



Public Engagement Innovations for Horizon 2020

Societal Interaction of Science in Strategic Research Council funded projects



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The PE2020 project

PE2020 will identify, analyse and refine innovative public engagement (PE) tools and instruments for dynamic governance in the field of Science in Society (SiS). PE2020 analyses the PE tools and instruments through a systemic and contextual perspective, and contributes to the potential and transferability of new governance innovations. PE2020 will create new knowledge of the status quo and trends in the field of public engagement in science, refine innovative PE tools and instruments, and propose new ones.

The project will do this by (1) further developing a conceptual model that provides a systemic perspective of the dynamics of public and stakeholder engagement; (2) creating an updated inventory of current and prospective European PE innovations; (3) context-tailoring and piloting best practice PE processes related to the grand challenges of Horizon 2020 and (4) developing an accessible net-based PE design toolkit that helps to identify, evaluate and successfully transfer innovative PE practices among European countries.

New tools and instruments for public and societal engagement are necessary to boost the quality, capacity and legitimacy of European Science, technology and innovation (STI) governance and to solve the looming problems related to the grand societal challenges of Horizon 2020. In order to ensure practical relevance, the project will work through intensive co-operation between researchers and science policy actors. PE2020 will expand the capacity of European and national science policy actors to integrate better societal engagement by providing easier access to new PE tools and instruments, to be included in the requirements and implementation of research in Horizon 2020 and beyond.

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1 Introduction

The Strategic Research Council (SRC) at the Academy of Finland was founded in 2014. This initiative will provide the scientific community with an opportunity to produce scientific information for government policy and decision making for investigating the major challenges of Finnish society by means of scientific research. As the founding of SRC required changes in legislation relating to the Academy of Finland, the founding process included thorough political discussion, including committee debates and Parliamentary plenaries. In the official documents the division of labour within the SRC was clarified: the government would decide on the thematic areas for each call for tenders, but the setting of selection requirements as well as the actual review and selection process for projects to be funded would lie in the hands of the SRC council which consists of scientists and science policy experts. The SRC funding instrument is based on long-term and programme-based research. It brings together multi-disciplinary research groups to combine excellent research and societal interaction (Aarrevaara 2015).

The background to this initiative is a policy change through which the Finnish government decided to demolish operating processes and funding in the sector research institutes. Budget cuts in the funding of research institutes that functioned under the auspices of various ministries were made, and transferred to the SRC. The Government decided to focus on two specific financial instruments using some of the budgetary resources saved. The € 7 million annual reallocation was to provide the Government with commissioned research targeted at supporting decision-making. A total of € 55 million per year was allocated to the SRC under the Academy of Finland.

In the first call of the SRC in 2015, the three main themes for strategic funding were (1) Utilisation of disruptive technology and changing institutions, (2) a climate-neutral and resource-scarce society, and (3) equality and its promotion (Aarrevaara & Dobson 2016). Another major new initiative was that the review of the funding applications was carried out in two phases. In the first phase, focus was placed on the level of excellence regarding the projects' societal relevance and societal interaction plans. In the second stage, the most successful applications were reviewed on the basis of scientific excellence. International expert panels were utilised in both phases of the review process. The Strategic Research Council has reported that those applicants not awarded with funding had gaps related to the focus of their projects, the projects' scientific excellence, and a lack in the interaction part of the plan or regarding the structure of the consortium. Projects featured in this report were in principle successful in all of these requirements.

Representatives of the SRC and PE2020 project discussed the emphasis on directions of responsible research and innovation (RRI) in the framework of public engagement. Opportunities for piloting innovative public engagement tools in collaboration with the SRC were deliberated. The idea of societal interaction plans was considered highly attractive by both parties. From a public engagement point of view, the new approach marked a shift from the traditional academic communication plan model to a model with an angle of broader interaction plan for the first call of the SRC bids. This change can be described as a shift from a linear form of interaction to an interactive, at least two-way, approach. The new approach can contribute to and enhance co-creation, joint forums and open data. An important element of such research is active and continuous collaboration between those who produce new knowledge and those who use it.

The report analyses public engagement tools, and identifies the partners and processes that define successful consortiums, the new knowledge on societal interaction plans (SIP) and benefits of SIPs for

researchers and research groups. In addition to these core capacities of dynamic governance, continuity is viewed as an additional key capacity in the framework of this report.

The SRC projects funded from the first call in 2015 fell under three main topics, each focusing on grand societal challenges. The topic areas are as follows. (The number of projects funded by the 2015 call is shown):

1. Utilisation of disruptive technologies and changing institutions (six projects)
2. A climate-neutral and resource-scarce society (four projects)
3. Equality and its promotion (six projects)

In this pilot initiative we have examined the 16 projects selected in the first call of the SRC. These projects commenced in late 2015 and will run for a maximum period of six years. The competition for SRC funds was fierce and the application process was considered to be laborious. Hence, those responsible for the selected projects are aware that their progress will be followed closely and expectations are high for both scientific and societal deliverables.

2 Methods

2.1 Objectives of the pilot initiative

The ultimate goal of the pilot initiative is to increase and deepen knowledge concerning public engagement with science. This has been done by analysing the functions, practices and working logic of interaction plans as they are seen in the SRC programme and particularly in projects funded under its first call. The pilot initiative aims to investigate the context and process in which the SRC and its emphasis on societal interaction have been developed. This includes analysis of the goals that the SRC structure has been planned to serve. How the SRC working logic was formed and how it relates to international counterparts (including other WP3 pilot initiatives) is a key component of this.

A key objective of the pilot initiative is to provide a thorough analysis of how the SRC-used version of societal interaction works in practice in research projects. In addition, this initiative aims to develop the template further. It seeks to widen understanding of the inclusion of societal interaction in research funding programmes and to spread analytical knowledge about the functions, logic and working realities of SRC projects among members of the scientific community.

It is considered important to raise awareness among scholars about the options offered by different types of societal interaction activity, and the impacts that such activity can contribute towards more dynamic governance. A similar sort of awareness raising is necessary among different types of societal stakeholders (Rask et al. 2012). Understanding the types of impact processes that are at work in SRC-funded projects is seen to be among the central aspects of the analysis.

The goals of the SRC pilot initiative analysis are divided into three parts.

- To unravel the meaning and role of societal interaction in the SRC-funded projects. Central questions include how the interaction relationship is formed, how the partnerships are served, and how research activities are integrated with societal interaction activities.
- To investigate the types of objectives the interaction activities aim to serve, the forms of practices chosen to do this, and to understand how the practices are integrated into the timing patterns of the projects as well as informing the stakeholders.
- To study the kinds of expertise and capacities that are considered necessary for the successful implementation of societal interaction.

Alongside these operating goals, the analysis includes a cross-cutting goal of developing a better understanding of how innovation is formed. It is presumed that innovations are developed not only in the form of product development – be they material or immaterial in nature – but also as working methods, interaction or cooperation practices that enable knowledge transfer and testing of ideas in new ways.

2.2 Context and the method of the pilot initiative

The SRC funding for the funds applied for by consortia need to meet the following requirements:

- They must consist of at least three research teams.
- The teams must be from at least two different organisations (e.g. universities, research institutes, civil society organisations or business companies).

- The researchers must represent at least three different disciplines. The funding covers all costs and is granted under the full cost model. Host organisations need not contribute to the costs with their own funding.

In the first call for SRC funding, the requirements of societal interaction plans were quite open. For this reason, the applicant research groups were able to define their tools and methods for public engagement (Rask et al. 2016). The critical points are the presence or absence of dynamics, the tension of change and co-operation (Guldbransen 2014). However, the candidates were informed in application information meetings held by the SRC that it was expected that at least two, preferably three, government ministries would be involved in the projects. This was in addition to stakeholders from the private and / or civil society sector. Further, through the demand for collaboration between at least two research higher education institutions and at least three disciplines, the SRC application instructions implied that cross-breeding across the higher education field is an implied expectation.

The SRC funding is directed towards projects that are demand-driven and solution-oriented, societally significant and influential, scientifically high quality, and ones that include collaboration between the producers and end-users of knowledge. According to the SRC, the goal is to engage the end-users of research knowledge as early as possible, and through this early engagement have the research needs of the end-users be considered by the research teams. The logic of the funding instrument rests on co-creation or co-design on the one hand, and shared goals and practices of interaction on the other. The members of the consortia are expected to have the necessary capacities and skill to create and implement effective interaction.

In practice the SRC requirements expect the research consortia to have solid experience of cross-sectoral cooperation with actors outside their own field. In order to be successful in the open tender, the consortia need to understand the broader societal linkages and possible implications of their research with those of the private sector, policy-making arenas, and civil society. The SRC programme presumes an ability and willingness to plan, implement and evaluate the project with high standards for public engagement tools. It simultaneously demands excellent time-management skills. In brief, the SRC provides the applicants with a challenge to view the scholarly work in a new light. This is done by exposing their methods to actors with equal levels of expertise but from another perspective on the same matter.

In the SRC programme documents, the *call for proposals* instructions and the application documents treat interaction plans as an overarching template that includes scholarly and societal forms of interaction *as a whole*. Further, in the application documents it is required that the practical actions be divided under internal and external forms. However, it is left to the consortia applicants to define how the split between internal and external interaction is to be made in practice.

As the SRC-funded projects selected in the first call in 2015 had only been on-going for roughly six months at the time of data collection, there are limitations in the capacity to study all dimensions of project implementation. For this reason, we have focused the examination on the proposed interaction plans and how they have evolved during the early months of implementation.

The study of the interaction plans of SRC-funded projects were approached with the following four questions:

- What capacities do the interaction plans aim to offer to serve ‘dynamic science governance’? Such capacities include foresight, reflexivity and trans-disciplinarity, for example.
- Do the proposed actions focus primarily on scientific, political or other societal objectives?
- What interaction practices do the plans emphasise? Such practices could include science communication, citizen hearings, participatory planning, deliberative decision-making and societal activism, for example.
- Which stages of research and decision-making do the proposed methods fall in?

In the next section, the societal interaction plans have been analysed from these four perspectives. The plans of the SRC projects in the 2015 strategic research programme form the material for the analysis. Equivalent instruments to transform into the implementation of the Horizon 2020 can be explicated from these examples.

2.3 Description of the stepwise realisation including the intervention of the pilot initiative

Those responsible for the projects were contacted directly in February 2016. Direct contact was made after those responsible for the projects had collectively decided to participate in this study with mediation from the Strategic Research Council at the Academy of Finland. Each group was contacted separately, with a request that they make available their project’s interaction plan. In addition, they were asked if they would make themselves available for an hour-long meeting to discuss the progress they had made so far and to get a more dynamic understanding of the thinking within each project.

The data for this report came from 13 interaction plans out of the 16 funded projects. Meetings were arranged with representatives from all 13 of the projects for which interaction plans had been provided for analysis. Each meeting lasted roughly one hour. It was requested that the person responsible for societal interaction be present at the meeting, together with the project leader if possible. It was possible to have additional team members participate in the meeting but only one of the groups used this opportunity. Instead, most noted that they had agreed on a division of labour in order to be efficient, and hence considered the interaction leader and the project leader to be best-placed to discuss the societal interaction activities and the general working logic of the group.

The discussions were semi-structured. They were run with the help of a list of questions, organised according to the thinking behind the four main issues listed above. All of the discussions were recorded, and transcriptions of the discussions were prepared. The texts were systematically analysed with the help of the NVivo software programme. The codes used in the analysis of the data follow the same conceptual thinking and terminology as the questions posed in the meetings with the research groups.

The analysis of the SRC-funded projects is based on both the written interaction plans and the discussions. However, during the process it became evident that the discussions provided a deeper and more nuanced picture of the interaction thinking and practices of each research group than the more rigidly formed “official” plans. For this reason, the analysis rests more heavily on the meeting discussions. Analysis of data has been done following the logic of inductive content analysis.

3 Results of the pilot initiative

The 16 SRC-funded projects fall under the three thematic sub-programmes as shown in Table 1. In the following, the thematic sub-programmes are referred to by the abbreviations shown in table 1.

Table 1: Projects and thematic sub-programmes

	Thematic sub-programme		
	Climate-neutral and resource-scarce society (CNRSS)	Equality and its promotion (EIP)	Disruptive Technologies and Changing Institutions (DTCI)
Projects	Transition to a resource efficient and climate neutral electricity system (EL-TRAN)	Finnish Childcare Policies: In/Equality in Focus (CHILDCARE)	Cloud Computing as an Enabler of Large Scale Variable Distributed
	SmartSEA - Gulf of Bothnia as Resource for Sustainable Growth	Social and Economic Sustainability of Future Working Life: Policies, Equalities and Intersectionalities in Finland (WeAll)	Energy Solutions (BC-DC)
	Sustainable, climate-neutral and resource-efficient forest-based bioeconomy (FORBIO)	Tackling Inequalities in Time of Austerity (TITA)	Digital Disruption of Industry (DDI)
	Novel protein sources for food security and climate (ScenoProt)	Preventing Social Exclusion: What Works and Why? (PSE)	Platform Value Now: Value capturing in the fast emerging platform-ecosystem (PVN)
		Work, Inequality and Public Policy (WIP)	Robots and the Future of Welfare Services (ROSE)
		Arts as Public Service: Strategic Steps towards Equality (ArtsEqual)	Smart Energy Transition - Realising its potential for sustainable growth for Finland's second century (SET)

3.1 Capacities to serve dynamic science governance

In the CNRSS and EIP sub-programmes strong emphasis is placed on reflexivity. Of the seven projects studied, six were built on the view that researchers alone could not find the right questions to pose, nor find solutions to the questions being studied. Reflexivity is highlighted by the importance given to the ability to communicate ideas clearly and openly to partners. Communication skills are seen to be a requirement for forming a joint understanding of the societal challenge being tackled and how it ought to be approached. Hence, human interaction skills are necessary in particular for providing the basis for piecing together multi-disciplinary expertise into a working system. Foresight is a central element in this approach. It allows the researchers to identify possible partners and grasp their thinking. Further, foresight is needed to find persuading arguments to convince the partners, including the researchers, of the benefits of cooperation.

Reflexivity is expressed in the CNRSS and EIP projects by an attitude to view cooperation in a new light and to challenge familiar working methods. This was particularly the case in two of the CNRSS and four of the EIP projects. Such openness is coupled with a willingness and ability to view external stakeholders as partners rather than targets of research or communication. Thus, reflexivity seems to be viewed as negotiation that takes place in the processes of knowledge creation and circulation. In asking for research data or perspectives from the “field”, the researchers consider it only fair that they, in return, should give back something equally valuable to the stakeholders. A vision of co-design as a working method is a key defining element in how reflexivity is manifested. Above all, it is a question of attitude.

Reflexivity and trans-disciplinarity are strongly connected in two of the CNRSS projects and three of the EIP projects. Rather than being two separate capacities, they form a coherent approach to solution-based research. The projects have been initiated on a scientific basis but have quickly integrated societal interaction into the core routines of the project. Rather than proceeding through the traditional academic way they have taken a more straight-forward approach and asked the stakeholders directly for their needs, gaps in knowledge and ideas. Exchanging ideas, crossing disciplinary boundaries and working in a network-based environment is a natural approach in these projects. The coupling between reflexivity and trans-disciplinarity is further indicated by the background of many of the researchers. Their working histories are fairly diverse and multi-sectoral, instead of following a clear academic career path. This allows them to apply different working methods and networks naturally.

In all CNRSS and EIP projects, the partners in different combinations had previous experience of close cooperation. They knew the partners and were familiar with their realities. Due to these backgrounds, reflexive working methods and an appreciation of different types of expertise seem to be in-built in the SRC-funded projects. Cooperation with societal partners is seen to be self-evident, just as challenging one’s familiar working methods is viewed as a positive push to finding solutions to grand societal challenges. These researchers share an interest in influencing development of their field through practical action, *in addition* to having an impact through scholarly work.

In the DTCl projects the capacities of dynamic governance were implemented first of all in the networks. Their SIP designs are ecosystem platforms, rather than traditional project management models. Another reason for preferring the network-model is that the projects address emergent problems. Therefore, in most cases the SIP implementation also serves as the source for the collection of complex data. From this perspective, SIP implementations are part of the research design.

Two of the Disruptive Technologies and Changing Institutions consortia have been built around the societal interaction idea. Since both of these projects are multi-disciplinary, research design is constructed on the basis of SIP practices. In addition, in one of these projects the key players have already been cooperating in societal interaction issues in other energy industry projects. Cooperation in this case benefits from such a strong, shared professional past.

Based on experiences reported, it seems that integrating SIP instruments into the academic requirements for successful research projects is meaningful and fruitful for the program and its implementation. However, the interviews indicate that it is possible to find relevant research PE tools and practices through SIP functions. This may take place, for example, by looking at the need for extensive research, its acceptability, or by identifying the first movers in the technology deployment.

3.2 Focus of societal interaction objectives

In all of the CNRSS and EIP projects studied, it has been stated that the project was initially built around research questions. These were, however, based on an understanding that the societal challenges in question needed to be tackled through network-based cooperation. In all cases societal interaction came into the planning so early on in the process that it wasn't possible to clearly differentiate between the research and interaction practices. While the research-based questions and goals may have formed the impetus for the projects, most of the projects noted that successful implementation of the project rests on them building the work on constant juggling of ideas, needs and testing platforms between and across the different partners. This working method is also what is seen to create societal impacts.

The difficulty in differentiating between scientific and societal objectives was also reflected in the way the projects describe their goals. The need for research in the fields of seven societal challenges was clearly understood by the interviewees. While most state clear scientific goals, these are seldom considered to be the most important part of the project. Instead, the projects emphasise the broader societal aims and count their possible interest in influencing political decision-making as part of the societal goals. Scholarly work is considered to be an important element in the whole, but not one that would outrank the rest of the project tasks. In line with this, the SRC-demanded split between internal and external interaction seems irrelevant in projects that are centred on the idea of finding solutions to grand societal challenges. The split seems to be viewed as too traditional and artificial in projects that are geared to active interaction throughout the length of the process.

The projects show a clear emphasis on societal goals over scientific and political goals. This is not considered contradictory to high-quality science but rather an extension of it. These groups treat research as well as societal stakeholders as partners, and knowingly break the barriers between internal and external interaction.

A key finding regarding the focus of action rests on how societal interaction and non-scientific partnerships are viewed. A differentiating issue relates to whether interaction is seen to be an in-built part of the project or an external "addition". This is strongly coupled with who are counted as being part of the core consortium and people who are seen merely as stakeholders. Forming a shared understanding is emphasised in the CNRSS and EIP projects. One type of actor cannot see more than its share of the whole. As finding solutions to grand societal challenges is considered to depend on a broad perspective, sticking to a research-centred approach is not seen to be a viable option. Close and continuous interaction ensures that the required perspectives are not only made visible, and hence addressed, but that they are also systematically subjected to critical analysis by all partners. The projects stressed that the crux of the matter under study might be found somewhere that is unexpected research-wise. The critical component is more likely to be found in cooperation that challenges the conventional way of thinking and working. This realisation can be seen as a driving force of a majority of the SRC projects.

In the CNRSS and EIP projects studied, the central aim is to pursue the topic further and deeper than what their impact could be if they were to use scientific channels only. In many cases, it is openly stated and proven by earlier cooperation that they aim to influence politics or societal decision-making through cooperation with governmental ministries or civil society organisations. These actors have experiential knowledge on how the target groups they want to influence work and on which levels knowledge is needed and used. They are knowledgeable about how political processes function in practice and who has influence in such processes. This knowledge is proudly put to use in the pursuit of solutions to grand societal

challenges. The project participants realise that in the current situation it is seen by some to interfere with scientific protocol or methods, or on the independence of research. All of the seven CNRSS and EIP projects studied considered the actual political decision-making untouchable to them, and instead focused on the policy planning and evaluation phases.

All the researchers in the DTCL projects interviewed have an interest in the research community. Since the projects are multi-disciplinary, the SIP practices take into account inter-disciplinary communication. None of the projects settled for just the starting points to build a SIP on the needs of the scientific community. Instead, the projects are mainly concerned with the national and European level themes. For example, digitalisation is a broad theme, which recognises the importance of political decision-making. This opens up opportunities for the scientific community to intervene based on research results. However, research interventions and scientific frameworks can also be the basis for broader societal action. This approach is referred to as 'drizzling' in the interviews. 'Drizzling' takes place throughout the lifespan of the project rather than at particular points in the process only. It involves all levels of stakeholders. The carrying idea of 'drizzling' is that knowledge is created and used through the working methods of the project itself in small parts. The scientific process is made visible through concrete cooperation, in addition to actual scholarly presentations. Hence, 'drizzling' can be seen to provide an opportunity to implement interventions in a living lab type of environment. These instruments target research 'up-stream' (Rask et al. 2013) of the deliberative political decision-making process.

Utilising research targets is not necessarily part of political decision-making. However, in some cases it is part of the planning process and the preparation of decisions as well as evaluation. Therefore, the projects seem to induce their SIPs to adhere, above all, to the policy processes, and not so much to decision-making as such. In the interviews it was emphasised that in political decision-making, the stakeholders need to have evidence to support the decision-making process. The researchers' problem occurs if the evidence is based on hastily produced results which have not been verified. The SRC as financial instrument is basically such that all projects adhere to the social and political goals.

3.3 Societal interaction practices

All of the CNRSS and EIP projects studied stated that their aim was either to increase or deepen cooperation with the societal partners. This work focused on enhancing co-working methods between researchers and companies / organisations / ministries, naturally following the demands of the SRC programme. Interestingly, representatives of about half of the projects stated also that their intention was to function as intermediaries between different types of societal partners. In other words, they intended to use the SRC project as a platform to tie the partners closer together in their efforts to solve shared problems.

Interaction practices used in the projects are multi-dimensional. These projects approach interaction as a trade or win-win situation in which information moves in all directions in order to support the creation of new knowledge. Researchers in the projects expect to get ideas, challenges and sparring from partners outside the scientific community. There is a clear expectation of mutual gain that is much more diverse than what the SRC programme lets us assume.

As a result, co-creation is adapted more broadly. It is an activity that assumes the planning in question will take place both in the research and policy-making communities. A similar presumption is seen in connection to impact. It is generally expected that this demand is targeted towards research. However, in

the SRC project analysis we see a clear expectation of a similar kind being directed back at the societal partners, be they policy-makers, business actors or civil society organisations. This latter case is strongly coupled with the demand to utilise the knowledge, but this extends even further to learning. Organisational and personal learning is implicitly expected of the societal partners.

The SRC-funded researchers in CNRSS and EIP projects show clear target orientation. This is not only evident with regard to the project as a whole, but also to each interaction activity as such (workshops, events etc.). A systematic objective-driven practice is emphasised even in relation to everyday routines such as meetings, communication (e.g. leaflets) and conferences. It seems that the project researchers are fully aware of the limited time and high expectations of output on the project. Hence they have adopted rational time-management and prioritisation practices.

As regards citizen hearings and science communication, most project participants viewed these as being too traditional and / or out-dated. They seemed to fit poorly with the active interaction approaches the projects had adopted and hence, very little reference was made to such practices. In short, the SRC-funded projects viewed interaction as a holistic guiding principle for the work. The project participants didn't expect all of the researchers to adopt interactive approaches in their work. However, most had ensured that those managing crucial tasks, such as work package leaders, are both willing and able to utilise them. Internal on-the-job training was also used to strengthen interaction skills of the researchers, alongside external communication training.

3.4 Phases of research and decision-making

In light of public engagement, it was expected that the projects' interaction activities would include a phase-based plan of action. All of the SRC projects studied apply well-planned schedules and have linked the interaction activities with scientific ones, as can be expected of multi-year projects that include a number of work packages.

As discussed above, a majority of the SRC-funded projects have been built on scientific grounds but are also strongly practical. A similar pattern follows in implementation, in particular with regard to how the timing of actions are planned. Rather than following a linear, more traditional academic model of discussing and presenting the findings after some results have been identified, all but one of the CNRSS and all of the EIP projects instead apply a more dynamic model. The research and interaction activities are synchronised in order to serve the purposes of both research and public engagement interests.

In this pilot initiative report, it was presumed that the process in the SRC-funded projects is multi-faceted and complex, despite the fast-moving and innovative ways of working that are being put into action through the projects. Moving from a linear understanding of knowledge transfer towards a more interactive form enables a continuous flow of ideas in multiple directions and encourages the partners to cooperate throughout the process from the initial planning to testing and application, and back to research. From the PE perspective, the SRC projects reflect a move away from phase-based thinking. This is in line with the way the projects avoid a split between research and interaction. The coherent and dynamic approach to the topic drives the working logic. In light of the SRC analysis, phase-based thinking is a practice that is used by a very small minority, and even in those cases it appears to be questioned. Instead, continuation is a PE practice that is applied strongly and intentionally. The projects have chosen this practice fully aware of the challenges it poses to the way they view the research project, including the need to revisit how research ethical principles are upheld.

3.5 Feedback received

A highly positive attitude towards this analysis was conveyed during the negotiation process with the SRC and the meetings with the proponents of the projects funded. This analysis is seen to serve the purposes of the SRC in the development of the funding instrument, as well as the individual projects' needs to understand the whole they are part of. Due to the sensitive situation and lively debate on the format of the SRC instrument, including the very tight competition for the funding, a clear majority of the projects called for strict application of science ethical principles. Those responsible for the projects are highly aware that their interaction plans, logic and activities are a major part of their added value and what gives them a leading edge in the competition. Hence, they are protective of the material.

Despite the possible reservations, the meetings with those involved in the projects were discussed in the interviews with a positive and open-minded spirit. There is a strong shared interest in understanding the dynamics of the SRC in practice, at the project level. This interest is reflected in a number of the projects requesting direct feedback on their strengths and needs for further development. These requests come in addition to an interest in understanding the first call funded projects as a whole. In general, the analysis has been met with curiosity and the meetings have taken place in an openly interactive manner.

4 Results of Public Engagement

A major finding from the analysis of the SRC first call projects is that the role of researchers in societal interaction is much more complex and multi-faceted than could be expected. The relationship between research and societal interaction is shown to be much more complex and active than was expected. Those responsible for the SRC projects consider to a high degree that societal interaction is an integral part of the research project itself. In most cases it is not considered to be an external dimension of the project. Rather, it is an in-built mechanism for multi-directional sharing of ideas, searching for societal challenges to be solved and platforms to test possible solutions.

The active and functional approach to societal interaction of the SRC projects is further supported by their relationship to the networks they work in. In all cases the cooperation partners had worked together previously in different ways, and they shared a mutual trust towards the institutions and working methods. As a result, they were able to make a solid project plan quickly. They share an interest in the topic itself but also with regard to the societal goals they aim to meet during the life of the project.

It seems that hybrid combinations of participatory tools have been a necessity to be selected as a funded consortium under this research funding instrument. In the interviews and societal interaction plans, it was evident that there is no such a tool to collect the feedback from all projects. Instead, there are several methods in each project to make it possible for actors to influence the project and have an impact on broader discussions. Most of the PE tools discussed in interviews are based on methodologically novel interaction practices rather than more traditional science communication. It seems that the context of the projects is allowing new and innovative combinations of practices and PE methods to be applied. As a result, the interaction with internal and external stakeholders is part of the project discourse from the very beginning of the project. The feedback is changing the landscape of projects in remarkable ways by connecting actors in the early stage of the project. Some of the research groups have identified and developed the research goals and methods by using participatory tools. For them the impact is built on the whole process, and their impact on evidence-based decision-making making is clear. We assume these consortia have been successful with their SRC applications because of this benefit.

In the SRC-funded projects, public engagement activities are clearly an integral part of the research. Societal interaction isn't considered to be an additional task, although there has been a steep learning curve in several of the projects regarding the methods and practices of societal interaction. However, the learning seems to be taken as part of the process of increasing the researchers' own knowledge and as such reflects an attitude of constant capacity building. Those responsible for SRC projects are aware that they were selected through fierce competition and that their interaction plans, capacities and potential to deliver played a critical role in the game. Thus, their ability and willingness to develop their own skills and knowledge on public engagement – in addition to the scientific work – is at the centre of the projects' working logic. In other words, societal interaction is not a task but rather a cross-cutting working method.

An interesting finding with regard to the types of goals the interaction is focused on relates to the role of researchers. Their central duty in the projects is to pursue high-quality research, but alongside this, a picture emerges of researchers actively functioning as a type of facilitator within the project. Such activities are clearly linked to their will to influence societal matters and processes. Rather than focusing only on the scientific work, these researchers put time and effort into building cooperation systems not only between researchers and stakeholder partners but also between the different stakeholder partners. This triangle-like

cooperation building is seen to benefit the *issue* to a degree that makes such actions worth the effort. This finding is particularly interesting as it surpasses the idea that researchers need external mediators between the scientific world and the rest of society in order to get their message across.

With regard to the thematic sub-programmes we find that there is less than expected differentiation in how they view or implement societal interaction. Despite the projects falling into three separate thematic programmes, they exhibit no real differences in their approaches in ways that could be deemed to be caused by the thematic focus per se. The similar patterns of engagement, including their working logic, focus, capacities, practices and timing skills, can be seen throughout the projects. We find that this is likely to be a result of the strongly trans-disciplinary nature of the projects that challenges the consortium members to view issues from different angles and with multiple approaches. Further, they share an understanding of public engagement as an irremovable part of effective and dynamic research.

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