. The primary factor in deciding which stakeholders to involve is whether a particular individual or organisation can bring relevant perspectives and resources to the table in order to achieve the objectives of the collaboration (i.e. to address the challenge). Another key factor is whether people are committed to the general purpose of the co-creation and are convinced that joint action is needed to achieve that purpose. For this reason, challenges should, to some degree, be aligned to the mission, values and vision of the involved stakeholders. Furthermore, communication skills and continuity should be taken into account as well. The ideal attributes of participants in a successful co-creation are often characterised by 'intellectual virtues': Open-mindedness, curiosity, self-awareness, tolerance of ambiguity, willingness to suspend bias or prejudice, and ability to build effective interpersonal relationships.

Many challenges are complex, making it impossible for one perspective to address all aspects of the challenge. In co-creation it is key to recognise and analyse new perspectives and their value. For this reason it is important to include members with different backgrounds and perspectives. People are needed who are able to look at the challenge or problem from a totally different perspective (i.e. from another discipline or field of expertise). This will provide a more holistic approach. A good co-creation needs people who can think outside of the box (i.e. 'blank minds' rather than the 'usual suspects'). Finding truly new ideas and solutions is impossible if all participants are like-minded.

However, greater diversity in participants can be challenging as well. It might, for example, bring an existing hierarchy to the table. However, this should be counteracted by the facilitator at all times. No matter what the participants' affiliation or background is, equality is essential. If not, this can lead to the perception that not all stakeholders are equal, which could lead to resentment and diminished commitment from those who perceive that they are disadvantaged. Furthermore, diversity means that stakeholders might have different assumptions and working styles. For example, those who are accustomed to being directed by a single strong leader might initially struggle with the absence of a vertical hierarchy. Co-creation is working in limited teams. Ideally the size of the group is between eight and twelve participants. Working in larger groups should be avoided. Note that these teams can be fed by steering groups, for example. The actual number of members should reflect the breadth of perspectives needed to address the issue. In order to attract the right profiles it should also be considered whether and how the collaboration can serve its members and their respective organisations. Stakeholders need to be able to achieve their own goals as they work on the bigger challenge. It should also be noted that people's good and bad experiences in previous co-creations will influence whether they approach a co-creation with optimism or serious scepticism, or just stay away all together.

“Finding truly new ideas and solutions is impossible if all participants are like-minded.”

THE ROLE OF THE FACILITATOR

Co-creation requires a facilitator in order to operate and progress productively over time. Their function is not to make independent decisions but rather to facilitate the process and group decision-making. For example, they inspire stakeholders by asking new questions, encouraging silent participants to get involved and turning the conversation to interesting themes that have not yet been touched upon. As mentioned in the previous section, ensuring equality is an extremely important task of the facilitator. The formation of a hierarchy should be avoided at all times and every stakeholder's input should be equally valued. The facilitator has a significant role in mediating and combining stakeholders' perspectives and backgrounds. Furthermore, a facilitator should be skilled at resolving conflicts within the group. Note, however, that conflict between stakeholders can be essential to propel a process forward. A good co-creation includes productive conflicts as new thoughts and ideas are rarely born without critical questioning. In this sense, the facilitator should be skilled at provoking engagement through exploration of conflicting perspectives. Again, during this process, it is the facilitator's task to ensure that all perspectives

are equally valued. A good facilitator creates a trusting and open atmosphere that encourages people to participate and share their perspectives and thoughts. They must keep their own opinions out of the process, however, as this may disturb free conversation and neutrality.

It is key is that the facilitator understands group dynamics and is skilled at the tasks mentioned above. This can be an important determinant of the effectiveness of co-creation, although there is no single style that works either for all co-creations or for all situations of a given collaboration.

To begin with it can be helpful for the facilitator to develop a basic decision-making method with stakeholders. This method may specify how issues needing a decision will be identified, how they will be discussed and how decisions will be made. Decision-making rules can be evaluated and revisited after getting some experience in how well they work for the group. Clear rules are advisable but they do not have to be set in stone. It is important that participants have a shared understanding of the process.

The tasks of a facilitator include:

- Communicating the objectives clearly and repeatedly, keeping the group focussed;
- Motivating stakeholders to participate and contribute, especially those who are more quiet;
- Creating trust and making sure interactions are fair;
- Providing inspiration and reflective moments;
- Synthesising ideas and information, while respecting diverse perspectives and contributions;
- Continuously evaluating the process and redirecting the conversation by asking the right questions when necessary;
- Negotiating among stakeholders with diverse backgrounds and agendas;
- Conflict resolution/management.



Further reading

See 'Co-creation: a guide to enhancing the collaboration between universities' developed by the University of Helsinki for further information on the key tasks of a facilitator in co-creation. This guide is focussed on co-creation between universities and business, however the provided ideas apply for any kind of co-creation.

THE PROCESS

Co-creation needs to develop according to a structure. At the same time any co-creation structure needs to remain open to individual input and it needs to optimise creativity and problem solving. As mentioned earlier, initial commitment and conviction are important when selecting participants, however, they are not enough to keep a co-creation going as both commitment and conviction need to mature over time. Stakeholders need to develop a sense of ownership and in order to do so they need freedom and should be allowed to define, refine, reframe and reshape the challenge as they go on. Furthermore, stakeholders should have (at least some) control over the structure and methods of the co-creation. The co-creation process should be flexible enough to enable this. It is important to keep in mind that co-creation is relatively time-consuming as collaborative partnerships, especially new ones, need to develop and the pace of development will vary. Stakeholders need to be allowed to get to know each other and explore what sort of contributions/benefits might be necessary/achieved. Diverse backgrounds of the participants may cause confusion at the outset of the co-creation, but in an open dialogue this confusion may transform into curiosity. As mentioned before, a large diversity in stakeholders could mean that some have very different perspectives, assumptions, working styles and incentives. It is important to discuss those so the group can build consensus about how they will work together, recognizing that this may differ from what each individual member is used to. Misunderstandings and/or conflicts are most easily avoided by sharing and discussing differences. One way is to discuss the mission statements/policies of the organisations involved and their views on professional integrity and how these issues might affect the co-creation.

Furthermore, differences in language and communication should be addressed and the group should work towards finding a common language. Participants should be encouraged to identify the jargon of their field and their idiosyncratic ways of expressing themselves, in order to clarify or avoid these. This is important in co-creation as it again

prevents misunderstanding. One way is to put examples of differences on the table and let each stakeholder share their interpretation of certain terminology or way of communicating. One way of representing the co-creation process is through the Double Diamond (see Figure 1). A co-creation process is complicated and difficult to capture, however, this simple visual representation can at least help make it a little less mysterious. This representation distinguishes several stages a co-creation can go through and emphasises dynamics of divergence and convergence throughout the process – represented by a diamond shape. The idea is that a variety of ideas is created and explored (divergence), followed by refining and narrowing down to the best idea (convergence). The Double Diamond representation shows that this happens twice – once to define the problem/challenge (analysis phase) and once to come to solutions (concept phase).

“Diverse backgrounds of the participants may cause confusion at the outset of the co-creation, but in an open dialogue this confusion may turn into curiosity.”

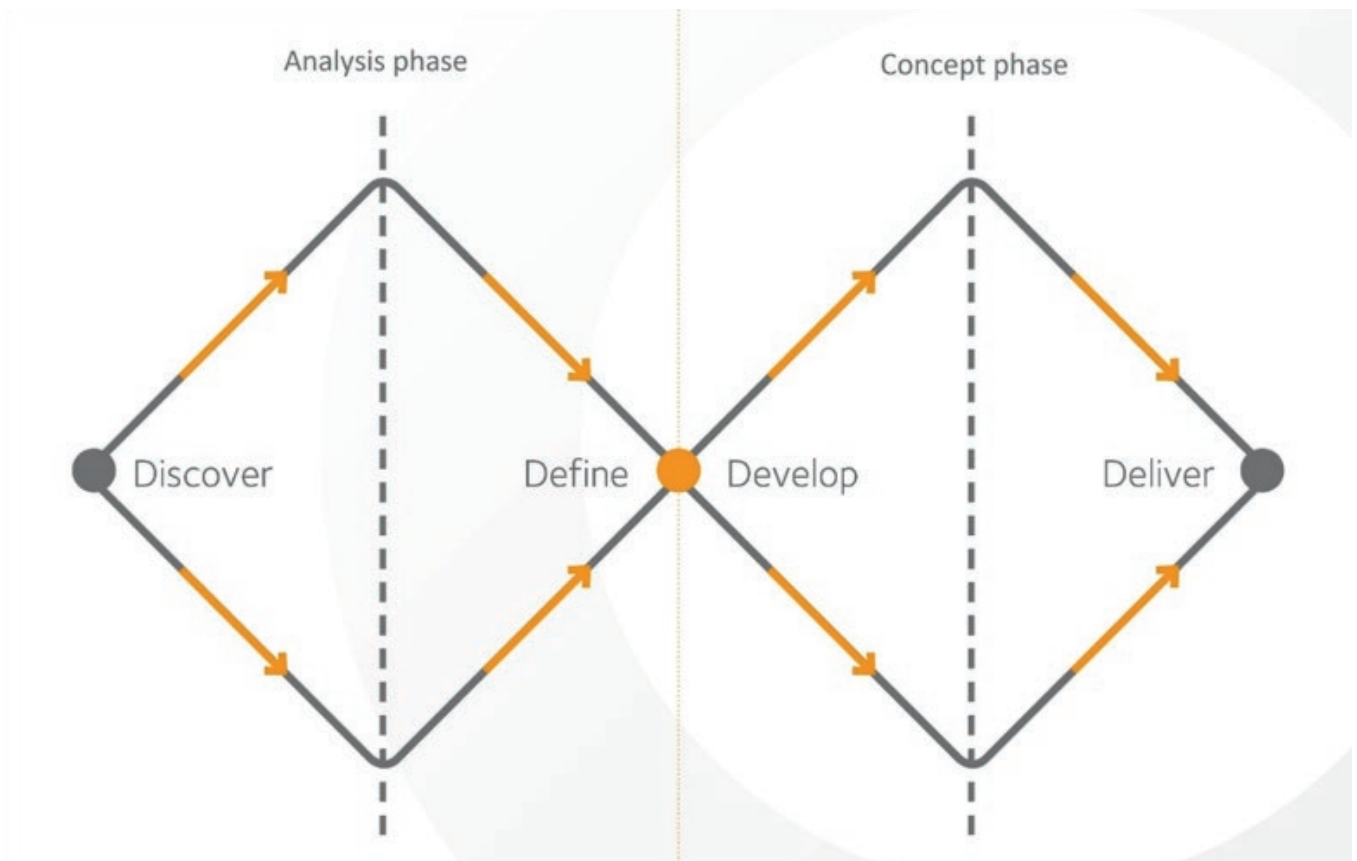


Figure 1. The double diamond (adapted from Design Council).

As mentioned before, (re)defining the challenge as a group is an important part of the process because it allows stakeholders to develop a shared understanding of the challenge at hand. Consequently, the introduction of the initial challenge and its context at the start of the process should be brief and concise, although the subject matter may be multidimensional and may have multiple connections. The Analysis phase presented in Figure 1 emphasises that after fully exploring the challenge in all its aspects (Discover), it is crucial for the co-creation team to converge towards more concrete and productive questions (Refine). In the Refine stage, participants try to make sense of all the possibilities found in the Discover stage – Which aspects matter most? What is feasible? This is important, as the problem area may be extensive and complex, making it challenging to proceed without further delineation. Next, in the Concept phase, possible solutions or concepts are developed (Develop) after which the resulting project (a product or service, for example) can be finalised, produced and launched (Deliver). Note that the actual steps taken/methods used within all stages of the Double Diamond remain open.

The process depicted in Figure 1 should not be interpreted as a linear process. In order to discover which ideas are best, the process is iterative. This means that ideas are developed, tested and refined numerous times, with weak ideas dropped in the process. Furthermore, a co-creation may not go through these phases in sequence and stages may not always be as distinct as described above.

Figure 2 is a schematic portrayal of a co-creation process between researchers and companies that emphasises the non-linear aspect of co-creation. Note the two-way arrows between the phases indicating it might be necessary for a co-creation to return to earlier phases throughout the process, for example to redefine the problem. This means that the original challenge and questions can be redefined or even entirely changed at any point throughout the process. Furthermore note that “Defining problems” corresponds with the Analysis phase of Figure 1, and “Solving problems” corres-

ponds with the Concept phase. What this figure adds is an Evaluation phase in which solutions are tested. The idea(s)/solution(s) delivered throughout the process should be perceived as hypotheses that need to be tested. In most cases things do not go as expected and the experiment may lead to new problems and questions, making it necessary to go back to the beginning of the solution process. This process of trial and error helps to improve and refine ideas and leads to continuing cooperation between stakeholders.

“The entire process requires open and equal discussions in which common ground is sought and the richness of the co-creation’s diversity is exploited.”

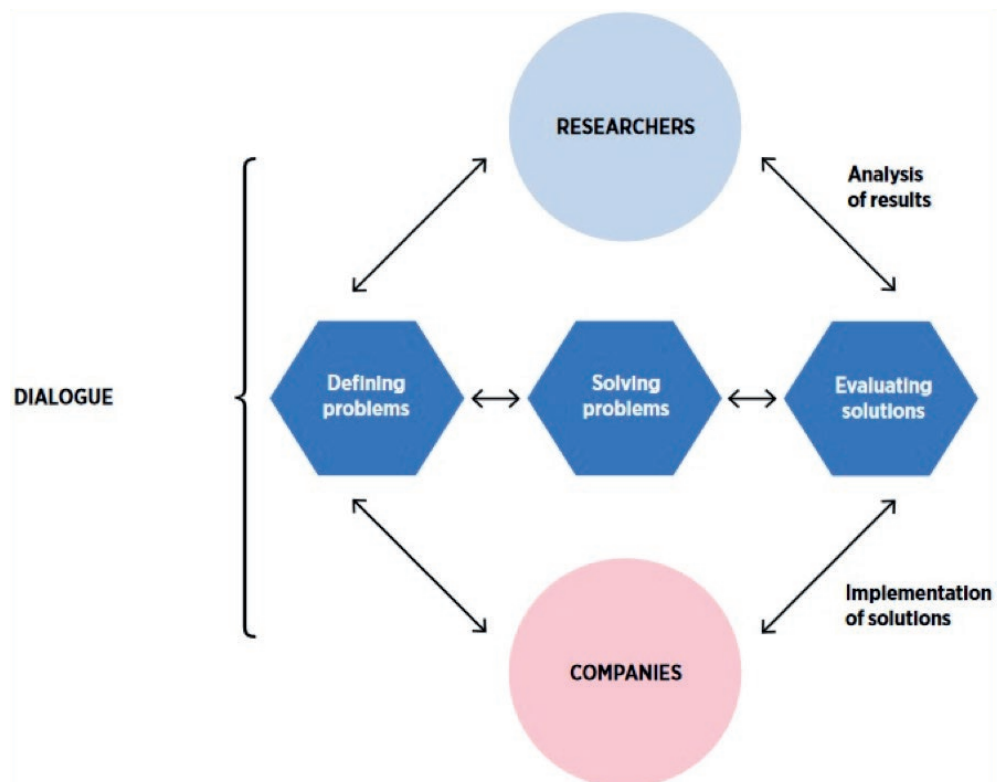


Figure 2. Co-creation process between researchers and companies (adapted from Haataja, Hautamäki, Holm, Pulkkinen, & Suni, 2018).

The entire process requires open and equal discussions in which common ground is sought and the richness of the co-creation's diversity is exploited. To achieve common ground, stakeholders have to understand each other's perspectives and experiences. Therefore each participant must be able to express their own perspectives in a confidential atmosphere where nobody experiences a need to defend themselves or to attack other perspectives. In other words, listening and trying to understand each other is key. Bringing in multiple perspectives is also crucial as this helps to clarify questions and create innovative ideas.

DIFFERING VIEWS AND MOTIVATIONS

Involving different stakeholders is key in co-creation as this allows the group to come up with truly innovative ideas. However, bringing different perspectives, cultures and incentives to the table makes co-creation a complex undertaking. In this section we will explore what differences may exist. Everyone has their own perspectives through which they observe the world. For example, some argue for using practical experience while others focus on validated (research) knowledge. Unsurprisingly, researchers will mostly use information from scientific research and their own research-based expertise. Other participants' perspectives in defining and solving the problem, on the other hand, may be based on more subjective experiences or emotions.

Deep cultural differences may exist between stakeholders as well. Researchers, for example, are driven by curiosity and a desire to understand. They look for evidence, adhere to science's ethical principles and expose their work and thoughts to criticism. In contrast, businesses operate in a more fast-paced world. They want their problems to be solved as quickly as possible, regardless of whether an idea is the best possible solution. Solutions are sought that seem financially profitable, feasible and functional in a given moment. Whether the solution is sustainable may be irrelevant when, for example, a competitor is about to overtake.

It may be useful to define the 'milestones' of the co-creation project as well as the pathways and tools that could be used to reach them, as people usually like to have a hold on things and like to know where they are in a trajectory. Questioning the unknown and 'thinking outside of the box' can be disorientating. Having a clear view of the trajectory can provide guidance. Models such as the Double Diamond can be useful tools in this.



Stakeholders can also have varying incentives to participate. Some stakeholders may participate merely out of curiosity or a desire to help other organisations, but this will not suffice for most. A business's participation, for example, depends on how profitable it estimates the process to be. Universities, on the other hand, are increasingly focussed on interacting with society to enhance the impact of research results. This so-called third mission is becoming more important, however, researchers usually come under intense pressure to write academic publications, which is a very time-consuming process. Furthermore, researchers have many other obligations, for example, teaching, applying for funding, reporting, etc. Consequently, co-creation is rarely a part of a researcher's standard work.

When co-creation is 'sold' to organisations it is important to emphasise the benefits that may be gained from participating. Obviously the main goal of co-creation is tackling a challenge that cannot be addressed individually by the stakeholders. This process will provide new knowledge and innovative ideas, creating new dimensions in the stakeholders' work and working methods. Another important goal of co-creation is the development of long-lasting relationships between stakeholders who might not otherwise come into contact with each other. These connections may be utilised for future collaborations. In other words, besides gaining knowledge and solutions, an important incentive for stakeholders to participation is networking and the building of relationships.



"The outcomes of the research was one thing... For us to build those relationships and have us associated with this research and people understand that our work in communities is taken seriously and gives us good credentials... and being part of the project has given us a different set of skills and stakeholders we can tap in to... both individually it's brought us a great deal of benefit."

Industry stakeholder of a co-creation between industry and academia

CO-CREATION TOOL

As mentioned earlier, it is important to stay in touch with the co-creation process and the dynamics of the group. It is essential to make sure that a co-creation moves in a positive direction, toward greater understanding, trust, and resultant efficiencies. For this reason we have developed a tool to assess the process and dynamics at physical meetings between partners. The main goal of this tool is to assess key aspects of the

co-creation process and to get an idea of the dynamics of the group in general. The idea is that evaluation has the potential to encourage reflection. Key results can be presented to participants and the group can engage in discussions about their reactions to the findings, e.g. agreement, disagreements, surprises, interpretations. This critical reflection on the process and group dynamics can be used to identify areas in which the group needs to make changes in the way they work together. For example, groups that identify ineffective functioning or lack of trust among members may take steps to address these problems and strengthen their ability to reach their long-term goals. The assessor assumes the role of a 'critical friend' in this process, maintaining evaluation as an open dialogue.



The tool assesses three key dimensions in collaboration:

- The cognitive dimension:
Captures the cognitive substance of the work, the problem that is being studied and the meanings individuals attach to it;
- The emotional dimension:
Refers to how members emotionally engage with the shared project and with its ideas, as well as with other members;
- The interactional dimension:
Addresses the ways in which members' relationships with each other weave the symbolic fabric that keeps the group together and gives rise to the emerging customary rules—rituals, expectations, standards, habits and artefacts.



To assess these three dimensions, fifteen items were formulated, i.e. five items per dimension (see p. 16: 'c' refers to items that assess the cognitive dimension, 'e' to the emotional dimension, and 'i' to the interactional dimension). Using these items, participants can rate to what extent they felt certain elements of these dimension were present during the meeting that is being looked at. In other words, the tool focuses on the individual experiences of participants. Items are rated using a 5-point scale with the labels "Not at all" and "Very much" at the extremes. Furthermore, to get an idea of what facilitating and obstructive elements were present during the meeting according to members, two open questions were added. These elements can be but are not necessarily one of the fifteen items formulated. Finally there is room for any additional comments from the participant. These open questions were added so that participants can register concerns that were not translated into items. Each partner completes this questionnaire individually, immediately or shortly after a physical meeting. Anonymous responding can be considered, however, openness should be promoted at all times. The assessor can be the facilitator, a designated group member or an external professional.

Humility and a sense of reality in the expectations of what the co-creation can deliver in the short-term is advised. The co-creation process and relationships between stakeholders need time to develop. Trust, for example, needs to grow. It is unnecessary to linger on certain issues as they might disappear over time. However, when an issue keeps cropping up and affects multiple participants it should be discussed extensively to ensure positive development of the co-creation.

Note that the items of the current tool focus on the 'positive'. They represent what might be present in a functional co-creation. Lack of these elements does not necessarily imply a dysfunctional co-creation. Disagreement and conflict, for example, can be productive as well. As mentioned before, they may even be necessary for progress from time to time. The tool can either be used in its original format, or can be considered as a basis for a tailored instrument. Items can be added (e.g. negative items) or removed depending on the co-creation it is trying to monitor. Recurring concerns can be translated into items and added to the questionnaire. It should be noted that this tool should not be used as a mere quantitative measure and the results should only be used to feed discussion about the process.

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CO-CREATION TOOL

Indicate to what degree the following elements were generally present during this co-creation session

	Not at All	Not Really	Un-decided	Some-what	Very Much
1. Openness to new ideas and opinions (i)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Exchange of useful information (c)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Equal level of involvement (i)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Climate of trust and openness (e)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Relevant discussions (c)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Positive atmosphere (e)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Generation of new insights (c)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Experience of joy (e)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Effective leadership (i)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Clear collective mission (c)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Equal influence over decisions (i)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Respectful interactions (e)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Efficient decision making and problem solving (i)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Satisfaction with the progress (e)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Use of understandable language (c)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What was the most important facilitating element during this co-creation session? Briefly describe why. Note that this can be an element other than the ones mentioned above!

What was the most important obstructive element during this co-creation session? Briefly describe why. Note that this can be an element other than the ones mentioned above!

Any additional comments:

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