PE2020

Public Engagement Innovations
for Horizon 2020

Final Progress Report, D6.1

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The PE2020 Project

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The PE2020 project

PE2020 project identified, analysed and refined innovative public engagement (PE) tools and instruments for dynamic governance in the field of Science in Society (SiS). PE2020 analysed the PE tools and instruments through a systemic and contextual perspective, and contributed to the potential and transferability of new governance innovations. PE2020 created new knowledge of the status quo and trends in the field of public engagement in science, refined innovative PE tools and instruments and proposed new ones.

The project did 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 the 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 STI governance, and to address the looming problems related to the grand societal challenges of European societies and the Horizon 2020. In order to ensure practical relevance, the project worked through intensive co-operation between researchers and science policy actors. PE2020 aimed at expanding the capacity of European and national science policy actors to integrate better societal engagement by providing an easy 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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Contents

1 Executive summary

PE2020 identified, analysed and refined innovative public engagement (PE) tools and instruments for dynamic governance in the field of Science in Society (SiS). PE2020 continued the work began in the MASIS project (2010-2012) by going deeper in analysing the dynamics of PE innovations and contributing to the potential and transferability of new governance innovations. The vision guiding the work of this consortium was that more effective and socially acceptable decisions on science, technology and innovation (STI) are needed to solve the looming problems related to the grand societal challenges of the Horizon 2020, and, that public engagement has an untapped potential in addressing such challenges, and making research governance more dynamic and responsible. The work of this research project was, therefore, focused on tools and instruments for public and societal engagement that are necessary to boost the quality, capacity and legitimacy of European STI governance.

Reflecting this vision, the PE2020 project set two ambitious objectives. **First, PE2020 aimed to create new knowledge of the status quo and trends in the field of public engagement in science**. Following actions were carried out to reach this objective:

- an updated inventory of current and prospective European PE innovations was created (WP1)
- the dynamics of PE innovation was modelled through a sophisticated conceptual model emphasizing a systemic and contextual perspective (WP2)
- the feasibility of new PE tools and instruments was studied through pilot cases in the context of the grand societal challenges (WP3).

Second, PE2020 aimed to refine innovative PE tools and instruments and propose new ones. Following actions were carried out to reach this objective:

- seven innovative PE processes, collectively relating to the seven grand societal challenges of the Horizon 2020, were designed and tested in real-life contexts (WP3)
- an easily accessible web-based toolkit supporting the design of PE practices was created for the help of research managers, science policy actors and other interested users (WP4)
- dissemination activities were carried out extensively, in order to support the transfer innovative PE practices among European countries and research and innovation actors (WP4).

Thus, PE2020 stood on two legs, one in academic research, the other in the practice public engagement. All the objectives of the PE2020 were met during the three year research process. Some of the key results include **the catalogue of 38 innovative PE cases** (D1.2), **a conceptual model of public engagement in dynamic and responsible governance of research and innovation** (D2.2), **lessons from seven real-life PE pilots** that were carried out in collaboration with international research programmes and analysed in a related report (D3.2), development of **a webtool on public engagement in science** (http://toolkit.pe2020.eu/), and **organisation of a high level policy conference**, where the key results of the PE2020 project were discussed with researchers, policy makers and other users of knowledge, and published in a Policy brief (https://pe2020.eu/wp-content/uploads/2014/02/Policy-brief-3_FINAL.pdf).

2 Publishable final report

2.1. Summary description of project context and objectives

Public engagement (PE) has become an important theme of European research and innovation activity. By setting PE as a key thematic element of its policy for **responsible research and innovation (RRI),** the European Commission has promoted fundamental changes in the ways, in which civil society and other stakeholders outside the scientific community influence – and are expected to influence – research activities. Promoting PE means giving more weight to citizens and stakeholders in the definition of research needs, in the critical reflection of current and future research priorities, and in the implementation of R&I activities. Yet there is limited understanding of the transformations that widespread use of PE will involve in R&I activities. Can PE remain an add-on to research and innovation activities, or does it involve some new functions, or even structural changes in the ways that research will be designed, funded, implemented and evaluated? How can PE contribute to a more **dynamic governance of research and innovation**, and what makes it successful in it? Without clear answers to these issues, there is a risk that PE does not serve RRI, but on the contrary, becomes a burden for R&I activities, and an obstacle for bridging of research and society.

In order to address these issues and questions, **the overall objective of the PE2020 was to develop and disseminate a theoretically rich but practical conceptual model and toolkit of public and stakeholder engagement processes for science policy actors, and thus facilitate the cross-country transfer and localisation of European PE best practices**. PE2020 also aimed to identify and develop new tools for dynamic governance of research and innovation, to help better addressing grand societal challenges. The objectives of the PE2020 were aligned with the underlying research programme SiS.2013.1.1.1-6 – Tools and instruments for a better societal engagement in "Horizon 2020".

In order to achieve these objectives, the PE2020 project set two ambitious goals, one being in the area of academic research, another in the area of PE practice and development of better governance practices.

As regards to academic research, PE2020 aimed at creating new knowledge of the status quo and trends in the field of public engagement in science. In particular, PE2020 aimed to identify and analyse innovative PE tools and instruments contributing to dynamic governance in the field of Science in Society. Compared to the MASIS project, PE2020 aimed to go deeper in such an analysis by a) creating an updated inventory of current and prospective European PE innovations, b) analysing the dynamics of PE innovation through a sophisticated conceptual model emphasizing a systemic and contextual perspective, and c) studying the feasibility of new PE tools and instruments through pilot case studies in the context of the grand societal challenges.

As regards to the development of better governance practices, PE2020 aimed to refine innovative PE tools and instruments and propose new ones. To support an easy access for policy makers to new PE tools and instruments, PE2020 aimed at: a) context-tailoring and piloting 2-6 best practice PE processes related to the grand societal challenges of the Horizon 2020, b) developing an accessible net-based PE design toolkit for science policy actors that c) helps identify, evaluate and successfully transfer innovative PE practices among European countries.

In addition to the direct objectives stated above, the project acknowledged indirect objectives that were related to the increased and sustained efforts to study and develop SiS governance capacity in Europe. It was acknowledged that continued analysis of innovative PE tools and instruments, by using a conceptually refined

framework, can lead towards deeper understanding of innovative and context-wise PE practices that will aid the diffusion of PE practices across the European nations. Thus, a larger systemic transition toward more responsible and dynamic culture of research and innovation, was acknowledged as an important task, even though beyond the capacity of one single project.

In order to boost its capacity, the PE2020 project aimed to build on the outcomes of previous projects that had explored the dimensions of public and stakeholder engagement in STI (e.g. STEPE, SET-DEV, TECHNO-LIFE, VALUE ISOBARS, EU DEEPEN, PACITA, SYNTH-ETHICS, NANO-CODE, CIVISTI and FUTURAGE), and build new collaboration with on-going sister projects. Aligning activities with parallel research processes, PE2020 aimed at building such momentum that would contribute to the EU's goals in stimulating citizens' active participation in EU policy-making, particularly in the forthcoming Framework Programmes for Research and Innovation.

Based on these objectives and goals, the PE2020 project defined following **indicators that it used to monitor and evaluate the fulfilment of these goals**:

A) **as regards to the achievement of the main outputs of the project**:

I. completion of the updated inventory of exemplary and innovative PE tools and instruments, including 50 internally reviewed case studies that are easily available through the webtool

II. creating of a theoretically rich but practicable conceptual model of PE across the dynamically governed research policy cycle and related participatory performance factors

III. organizing 2-6 pilots of context-tailored PE processes related to the societal challenges of the Horizon 2020

IV. developing an easily accessible net-based PE design toolkit for science policy actors that helps identify, evaluate and successfully transfer innovative PE practices among European countries.

B) **as regards to the (existence of conditions for) high quality of the outcomes**:

I. **quality of the inventory (WP1)**:

- use of systematic methodologies to analyse the cases (including NVivo software for computer-assisted qualitative data analyses)
- reviews of the used analytical categories internally and across WPs (WP1 & WP2) using the organizers or managers of the case projects as informants (when applicable)
- organizing an international scientific workshop for reviewing the inventory and related analysis
- using the advisory panel and other external contacts as experts to ensure the quality and relevance of the catalogue provided.

II. **quality of the conceptual model (WP2)**:

- building the conceptual model on high-level scientifically reviewed publications (many of which have been published during the last 5 years)
- reviewing the models internally by the social science experts among the consortium
- using the policy experts among and beyond the advisory board to review the models before they are reported

- presenting the models in international scientific conferences and publishing in peer reviewed jo testing the validity of the theoretical concepts in the practical contexts of the pilot evaluations.

III. **quality of the pilot exercises (WP3)**:

- 2-6 pilots are organized in connection to research and innovation processes (e.g. research programmes) that are evidently linked to the grand societal challenges of the Horizon 2020
- pilots are planned and organized in close co-operation with the 'host programmes' (e.g. BONUS) thus ensuring that the stakeholders of PE tools and instruments will be actively involved
- planning the pilots in a manner that supports comparative insights and learning
- collecting participant feedback on the pilots and developing a formal protocol for data gathering and analysis
- publishing about the pilot case studies in academic publications

IV. **quality of the PE design toolkit (WP4)**:

- building the toolkit on the basis of theoretically sound and practically tested elements created in WPs1-3
- explicitly documented requirements for the webtool
- minutes depository of communications with the web producer
- toolkit design documentation
- feedback data collected from the test users
- webtool visitor counter.

In addition to the substantial objectives of WPs 1-4, WP5 was dedicated to dissemination, with the aim of ensuring that all the results of the project be effectively disseminated to relevant STI actors, including EU and national level STI policy makers, researchers of public engagement and STI governance, and other users of knowledge. As a culmination of the dissemination activities, a Final Workshop was planned, where relevant stakeholders and collaborators would be invited. Finally, WP6 provided management services for the project, with the main objective to ensure that the project would be implemented according to the plan, and the Milestones achieved in the planned time schedule.

2.2. Description of the main S&T results/foregrounds[1]

PE 2020 moved towards meeting its objectives via a closely linked chain of activities under six work packages. The key results were developed in WPs 1-5 as follows. New knowledge of the status quo and the trends in the field of public engagement was generated mainly in WP1 and WP2. New PE tools and instruments were experimented in WP3, by taking into account contextual factors that impact the successful design and implementation of such processes. A web-based toolkit that can be used in the identification and transfer of PE practices in EU member countries was created in WP4. WP5 was responsible for the dissemination activities, but it also coordinated the final policy conference that had an important role in the refinement and potential implementation of the results. WP6 (management) didn't contribute to new knowledge, but ensured that the research process was as smooth as possible.[2]

WP 1 - Exploring Public Engagement Innovations in Europe and beyond

The two main outputs of WP1 include an up-to-date inventory of 256 prospective European public engagement innovations that encompasses 76 mechanisms and 256 initiatives (D1.1), and a catalogue of 38 innovative cases (D1.2) that sets out to explore some of these innovative and cutting edge practices in depth and across different engagement categories and objectives to explore the breath of PE formats and their different relations to the Horizon 2020 societal challenges. In addition, the work package produced a report on the participation on a conference where the results were discussed with other social scientist (D1.3), and a summary report of the work package (D1.4). In the following sub-sections, the two main contributions of WP1 – an 'inventory' and 'catalogue' of PE – will be discussed in more detail.

Inventory of PE mechanisms and initiatives

The main objective of the first task of the data collection was twofold; to construct a systematically ordered inventory of public engagement innovations in Europe and beyond, and to crystallize an analytical approach that is able to capture variation in PE objectives and formats as well as their particular degrees of orientation towards the societal challenges identified in Horizon 2020. The inventory (D1.1) functions as an independent output that illustrates the scope and heterogeneity of both national and cross-national PE activities organised in Europe and further afield in a growing universe of PE initiatives worldwide. The construction of the inventory relied on a multilevel approach that was applied in the data collection process: desk research of research literature, surveys of innovative PE mechanisms and initiatives globally, and feedback from the partners and the international members of the advisory panel of PE2020.

As an empirical starting point were 37 national country reports of a previous European project *Monitoring Policy and Research Activities on Science in Society in Europe* (MASIS, 2010-12), but a significant and a more up-to-date input was reached through a co-operation with the simultaneously organised, yet shorter, *Engaging Society in Horizon 2020* -project (Engage2020, 2013-2015). The Engage2020 project, a sister project

[1] The presentation of the key results in this section is based on D5.3, Final Workshop and Summary Report, where the authors include Kaisa Matschoss, Mikko Rask, Timo Aarrevaara, Luciano d'Andrea, Ian R. Dobson, Fabio Feudo, Saulė Mačiukaitė-Žvinienė, Maria Pietilä, Kirsi Pulkkinen and Janne Wikström.

[2] The management of PE2020 was planned to be based on open, critical, and consultative approach. Some of the challenges, lessons and strategies for overcoming the challenges are reported in an external evaluation of the PE2020 project (Appendix 1 – a restricted document containing confidential information).

to PE2020, conducted a survey among international scholars in the field of research and innovation in order to map the use of methods for societal engagement in activities related to research and innovation. The PE2020 inventory adds in these survey results where supplementary mechanisms and specific initiatives are located. A third data source consists of 50 SiS case studies conducted by the *Technopolis group* (1st version, May 2012) as a part of the mid-term SiS programme evaluation. Relevant examples of PE mechanisms/initiatives among these 50 case studies, which include cross-national PE activities have been reviewed and added to the PE inventory. Other relevant current or completed EU SiS projects were also reviewed, although less systematically, and incorporated into the PE database.

Furthermore, a literature review was conducted comprising of both academic journals as well as 'empirical' reports addressing PE activities. The academic journals *Public Understanding of Science*, *Science Communication*, *Science, Technology, and Human Values*, and *Science and Public Policy* were examined for recent articles concerning 'public engagement', since these journals represent primary outlets for academic analysis of PE activities. This systematic procedure included recent articles published from 2008 onwards. External sources such as internet sources (e.g. homepages of institutions, organisations, centres etc. engaged with public engagement activities) supplemented data collection. Additional cases suggested by project partners and international advisory board members were also added to the inventory.

The inventory of current and prospective European public engagement innovations encompasses 76 mechanisms and 256 initiatives. The inventory is presented under the five headlines specified in the section below: public communication, public activism, public consultation, public deliberation and public participation, which form a typology of PE mechanisms or initiatives. The inventory furthermore applies a simple, dual classification scheme distinguishing between PE mechanisms (which are generic ways of enacting public engagement) and PE initiatives (which are the concrete examples of specific engagement activities). This basic classification scheme primarily functions as a means for arranging the empirical cases in an accessible and informative way, and it is meant to reduce complexity in a highly complex database.

- **Public communication –** *the aim is to inform and/or educate citizens*. The flow of information constitutes one-way communication from sponsors to public representatives, and no specific mechanisms exist to handle public feedback (examples include public hearings, public meetings and awareness raising activities).

- **Public activism –** *the aim is to inform decision-makers and create awareness in order to influence decision-making processes.* The information flow is conveyed in one-way communication from citizens to sponsors but not on the initiative of the sponsors as characterizes the 'public consultation' category (examples include demonstrations and protests).

- **Public consultation –** *the aim is to inform decision-makers of public opinions on certain topics.* These opinions are sought from the sponsors of the PE initiative and no prescribed dialogue is implemented. Thus, in this case, the one-way communication is conveyed from citizens to sponsors (examples include citizens' panels, planning for real and focus groups).

- **Public deliberation –** *the aim is to facilitate group deliberation on policy issues of where the outcome may impact decision-making.* Information is exchanged between sponsors and public representatives and a certain degree of dialogue is facilitated. The flow of information constitutes two-way communication (examples include 'mini publics' such as consensus conferences, citizen juries, deliberative opinion polling).

- **Public participation –** *the aim is to assign partly or full decision-making-power to citizens on policy issues.* Information is exchanged between sponsors and public representatives and a certain degree of dialogue is facilitated. The flow of information constitutes two-way communication (examples include co-governance and direct democracy mechanisms such as participatory budgeting, youth councils and binding referendums)

Catalogue of public engagement innovations

The second task of the work package aimed to identify a number of initiatives for in-depth exploration in terms of innovative characteristics, orientation towards societal challenges, advantages and obstacles etc. The main purpose of the catalogue was to further explore and understand innovative PE practices, and provide a platform for international inspiration and learning within a PE setting that is constantly in a state of flux. The data served as a foundation for further conceptual analysis in terms of dynamic governance of the PE (WP2) as well as the pilot selection (WP3) and the toolkit construction (WP4).

As a basis for selecting the case studies included in the catalogue, a nomination procedure was implemented, that included the full consortium and the international advisory board (10 nominators in total). Each nominator was invited to select and rank 10 innovative initiatives each using a specific tailored template. Nominations were to take into account six sets of criteria of innovativeness delineated below, and nominators were requested to qualify each nominated initiative by providing a reflection on the initiative on the backdrop of the selection criteria. If supplementary criteria were used for nomination, each nominator was kindly asked to state these as well.

The following six pre-constructed criteria of innovativeness were applied sin the case selection and qualification (see D1.2 for more details):

- Hybrid combinations
- Methodological novelty
- Inclusive new ways of representation
- Potential impact
- Bearing on societal challenges
- Societal challenges
- Feasibility

The criteria put forth were based on prior theoretical and empirical knowledge of the field, and in agreement with the explorative approach, they remained fairly open, inclusive and broad in order to reach a more comprehensive assessment of innovativeness and to deepen and complement our evolving understanding of the notion of innovativeness in public engagement. On the basis of the nomination process, a total of 62 nominations were obtained. Subsequently, case coordinators were identified as informants of the survey. Based on a common contact-protocol, each consortium partner personally contacted a number of case coordinators with information on the project and the objectives of the survey. Upon these personal contacts between the consortium partners and the informants, 56 questionnaires were dispatched. Following a procedure of reminders and follow-up contacts with targeted informants, a total of 38 case descriptions were collected.

The catalogue of PE innovations is a collection of detailed case descriptions and reflections provided by individual case coordinators with particular expertise with the initiative in question. The approach of including expert descriptions allowed for in-depth and first-hand reflections, experiences and information at a level of detail, which would have been difficult to access otherwise. Each coordinator completed an open-ended survey exploring key features of the initiative, including the innovative dimensions of the particular PE case; outcomes and impacts; case relations to policy decision-making processes; the advantages and challenges associated with the case and according to the Horizon 2020 societal challenges. The common survey structure allowed for horizontal comparisons of PE innovations while the open and qualitative approach simultaneously enables a more inductive and nuanced examination of the concept and features of innovative practices. Each case was classified according to the following main categories:

- **PE category**: Public communication, Public activism, Public consultation, Public deliberation, public participation
- **Mechanism**: Generic ways of enacting public engagement, e.g. consensus conference, participatory budgeting etc.
- **Main purpose of initiative**: Awareness raising, education and capacity building, protest, community building, consultation, dialogue/deliberation, knowledge co-production; co-governance.
- **Geographical scale**: Global, European, National, Regional, Local/urban, and institutional.
- **Organizing entity**: National governmental body, local governmental body, academic institution, NGO, community based organisation, non-profit organisation, science museum/centre, industry and business.
- **Target groups**: Lay publics, researchers, stakeholder organisations/groups, experts, public officials
- **H2020 Societal Grand Challenges**: Health, demographic change and wellbeing; Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the Bioeconomy; Secure, clean and efficient energy; Smart, green and integrated transport; Climate action, environment, resource efficiency and raw materials; Europe in a changing world - inclusive, innovative and reflective societies; Secure societies - protecting freedom and security of Europe and its citizens.

It has been stressed that 'innovations are more than ideas and theories; they are ideas in action' and that 'good innovations depend on ideas that can be implemented successfully' (Newton 2012:5).[3] The initiatives included in the catalogue cover a wide field: from small-scale experiments to large-scale innovations, from local settings to transnational co-operations, from grass-root activities to national institutionalised mechanisms, and from awareness raising activities to direct power sharing exercises, among others. Common to all of them is their successful implementation and achievements of objectives and actions stated.

Key observations

In our view, the case collections carried out in WP1 have been especially valuable in the following ways:

- The cases have provided illustration, examples, and inspiration for researchers, research managers, policy makers and other actors interested in PE, who either hesitate in starting to invest in more

[3] Newton, L. (2012). Policy innovation or vertical integration? A view of immigration federalism from the states. Law & Policy, 34(2), 113-137.

inclusive governance practices, or who are convinced that it should be done, but lack examples of how to do it practically.

- Knowledge of the experience (of success and failure) from these cases, has helped to refine and 'context tailor' new PE initiatives toward more successful activities than would have otherwise be possible.
- Collaborating with pilot PE processes has helped to recognize that the study of contextual factors is challenging. Research programmes are in many ways rooted in their local and international contexts, in ways far more complex than what can be accounted in the relatively short (c. 5-10 pages) case descriptions in D1.2.
- The PE cases collected in WP1 have been an invaluable data for the development of a conceptual model of the dynamic governance under WP2.
- The catalogue of innovative PE cases has also provided the basis for selecting seven PE pilot initiatives that were organized and evaluated under WP3.
- The innovative PE cases were an important element in the building of the PE2020 toolkit that help RDI policy designers to identify and develop PE practices for their own purposes in WP4 of the PE2020 project.

WP2 – Conceptualising PE's role in dynamic and responsible governance of R&I

The main output of WP2 is the 'Conceptual Model of Public Engagement in Dynamic and Responsible Governance of Research and Innovation' (D.2.2) that aimed to elaborate a conceptual framework of PE, where innovativeness, participatory performance and dynamic governance are on the focus. D2.2 provides unique theorising and empirical findings on 38 innovative PE processes scanned globally and analysed systematically by using a 'PE footprinting' method that was created for this purpose. D2.2 was later modified to a form of a book manuscript that was submitted to an academic publisher (Routledge). Other outputs of WP2 include a refined typology of PE tools and instruments (D2.1), a summary report (D2.3), and a literature review that was an additional (non-formal) deliverable of the project. The results of WP2 are summarised in the following sub-sections, and key observations indicated at the end of the section.

New methodological issues and approaches

Resulting from the collaboration of WP1 and WP2, we built a new categorisation of PE methods in five main methodological clusters: public communication, public consultation, public deliberation, public participation and public activism (Figure 1). The categorisation is based on a fusion of two classic models, Arnstein's (1969)[4] 'ladder of participation', which pays attention to the levels that political power assigned to the participants, and Rowe and Frewer's (2005)[5] model, which pays attention to the directions of information flows between sponsors and participants. Both formal (e.g. organised deliberation process) and non-formal (e.g. public activism) PE processes can be included in these categories.

[4] Arnstein, S. R. (1969). A ladder of citizen participation. Journal of the American Institute of planners, 35(4), 216-224.
[5] Rowe, G., & Frewer, L. J. (2005). A typology of public engagement mechanisms. Science, Technology, & Human Values, 30(2), 251-290.

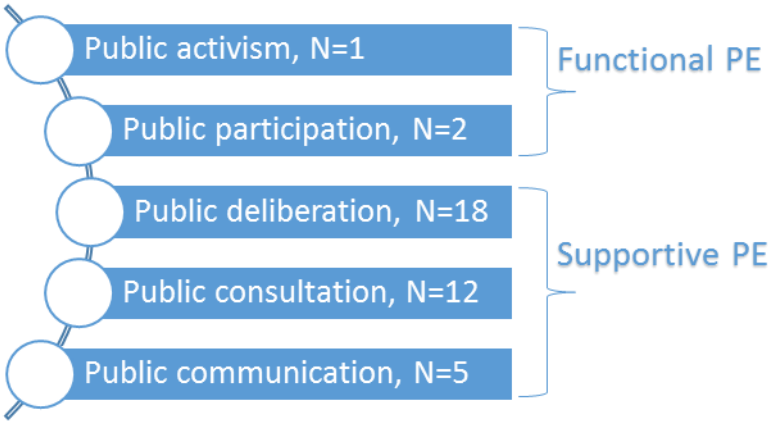


Figure 1 *PE cases by main methodological category*

We found this categorisation to be useful in acknowledging different supportive and functional roles of PE processes in contributing to R&I activities (Figure 1). At the same time, however, we found these five categories to 'leak' in two ways. First, per definition, public communication and public consultation are 'one-way' approaches, while at the same time we found most of the innovative PE processes to be essentially 'two-way' processes. Second, many individual cases were difficult to allocate under one category only. For example, a highly exploratory PE case, 'Breaking and Entering', was classified under 'public communication', even though we recognised that this endeavour tried to go beyond the limits of traditional science communication. In future mapping of PE processes, there clearly is room for further conceptual elaboration.

In order to study the characteristics and trends of innovative PE, and build a conceptual model of PE, we developed a new 'footprinting' methodological approach to study the inputs and outputs of PE. The footprinting resulted in 'cognitive maps' that describe the most essential features of each PE case. An example is provided in Figure 2.

As PE processes are often complex and fuzzy processes and therefore difficult to capture and compare, we found the footprinting method to be a useful approach combining both bottom-up and top-down approaches in the analysis. We recommend the footprinting approach to be used in occasions, where there is a need for comparing and analysing highly diffuse processes such as PE activities.

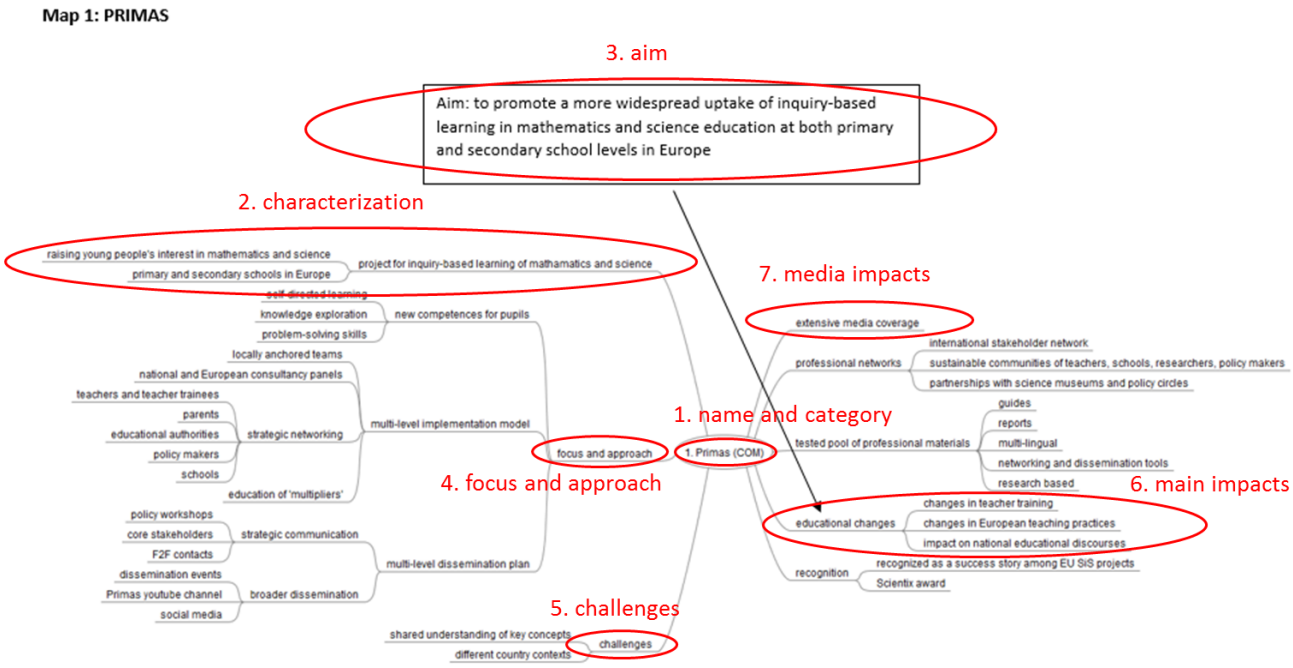


Figure 2 *An exemplary cognitive map*

Reflection on the categories of PE

In D2.1 we qualified and critically discussed the categories used in WP1 analysis of the case studies (see Fig. 1).

Most literature suggested that **public communication** or spread of information is not effective anymore, but remains an important basis for PE activities (Marks, 2013).[6] We suggested that it is important pay attention to the different ways in which information is shared, including the following channels:

- *Online communication* refers to reading, writing and communication via computers, for example, e-newsletter, blogs, emails, Skype.
- *Social networking* refers to a structure or platform made up of a set of individuals or organisations, for example, Facebook, Twitter, charity organisations.
- *Engagement transfers* refer to technologies or other mechanisms which enables public to become engaged and involved, for example, Apps.
- *Non-ICT-based communication* refers to non-computer based communication (events, traditional media-based communication, etc.).
- *Science education* refers to delivery of PE activities in two-way-flow of information and it relates specifically to higher education institutions, focuses on issues like productive learning and quality. It is tied to formal educational system. First, engaging students in science learning and improving their ability to communicate science to wider audience, and, second, supporting and encouraging researchers to participate in such kind of engagement, for example, science communication subject in a study course.

[6] Marks, J.H. (2013) What's the Big Deal?: The Ethics of Public-Private Partnerships Related to Food and Health (May 23, 2013). Edmond J. Safra Working Paper No. 11. Available at SSRN: https://ssrn.com/abstract=2268079 or http://dx.doi.org/10.2139/ssrn.2268079.

Most of literature described **public consultation** as a process that elicits 'raw' opinions from the public. A general limitation of public consultation is the lack of political impact. A critical distinction is whether public consultation is *targeted or non-targeted* in regard to specific societal groups, which is often related to the topic of the consultation.

Considering **public deliberation** as one approach can also be questioned on the basis that there can be different sub-types of public deliberation. We found following instances of public deliberation that might be used in a more nuanced classification of PE processes (Embedding Impact Analysis in Research, 2013):

- *Deliberative research* is built on market research mechanisms, for example, citizens' surveys.
- *Deliberative dialogue* is built on communication mechanisms, enabling experts and non-experts to work together, for example, citizens' agenda.
- *Deliberative decision making* is built on partnership mechanisms, enabling public and decision-makers to decide jointly on programme priorities; for example, EC green papers.

Public participation was defined among the strongest ways of public engagement, where the aim is to assign partly or full decision-making power to citizens. We found the following examples of potentially relevant categories of public participation:

- *Multiple-engagement* refers to PE at different times with varying degrees and forms of participation to achieve desired goals, i.e. different segments of population will respond differently to different strategies. In some cases, it might mean Facebook, in other cases, face-to-face communication.
- *Multiple-partnership* is built on partnership with various organisations or states in order to enable them to develop skills for engaging with each other which enables them to work effectively for the same goal, for example partnership between university and museum, cooperation between two or more countries.
- *Multiple-funding* refers to a variety of funding, i.e. co-funding, for example, a programme financed by national foundation and EU programme.

Public activism, can be characterised as a category, where self-determination for PE is emotionally interlinked to individual values and emotions provoking a sense of urgency. For this reason, *public sensitiveness* is an important aspect of public activism.

We conclude that there has been a shift of PE from traditional models of public communication and consultation, where dialogue between decision makers and the public is narrow and restricted, to public deliberation where such dialogue is intensive and influential and that PE is the major element for successful implementation of responsible research and innovation policy.

Understanding dynamic governance

Dynamic governance refers to the ability of policy making to handle issues in a rapidly changing environment requiring continuous adjustment of policies and programmes. In this framework, dynamic governance involves dynamic interactions between scholars, citizens, industry and government as an exploratory, inductive approach in setting performance standards for responsible research and innovation. Following Neo

and Chen (2007),[7] we included **anticipation, reflexivity** and **transdisciplinary mobilisation of resources** among the key capacities that help policy makers to manage complex issues dynamically in modern research and innovation policy systems. We also included **continuation** as an additional key capacity for dynamic governance. Continuity is needed to balance accelerated change caused by increasingly dynamic governance actions.

In D2.2 we also tracked activities that contributed to the **four capacities of dynamic governance: anticipation, reflection, transdisciplinarity and continuity.** In addition, we tracked other activities and capacities, and analysed whether they were substantively, practically or normatively oriented. Table 1 summarises this analysis and gives an extensive list of example of how in practice innovative PE can contribute to such capacities that can contribute to more **dynamic and responsible governance of research and innovation**.

[7] Neo, B. S., & Chen, G. (2007). Dynamic governance: Embedding culture, capabilities and change in Singapore.

Table 1 *Participatory performance functions of innovative PE (blue colour indicates the most densely populated cells)*

	Anticipa-tion	reflection	Transdisciplina-rity	continuity	awareness raising	competence building	action initiation
Substan-tive	exploring impacts of societal change	identifying sustainable consumption choices	conducting transdisciplinary research projects		understanding public opinion	educating democracy	piloting
practical	co-designing new products and services	publicly debating R&I issues	designing trans-disciplinarily educational programmes	expanding PE processes internationally	increasing public awareness of science	developing new competences for students	mobilising citizens to clean their living environments
		increasing visibility of science in media	mobilising societal and financial resources	creating enduring professional networks	increasing public awareness of environmental problems	developing new competences for researchers	introducing new 'science municipal' activities
		articulating public concerns on S&T	testing new models of public-private partnerships		increasing awareness of gender issues in science	developing civic capacities	building consensus and managing conflicts
		developing new methods for public reflection				expanding possibilities for science education in municipalities empowering youth	
normative	developing future visions and plans	publicly debating regulatory issues	aligning research activities with stakeholders	institutionalising deliberative democracy			improving visibility and perception of women in science
	identifying future research needs	developing government accountability		establishing the use of PE processes in R&I governance			embedding citizens' values in local systems of innovation
	upstream engagement						revitalising democracy
							influencing political processes

Policy cycle

A tradition view of policy cycle is based on the notion that changes in research policy are usually a response to a societal problem or set of problems in different sectors: energy, security, economy, culture, etc. starting with a monitoring and appreciation of these sectors and their contexts. An expectation is that topical societal issues of different political areas are likely to affect the agenda setting and decision making and even implementation processes of research policy.

However, we observed that the process of policy making is more complicated than presumed by the traditional view of policy cycle. The substance, pace and scope of the policy cycle is no longer dependant only on the leaders of the organisations or from dynamics fully internal to the organisation. Instead, policy making implies networking among different stakeholders. In particular, while **introducing participatory mechanisms into the policy cycle further involves and sustains dynamism in governance activities**. Therefore, a more realistic representation of a policy cycle under the condition of dynamic governance is that of a **chaotic and confusing network** (Figure 3).

Figure 3. *Engagement Networks in Policy Cycle (Angeli Newell, 2014; Welcome Trust)*[8]

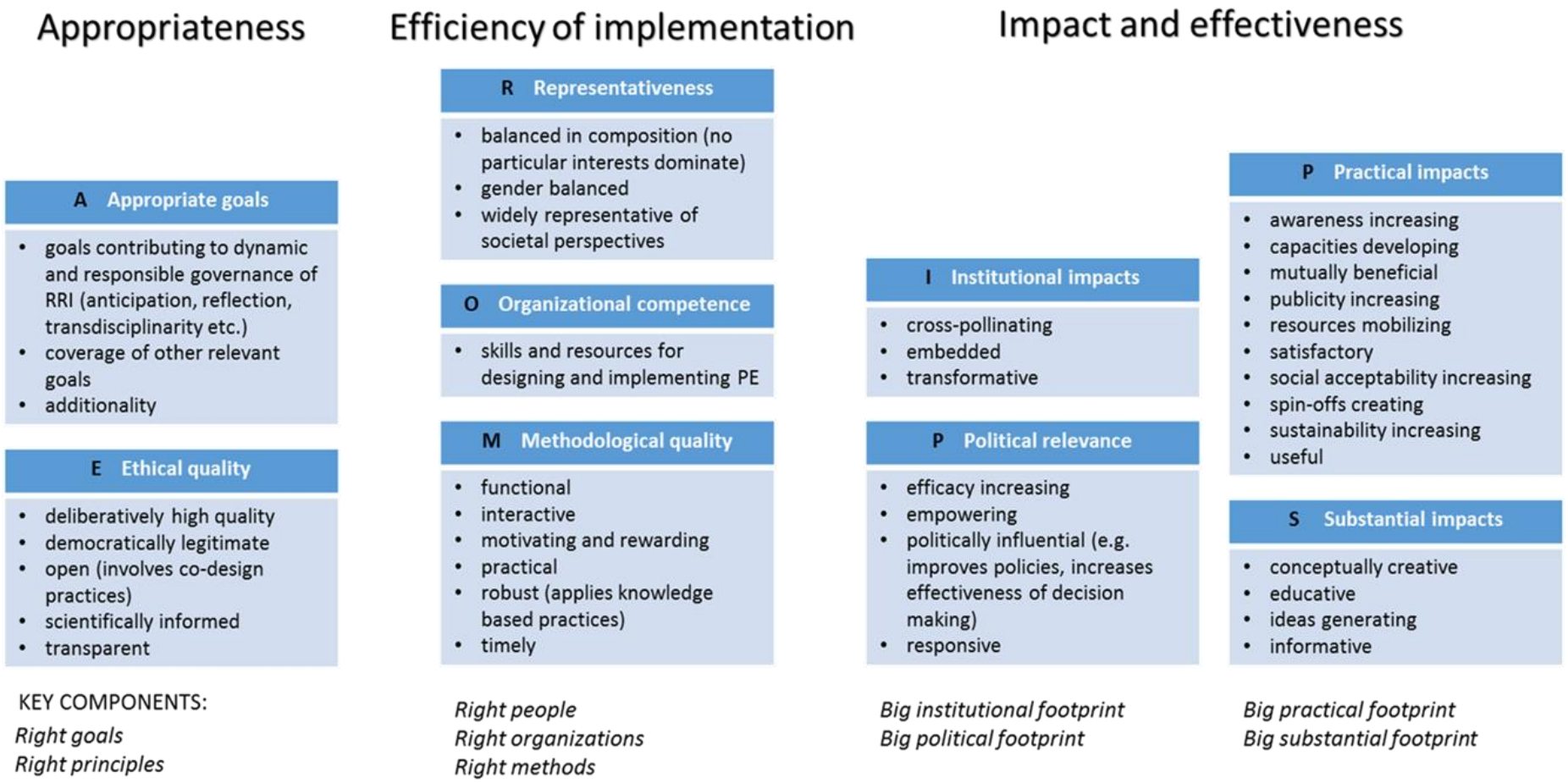
Evaluating the success of PE

An important task of WP2 was to understand the characteristics of successful PE, and propose how success could be evaluated. This process resulted in several evaluation criteria (Table 2) as well as a general definition of successful PE: **Successful PE involves relevant people with appropriate methods and goals, while leaving a big 'footprint' on research, innovation and society**.

Considering that both the definition and the synthetic model of PE evaluation are both based on a systematic study and reflection of different success criteria, they can provide a more solid and holistic basis for future evaluations of PE processes.

[8] Sources: Angeli Newell, M. (2014). America's democracy colleges: The civic engagement of community college students. Community College Journal of Research and Practice, 38(9), 794-810; Welcome Trust 2017. Good health makes life better. Retrieved from: https://wellcome.ac.uk/.

Table 2 *A synthetic model of PE evaluation*



Innovativeness

We defined innovative PE as new participatory tools and methods that have the potential to contribute to a more dynamic and responsible governance of R&I.

We distinguished two types of drivers for the changing practice of PE:

- Necessity to find more effective responses to the societal challenges and other problems of governance, such as decreased trust toward decision makers or societal acceptance of technological solutions.
- Emerging opportunities provided by new information and communication technologies that provide new tools for the practice of governance, for example, crowd-sourcing for the formulation of public policies, or citizen science for providing evidence of new phenomena and research issues that are important for the public at large or some local groups of citizens.

We found out innovative PE processes as reflecting following characteristics: 1) institutional hybridity; 2) methodological solutions; 3) levels of representation; 4) impact; 5) responsiveness to societal challenges; 6) groups' involvement; 7) cultural dimension; 8) policy relevance; and 9) communication flows. In addition, we evidenced that 'upstream engagement' (e.g., Joly and Kaufmann, 2008)[9] is an increasingly supported approach among innovative PE processes. Further, we observed that innovative PE has contributed to new capacities that help research actors to address societal challenges and complex governance problems better. In particular, we found innovative PE to be effective in conducting international science diplomacy, creating collaborative efforts and enduring networks that can foster and spread new SiS practices in EU partner countries and beyond**.** Finally, we found that Innovative PE seems to have truly versatile impacts, not only on research and innovation but also on the environment, society, politics – and individuals. Innovative PE only limitedly contributed to new scientific knowledge.

A model of participatory performance

'Participatory performance' refers to the functions of PE, and to the scope and intensity of such activities. To study and understand participatory performance we elaborated two conceptual frameworks. First, we created an analytical model that focused the analysis of the 38 innovative PE cases. Second, synthetising the main findings of the analysis, we created a 'composite model of participatory performance' (Figure 4) that put PE in the perspective of dynamic and responsible governance of research and innovation. We analysed participatory performance by tracking such activities that contributed to the capacities of dynamic governance, including anticipation, reflection, transdisciplinarity and continuity. The 'composite model of participatory performance' explains how functions and capacities of PE contribute to dynamic and responsible governance of R&I and integrates the various elements and aspects discussed: capacities, linkages between capacities, able people, agile processes and dynamic and responsible R&I policy, as well as policy culture (including not only the EU's strategic priorities related to openness, but also the five thematic pillars underlying the EU's RRI policy – PE, open access, gender, ethics, science education).

[9] Joly, P. B., & Kaufmann, A. (2008). Lost in translation? The need for 'upstream engagement'with nanotechnology on trial. Science as Culture, 17(3), 225-247.

Considering that the 'Composite model of participatory performance' is based on an original yet systematic analysis of most innovative PE processes globally, this conceptualisation could provide substantiated theoretical perspective on how PE can contribute to better governance of R&I within and beyond the activities of the European Commission and its RRI and PE policies.

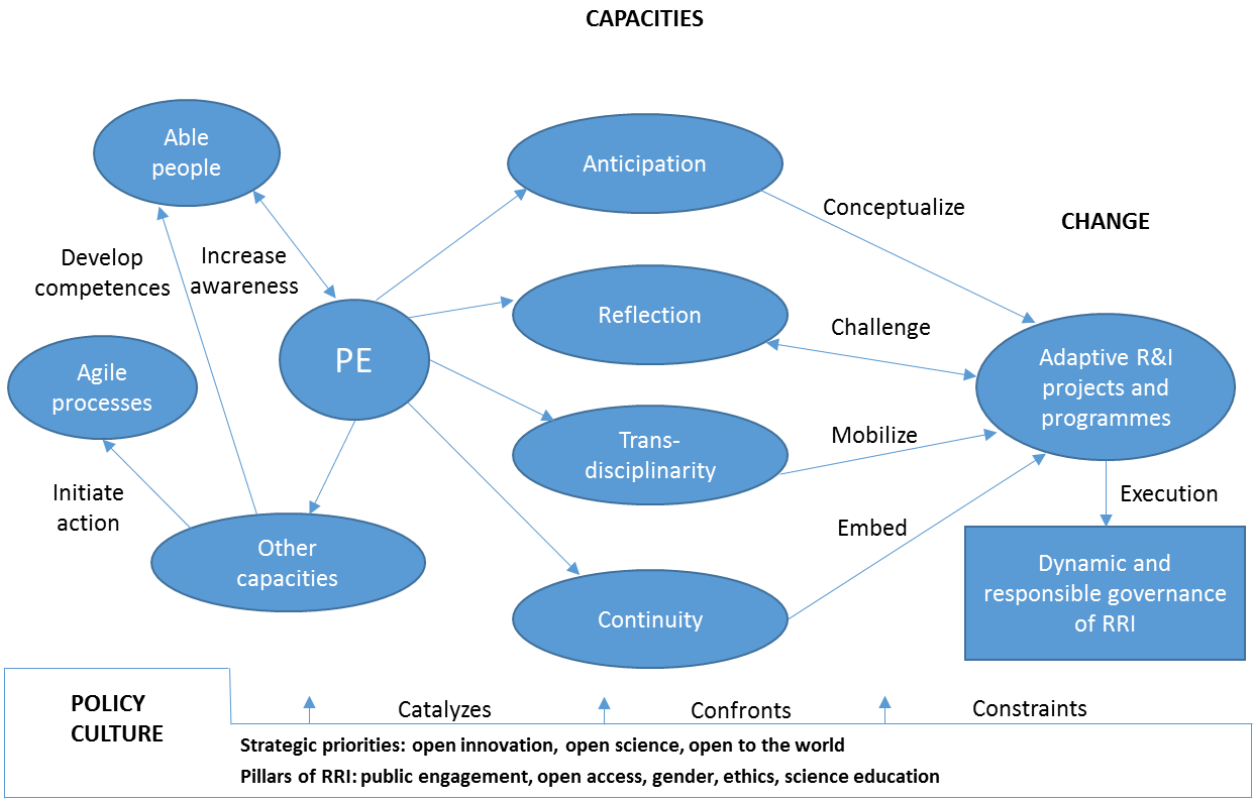


Figure 4 *A composite model of participatory performance*

A positive vision of PE – and its obstacles

In D2.2 defined our 'vision of PE benefitting European R&I activities' as follows:

> **Better involvement of actors occurs when the 'right people' are gathered together to address the 'right issues' through the 'right PE tools and methods', which can contribute to a better quality of research and R&I governance**.

This is not a simple fact to happen along with careful use of even the best PE tools and instruments, as there are several obstacles that make this process challenging in many ways. The key obstacles identified included (in a decreasing order of influence): 1) capacity-based obstacles, 2) motivational obstacles, 3) technical obstacles, 4) low impact, 5) Financial and resource based obstacles, 6) cultural obstacles, 7) external or environmental obstacles, and finally 8) 'deficit based' obstacles that didn't play a remarkable role.

Key observations

- There has been a shift of PE from traditional models of public communication and consultation, where dialogue between decision makers and the public is narrow and restricted, to public deliberation where such dialogue is intensive and influential.
- PE is a major element for successful implementation of responsible research and innovation policy. In particular, innovative PE tend to cause truly versatile impacts, not only on research and innovation activities but also on the environment, society, politics – and individuals.
- Compared to the high expectations, however, PE is currently too weak to redeem its promises of increased societal relevance and high impact on research and innovation. An inadequate capacity of the organisers of PE to manage complexities involved is the main challenge.
- Studied PE processes were highly limited in their contribution to the production of scientific knowledge. At the same time we acknowledge that citizen science and science shop activities have been highly successful in this area, and that they will most likely expand in the near future.
- For successful PE it is crucial to engage different groups of public, which should be equipped with skills required for each level of policy cycle. In particular, we found that three quarters of the PE cases studied involved the 'fourth sector' by including e.g. randomly selected citizens, individual philanthropist or hybrid networks.
- We evidenced that 'upstream engagement' is an increasingly supported approach among innovative PE processes, especially in anticipatory projects.
- Creation of continuity should be acknowledged as an important capacity that is needed both to balance dynamic governance, help structuralize PE, and sustain dynamism in the long run.

WP3 – Context-tailoring and piloting of best practice PE processes

WP3 designed and implemented seven PE pilots (or 'pilot initiatives' as they were called during the project) that were organised in the context of on-going research programmes in Finland and Italy. WP3 was carried out in phases that marked a participatory and dynamic process. The work began with dialogues with the major science policy actors in Finland and Italy, aimed at preparing the ground for co-designing the pilot initiatives. Such actors provided access to similar bodies abroad and useful information for the design of the pilot initiatives. In the second phase, the task was to identify potentially transferable practices (task 3.2) by scanning the most innovative and suitable PE practices from among those identified in Work Package One (WP1). This was done in co-operation within the contexts of the pilot initiatives, and the main criterion was to emphasise feasibility and innovativeness. WP3 also supported the overall mission of the PE2020 project: to identify, analyse and refine innovative public engagement (PE) tools and instruments for dynamic governance in the field of Science in Society (SiS).

The experiences of organising the pilots and key results of subsequent analysis are reported in the following subsections. Key observations from WP3 are reported at the end of this section.

Organising seven pilot initiatives

The pilot initiatives of WP3 represent different types of cases, with a mix of bottom-up and top-down led cases, as well as others with up-stream and down-stream dimensions. Overall, the organisation of the pilot initiatives was considered to be 'product development', during which on-going PE practices would be boosted with the knowledge gained from the research in PE2020.

The seven pilot initiatives were co-designed and implemented with our target research projects and programmes by funding agencies. They were carried out with the WP3 guidelines, taking into account contextual requirements, creation of a comparative research perspective, documentation of the pilot initiatives and the experiences for further evaluation purposes.

As a result of the preparatory discussions held with the major science policy actors on the identification of potentially transferrable practices, the pilot initiatives were initiated having taken into account:

- that the international research programmes and prioritisation of research were acknowledged as interesting contexts for pilot initiatives
- that the pilot initiatives should be chosen on the basis of not only their cutting edge PE activity but also their (expected) feasibility in practice
- the limited time devoted to the pilot initiatives and the difficulties in trying to align the schedules of PE2020 project and the partners
- the importance of keeping in mind the limited resources available for the pilot projects.

In the next phase, context tailoring workshops were organised. The intention was to design and implement public engagement tools and instruments in local contexts, to establish guidelines for future context tailoring workshops, and to establish detailed guidelines for pilot initiatives based on the available resources. The purpose of the context tailoring was to consider the factors that precondition successful design and implementation of PE tools and instruments in local contexts.

WP3 identified and started to work with six pilot initiatives related to Societal Challenges. The design of the PE processes to be tested took into account a) contextual requirements, b) creation of a comparative research perspective and c) documentation of the pilot initiative experiences for further evaluation purposes (participant observation, and manager and participant surveying and interviews). Practical scripts were prepared and included in report D3.1 to support of the implementation of the pilot initiatives.

Pilot initiatives were chosen on the basis of their cutting-edge PE activity. New types of institutional collaboration and hybrid activities were considered to be particularly interesting themes.

In Finland, a context tailoring workshop was organised to help in designing and implementing the following pilot initiatives:

- BONUS young scientists' initiative
- Global change living lab
- Societal impacts and stakeholder involvement in research grants
- Societal interaction in the Strategic Research Council

In Italy, context tailoring activities were organised to support the following pilot initiatives:

- Empowering young researchers in PE in energy efficiency (Rome)
- Dialogue Workshop on mobility and transportation (Naples)
- Educating science-society relations and public engagement (Turin)

Highlighted results

In the analytical process of the pilot initiatives we identified innovative PE methods that had created positive results with regard to the quality of the research projects, as well as the actors involved in them. The PE methods used in the pilot initiatives varied from more conventional science communication and focus group discussions to highly collaborative co-creation practices. They were implemented in varying contexts and circumstances, and in different scientific disciplines. However, in all the pilot initiatives, the PE methods that were chosen and applied in the research projects were found to be useful by and for the projects in question.

Interestingly, while evidence of impact could be traced in each of the seven pilot initiatives, it was not always with regard to policy. Rather, in some cases – such as the Living Lab (Finland) – the impact was clearly visible but focused towards the practice and spreading of PE, rather than policy as such. In other words, responsiveness to the interests of collaborative partners should be included in the list of indicators of PE impact. PE actions within projects can have an effect through a method of repeating similar exercises that develop partners' skills in PE while remaining open for actions to be adjusted during the process, if such needs arise from the collaboration itself. Another finding with regard to the process of studying pilot initiatives was the evidence. The pilot initiatives were expected to increase knowledge on new institutional collaboration and hybrid activities as reported in PE deliverables D1.2 and 2.1.

In four of the seven pilot initiatives, collaboration with the PE2020 project was reported to have directly positive effects. These were reported as part of the reflective feedback process that was built into each of the pilot initiatives. The process provided an opportunity for the core staff as well as participants of the workshops, training sessions, funding calls etc. to provide their views and describe the impact that participation in the pilot initiative had on their own work situation, the setting in which they work and the ways in which they address PE after the initiative.

While all these initiatives had a proactive and positive attitude towards public engagement to start off with, there was strong motivation and ability to test PE tools and develop their functions during the process of cooperation and analysis. This openness to applying new working methods was visible in both on-going research programmes (Global Change and BONUS) as well as programmes that were in the final planning or initial application phases (SRC and JPI/MYBL). Such a constructive attitude at the programme level seems to have trickled down to individual research projects. These benefits were seen, above all, in the fact that the pilot initiatives improved the quality, awareness and effectiveness of the activities tested in the pilot initiatives. The feasibility was verified in connection with the BONUS pilot initiative, for example. Regarding the use of ICT technology (including social media platforms), the extended dissemination and opportunities were improved especially for young researchers of the projects.

Overall, a key finding of all the pilot initiatives and the study of them in WP3 is the steep learning curve that is strongly present. Learning, as a result, corresponds with the variations found in aspects of the impact of PE activities. As regards to impacts, we found them to vary from those related to policy, to more practice-focused or discussion activating impacts. As for learning, the working methods, timeframes and approaches of PE activities have changed as part of the piloting. This reflects the participants' understanding of the context in which they work and the need to accept that a 'one size fits all' solution is neither available nor desirable. Such reactions are visible in the SRC and JPI/MYBL cases, for example. In the case of the pilot initiatives carried out in Rome and Turin, the learning process was favoured by the interest of the researchers involved, who wanted to have a better understanding of their own professional work and role. In the case of the pilot initiative in Naples, the learning process was activated by the interest of the parties in interacting with each other in a

common public space. It is therefore not surprising that the pilot initiatives and WP3 itself have evolved during the process. They have altered plans as a reaction to realisations that the methods or practices initially planned could not produce the results they were after or help to meet the strategic goals they had defined. This type of learning can be seen in the Living Lab and BONUS pilot initiatives.

Key observations

Some practical lessons have been learnt from the analysis of the pilot initiatives. These lessons are transferrable to other research projects that have public engagement in the overall approach, and where interaction with broader society is built into the working methods of the project. The main lessons can be summarized through the following points that we found to be critical for a successful design of PE pilots:

- identifying a basic cultural platform
- embedding PE initiatives in a broader change perspective
- incorporating the private sector in public engagement
- taking professional and disciplinary resistance seriously
- reducing the use of participants' / partners' time
- the importance of motivation and investing in a positive attitude should never be underestimated.

The pressure to find solutions that match the style and obligations of the new funding programmes has been strong. However, the research consortia that have been successful in the initial phases have demonstrated their ability to develop both their knowledge and skills in public engagement. A major contributing factor that was visible in the pilot initiatives is a process that encourages commitment from researchers and partners alike. In practice, a critical impetus has been created by workshops that were arranged by the research consortia in the early stages of the projects. The workshops enabled the researchers to examine critically who their central partners could be and the type of societal impact that was being strived for with the project.

The project consortia have been able to create a joint commitment to a shared cause. They have allowed space for scientific, practitioner and 'field' expertise to flourish within the project. As such, they have created opportunities for the cross-breeding of ideas and the exchange of different types of knowledge. As a result of the process, the researchers have gained new competencies and found new ways to study major societal challenges.

The organisation of the pilot initiatives was considered to be 'product development', through which on-going PE practices are boosted with the knowledge gained from the research in PE2020. The method of testing in the pilot initiatives followed a dialogue-based approach in which the logic of co-creation was outspokenly present. In addition to producing systematic, comparable knowledge from the seven pilot projects, the efforts in WP3 have also allowed for the development of an understanding of the internal processes and logics which push for change in the working methods of research groups.

WP4 – Toolkit for the design of public engagement

The main result of WP4 was a web-based toolkit on public engagement in science that aims to help research managers, policy makers and other users to adopt, adjust and implement PE processes for their different

needs. The construction of the Toolkit was based on the overall experience and deliverables produced under the PE2020 project, including the Catalogue of PE initiatives, the theoretical work made under WP2 on the conceptual model of PE, the relations between PE and dynamic governance and the notion of innovative PE, and finally, the six PE pilot initiatives carried out in WP3.

The main results of WP4 are reported in the following sub-sections, followed by key observations at the end of the section.

Analysis of existing PE toolkits and design and development to the PE2020 toolkit

As a preliminary activity of WP4, around 30 existing toolkits were identified and 18 of them were analysed in-depth. The results of this analysis have been published in D4.1, which is also a document where the design of the PE2020 Toolkit was drafted. The design encompassed all the aspects of the Toolkit, such as contents, structure, components and layout.

While the content of the toolkit was developed by the consortium, in particular the leader of WP4, the technical realisation of the webtool was done by a sub-contractor (Danish Board of Technology Foundation, DBT). To make the toolkit user friendly, feedback from eight experts coming from different walks of life was collected and used in the revision of the tool. Moreover, the first version of the Toolkit was presented at the Hands-on session of the final policy conference, titled "Public Engagement for Research, Practice and Policy. Exploring Policy Options for Responsible Research, Sustainability and Innovation" held in Brussels on November 16-17 2016. All the comments gathered were processed, leading to the final version of the web-based Toolkit that was published at the end of the project period (http://toolkit.pe2020.eu/).

Main findings

The analysis made under WP4 allowed to identify some trends which revealed to be particularly relevant to the Toolkit development process.

- **A bottom-up movement for PE.** Some elements coming up from the analysis made under PE2020 show the existence of a social and political movement towards the diffusion of PE practices. However, as suggested by the data drawn out of the Catalogue about the target groups and the promoters of PE initiatives, this pro-PE movement only marginally involves academic institutions as such.
- **The EC commitment and the RRI strategy.** There is a favourable policy context for PE, especially related to the EC commitment on this issue, also as funding entity, and to the inclusion of Public Engagement as one of the five keys of the Responsible Research and Innovation (RRI) strategy launched by EC in the context of Horizon 2020[10]. The development of the RRI strategy is bringing EC to increasingly focus on the involvement of research institutions with PE.
- **The transitional condition of PE as social practice**. A third relevant finding concerns the transitional condition of PE as social practice. On the one side, PE is becoming a consolidated approach for improving science-society relationships, also thanks to the robust pro-PE movement and the favourable policy environment mentioned above. On the other side, many obstacles are hampering the diffusion of PE in the Academia, including cultural obstacles, political obstacles, the lack of an

[10] European Commission (2012), *Responsible Research and Innovation. Europe's ability to respond to societal challenges*, European Union, Brussels.

institutional anchorage of PE initiatives in research organisations or the lack of standardised PE practices.

- **The dominant view of PE**. Finally, some findings concern the dominant view of PE in science and technology prevalently shared by the editors of guidance-like publications on PE. Editors tend to see PE as an event, to be held once in a while or periodically, lasting one day or some weeks as a whole; they tend to adopt a technical approach to PE, overlooking or even ignoring its political nature and its links with the governance of science and even with the research process; they seem to be little interested in connecting PE to the key policy challenges that any research institution has to address in a post-academic environment, such as, e.g., competing for funds and scientific recognition, ensuring high-quality standards in teaching and research, attracting new talents, internationalising staff and students, and boosting research-based innovation.

Aims and structure of the Toolkit

Taking into consideration these findings, the Toolkit was designed as a tool helping research managers, researchers and policy makers: understand the pivotal role PE may play in improving the governance of science; increasing their capacities in activating PE programmes and strategies; embed PE in research organisations so as to make it a permanent and institutionalised function; play a role in making PE a social practice widely shared by stakeholders, NGOs and the public at large.

The Toolkit includes an introduction and four sections.

Introduction: The Toolkit. This section provides information on the toolkit: institutional background, aims, for whom the toolkit is for, how the toolkit is organised, how to use it.

Section A. Strategic Framework. This section provides guidelines and resources for interpreting PE in the context of the many change processes affecting science (which, in turn, are mirroring broader transformations across contemporary societies) and for appropriately placing PE in the current European policy framework.

Section B. Methods and tools. This section is focused on PE methods and tools. It allows to categorise the many PE approaches and mechanisms, to plan and implement PE initiatives and to recognise recurrent obstacles and resistances. Connections of PE practices with policy cycle and research phases are also explored.

Section C. Institutional anchorage. This section deals with how to permanently embed PE in the current practices of research institutions, by activating, developing and evaluating a PE-oriented action plan involving leadership and staff. Examples of PE strategies, programmes and tools devised by research organisations are given.

Section D. Societal anchorage. This section dwells upon strategies and tools that research institutions may develop in order to contribute in making PE with science a current social practice, thus promoting the consolidation of a scientific citizenship. This implies an increase in the capacity of research institutions to communicate science, educate to PE, implement networking activities and boundary work and support national or local policies on public engagement.

Key observations

WP4 allowed to make some key observations concerning the development of PE in the current development state of science and technology policies in Europe.

There is undoubtedly a gap between, on the one side, the potential role PE may play for developing the quality and the social robustness of science and innovation, and, on the other side, the present diffusion of PE both in research institutions and in society. The existence of such a gap and the need to bridge it have been placed at the basis of the activities carried out under WP4.

Understanding this gap may help understand what is at stake with PE.

- Science is a social institution linked to modernity; and like any other institution connected with modernity (such as trade unions, political institutions or the State), it is suffering a crisis in its relations with society. This crisis manifests itself in different ways: distrust toward science; loss of authority, unity, autonomy and social status of science; demands for transparency and accountability; lack of interest by citizens with regard to the future of research institutions; lowering social status of researchers. Paradoxically, science is now technically stronger (i.e., it is more capable to influence our lives) and socially weaker than it was in the past. PE may therefore play a pivotal role in strengthening science institutions and creating new bridges between them and societal actors.
- At the same time, this crisis is also a big opportunity for improving the governance of science and the quality of research, providing the institutional and cultural context for developing more advanced forms of coordination between different types of knowledge and more stable synchronisation mechanisms among the many players already involved with the different phases of the research and innovation process (funding, research design, implementation, etc.).

We are therefore in the midst of a transitional process where old solutions are lesser and lesser applicable and new solutions are not fully available yet. In this framework, PE can be also viewed as one of the most powerful tools for effectively managing such a process and for allowing new solutions to grow and consolidate.

As we said above, there is a favourable context for consolidating PE as a key approach for enhancing the governance of science, improving the quality of research and coping with the multiple relations between science and society. However, this implies the activation within research organizations of institutional changes connected to PE, making it: 1) an irreversible practice fully integrated within research institutions and research systems; 2) able to modify, to some extent, the way in which such institutions and systems work; 3) inclusively involving all the relevant players and stakeholders when it is needed and how it is needed; and 4) fully tailored to the organisation's and national science system's features and demands.

To succeed in that, it is necessary to understand the non-linear relation between PE and society. The will of people to participate cannot be taken for granted: they may not want to participate, may feel a distrust in science, may believe that participation is not useful or do not believe that their own participation could make the difference in making science or in taking decisions on science. At the same time, other people and many civil society organisations interested in science and innovation do not know how to get involved. Hence the decision to include, in the Toolkit, a section (Section D) fully devoted to how to sustain the consolidation of a "scientific citizenship" by creating the conditions for people to participate and to contribute in changing the governance and practices of science.

WP5 – Dissemination and policy conference on Public Engagement in Science

WP5 focused on disseminating and communicating the results and insights from the PE2020 project to academic and broader communities, and to interact with science policy actors and societal stakeholders involved with research and innovation processes. By engaging in an extensive dialogue and exchange with those actors, the project aimed to contribute to an increased awareness of best PE practices and to the implementation of better societal engagement in Horizon 2020. As dissemination activities are more fully reported in Section 3 of this report, this sub-section only lists the key activities resulting from this WP, and presents the key discussions that took place in the final police conference, as they contributed to the identification of the core issues, questions, opportunities and challenges related to the advancement of PE in European research and innovation activity.

PE2020 website

The project implemented a website that can be found in www.PE2020.eu (Deliverable D5.1). It includes pages describing the project and its tasks (*About* and *Activities*) as well as the consortium members (*Partners*), the *Scientific Advisory Board* and *the Team*. The *Results* page has been updated with new reports, policy briefs and deliverables of the project as soon as they are finalised. The project has also implemented a regularly updating news blog. In addition, there is a page for the *PE2020 Toolkit* (http://toolkit.pe2020.eu/) and a *Contact* page.

Stakeholder interactions

The focus of the PE2020 project has been on the stakeholder engagement throughout the project. This engagement has taken different forms in different work packages. In WP1, the administrators and managers of innovative PE initiatives were engaged with the project through the survey and the preceding telephone contact as well as through follow up activities once the catalogue of innovative PE initiatives was published. In WP3 such interactions had a critical role in a joint conceptualisation, design and implementation of the seven pilot processes. Some of these co-creation activities have resulted in further stakeholder and public engagement activities that continue beyond the scope of the PE2020 project.

Publications

Deliverable D5.2, which presents the overall dissemination activities of the PE2020 project, lists all publications of this project. The publications include the deliverables of the project, submitted or accepted peer reviewed articles and a book manuscript, as well as other reports presenting the work executed, posters, policy briefs and the PE2020 leaflet. Several dissemination and communication activities took place during the project, such as multiple conference presentations, social media activity and individual communications with key stakeholders. These are presented in D5.2 in more detail.

The PE2020 project has published three policy briefs during the duration of the project. The policy briefs can be found in the website of the project and in deliverable D5.2 “Publications”. The first policy brief gave the overview of the project and showed the way it had headed. The second policy brief described the main messages from the conceptualisation of a model of public engagement in dynamic and responsible governance of research and innovation and presented lessons learned from the pilot projects of the PE2020 project. The

third policy brief focused on presenting the perspectives from the policy conference emerging from the interaction of different stakeholders, and the PE2020 toolkit that was designed to increase users' understanding of public engagement in general, as well as its method, objectives and impacts.

The PE2020 project has communicated the results to the general public in addition to the website also through news blogs and papers of other organisations and projects such as blog writings in the website of the PE2020's sister project CASI (Public Participation in Developing a Common Framework for Assessment and Management of Sustainable Innovation) 22.01.2015 "Innovative methods for engaging the public" with 66147 views and 11.09.2015 "Public participation in defining research priorities to global problems" with 722 views.

Policy conference

Aim of the policy conference

The conference "*Public Engagement for Research, Practice and Policy*" was organized to discuss best public engagement and sustainable innovation practices and identify common European priorities on how to stimulate societal engagement for sustainable innovation activities in European regions, scientific institutions, SMEs and other societal actors. The conference was organized in collaboration with the CASI-project (*Public Participation in Developing a **C**ommon Framework for **A**ssessment and Management of **S**ustainable **I**nnovation*, www.casi2020.eu/). It took place in Committee of the Regions in Brussels, in Belgium, November 16th -17th 2016.

Structure of the policy conference

The conference was organized under four thematic blocks:

- *Public Engagement (PE) and sustainable innovation* focused on identifying most innovative practices and tendencies underlying PE activities, and discussing how help addressing societal challenges and develop better sustainability policies.
- *Societal impacts of public engagement* focused on activities that help maximize the impact of PE, and how to design new research programmes and projects in ways that contribute to increased societal relevance of research.
- *Public engagement – the present and the future* anticipated how the field of PE is evolving, including reflections on the best ways to evaluate PE, support it through incentives and ideas of an emerging RRI system that is under construction in ERA countries.
- *Public engagement – towards new research agendas* was oriented at sketching a vision of PE in future European research and innovation activities, including reflections from sister projects and external stakeholders from industry, research, media and regional policy.

The programme of the conference covered 56 number of presentations on issues related to PE and sustainability policy. External stakeholders, commentators and the audience contributed to the discussion on future policy options, priorities and recommendations for European Research Area that were specifically approached in the last round panel of the conference.

Content of discussions

Status of PE activity in the EU. Public engagement involves different types of processes, where there is a distinct role for citizens and stakeholder groups to contribute to research and innovation activities.

Overall, we observed that PE has become an important theme for European research and innovation activity. In many ways, it is the heart and spirit of responsible research and innovation: it opens practices of research and policy to the public and stakeholders; it involves ethical principles that highlight responsibility, gender equality, democracy, as well as effectiveness and efficiency of public decision making; it explores new ways of informing the public about prospects and risks of technoscience, and it mobilises citizens' capacities to address related societal challenges.

By setting public engagement (PE) as a key thematic element of responsible research and innovation (RRI), the European Commission has promoted fundamental changes in the way in which civil society and other stakeholders outside the scientific community influence – and are expected to influence – research activities. Ensuing challenges for the research community need to be carefully reflected.

Where and why PE innovations are needed? Innovative PE can be defined as new participatory tools and methods that have the potential to contribute to a more dynamic and responsible governance of R&I. Better understanding of innovative PE processes contributes to a better capacity to renew R&I governance. Therefore, it remains an important task to both continue inventing, innovating, testing and demonstrating new PE processes, but also to develop evaluation practices that help gain insight and understanding of the successes and costs of such activities.

Where is this field developing? The field of PE is developing 'fast and furiously' through hundreds if not thousands of participatory processes oriented at R&I. Innovative PE processes are mostly initiated by non-profit organisations such as non-government organisations (NGOs), unofficial networks and associations. Development occurs mostly through broad scale institutional collaborations, involving also research institutions, governmental agencies, foundations and think tanks, and to a lesser extent, business companies.

Methodologically there has been a comprehensive turn from one-way communication processes towards multiple-way communications. Innovative PE is largely oriented towards addressing societal challenges. Methods of upstream engagement are being largely developed, especially in anticipatory projects. One of the key findings of this conference was that innovative PE can have, and as we heard from several presentations, has often had truly versatile impacts, not only on R&I but also on the environment, society, politics and individuals.

Another important turn is that attention has shifted from 'one-off' PE events to the links of different PE processes and more traditional governance institutions. While bold institutional hybridity characterizes the actual development of the field, academic researchers of PE are turning their attention on emerging systemic innovations, including the notion of 'deliberative system'.

A striking finding is how strongly the 'fourth sector' is participating in innovative PE activities. The 'fourth sector' is an emerging field composed of actors or groups of actors whose foundational logic is not in the representation of established interests, but rather in the idea of social cooperation through hybrid networking. Examples of fourth sector actors included hybrid experts, randomly selected participants, 'life world experts' and 'field experts'.

Much positive development has occurred during two latest Science in Society working programmes, and most recently, supported by EU's RRI policies. While new activities are emerging and institutional conditions for research funding and performing organizations are becoming more robust, some new questions emerge. Below is a list of some emerging research questions that deserve further attention by the academic communities in particular, but also by practitioners and policy makers.

Findings and initial ideas emerging from the conference

The conference proved that there is indeed demand for policy level reflection of PE, as the conference attracted 208 registered participants from highly different institutional backgrounds. The sessions included lively debates that continued and spread in social media. It was strongly voiced by the participants of the conference that public engagement should become a current practice both in research institution and in society to be effective and that it should even be mandatory.

The presentations and discussions brought forth the topic of changing research landscape and revealed some worrisome trends, such as the spread of anti-scientific tendencies in national political discourses, cuts in European research budgets, and global socio-environmental challenges. It was recognised that there are increasing interests for reorienting research towards strategic, interdisciplinary applied research, applying extra-academic criteria in research evaluation, and co-designing research processes with citizens and users of knowledge. The discussions led to a conclusion that in a situation where the research landscape is transforming intensively, the better alternative is still a conscious transition rather than an ungoverned drift.

There are high institutional stakes in engaging the public in research governance. The EU has a strong commitment for public engagement through its RRI policies. National funding agencies are revising their funding schemes, as for example the Academy of Finland that recently introduced a programme for 'strategic research' to support high quality research contributing to societal challenges. Universities, governmental funding agencies and foundations increasingly support challenge driven research. User driven research and innovation has been a continued trend in the business sector. Internet and social media applications makes it possible for ordinary citizens to adopt roles as 'citizen scientists', hackers and environmental activists. All these trends have contributed to the emergence of the so called fourth sector, i.e. actors and groups of actors whose foundational logic is not in the representation of established interests, but rather in participation to social cooperation processes through 'hybrid networks'. Realising that the fourth sector is becoming more pronounced in the field of R&I, and that it can governed through PE processes, it was concluded PE in the current situation is no more a matter of whether but rather a matter of how.

In order to facilitate the change of the research and innovation landscape, it is necessary to show different stakeholders the benefits of PE. There is also a need for moving from the focus on individual PE events to broader structural issues, where separate PE processes are better linked and embedded in the established structures of R&I policy. Gender policies and Social Corporate Responsibility (including its ISO standards) serve as positive analogies of the change ahead. Giants' steps to institutional transformation could be taken by changing funding criteria, introducing stronger policies, establishing new institutions and developing capacity supporting PE as part of dynamic and responsible governance of research and innovation.

New models of public engagement are continuously being developed, in particular in the area of public deliberation and two-way communication. A real challenge for the research community is to find ways to combine high-quality science with PE. Citizen science and crowdsourcing are two examples where top level research has successfully met with involvement of citizens and civil society actors, additional ideas can be

gathered from the research community by requesting them to develop plans for societal interaction, not only dissemination. European research and innovation could also benefit of new, self-sustaining models of PE, based on mutually beneficial collaboration across institutional domains (e.g. research, science communication, policy, innovation activity) and stronger business models underlying PE activities (e.g. PE as new type of innovation platforms). New models can best be introduced through piloting taking place in real contexts and enabling deeper learning.

As the research of PE2020 has suggested, innovative public engagement can effectively contribute to the three guiding principles of the EU's RRI policy: Open Innovation, Open Science, and Open to the World. Recent changes and turbulences in the European policy landscape suggest that public engagement is not only about harmonious co-design of research. It is also about publics and stakeholders challenging research and research institutions. This calls for the inclusion of fourth O, i.e. Openness to conflicts, which means better sensitizing to the openings from other institutions.

2.3. The potential impact

There are many ways to scope the potential impacts of research projects. In this report we will follow the same structure that we used in the analysis of the impacts of innovative PE processes, namely a distinction between three types of impacts:

- substantive (e.g. new knowledge and ideas)
- practical (e.g. new products, practices, skills, social acceptance)
- normative (e.g. democratization and empowerment).

Furthermore, we will reflect how these impacts may potentially occur in the following areas:

- impacts in partners
- impacts in collaborators and stakeholders
- impacts in organisations
- broader institutional impacts

As it was not the intent of the PE2020 project to study self-reflectively such impacts, what will follow, is merely speculation of some of the ramification that our project may have caused in the

Substantive impacts

Substantive impacts include new knowledge on PE and its use as an instrument of governing research and innovation activities, or more generally, as an instrument that supports better science-in-society activity and societal engagement related to technoscientific issues.

As many EU projects, also PE2020 involved partners, some of which were highly familiar with the research tradition related to public engagement, while for other partners this may have been an exploration to a new terrain, even though familiar from some alternative research tradition. Considering that all partners have actively contributed to several co-authored deliverables and publications, there is evidence that the **scholarship of PE has expanded to involve new partners**, both in terms of new researchers and integration of different research traditions and frameworks. In Finland, for example, the PE2020 project helped to make the research on public engagement more familiar in the context of higher education research that is for historical reasons a more familiar track of research in the country. Similar impacts can be expected in other partner countries, particularly in Italy and Lithuania.

Seven PE pilots that were carried out in PE2020 relied upon the philosophy of co-design and co-creation. This has proved to be an effective way in creating trust, and conditions for an equal and influential exchange of ideas on how to develop organisational practices through the research findings that were done in PE2020. We found that many of the **innovative models of public engagement that were identified in WP1 and analysed in WP2 have been received with great interest by our collaborators and stakeholders**. Future Earth Finland, for example, which was one of our pilot collaborator, adopted the Living lab and Town hall meeting concepts from our research materials that were presented and discussed with them. Similar impacts can be expected from other similar programmes.

WP2 and WP4 have provided new systematic knowledge on and concepts supporting the design, implementation and evaluation of PE activities. The results of this research has been presented in several

academic and professional fora, as indicated in Section three of this report, as for example in Finland through direct consultations with the Academy of Finland, the Finnish Innovation Fund Sitra, and Prime minister's office, and internationally, through the final policy conference, where around 200 participants were present. **Dissemination of the results of PE have resulted in new initiatives, increased understanding of the requirements and capacities needed for effective and successful PE activity, as well as plans for evaluating PE activities by relying on the concepts introduced by the PE2020 project**. To give some concrete examples, a new project continuing the work of PE2020 by applying the webtool on public engagement in science, FIT4RRI, was granted funding by the EC; the coordinator of PE2020 has served as a consultant for Sitra on its new project on national level citizen deliberations with an intention to conduct an evaluation on it by using the PE2020 evaluation framework; the Academy of Finland has been informed by the results of PE2020, particularly concerning the evaluation of the societal interaction plans used in their novel strategic research programme – and dialogue about the possibilities for piloting the societal interaction plans was initiated in the final policy conference that provided a concrete platform for such reflections.

In line with current academic research on deliberative democracy and public engagement, **the PE2020 project has emphasized and supported an institutional or 'systemic perspective' on PE**. It has consciously contributed to such research frameworks, theoretical concepts (e.g. 'synthetic model of participatory peformance', introduced in D2.2) and empirical evidence that can help developing such capacities and organisational strategies that can facilitate a structural change needed for developing a more responsible and dynamic culture of research and innovation in Europe and beyond. Among the main resources for such transformative work include the Webtool on public engagement in science, which anchorages the development in PE in broader sociological debates, and in the report D2.2, which was also modified to a book length manuscript (currently under review in a highly reputed academic publisher, Routledge).

Practical impacts

Practical impacts include e.g. new products, practices, skills, an increased social acceptance of research and technological innovations.

As PE2020 involved practical arrangement (and evaluation) of PE activities, evident is that **new skills, attitudes and orientation needed for the effective implementation of PE has been learned by several partners and collaborators, to whom this was new kind of activity**. Future Earth Finland, again, is perhaps the most encouraging example, where we can see how critical even a slight 'nudging' toward new type of activity – actively involving, deliberative and 'workshop type' – can be. Future Earth Finland has reported that the collaboration with PE2020 was in a critical role for their initiation of series of Living lab and town hall meeting that they have ever since used in the definition of the national agenda for global change research.

Quite interestingly, **the societal interaction plans that were introduced by the Academy of Finland in their new programme of strategic research has stimulated a wave of consideration and consultation around more effective PE in Finland**. As the new programme requests all academic applicants to provide extensive and carefully prepared plans for extensive societal engagement, this has resulted in a new division of labour, where various consultants of PE services have emerged, as well as rethinking of the logic of putting societal engagement among the core functions of research as well as anticipation of the need for new incentive structures for academic research. All this confirms the finding in the final policy conference about the critical role of funding agencies as a primus motor or institutional change. To summarise, what we have witnessed in

the case of the Academy of Finland and its requests for societal interaction plans is that new practices are suddenly requested and tested in large-scale in Finland. PE2020 has analysed these interaction plans (Aarrevaara & Pulkkinen, 2016), and these lessons can potentially help in piloting of this activity in a larger scale in the context of the Framework Programme 9, if this idea becomes topical.

The main investment of PE2020 toward practical implementation of PE practices was the building of the Webtool on public engagement in science. As the FIT4RRI project that will initiate in the Spring 2017 has planned to apply this tool, it seems probable that this tool does not remain unused, but instead, will benefit research funding and performing institutions in national contexts where the tool will be used during the project. As the European Science Foundation has promised to put the PE2020 webtool in its website, there are prospects of having it distributed and applied more broadly in the European research area; this is supported also by the webtool sub-contract that requested the service provider to link that tool to several sister projects to encourage its use in the planning of PE activities.

As for other practical results, PE2020 produced some research results that may have more practical and generalisable role in the analysis and evaluation of PE activities. In particular, we observe that the '**method of PE footprinting**' that was developed in D2.2 as well as the '**synthetic PE evaluation framework**' built in the same report may become useful tools in future research and evaluation activities. That these results are being considered worth publication through a global academic publisher (Routledge) may support broad dissemination of these tools.

Normative impacts

Normative impacts include aspects of democratization of decision making on research and innovation, changes in national culture of policy making, as well as less empowerment of people in terms of their everyday lives and role as citizens and decision makers. Such normative impacts are particularly difficult to measure, as it is evident that they result from several sources: from education, institutions and norms prevailing in the society, examples of leaders and peers, encouraging examples from multiple walks of life. In this context, the impact of one single project can be very limited.

PE2020 has taken its best efforts to contribute to a transformation that would lead to more responsible and dynamic culture of governing research and innovation in Europe: the policy conference was among the major efforts toward facilitating a cultural change. Realising that more than 200 people were registered to this conference is telling of the high interest in this issue. The conference itself resulted in converged views about some basic ideas that may turn to be supporting of such a cultural change. Among such findings were in particular the following three notions:

- showing the benefits of PE is a necessary condition for facilitating a broader cultural change
- there is a need for moving from the focus on individual PE events to broader structural issues, including linking to established structures of R&I policy
- giants' steps to institutional transformation could be taken by changing funding criteria, introducing stronger policies, establishing new institutions and developing new capacities supporting PE.

In more practical terms, **the PE2020 project has contributed to changing norms, rules and cultures of public engagement by consulting and advising several national stakeholder organisations as well as the EU's SwafS**

team, for instance by providing feedback on the 'Vademecum document on Science in Society activities' in the Autumn 2014.

Finally, PE2020 has confirmed through its analysis the generally known fact that **public engagement, when carefully organised, will contribute to the empowerment of participants** – be they citizens, representatives of marginalised groups, youngsters, elders or atomistic actors from the 'fourth sector'. We found this to happen for instance in the case of our pilot with BONUS programme, where we involved young researchers and doctoral students in learning how they can use social media to communicate their research perspectives to broader publics. As this indicated, even small-scale 'nudging' toward better public engagement can result in major changes: in this case we evidenced an activation in their use of social media and multiple channels in communicating and debating scientific matters in societally relevant fora. We have every reason to expect that even more dramatic changes in the empowerment of researchers will follow from the Academy of Finland strategic research programme, as researchers are encouraged to make even a more radical jump toward societal debating and political relevant reflection of their research efforts.

2.4. The address of the project public website and relevant contact details

The project has implemented a website that can be found in **www.PE2020.eu** (Deliverable D5.1). It includes pages describing the project and its tasks (About and Activities) as well as the consortium members (Partners), the Scientific Advisory Board and the Team. The Results page has been updated with new reports, policy briefs and deliverables of the project as soon as they are finalised. The blog or project website (www.PE2020.eu) will be updated monthly. The project has also implemented a regularly updating news blog. In addition, there is a page for the PE2020 Toolkit (http://toolkit.pe2020.eu/) and a Contact page.

The project logo was created before the first consortium meeting on March 2014, where it was decided. The logo that has been used systematically in all PE2020 publications is represented in Figure 5.

Figure 5 PE2020 project logo

The website has been followed by an international audience of people interested in issues of PE. We used google analytics to make statistics of the visitors of the website. There have been 13181 visitors in the website during the period of February 1st, 2014 (the starting day of the project) and January 24th, 2017 (the date when this report has been finalised). 81% of them have been new visitors, which means that circa one fifth of the visitors are returning to the site. The project's website has thus circa 2500 more or less regular users. There have been 23171 page views since the beginning of the project. The most frequent visits have taken place after a Future Earth Town Hall meeting was organised in Finland in May 2015, a pilot workshop was organised in Italy in May 2015 Week of Innovative Region in Europe and meeting the President of the Lithuanian Academy of Science in June, 2015, in Lithuania and a project presentation at the Annual Ecsite Conference 2015 "Food for curious minds" in Trento Italy, June 2015. The one single event that attracted most visitors to the website was the policy conference held in Brussels, November 16-17, 2016. During the two conference

days there were 134 visitors in the website and during the following week from the 16th 301 visitors. On average, there has been 1.76 pages per session and the average duration of the session has been 1 min 17 seconds. The bounce rate for the website has been 71.24 %.

The geographical scope of the Top-10 visitor countries is presented in figure 5 and in table 3. The statistics of the website shows that the most visitors per country come from the United States (2097), Finland (1689), United Kingdom (905), Italy (793) and Brazil (545). The most visitors come from Northern Europe, Northern Africa and Western Europe. The amount of new session of each continent shows that the most frequent visitors of the website come from Northern, Eastern and Southern Europe, which reflects the origin of the partner organisations.

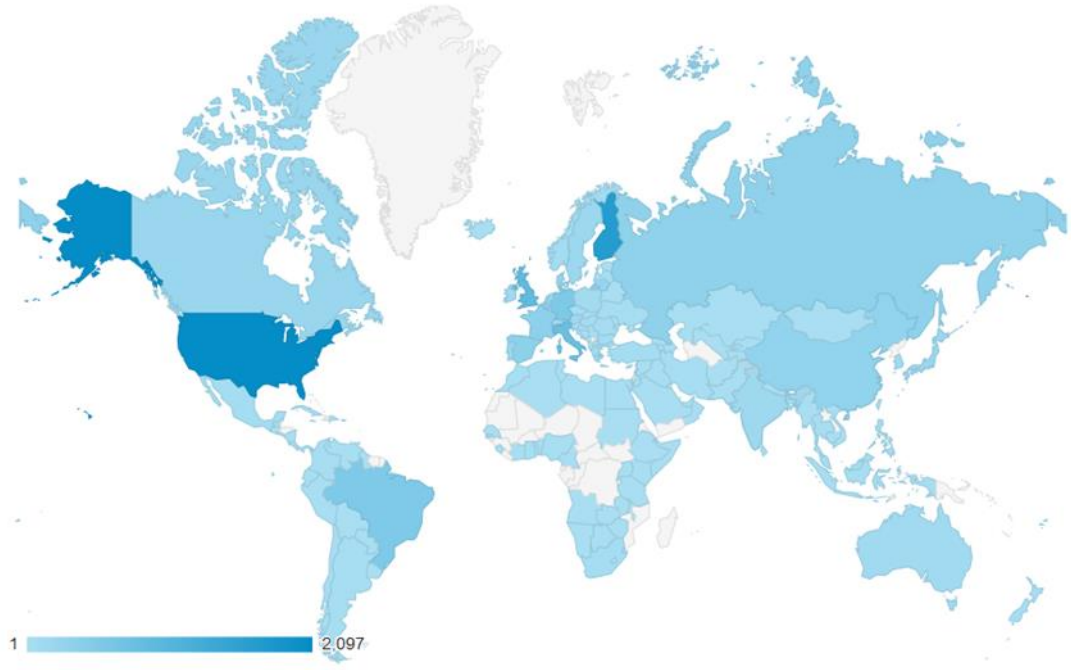


Figure 6 Geographical dimensions of visitors of the PE2020 website per country

Table 3 Visitors of the website divided by subcontinent

Sub Continent	Sessions	% New Sessions
Northern Europe	3497	60,42 %
Northern America	2301	97,96 %
Western Europe	1738	81,82 %
Southern Europe	1562	77,53 %
(not set)	1066	99,81 %
Eastern Europe	688	54,65 %
Eastern Asia	684	96,20 %
South America	669	97,91 %
Southern Asia	203	97,04 %
Southeast Asia	188	94,15 %
Sum	**13181**	**81,10 %**

3 Use and dissemination of foreground

3.1. Publications of the PE2020 project published at the project's website

The results of PE2020 have been published in the following deliverables and publications that can be found in the website of this project (www.pe2020.eu).

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3.1. Section A – dissemination measures relating to the foreground

The main objectives of the dissemination activities of the PE2020-project have been to reach the key stakeholders in order to enable more dynamic governance in science policy.

Dissemination activities during the project have focused on networking with the RRI community in Europe, especially with the EU-funded RRI-projects, and on disseminating about the results of the PE2020-project. The PE2020-project has continued lively and well-functioning communication and cooperation with related EU-projects such as the sister-project Engage2020 (www.engage2020.eu) and CASI (www.casi2020.eu) throughout the project's duration. The project consortium members have actively visited each other's conferences and consortium meetings, keeping close track on what can be learned from parallel on-going activities. The joint policy conference with the CASI project took place in November 16-17, 2016 in Committee of the Regions, Brussels, Belgium.

The main products of the PE2020 project have been the Catalogue of Innovative Public Engagement Activities, the Conceptual Model of Public Engagement in Dynamic and Responsible Governance of Research and Innovation, the pilot reports and the PE2020 Toolkit. Information on the publications has been sent to the key stakeholder list that include national S&T research policy councils, regional and local authorities, governmental agencies, European Commission (e.g. DG R&I, European Joint Research Institute), Joint research programme, NGO's (citizen/science actors) and national and international funding agencies. Key stakeholders for PE2020 project are also associations of universities (e.g. EUA, IAU, LERU), European Science Foundation, International Atomium Culture and Science Europe, academic journals and science magazines, big national research institutes (e.g. Frauhofer, Max Planck, Welcome trust), scientific associations, esp. SiS experts (e.g. EAS, ST, Societies for Social Studies of Science, national rectors conferences, public consultancies e.g. Involve, Demos) and science museums (e.g. Ecsite). Key stakeholders of the project also include policy makers, related projects and networks, including international, transnational and national networks and organisations active in the

field. The project also has joined the worldwide Network for the Public Communication of Science and Technology and used the email list for disseminating information on the project and its results.

The web pages of the project, especially the page “news feed”, have been updated regularly. A new page presenting the PE2020 Toolkit was created and can be found in: toolkit.pe2020.eu.

A twitter account was used in order to network better in the RRI community and can be found under @publicengagemen.

There has been active dissemination of the PE2020-project in several occasions in form of seminar/conference participation but also in form of personal meetings and communications with other projects in 2015. The project has published three policy briefs in accordance to the DoW.

One academic article was published and another one was submitted for publication in to Journal of Responsible Innovation with the title Public engagement toolkits for dynamic governance, but it was rejected and is currently edited to be submitted to another journal. There are also several other articles written and submitted for review in scientific journals (see Tables 4 and 5).

The consortium has organised consortium meetings according to the plan in the DoW to jointly discuss the research activities going on in the project. The kick-off launched the project and the first consortium meeting of 2015 was organised in Aarhus, Denmark, January 28-30, 2015. The second was organised in Vilnius, Lithuania, in November 2-3, 2015. The third was held in Rome, Italy, May, 17-18, 2016 and the final in Brussels, Belgium, November 14-15, 2016. Between and after the consortium meetings, communication and exchange of information among partners has taken place mainly through regular Skype meetings as well as email exchange.

During the last year of the project all deliverables have been finished and the research results published in the web pages of the project by the end of the year and at the last month of the project January 2017. The key stakeholder contact list will be utilised also after the project to further disseminate the results especially the PE2020 toolkit page. The PCST network with over 2000 subscribers and Twitter with 172 followers by the end of January 2017.

3.2. Section B – plans for further exploiting the foreground

PE2020 has collected an extensive data basis that has been used in various analyses and that will continue to provide materials for further academic studies, to be reported in different academic arenas, including conferences, proceedings, peer reviewed articles, book sections and books. This data include, in particular

- the Inventory of PE procedures and practices in 37 European countries (D1.1)
- the Catalogue of 50 PE case descriptions (D1.2)
- the Conceptual model and ‘footprint analysis’ of 38 innovative PE cases (D2.2)
- the Report of the seven PE pilot cases on Societal Challenges.

Furthermore, the Public Engagement Toolkit (D4.2) that can be found on the PE2020 website (https://toolkit.pe2020.eu), consist of close to 400 pages of reviews of both contemporary and classical literature on the themes of science in society, which can provide a basis for further academic studies and

discussion. A dozen of academic articles were prepared during the life span of the PE2020 project, some of them still under the review process.

Deliverable D2.2, the conceptual model of PE, contributed to theory building and empirical study of innovative PE processes. Encouraged by the advisors of the PE2020, the consortium decided to submit a book manuscript, based on a revised version of D2.2, to Routledge, a highly reputed publishing company, under peer review. The manuscript provides an overview of innovative public engagement activities carried out recently in Europe and in the U.S.

It has been one of the objectives of the PE2020 project to collect cases of innovative PE, not only to study them, but more pragmatically, to provide examples and inspiration for organisations to initiate or continue apply PE in their daily businesses. In particular, seven 'pilots' of innovative PE were arranged in the context of the project, in order to boost the process of adapting new PE practices and to study the contextual factors that either support or hinder such endeavour. Some of the 'target organisations' to our PE pilots, in particular Future Earth Finland, BONUS, and the Academy of Finland, have continued to apply new PE processes even after the end of formal collaborations. For example, Future Earth Finland has continued to use the 'living lab' and 'townhall meeting' concepts in the process of designing their research agendas for global change research and has disseminated the ideas of co-creation further in the international Future Earth network. Another example are the 'societal interaction plans' that the Academy of Finland introduced as part of their novel programme on strategic research: such plans will continue to be requested from all researchers applying funding from this funding programme, and there is discussion about the possibility of piloting a similar concept in future EC research framework programmes.

Overall, the 'piloting approach' has proved to be an effective way of developing new PE practices and facilitating transitions needed for developing more dynamic governance cultures. Stimulated by the PE2020 project, some additional piloting processes will continue in the near future. In Finland, such processes include e.g. piloting of a series of nationwide deliberation processes by the Finnish Innovation Fund Sitra and Demos Helsinki, where the coordinator of the PE2020 is among the advisors and evaluators. Another example is the Finnish Institute for Deliberative Democracy that support piloting of participatory budgeting processes in Finnish municipalities, in the evaluation of which the PE2020 framework is planned to be applied. Yet another example is the EU-funded FIT4RRI project, where two of the PE2020 partners are involved, and which will apply the piloting concept, this time involving national research funding and performing institutions.

Information about the exploitable knowledge and its use of the PE2020 project was collected in the final policy conference Public Engagement for Research, Practice and Policy, held in Brussels, on November 16th–17th, 2016. In the conference, participants were asked how they might use the received information. Information and increasing knowledge about public engagement was seen very useful in participants' work. Project results and tools will be exploited in academic research (in research projects and PhD studies) as well as in the teaching activities of the conference participants. Policy conference gave examples of good practices and information about what is going on in the field of public engagement and responsible research innovations. Especially, PE2020 tools were seen useful and worth testing in various organisations. Participants will disseminate information to national stakeholders for new project ideas. The project inspired to get involved in practical activities of citizen engagement in policy making in many innovative fields, especially in social innovation and sustainable innovation.

PE2020 has given inspiration to promote public engagement and RRI more broadly in institutions' projects, especially in formulating programmes and evaluating projects. Participants in the final policy conference felt

that the work of the PE2020 project will continue. Most of all, PE2020 encouraged to develop new research ideas about public engagement and citizen participation. Moreover, it gave practical information and new contacts for interaction with other people and projects.

A particular aspect of continuity is the Committee of the Region, in the premises of which the conference was organized. As the President of the Committee of the Region stated in his opening speech, the Committee is from its part interested in supporting better involvement of citizens in the municipalities of the EU, and it is just a matter of time when such opportunities will be explored in collaboration with the PE2020 actors and the President's office (one concrete opportunity is the yearly R&I day of the Finnish Institute of Deliberative Democracy, where participatory budgeting will be explored: this theme might be of interested to the Committee of the Region as well).

Other stakeholder engagement has resulted in fruitful cooperation as well. The Finnish Institute for Deliberative Democracy (DDI) has been following the activities of the PE2020 through its coordinator being the co-founder and current member of the board at that institute. Some of the ideas have been already adopted in the Institute's activities, including e.g. collaboration in arranging the yearly R&D days of the institute, where one member of the PE2020 Scientific Advisory Board, Edward Andersson, was invited.

The institute will continue to support competence building and evaluation of PE practices in the future, which will be greatly supported by the research findings of the PE2020 in those respects. While DDI is among the key institutions in Finland, it is to note, that the PE2020 project has been in close collaboration with many other institutions, both nationally and internationally. Those networks continue to be active in the business of developing better PE practices. Examples in Finland include Demos Helsinki, Kaskas media consulting, Prime minister's office, the Academy of Finland, Bonus, Future Earth, National Institute of Health, University of Helsinki and Demola.

One of the most promising spin-offs from the PE2020 is the piloting activity with Demola, a global innovation platform for students in higher educational institutions. Resulting from a meeting with one of the SAB members of PE2020, Prof. Markku Mattila, Demola chairs and the coordinator of PE2020, the feasibility of Demola activity will be piloted in the Helsinki capital region in Finland. The piloting process is now in full speed, with some 60 students involved, and with the expectation of scaling up this process to hundreds of students, in the autumn 2017.

International connections have also proved vital. The European Science Foundations, in particular, will be promoting the PE2020 webtool in their website. Further discussion will hopefully follow with ESF and other international actors such as the European Committee of the Regions, who granted the premises for the final policy conference of the PE2020, and the European Commission SwafS unit, who will continue to build institutions and capacities of PE and RRI in the European Research Area.

Both the PE2020 website (www.pe2020.eu/) and the separate site, where the Public Engagement Toolkit (https://toolkit.pe2020.eu) can be found, will continue to be supported and available for the next three years. This is possible, as the University of Helsinki has done a three year long contract with Seravo, who is the web service provider. The PE2020 toolkit or the 'Toolkit on public engagement with science' was technically prepared by the Danish Board of Technology Foundation (DBT), based on a sub-contracting agreement between the PE2020 and DBT. The substance of the toolkit was fully prepared by the PE2020 consortium. As defined in the agreement, the DBT established contacts to at least 5 other owners of websites of relevance to RRI and public engagement in STI activities and created links to these projects. Some of these projects include

Res-Agora, Engage2020, RRI-Tools, Fosteropenscience.eu, PACITA, the TA Portal and CASI. In addition, the contract requested the service provider to make google optimisation of the website, which includes e.g. inserting links to social media, YouTube videos etc. as well as making use of google adds to make users aware of the tool, but also to make Google give the site a higher search ranking.

It is in the interest of the PE2020 consortium partners to promote the webtool, as it is among the main channels of distributing the results of the research carried out in the project. More pragmatically, University of Helsinki will continue to maintain the webtool and the website available to users for the next three years. Efforts have been made to disseminate the webtool extensively, and to link it to sister projects (e.g. CASI, CIMULACT, RRI Tools, Engage2020) and to other institutions, such as partners' own universities and the European Science Foundations. The support of the EC's SwafS team will essential in order to make this webtool known and available for future PE and RRI projects.

3.3. Table 4 List of published peer reviewed publications

A1: LIST OF SCIENTIFIC (PEER REVIEWED) PUBLICATIONS										
1	*Kansalaisia ja sidosryhmiä osallistavat käytännöt tutkimusagendan määrittelyssä* (Participatory practices in the definition of research agendas, in FINNISH)	*Aarrevaara, T. & Pietilä, M.*	*In: Eriarvoistuva korkeakoulutus? Artikkelikokoelma Korkeakoulututkimuksen XII kansallisesta symposiumista 19.–20.8.2014, Eds., H. Aittola & J. Ursin*			*Jyväskylän yliopisto*	2015	*s. 51–66.*		

Table 5 List of scientific articles in progress (THE COLUMN "MAIN AUTHOR" IS RESTRICTED TO ENSURE ANONYMIT OF THE REVIEW PROCESSS)

LIST OF SCIENTIFIC PUBLICATIONS IN PROGRESS (SUBMITTED AND WORK-IN-PROGRESS)				
NO.	Title	Main author	Title of the periodical or the series	Year of publication
2	*Innovative Public Engagement* (book)		*Routledge Focus, Routledge*	SUBMITTED
3	*Biodiversity, Climate Change, and Public Engagement*		*In Oxford Research Encyclopedia of Climate Science, Oxford University Press*	SUBMITTED

4	*Evidence-Based Policy Making in the European Union and Partner Countries*			ACCEPTED, to be published pending to a presentation in a conference
5	*Public engagement toolkits for dynamic governance*		*Journal of Responsible Innovation*	SUBMITTED, the paper was rejected, now under revision
6	*Extending the living labs approach into the co-design of societally responsible academic research*		*Intended journal: Current Opinion in Environmental sciences or Sustainability Science*	to be SUBMITTED in Feb.-March 2017
7	*Democratic Innovation in Transnational and Global Governance*		*In Handbook of Democratic Innovation, and Governance, Edward Elgar*	ABSTRACT ACCEPTED, to be SUBMITTED by March 7, 2017
8	*Public Engagement for Dynamic Governance of Research and Innovation*		*ISPIM conference proceedings (best papers selected for publication in affiliate journals)*	EXTENDED ABSTRACT ACCEPTED, to be SUBMITTED by 10 February 2017
9	*Societal interaction plan as funding instrument*		*Accountability in Research http://www.tandfonline.com/action/journalInformation?show=aimsScope&journalCode=gacr20*	TO BE SUBMITTED
10	*Citizen and expertise participation in science*		*European Review https://www.cambridge.org/core/journals/european-review*	TO BE SUBMITTED

Table 6 List of dissemination activities

A2: LIST OF DISSEMINATION ACTIVITIES								
NO.	Type of activities	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
6	*Flyers*	*KULUTTAJATUTKIMUSKESKUS*	*Leaflet disseminated in CASI FP7-project?s kick-off*	*12.2.2014*	*Sofia, Bulgaria*	*Scientific community (higher education, Research)*	*45*	*Bulgaria, Denmark, Germany, Austria, Belgium, Czech Republic, Poland, Portugal, Italy, UK*
17	*Flyers*	*KULUTTAJATUTKIMUSKESKUS*	*Leaflet disseminated in MISEK Mikkeli Region Business Development Centre Miset Ltd -seminar: Asiakasymmärryksen ja palveluinnovaatioiden äärellä Etelä-Savossa?*	*19.2.2014*	*Mikkeli, Finland*	*Industry - Civil society - Policy makers*	*50*	*Finland*
7	*Flyers*	*KULUTTAJATUTKIMUSKESKUS*	*Leaflet disseminated in Achieving impact - Social Sciences and Humanities (SSH) in Research, Development & Innovation ?conference*	*26.2.2014*	*Athens, Greece*	*Scientific community (higher education, Research)*	*250*	*EU-28, Turkey, Israel*

8	*Posters*	*KULUTTAJATUTKIMUSKESKUS*	*Poster presented in the research event of the Finnish Ministry of Employment and Economy*	*13.3.2014*	*Helsinki, Finland*	*Policy makers*	*55*	*Finland*
15	*Flyers*	*KULUTTAJATUTKIMUSKESKUS*	*Personal communication with scientists from the University of Eastern Finland, Faculty of Social Science and Business*	*14.3.2014*	*Kuopio, Finland*	*Scientific community (higher education, Research)*	*4*	*Finland, Japan*
16	*Flyers*	*KULUTTAJATUTKIMUSKESKUS*	*Personal communication with scientists from the University of Turku, Turku School of Economics in Finland*	*14.3.2014*	*Turku, Finland*	*Scientific community (higher education, Research)*	*2*	*Finland*
31	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*News feed of the Kick-off*	*24.3.2014*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
33	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*Cooperation with science in society actors*	*27.3.2014*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
37	*Web sites/Applications*	*AARHUS UNIVERSITET*	*Invitation to look at PE initiatives inventory*	*27.3.2014*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
13	*Flyers*	*KULUTTAJATUTKIMUSKESKUS*	*Leaflet disseminated in the Institute for Governance in Public and*	*7.4.2014*	*Montreal, Canada*	*Scientific community (higher education, Research)*	*2*	*Canada*

			Private Organization (IGOPP) in the University of Concordia					
14	*Flyers*	*KULUTTAJATUTKIMUSKESKUS*	*Leaflet disseminated in IPSOS Social Research Institute*	*8.4.2014*	*Montreal, Canada*	*Scientific community (higher education, Research)*	*3*	*Canada*
12	*Flyers*	*KULUTTAJATUTKIMUSKESKUS*	*Leaflet disseminated in IRSPM International Research Society for Public Management - conference, Carleton University*	*9.4.2014*	*Ottawa, Canada*	*Scientific community (higher education, Research)*	*Denmark, UK, Italy, Brazil, USA, India, Australia, New Zealand, Portugal, Sweden, Denmark, Filnad, S*	
11	*Interviews*	*KULUTTAJATUTKIMUSKESKUS*	*Personal meeting with professor Markku Kulmala, the director of the Division of Atmospheric Sciences at the Department of Physics at the University of Helsinki*	*22.4.2014*	*Helsinki, Finland*	*Scientific community (higher education, Research)*	*Finland*	
10	*Interviews*	*KULUTTAJATUTKIMUSKESKUS*	*Personal meeting with the director of the Finnish Science Centre Ms. Anneli Pauli*	*23.4.2014*	*Helsinki, Finland*	*Scientific community (higher education, Research) - Civil society*	*4*	*Finland*
9	*Oral presentation to a scientific event*	*KULUTTAJATUTKIMUSKESKUS*	*Paper presented: 13th International Public Communication of Science and Technology*	*5.5.2014*	*Salvador, Brazil*	*Scientific community (higher education, Research)*	*international*	

			Conference, Participatory Performance in Research Program Context					
32	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*How we started PE2020, a new EU project on public engagement*	*5.5.2014*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
52	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*We welcome you to tweet about #publicengagement in #science and #society at #PE2020!*	*27.5.2014*	*https://twitter.com/PublicEngagemen*	*Scientific community (higher education, Research) - Civil society - Policy makers*	*EU-28, overseas*	
53	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*Take a look at our web pages at http://www.PE2020.eu ! #publicengagement #science #society #PE2020*	*27.5.2014*	*https://twitter.com/PublicEngagemen*	*Scientific community (higher education, Research) - Civil society - Policy makers*	*EU-28, overseas*	
34	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*PE2020 in Brazil*	*30.5.2014*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
54	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*Do you want to know about innovative ways of public engagement in science? Take a look at our new report at http://www.PE2020.eu*	*30.5.2014*	*https://twitter.com/PublicEngagemen*	*Scientific community (higher education, Research) - Civil society - Policy makers*	*EU-28, overseas*	
60	*Oral presentation to a wider public*	*KULUTTAJATUTKIMUSKESKUS*	*Presentation at Baltic Sea Forum panel People as the makers of democracy in the Baltic Sea Region*	*2.6.2014*	*Turku, Finland*	*Scientific community (higher education, Research) - Civil society - Policy makers*	*52*	*Baltic Sea countries, including Russia*

20	*Interviews*	*KULUTTAJATUTKIMUSKESKUS*	*Personal communication with a researcher from the University of Eastern Finland, Institute for Natural Resources, Environment and Society (LYY)*	*11.6.2014*	*Joensuu, Finland*	*Scientific community (higher education, Research)*	*1*	*Finland*
18	*Flyers*	*KULUTTAJATUTKIMUSKESKUS*	*Leaflet disseminated in EUSEW 2014*	*30.6.2014*	*Brussels, Belgium*	*Scientific community (higher education, Research) - Policy makers - Medias*	*EU-28*	
35	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*News from related projects - CASI*	*30.6.2014*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
19	*Flyers*	*KULUTTAJATUTKIMUSKESKUS*	*Leaflet disseminated in Horizon Health 2020 conference*	*4.7.2014*	*Lyon, France*	*Scientific community (higher education, Research) - Industry - Civil society*	*200*	*EU-28*
2	*Films*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO TARPTAUTINIO VERSLO MOKYKLA*	*Is science important to me?*	*30.7.2014*	*Vilnius*	*Civil society*		*all*
36	*Web sites/Applications*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO TARPTAUTINIO VERSLO MOKYKLA*	*Is science important to people?*	*12.8.2014*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
21	*Flyers*	*KULUTTAJATUTKIMUSKESKUS*	*Leaflet & personal communication at*	*3.9.2014*	*Oxford, UK*	*Scientific community (higher education, Research)*	*100*	*EU-28*

			BEHAVE 2014 conference, University of Oxford					
38	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*Presenting Engage2020 a sister project of the PE2020*	*25.9.2014*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
55	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*Are you interested in knowing about world-wide public engagement activities? Look into our inventory at http://www.PE2020.eu !*	*25.9.2014*	*https://twitter.com/PublicEngagemen*	*Scientific community (higher education, Research) - Civil society - Policy makers*	*EU-28, overseas*	
56	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*Would you like to see, what people think about the importance of science? See it in our video clip at http://www.PE2020.eu*	*25.9.2014*	*https://twitter.com/PublicEngagemen*	*Scientific community (higher education, Research) - Civil society - Policy makers*	*EU-28, overseas*	
68	*Organisation of Workshops*	*KULUTTAJATUTKIMUSKESKUS*	*A workshop organized for commenting the EU Vademecum Sis Document*	*7.10.2014*	*Helsinki, Finland*	*Scientific community (higher education, Research)*	*15*	*Finland*
3	*Oral presentation to a scientific event*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO TARPTAUTINIO VERSLO MOKYKLA*	*Boosting Innovations of Public Engagement*	*10.10.2014*	*Vancouver, Canada*	*Scientific community (higher education, Research) - Medias*	*200*	*US, Brazil, Spain, Portugal, UK, Canada*
23	*Interviews*	*KULUTTAJATUTKIMUSKESKUS*	*Leaflet & personal communication with a researcher from the IASS, Potsdam Germany*	*21.10.2014*	*Helsinki, Finland*	*Scientific community (higher education, Research)*	*1*	*Germany, Finland*

24	*Interviews*	*KULUTTAJATUTKIMUSKESKUS*	*Leaflet & personal communication at the Prime Minister?s Office*	*21.10.2014*	*Helsinki, Finland*	*Policy makers*	*5*	*Finland*
25	*Interviews*	*KULUTTAJATUTKIMUSKESKUS*	*Leaflet & personal communication at the Academy of Finland, a funding agency for scientific research*	*22.10.2014*	*Helsinki, Finland*	*Scientific community (higher education, Research)*	*3*	*Finland*
65	*Oral presentation to a scientific event*	*KULUTTAJATUTKIMUSKESKUS*	*PE2020 ?presented Deliberative democracy R&D seminar organized by the Institute of Deliberative Democracy in Tampere, Finland*	*30.10.2014*	*Tampere, Finland*	*Scientific community (higher education, Research) - Civil society - Policy makers*	*25*	*Finland, UK*
22	*Organisation of Workshops*	*KULUTTAJATUTKIMUSKESKUS*	*Kansalaiset mukaan tiede- ja teknologiapolitiikan kehittämiseen? ?seminar organized in Helsinki, at the Prime Minister?s Office, Finland*	*31.10.2014*	*Helsinki, Finland*	*Policy makers*	*17*	*Finland*
69	*Organisation of Workshops*	*KULUTTAJATUTKIMUSKESKUS*	*Kansalaiset mukaan tiede- ja teknologiapolitiikan kehittämiseen? ?seminar organized in Helsinki, at the Prime Minister?s Office, Finland*	*31.10.2014*	*Helsinki, Finland*	*Policy makers*	*5*	*Finland*
39	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*PE2020 at the Prime Minister?s Office in Finland*	*4.11.2014*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	

64	*Oral presentation to a scientific event*	*KULUTTAJATUTKIMUSKESKUS*	*PE2020 presented in YHYS 2014 autumn colloquium organized by the Finnish Environment Institute, Helsinki, Finland*	*4.11.2014*	*Helsinki, Finland*	*Scientific community (higher education, Research)*	*20*	*Finland, Sweden, UK*
75	*Interviews*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*Contacts with on innovative PE tools*	*17.11.2014*	*Rome*	*Scientific community (higher education, Research)*	*14*	*Italy, Germany, UK, Turkey, Ireland, USA*
57	*Oral presentation to a scientific event*	*AARHUS UNIVERSITET*	*Public engagement session, RRI-SIS*	*19.11.2014*	*Rome*	*Scientific community (higher education, Research) - Policy makers*	*100*	*Cross-European audience*
62	*Oral presentation to a scientific event*	*KULUTTAJATUTKIMUSKESKUS*	*Presentation of PE2020 at the RRI conference workshop in Rome*	*19.11.2014*	*Rome, Italy*	*Scientific community (higher education, Research) - Policy makers*	*50*	*EU-28*
40	*Web sites/Applications*	*AARHUS UNIVERSITET*	*Nominations for innovative cases going on*	*1.12.2014*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
58	*Oral presentation to a scientific event*	*AARHUS UNIVERSITET*	*Public engagement session, RRI conference*	*11.12.2014*	*Copenhagen*	*Scientific community (higher education, Research) - Policy makers*	*200*	*Denmark*
66	*Oral presentation to a scientific event*	*KULUTTAJATUTKIMUSKESKUS*	*PE2020 ?presented at ?Assessing the Participatory Turn and ?New Democracy?. An international conference*	*11.12.2014*	*Helsinki, Finland*	*Scientific community (higher education, Research)*	*25*	*Finland, UK, Sweden, Germany*
70	*Organisation of Workshops*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO*	*Meeting of PE2020 partners*	*17.12.2014*	*Vilnius*	*Scientific community (higher education, Research)*	*10*	*Finland, Lithuania*

		TARPTAUTINIO VERSLO MOKYKLA						
5	*Media briefings*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO TARPTAUTINIO VERSLO MOKYKLA*	*Sharing ideas beyond the European Union*	*5.1.2015*	*pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*	*all*	
30	*Web sites/Applications*	*KULUTTAJATUTKIMUSKESKUS*	*Blog writing in CASI projects website*	*22.1.2015*	*www.casi2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*	*18339*	*EU-28, overseas*
41	*Web sites/Applications*	*HELSINGIN YLIOPISTO*	*PE2020-Consortium meeting in Aarhus, Denmark, January the 28th-30th, 2015*	*6.2.2015*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
80	*Interviews*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*Presentation of PE2020 to Agorà Scienza*	*2.3.2015*	*Turin*	*Scientific community (higher education, Research)*	*3*	*Italy*
59	*Organisation of Conference*	*AARHUS UNIVERSITET*	*PE and science festival camp*	*5.3.2015*	*Copenhagen*	*Scientific community (higher education, Research) - Policy makers*	*150*	*Denmark*
82	*Flyers*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*Scientific Summer Academy, including the contribution of PE2020*	*17.3.2015*	*Turin*	*Scientific community (higher education, Research)*	*150*	*Italy*
1	*Organisation of Workshops*	*HELSINGIN YLIOPISTO*	*Context tailoring workshop*	*9.4.2015*	*Aalto University*	*Scientific community (higher education, Research) - Policy makers*	*50*	*Finland, France, Germany, UK*
47	*Videos*	*HELSINGIN YLIOPISTO*	*How do you see the role of stakeholder*	*11.4.2015*	*Helsinki, Finland*	*Scientific community (higher education,*	*EU-28, overseas*	

			engagement in challenges posed by global change?			*Research) - Industry - Civil society - Policy makers*		
42	*Web sites/Applications*	*HELSINGIN YLIOPISTO*	*Update from Denmark on the process of creating a cutting edge PE catalogue*	*13.4.2015*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
71	*Interviews*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO TARPTAUTINIO VERSLO MOKYKLA*	*Meeting Minister of Science and Education of the Republic of Lithuania*	*13.4.2015*	*Vilnius*	*Policy makers*	*1*	*Lithuania*
67	*Oral presentation to a wider public*	*HELSINGIN YLIOPISTO*	*Meeting with project officer The coordinator organized a meeting with the PO and 2 members of the EU SWAF team to discuss the progression of PE2020 and plans for future activities, including e.g. policy conference*	*27.4.2015*	*Brussels, Belgium*	*Policy makers*	*3*	*EU-28*
81	*Organisation of Workshops*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*Meeting with teachers and researchers involved with the Scientific Summer Academy*	*6.5.2015*	*Turin*	*Scientific community (higher education, Research)*	*15*	*Italy*
27	*Organisation of Workshops*	*KULUTTAJATUTKIMUSKESKUS*	*Workshop ?Osallistumisen uudet muodot? at the Faculty of Social Sciences at the University of Helsinki*	*8.5.2015*	*Helsinki, Finland*	*Scientific community (higher education, Research) - Civil society - Policy makers*	*15*	*Finland*

76	*Interviews*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*Presentation of PE2020 to IDIS-Città della scienza*	*12.5.2015*	*Naples*	*Scientific community (higher education, Research)*	*3*	*Italy*
43	*Web sites/Applications*	*HELSINGIN YLIOPISTO*	*News feed post: Future Earth Townhall Meeting*	*13.5.2015*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
44	*Web sites/Applications*	*HELSINGIN YLIOPISTO*	*Visiting citizen panel about sustainable innovation in CASI project*	*25.5.2015*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
28	*Organisation of Conference*	*KULUTTAJATUTKIMUSKESKUS*	*Future Earth Townhall ?meeting, Future Earth Finland, Helsinki*	*26.5.2015*	*Helsinki, Finland*	*Scientific community (higher education, Research) - Civil society - Policy makers*	*67*	*Finland, China, Germany, UK,*
45	*Web sites/Applications*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA - LSC*	*Educating on science-society relations and public engagement: a context tailoring workshop in Turin, Italy*	*27.5.2015*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
83	*Organisation of Workshops*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*PE in science and science-society relations*	*29.5.2015*	*Turin*	*Scientific community (higher education, Research)*	*60*	*Italy*
26	*Interviews*	*KULUTTAJATUTKIMUSKESKUS*	*Societal Stakeholders in Joint Programming Initiatives Exchanging Experiences ? Developing Public Engagement JPI Stakeholder Workshop on Invitation of JPI-MYBL*	*2.6.2015*	*Helsinki, Finland*	*Scientific community (higher education, Research)*	*2*	*Finland*

4	*Flyers*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO TARPTAUTINIO VERSLO MOKYKLA*	*Week of Innovative Region in Europe*	*4.6.2015*	*Riga, Latvia*	*Scientific community (higher education, Research) - Industry - Policy makers - Medias*	*200*	*EU member states*
72	*Interviews*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO TARPTAUTINIO VERSLO MOKYKLA*	*Meeting the President of the Lithuanian Academy of Science*	*10.6.2015*	*Vilnius*	*Scientific community (higher education, Research)*	*1*	*Lithuania*
46	*Web sites/Applications*	*HELSINGIN YLIOPISTO*	*Public engagement and stakeholders for EC Joint programming 02062015*	*11.6.2015*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
48	*Web sites/Applications*	*HELSINGIN YLIOPISTO*	*How do you see the role of stakeholder engagement in challenges posed by global change?*	*11.6.2015*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
49	*Web sites/Applications*	*HELSINGIN YLIOPISTO*	*How do you see the role of stakeholder engagement in challenges posed by global change?*	*11.6.2015*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
61	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*Presentation at the Annual Ecsite Conference 2015 ?Food for curious minds?*	*13.6.2015*	*Trento, Italy*	*Scientific community (higher education, Research)*	*45*	*Finland, Poland, Japan, USA, Germany, Chile, India, UK*
63	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*Presentation of PE2020 at a workshop organized by Engage2020*	*13.6.2015*	*London, UK*	*Scientific community (higher education, Research)*	*20*	*UK, Bulgaria, Germany, Denmark,*

								Finland, the Netherlands
84	*Organisation of Workshops*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*PE in the energy sector*	*15.6.2015*	*Rome*	*Industry*	*15*	*Italy*
105	*Interviews*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO TARPTAUTINIO VERSLO MOKYKLA*	*Inventory of PE cases - how to maximize project impacts by addressing public engagement?*	*19.6.2015*	*Vilnius, Lithuania*	*Scientific community (higher education, Research)*	*40*	*Lithuania*
85	*Organisation of Workshops*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*Presentation of PE2020*	*10.7.2015*	*Rome*	*Industry*	*40*	*Italy*
50	*Web sites/Applications*	*HELSINGIN YLIOPISTO*	*Public engagement workshop for early career scientists in Riga, Latvia*	*17.7.2015*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
51	*Web sites/Applications*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO TARPTAUTINIO VERSLO MOKYKLA*	*Pros and Cons for Public Engagement*	*25.8.2015*	*www.pe2020.eu*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*EU-28, overseas*	
29	*Media briefings*	*KULUTTAJATUTKIMUSKESKUS*	*Email information about the publication of PE2020 D1.2*	*27.8.2015*	*Helsinki, Finland*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers*	*456*	*Finland, UK, Italy, USA, Lithuania, Denmark, Netherlands, Canada, Belgium, France, Ireland, Japan, G*

78	*Media briefings*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*Diffusion of information about PE2020 and the pilot project in Naples*	*1.9.2015*	*Rome*	*Scientific community (higher education, Research) - Civil society - Policy makers*	*321*	*Italy*
73	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*Presentation at the consortium meeting of the CASI project*	*24.9.2015*	*Copenhagen, Denmark*	*Scientific community (higher education, Research)*	*30*	*Austria, Belgium, Bulgaria, Czech Republic, Denmark, Germany, Italy, Poland, Portugal, UK*
77	*Interviews*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*Presentation of PE2020 to NMU City Roaming*	*24.9.2015*	*Naples*	*Industry*	*1*	*Italy*
79	*Organisation of Workshops*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*Research, mobility and public engagement*	*16.10.2015*	*Naples*	*Scientific community (higher education, Research) - Industry*	*33*	*Italy*
	Web sites/Applications	*LAPIN YLIOPISTO*	*Science and Society blog, T. Aarrevaara*		*H2020 Portal*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*		*EU*
104	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*Presentation of PE2020 at RRI tools conference*	*14.1.2016*	*Brussels*	*Scientific community (higher education, Research) - Civil society - Policy makers*	*60*	*EU-28*
111	*Oral presentation to a scientific event*	*LAPIN YLIOPISTO*	*Public engagement tools and instruments for dynamic governance in the field of Science in Society. Engaging stakeholders in Public-Public-Partnerships.*	*14.1.2016*	*Brussels*	*Scientific community (higher education, Research) - Policy makers*	*90*	*EU*

113	*Organisation of Workshops*	*LAPIN YLIOPISTO*	*BONUS training for young scholars*	*7.3.2016*	*Helsinki*	*Scientific community (higher education, Research)*	*12*	*Finland and several BONUS countries*
103	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*Global citizen deliberation lecture at Swedish school of social science at the University of Helsinki*	*17.3.2016*	*Helsinki, Finland*	*Scientific community (higher education, Research)*	*25*	*Australia, New Zealand, Finland*
114	*Oral presentation to a wider public*	*LAPIN YLIOPISTO*	*Overview on PE2020 pilot studies, Prime Minister's Office*	*22.3.2016*	*web*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*		*EU*
116	*Media briefings*	*LAPIN YLIOPISTO*	*Social Media (LinkedIn, Twitter), Dissemination of blog post on societal engagement, reach 500+*	*22.4.2016*	*Rovaniemi*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*		*EU*
117	*Oral presentation to a scientific event*	*LAPIN YLIOPISTO*	*PE2020 Consortium meeting presentation T. Aarrevaara & K. Pulkkinen: Societal Interaction of Science in Strategic Research Council funded projects*	*20.5.2016*	*Rome*	*Scientific community (higher education, Research)*	*14*	*Lithunia, Italy, Ireland, Sweden, Finland*
101	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*Presentation on PE2020 at CASI meeting*	*31.5.2016*	*Helsinki, Finland*	*Scientific community (higher education,*	*25*	*Germany, Bulgaria, UK, Sweden, Finland,*

						Research) - Policy makers		*Netherlands, Spain*
100	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*New democracy in research and innovation activity (In Finnish only: Uusi osallisuus tiede- ja innovaatiotoiminnassa)*	*2.6.2016*	*Helsinki, Finland*	*Scientific community (higher education, Research)*	*30*	*Finland*
112	*Oral presentation to a scientific event*	*LAPIN YLIOPISTO*	*Prentation on SRC results, Academy of Finland*	*9.6.2016*	*Helsinki*	*Scientific community (higher education, Research)*	*30*	*Finland*
106	*Oral presentation to a wider public*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO TARPTAUTINIO VERSLO MOKYKLA*	*The power of regional innovation ecosystems*	*9.6.2016*	*Twente*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*	*2000*	*European Union member states*
118	*Oral presentation to a scientific event*	*LAPIN YLIOPISTO*	*resentation of pilot study results, Prime Minister's Office and SRC leadership*	*16.6.2016*	*Helsinki*	*Policy makers*	*8*	*Finland*
99	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*Production of knowledge and other impacts of public engagement in research*	*17.6.2016*	*Aalto University*	*Scientific community (higher education, Research)*	*20*	*Finland*
119	*Oral presentation to a scientific event*	*LAPIN YLIOPISTO*	*Tension between research and public engagement, presentation in the 23rd Nordic Congress of Gerontology, Timo Aarrevaara Minna Kaarakainen*	*19.6.2016*	*Tampere*	*Scientific community (higher education, Research) - Policy makers*	*35*	*EU*

120	*Media briefings*	*LAPIN YLIOPISTO*	*Dissemination of SRC pilot report to main national research funding agencies and foundations*	*20.6.2016*	*Rovaniemi*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*		*EU*
98	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*Tracking the footprints of innovative public engagement*	*1.9.2016*	*Barcelona, Spain*	*Scientific community (higher education, Research)*	*100*	*EU-28*
97	*Oral presentation to a wider public*	*HELSINGIN YLIOPISTO*	*Address in EKLPISE science cafe*	*6.9.2016*	*Helsinki, Finland*	*Civil society - Medias*	*60*	*Finland*
108	*Oral presentation to a scientific event*	*LAPIN YLIOPISTO*	*Lecture for Masters Students on PE2020 results in the University of Lapland*	*16.9.2016*	*Rovaniemi, Helsinki*	*Scientific community (higher education, Research)*	*25*	*Finland*
	Oral presentation to a scientific event	*LAPIN YLIOPISTO*	*Lecture on PE2020 concepts for Masters Students in the University of Lapland*	*21.9.2016*	*Rovaniemi*	*Scientific community (higher education, Research)*	*25*	*Finland*
96	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*Experiences and Experiments of PE as an object of study at Finnish Municipal Reseach Day*	*13.10.2016*	*Helsinki, Finland*	*Scientific community (higher education, Research) – Policy makers*		*Finland, Sweden*
95	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*Presentation on deliberative democratic innovations at Sitra, the Finnish Innovation Fund*	*24.10.2016*	*Helsinki, Finland*	*Scientific community (higher education, Research) – Civil society – Policy makers*	*8*	*Finland*
109	*Organisation of Workshops*	*LAPIN YLIOPISTO*	*Presentation at workshop, context-tailoring and*	*2.11.2016*	*Vilnus*	*Scientific community (higher education, Research)*	*12*	*Lithunia, Finland, Italy*

			piloting of best practice PE processes					
122	*Oral presentation to a wider public*	*LAPIN YLIOPISTO*	*Discussion on pilot study results, Ministry for Foreign Affairs of Finland mid-November 2016*	*27.10.2016*	*Helsinki*	*Policy makers*		*Finland*
94	*Oral presentation to a wider public*	*HELSINGIN YLIOPISTO*	*The value of public engagement and how can it be measured (in Finnish only)*	*9.11.2016*	*Vantaa, Finland*	*Scientific community (higher education, Research) - Civil society - Policy makers*	*100*	*Finland, Sweden*
102	*Oral presentation to a wider public*	*HELSINGIN YLIOPISTO*	*Pitching of PE2020 at NCP meeting at Belgian Representation to the European Commission*	*15.11.2016*	*Belgian Representation to the European Commission*	*Scientific community (higher education, Research) - Policy makers*	*70*	*EU-28*
86	*Oral presentation to a scientific event*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*Poster session: Presentation of the PE2020 Toolkit*	*16.11.2016*	*Brussels*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*	*30*	*EU countries*
92	*Organisation of Conference*	*HELSINGIN YLIOPISTO*	*Public Engagement for Research, Practice and Policy*	*16.11.2016*	*Brussels, Belgium*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*	*208*	*EU-28*
93	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*What is innovative PE and why is it needed*	*16.11.2016*	*Brussels, Belgium*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*	*120*	*EU-28*

87	*Organisation of Conference*	*LABORATORIO DI SCIENZE DELLA CITTADINANZA*	*Session of a conference: Prospects of PE: Reflection with sister projects*	*17.11.2016*	*Brussels*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*	*20*	*EU-countries*
123	*Media briefings*	*LAPIN YLIOPISTO*	*Dissemination of second policy report directed at main societal stakeholder groups and research collaborators, reach 1500+d*	*28.11.2016*	*Rovaniemi*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*		*EU*
107	*Interviews*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO TARPTAUTINIO VERSLO MOKYKLA*	*Meeting with Parliament members*	*9.12.2016*	*Parliament*	*Policy makers*	*5*	*Lithuania*
124	*Media briefings*	*LAPIN YLIOPISTO*	*Presentation of pilot study results and SRC analysis at policy conference*	*17.11.2016*	*rovaniemi*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*		*EU*
74	*Interviews*	*VIESOJI ISTAIGA VILNIAUS UNIVERSITETO TARPTAUTINIO VERSLO MOKYKLA*	*Frameworks of public engagement*	*12.12.2016*	*Berlin, Germany*	*Scientific community (higher education, Research)*	*1*	*Ireland*
91	*Organisation of Workshops*	*HELSINGIN YLIOPISTO*	*Democratic Innovation in Transnational Governance workshop at DBT*	*13.12.2016*	*Copenhagen, Denmark*	*Scientific community (higher education, Research)*	*5*	*Finland, Denmark, UK*

125	*Media briefings*	*LAPIN YLIOPISTO*	*Log post on boosting public and societal engagement*	*14.12.2016*	*Rovaniemi*	*Scientific community (higher education, Research) - Industry - Civil society - Policy makers - Medias*		*EU*
90	*Oral presentation to a wider public*	*HELSINGIN YLIOPISTO*	*Seminar on a publication related to deliberative democracy and PE2020 at Finnish Innovation Fund Sitra*	*17.1.2017*	*Helsinki, Finland*	*Scientific community (higher education, Research) - Policy makers*	*5*	*Finland*
89	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*Demola planning workshop at University of Helsinki*	*20.1.2017*	*Helsinki*	*Scientific community (higher education, Research)*	*20*	*Finland, Taiwan*
88	*Oral presentation to a scientific event*	*HELSINGIN YLIOPISTO*	*Lecture on global citizen deliberation at Svenska social- och kommunalhögskolan*	*25.1.2017*	*Helsinki*	*Scientific community (higher education, Research)*	*25*	*New Zealand, Finland, UK*

4 Report on societal implications

Replies to the following questions will assist the Commission to obtain statistics and indicators on societal and socio-economic issues addressed by projects. The questions are arranged in a number of key themes. As well as producing certain statistics, the replies will also help identify those projects that have shown a real engagement with wider societal issues, and thereby identify interesting approaches to these issues and best practices. The replies for individual projects will not be made public.
Minna: tähän täyttö vain kohtaan C: workforce statistic)

A General Information *(completed automatically when **Grant Agreement number** is entered.*

Grant Agreement Number:	611826
Title of Project:	Public Engagement Innovations for Horizon 2020
Name and Title of Coordinator:	Mikko Rask, PhD, Adjunct Professor

B Ethics

1. Did your project undergo an Ethics Review (and/or Screening)? • If Yes: have you described the progress of compliance with the relevant Ethics Review/Screening Requirements in the frame of the periodic/final project reports? Special Reminder: the progress of compliance with the Ethics Review/Screening Requirements should be described in the Period/Final Project Reports under the Section 3.2.2 *'Work Progress and Achievements'*	***No***
2. Please indicate whether your project involved any of the following issues (tick box) :	***YES***
RESEARCH ON HUMANS	
Did the project involve children?	
• Did the project involve patients?	
• Did the project involve persons not able to give consent?	
• Did the project involve adult healthy volunteers?	X
• Did the project involve Human genetic material?	
• Did the project involve Human biological samples?	
• Did the project involve Human data collection?	
RESEARCH ON HUMAN EMBRYO/FOETUS	
Did the project involve Human Embryos?	
Did the project involve Human Foetal Tissue / Cells?	
Did the project involve Human Embryonic Stem Cells (hESCs)?	
Did the project on human Embryonic Stem Cells involve cells in culture?	
Did the project on human Embryonic Stem Cells involve the derivation of cells from Embryos?	
PRIVACY	
• Did the project involve processing of genetic information or personal data (eg. health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction)?	
• Did the project involve tracking the location or observation of people?	
RESEARCH ON ANIMALS	
• Did the project involve research on animals?	

• Were those animals transgenic small laboratory animals?	
• Were those animals transgenic farm animals?	
• Were those animals cloned farm animals?	
• Were those animals non-human primates?	
RESEARCH INVOLVING DEVELOPING COUNTRIES	
• Did the project involve the use of local resources (genetic, animal, plant etc)?	
• Was the project of benefit to local community (capacity building, access to healthcare, education etc)?	
DUAL USE	
• Research having direct military use	0 Yes 0 No
• Research having the potential for terrorist abuse	

C Workforce Statistics

3. Workforce statistics for the project: Please indicate in the table below the number of people who worked on the project (on a headcount basis).

Type of Position	Number of Women	Number of Men
Scientific Coordinator		1
Work package leaders	2	4
Experienced researchers (i.e. PhD holders)	4	5
PhD Students	3	1
Other	1	

4. How many additional researchers (in companies and universities) were recruited specifically for this project?	**5**
Of which, indicate the number of men:	2

D Gender Aspects

5. Did you carry out specific Gender Equality Actions under the project? no

6. Which of the following actions did you carry out and how effective were they?

Not at all effective

- ❑ Design and implement an equal opportunity policy
- ❑ Set targets to achieve a gender balance in the workforce
- ❑ Organise conferences and workshops on gender
- ❑ Actions to improve work-life balance
- ○ Other:

7. Was there a gender dimension associated with the research content – i.e. wherever people were the focus of the research as, for example, consumers, users, patients or in trials, was the issue of gender considered and addressed?

- ○ Yes- please specify YES — balanced composition of panels etc.
- ○ No

E Synergies with Science Education

8. Did your project involve working with students and/or school pupils (e.g. open days, participation in science festivals and events, prizes/competitions or joint projects)?

- ○ Yes- please specify Yes — workshops with young scientists
- ○ No

9. Did the project generate any science education material (e.g. kits, websites, explanatory booklets, DVDs)?

- ○ Yes- please specify Yes — webtool on PE
- ○ No

F Interdisciplinarity

10. Which disciplines (see list below) are involved in your project?

- ○ Main discipline[11]: Other social sciences: political sciences, sociology, organisation and methods,
- ○ Associated discipline[11]: Other social sciences: management, miscellaneous social sciences and interdisciplinary

G Engaging with Civil society and policy makers

11a Did your project engage with societal actors beyond the research community? *(if 'No', go to Question 14) Yes*

11b If yes, did you engage with citizens (citizens' panels / juries) or organised civil society (NGOs, patients' groups etc.)?

- ○ No
- ○ Yes- in determining what research should be performed YES
- ○ Yes - in implementing the research
- ○ Yes, in communicating /disseminating / using the results of the project

[11] Insert number from list below (Frascati Manual).

11c In doing so, did your project involve actors whose role is mainly to organise the dialogue with citizens and organised civil society (e.g. professional mediator; communication company, science museums)? YES

12. Did you engage with government / public bodies or policy makers (including international organisations)

- ○ No
- ○ Yes- in framing the research agenda YES
- ○ Yes - in implementing the research agenda YES
- ○ Yes, in communicating /disseminating / using the results of the project YES

13a Will the project generate outputs (expertise or scientific advice) which could be used by policy makers?

- ○ Yes – as a **primary** objective (please indicate areas below- multiple answers possible) YES
- ○ Yes – as a **secondary** objective (please indicate areas below - multiple answer possible)
- ○ No

13b If Yes, in which fields?

Agriculture x
Audiovisual and Media x
Budget x
Competition x
Consumers x
Culture x
Customs x
Development Economic and Monetary Affairs x
Education, Training, Youth x
Employment and Social Affairs x

13c If Yes, at which level?

- ○ Local / regional levels x
- ○ National level x
- ○ European level x
- ○ International level x

H Use and dissemination

14. How many Articles were published/accepted for publication in peer-reviewed journals?	**1**
To how many of these is open access[12] provided?	**0**
How many of these are published in open access journals?	
How many of these are published in open repositories?	
To how many of these is open access not provided?	
Please check all applicable reasons for not providing open access:	
❑ publisher's licensing agreement would not permit publishing in a repository ❑ no suitable repository available ❑ no suitable open access journal available ❑ no funds available to publish in an open access journal ❑ lack of time and resources ❑ lack of information on open access ❑ other[13]: ……	

15. How many new patent applications ('priority filings') have been made? *("Technologically unique": multiple applications for the same invention in different jurisdictions should be counted as just one application of grant).*		**0**
16. Indicate how many of the following Intellectual Property Rights were applied for (give number in each box).	Trademark	**0**
	Registered design	**0**
	Other	**0**
17. How many spin-off companies were created / are planned as a direct result of the project?		**1**
Indicate the approximate number of additional jobs in these companies:		**3**

18. Please indicate whether your project has a potential impact on employment, in comparison with the situation before your project:

❑ Increase in employment, or x	❑ In small & medium-sized enterprises x
❑ Safeguard employment, or	❑ In large companies
❑ Decrease in employment,	❑ None of the above / not relevant to the project
❑ Difficult to estimate / not possible to quantify	

19. For your project partnership please estimate the employment effect resulting directly from your participation in Full Time Equivalent (*FTE = one person working fulltime for a year*) jobs:	*Indicate figure:* *3*
Difficult to estimate / not possible to quantify	❑

I Media and Communication to the general public

20. As part of the project, were any of the beneficiaries professionals in communication or media relations?

○ Yes YES ○ No

21. As part of the project, have any beneficiaries received professional media / communication training / advice to improve communication with the general public?

○ Yes YES ○ No

22 Which of the following have been used to communicate information about your project to the general public, or have resulted from your project?

❑	Press Release X	❑	Coverage in specialist press X
❑	Media briefing	❑	Coverage in general (non-specialist) press X
❑	TV coverage / report	❑	Coverage in national press
❑	Radio coverage / report	❑	Coverage in international press X
❑	Brochures /posters / flyers X	❑	Website for the general public / internet X
❑	DVD /Film /Multimedia X	❑	Event targeting general public (festival, conference, exhibition, science café) X

23 In which languages are the information products for the general public produced?

❑	Language of the coordinator X	❑	English X
❑	Other language(s) Lithuanian, Italy		

***Question F-10*:** Classification of Scientific Disciplines according to the Frascati Manual 2002 (Proposed Standard Practice for Surveys on Research and Experimental Development, OECD 2002):

FIELDS OF SCIENCE AND TECHNOLOGY

1. NATURAL SCIENCES

1.1 Mathematics and computer sciences [mathematics and other allied fields: computer sciences and other allied subjects (software development only; hardware development should be classified in the engineering fields)]

1.2 Physical sciences (astronomy and space sciences, physics and other allied subjects)

1.3 Chemical sciences (chemistry, other allied subjects)

1.4 Earth and related environmental sciences (geology, geophysics, mineralogy, physical geography and other geosciences, meteorology and other atmospheric sciences including climatic research, oceanography, vulcanology, palaeoecology, other allied sciences)

1.5 Biological sciences (biology, botany, bacteriology, microbiology, zoology, entomology, genetics, biochemistry, biophysics, other allied sciences, excluding clinical and veterinary sciences)

2 ENGINEERING AND TECHNOLOGY

2.1 Civil engineering (architecture engineering, building science and engineering, construction engineering, municipal and structural engineering and other allied subjects)

2.2 Electrical engineering, electronics [electrical engineering, electronics, communication engineering and systems, computer engineering (hardware only) and other allied subjects]

2.3. Other engineering sciences (such as chemical, aeronautical and space, mechanical, metallurgical and materials engineering, and their specialised subdivisions; forest products; applied sciences such as geodesy, industrial chemistry, etc.; the science and technology of food production; specialised technologies of interdisciplinary fields, e.g. systems analysis, metallurgy, mining, textile technology and other applied subjects)

[12] Open Access is defined as free of charge access for anyone via Internet.

[13] For instance: classification for security project.

3. MEDICAL SCIENCES

3.1 Basic medicine (anatomy, cytology, physiology, genetics, pharmacy, pharmacology, toxicology, immunology and immunohaematology, clinical chemistry, clinical microbiology, pathology)

3.2 Clinical medicine (anaesthesiology, paediatrics, obstetrics and gynaecology, internal medicine, surgery, dentistry, neurology, psychiatry, radiology, therapeutics, otorhinolaryngology, ophthalmology)

3.3 Health sciences (public health services, social medicine, hygiene, nursing, epidemiology)

4. AGRICULTURAL SCIENCES

4.1 Agriculture, forestry, fisheries and allied sciences (agronomy, animal husbandry, fisheries, forestry, horticulture, other allied subjects)

4.2 Veterinary medicine

5. SOCIAL SCIENCES

5.1 Psychology

5.2 Economics

5.3 Educational sciences (education and training and other allied subjects)

5.4 Other social sciences [anthropology (social and cultural) and ethnology, demography, geography (human, economic and social), town and country planning, management, law, linguistics, political sciences, sociology, organisation and methods, miscellaneous social sciences and interdisciplinary , methodological and historical S1T activities relating to subjects in this group. Physical anthropology, physical geography and psychophysiology should normally be classified with the natural sciences].

6. HUMANITIES

6.1 History (history, prehistory and history, together with auxiliary historical disciplines such as archaeology, numismatics, palaeography, genealogy, etc.)

6.2 Languages and literature (ancient and modern)

6.3 Other humanities [philosophy (including the history of science and technology) arts, history of art, art criticism, painting, sculpture, musicology, dramatic art excluding artistic "research" of any kind, religion, theology, other fields and subjects pertaining to the humanities, methodological, historical and other S1T activities relating to the subjects in this group]

5 FINAL REPORT ON THE DISTRIBUTION OF THE EUROPEAN UNION FINANCIAL CONTRIBUTION

This report shall be submitted to the Commission within 30 days after receipt of the final payment of the European Union financial contribution.

Report on the distribution of the European Union financial contribution between beneficiaries

Name of beneficiary	Final amount of EU contribution per beneficiary in Euros
1.	
2.	
n	
Total	

technopolis | group |

January 2017

External evaluation of PE2020

Final evaluation report

External evaluation of PE2020

Final evaluation report

technopolis |group| January 2017

Göran Melin, Elin Berglund

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1 Introduction

Technopolis Group, represented by Associate Professor Göran Melin, has been appointed as external evaluator of the research project Public Engagement 2020 (PE2020). Julia Synnelius has made valuable contributions during the work with the interim evaluation report and Elin Berglund has similarly done so during the work with the final evaluation report.

The following is the final evaluation report of the PE2020 project, thus concluding the evaluation process. The objective of this report is to offer a status update in relation to the interim report presented in March 2016.

The work with the concluding part of the evaluation has been done during the period October–December 2016. In the evaluation process, we have taken into account the following central questions, specified by the project management:

1. What is the current status/maturity of the project, and what issues should be paid particular attention to in order to meet the goals of the project?
2. How does the internal communication and project coordination work in the consortium?
3. How does the project perform in terms of dissemination and communication with relevant stakeholders, and how can these operations be developed?
4. Any suggestions for future collaboration with other similar or neglected stakeholder groups should be presented
5. Any other ideas for developing the project and its working performance should be present

With the objective to adequately answer the above questions, we have conducted a scrutinised review of the documents that the project management has kindly made accessible to us. The evaluator participated during a two-day PE2020 consortium meeting in Brussels, 14-15 November 2016, and gathered a magnitude of important information regarding the progress of the project, as well as the plans for finalising the tasks of the work packages. We have also examined additional information available on the project's website. In addition, three members of the Scientific Advisory Board (SAB) have been interviewed, in order to fill some gaps of information. All interviews have followed a semi-structured format with a prepared interview guide, open to subsequent spontaneous follow-up questions, depending on the answers given. We wish to thank the interviewees for generously taking their time and sharing their views.

Following this introduction, we present a status update of the deliverables of each work package, in relation to the status of them in the interim report from March 2016. Chapter 2 includes status updates of the deliverables from work packages 1-6, thus corresponding to the first part of question 1. The deliverables from WP5 and WP6 will be further elaborated in Chapter 3, where we discuss the dissemination, communication and management of the PE2020 project, answering question 2 and 3. Finally, Chapter 4 will present a discussion based on question 4 and 5, as well as the second clause of question 1 and 3. This discussion will result in some final remarks and recommendations on how to finalise the PE2020 project in the best possible way.

2 Status update

The following chapter will give an overview of the progress of each activity in the work packages 1-6. The objective is to chart the status of the deliverables in order to distinguish the development since the interim report written in March 2016.

2.1 Work Package 1: Updated inventory and case exploration of European PE innovations[1]

The aim of WP1 is to develop an up-to-date inventory of current and prospective European public engagement innovations. This inventory will provide a background for the selection of a minimum of 50 cases of innovative PE processes related to the governance of science in society. These case explorations will collectively form a catalogue of innovative PE activities in Europe. The results of WP1 will inform the conceptual refinements envisaged in WP2.

Source: PE2020.eu/Activities

The first work package includes the following deliverables:

D.1.1 Inventory of PE procedures and practices in 37 European countries

D.1.2 Catalogue of 50 PE case descriptions

D.1.3 Presentation at an international conference

D.1.4 Summary report on European PE innovations

D.1.1 resulted in the report *Inventory of PE mechanisms and initiatives* in July 2014 and was the first output of the PE2020 project. The main content of the report is an up-to-date inventory of current and prospective European public engagement innovations.

D.1.2 builds on the findings in D.1.1 and elaborates on 38 of the 250 identified initiatives. The deliverable is a catalogue where 38 cases are structurally described, with further references to similar initiatives. The objective of the catalogue is to provide a "platform for international learning and inspiration in efforts to promote public engagement at large". The *Catalogue of PE initiatives* was published in June 2015.

D.1.3 was a presentation and discussion of PE2020 and WP1 specifically, at the Public Communication of Science and Technology Conference in Brazil in May 2014. The deliverable from this task was the report *Presentations at an international workshop* published in June 2015.

D.1.4 is a summary report that was published in June 2015, thus concluding the work of WP1.

As mentioned in the previous chapter, the deliverables of WP1 have all been concluded, and had been so already by the time of the interim report, thus the status of this work package has not changed in relation to the evaluation in March 2016.

[1] If nothing else is stated, the information in this section is based on the deliverables of WP1: Ravn, T., Mejlgaard, N. (2014). *Inventory of PE mechanisms and initiatives*. D.1.1.; Ravn, T and Mejlgaard, N. (2014). *Public Engagement Innovations – Catalogue of PE initiatives, D.1.2.*; Ravn, T and Mejlgaard, N. (2015). *Presentations at an international workshop D.1.3.*; Ravn, T and Mejlgaard, N., Rask, M., Mačiukaitė-Žvinienė, S., Tauginienė, L. (2015). *Summary report on European PE innovations, D.1.4.*

2.2 Work Package 2: Refinement of the conceptual model[2]

The aim of WP2 is to refine the conceptual model that will

inform and possibly reorient data collection (WP1),

provide conceptual categories that are relevant in identifying contextual factors related to the tailoring of best PE practices (WP3), and

help draw generalizable lessons of PE case studies, to be used in the development of the PE design toolkit (WP4).

Source: PE2020.eu/Activities

Work package 2 includes the following deliverables:

D.2.1 A refined typology of PE tools and instruments

D.2.2 A conceptual model of PE across the Dynamically governed research policy cycle and related participatory performance factors

D.2.3 Summary report on conceptual model of public engagement and factors of participatory performance

By the time of the interim report, only the first deliverable had been completed and the two remaining had been delayed. Since then however, both D.2.2 and D.2.3 have been delivered.

D.2.2 resulted in the report *A Conceptual Model of Public Engagement in Dynamic and Responsible Governance of Research and Innovation* in May 2016.

D.2.3, a summary report of the main findings in the second work package, was published in August 2016.

2.3 Work Package 3: Context-tailoring and piloting of best practice PE processes[3]

The pilots will be carried out in the context of research programs closely linked to Horizon 2020 Challenges. The aim of WP3 is to

*test and refine at least 6 innovative **PE** tools and processes in the context of research programs closely collectively linked to all six Horizon 2020 Challenges;*

evaluate the feasibility of the using the tools tested in the pilots for other countries and for other Societal Challenges; and

*gain further understanding of the relevance of contextual factors in designing **PE** processes, and to provide input for the toolkit (developed in WP4).*

Source: PE2020.eu/Activities

[2] If nothing else is stated, the information in this section is based on the deliverables of WP2: Ravn, T., Mejlgaard, N., Rask, M., Mačiukaitė-Žvinienė, S., Tauginienė, L., d'Andrea, L. (2014). *A Refined Typology of PE Tools and Instruments D.2.1.*; Rask, M., Mačiukaitė-Žvinienė, S., Tauginienė, L., Dikčius, V., Matschoss, K., Arrevaara, T., d'Andrea, L. (2016). *Innovative Public Engagement: A Conceptual Model of Public Engagement in Dynamic and Responsible Governance of Research and Innovation, D.2.2.*; Mačiukaitė-Žvinienė, S., Tauginienė, L., Rask, M. (2016). *Summary report on conceptual model of public engagement and factors of participatory performance, D.2.3.*

[3] If nothing else is stated, the information in this section is based on the deliverables of WP3: Aarrevaara, T., d'Andrea, L., Dobson, I. R., Pietilä, M., Rask, M. and Wikström, J. (2016). *Guidelines for future context tailoring workshops, D.3.1.*; Aarrevaara, T., d'Andrea, L., Caiati, G., Dikčius, V., Kaarakainen, M., Koivusilta, M., Mačiukaitė-Žvinienė, S., Matschoss, K., Pieper, R., Pietilä, M., Pulkkinen, K., Rask, M., Tauginienė, L. and Wikström, J. (2016). *Report of the PE pilot cases on Societal Challenges, D.3.2.*; and the draft of D.3.3.

Work package 3 includes the following deliverables:

D.3.1 Guideline for context tailoring workshops

D.3.2 Report of the PE pilot cases on Societal Challenges

D.3.3 Summary report WP3

The first deliverable was finalised when the interim report was written, but the following two had not yet been completed. In March, two of the pilot cases to be included in the report of D.3.2 had not been finalised. The deadline was postponed, since the number of pilots carried out went from the initially planned two, to seven pilot cases. It was a deliberate decision, in order to make the reporting of the pilots more feasible and useful to the project. The scientific officer of the project also advised this. The *Report of the PE pilot cases on Societal Challenges* was delivered in September 2016, containing reports of all seven pilot cases.

D.3.3 is currently in a draft stage. Deadline was set to April 2016 according to the interim report. The draft *Activities carried out by the WP3* states however that the deliverable would be published by the end of November 2016, for the reason that more pilots were carried out than was originally the plan (instead of two it became seven). D.3.3 was submitted in December 2016.

2.4 Work Package 4: Development of the PE design toolkit[4]

The aim of WP4 is

> *to capitalize the knowledge generated through the activities carried out in the previous WP's through the development of a highly usable Toolkit that policy actors can use in the identification and transfer of **PE** practices; and*
>
> *to make it available on the web so as to make it easily accessible. The toolkit will adopt a problem-solving approach, allowing users (e.g. science policy makers, other societal stakeholders) to develop comprehensive strategies for selecting, activating and enhancing **PE** processes.*
>
> Source: PE2020.eu/Activities

Work package 4 includes the following deliverables:

D.4.1 Toolkit design document

D.4.2 Toolkit website

D.4.3 Summary report of the activities and deliverables in WP4

D.4.1 was delivered and uploaded to the EU participant portal in February 2016; thus it had been completed by the time of the interim report.

The toolkit website is one of the main outputs expected from the PE2020 project, why is seems suitable to put particular emphasis on this deliverable. D.4.2 is under development, and a beta version has been made available to the evaluators. *Toolkit website* is the title of the deliverable in the work plan, but in the draft, the title has been changed to *Toolkit on public engagement with science*. At the consortium meeting in Brussels it was revealed that it had been agreed with the project officer to postpone the deadline of the toolkit website until the end of January 2017. External reviewers have been looking at the toolkit, which is now uploaded to pe2020.teknoprojekt.dk.

[4] If nothing else is stated, the information in this section is based on the published deliverables of WP4: d'Andrea, L. (2016). *Toolkit design document, D.4.1*; d'Andrea, L. and Caiati, G. (2016). *Toolkit on Public Engagement with science, D.4.2;* as well as the work plan.

One of the main objectives of the toolkit is to provide a manageable source for accessing the last two decades' findings on public engagement in science, specifically regarding developed resources and practical as well as theoretical knowledge. Another central objective of the toolkit is to constitute a platform for questions and issues related to public engagement, which previously have not been dealt with in an integrated manner. In accordance with this second primary objective, the toolkit contains four sections:

Section A: Strategic framework

Section B: PE methods and tools

Section C: Institutional anchorage

Section D: Societal anchorage

With this general yet specific platform of information, the toolkit is set out to reach "all those interested in promoting PE policies, measures and initiatives". However, there is an explicit aim to increase the involvement of European universities and research institutions, since analyses have detected their general limited contribution to be one of the main factors restricting of public engagement.

According to the work plan, the deadline for D.4.3 is set to January 2017.

2.5 Work Package 5: Dissemination and communication[5]

*The objective of WP5 is to communicate the results and insights from the PE2020 project to academic and broader communities, and to interact with science policy actors and societal stakeholders involved with research and innovation processes. The project aims to contribute to an increased awareness of best **PE** practices and to the implementation of better societal engagement in Horizon 2020.*

Source: PE2020.eu/Activities

Work package 5 includes the following deliverables:

D.5.1 The project web-pages

D.5.2 The publications

D.5.3 Final workshop and summary report (with special focus on practical relevance)

D.5.1 was set in motion by the creation of the project website in February 2014. The website contains information on objective, work packages, results, partners, etc. There is also a news feed column with regular updates on the progress of the project. Naturally, the managing of the project web-pages is an ongoing task throughout the project.

D.5.2 is an overall deliverable concerning publications from all WPs. This includes multiple seminar/conference presentations, newspaper articles, four peer reviewed articles and three policy briefs. The first policy brief has been published, in English and in Italian. A second policy brief was published in November 2016, concerning how to boost public and societal engagement. At least five journal articles are to be produced. One is completed; two are under review and two are to be submitted in December 2016 and January 2017. In addition to these articles, a book on Routledge will be published. This is altogether more than anticipated and required, as goes for scientific publications.

The final summary report is currently in a draft stage. The report is a summary of the entire PE2020 project, listing the aim and tasks of each work package as well as main findings.

[5] If nothing else is stated, the information in this section is based on the PE2020 website, the Consortium meeting in Brussels in November 2016 and the draft of D.5.3.

2.6 Work Package 6: Management[6]

The aim for WP6 is to provide the necessary management services to the project and by so doing provide the best possible conditions for the research activities in PE2020.

Source: PE2020.eu/Activities

Work package 6 includes the following deliverables:

D.6.1 Progress reports to the EU Commission
D.6.2 Consortium, Steering Committee, and Advisory panel meetings minutes
D.6.3 Final plan for using the knowledge

The work in WP6 is ongoing throughout the project. The work plan states that two progress reports is to be delivered to the European Commission, in month 18 and month 36 of the project. Thus, the first report has been delivered and the second one is due in January 2017.

The final plan for using the knowledge is also due January 2017. This deliverable will be further discussed, alongside D.6.2, in the following chapters.

[6] If nothing else is stated, the information in this section is based on the work plan of the PE2020 project.

3 Dissemination, communication and management

The following chapter will elaborate on the activities of WP5 and WP6, more specifically dissemination, communication and management. The chapter is divided into two sections, on the one hand the management and communication within the PE2020 project and on the other hand the dissemination and communication with external stakeholders.

3.1 Management and internal communication

The SAB members we have interviewed for this evaluation report are of the understanding that the project has been well managed and that the internal communication generally has been working well. However, the conflict with the Danish partner at Aarhus University related to authorship rights has been mentioned repeatedly as a signal that the internal communication could have worked better. The general conception amongst the SAB seems to be that the internal communication has worked very well since. The project management states that there should have been a written agreement on authorship policy, as suggested by the SAB before the interim report. This issue has been a source of difficulties, not only with reference to Aarhus, but also with reference to some general tension within the consortium.

It is always a challenge to coordinate different aspects of a project, but in the perspective of the SAB, the management of PE2020 have met the requirements. Judging by the collaboration between the WPs and the continuous progress of the project, one interviewee draws the conclusion that the communication within the consortium has probably worked very well, although a general notion is that a number of activities were too independent and liable only at the beginning of the project. One lesson the project management draws is that no part should have tasks only in the beginning of the project, like the Danish partner, who upon completion of their tasks had little incentive to stay in the consortium.

The communication between the consortium and the SAB is regarded as well functioning from the point-of-view of the latter. Material for the consortium meetings have been sent to the SAB in good time, about one to two weeks ahead, which is better than most EU-projects, they say. The invitation to the consortium meetings got out a bit late though, causing at least one of the SAB members to miss a few meetings. However, after the meetings the management have provided summaries of project output, which have been useful in order to follow the progress of the project.

Recurrent in the interviews with the SAB is a perception of previous worry of delays in deliverables. Particularly, this worry was directed towards the delay of reporting results from the case studies in WP2, which was probably caused by a bit of lack of communication and cooperation. However, as the project has progressed, the effectiveness of the project management has improved and most deliverables are now published or timewise under control. Another issue of worry has been the change of project officer at the European Commission. It is of course always frustrating to any project with such changes, but when they happen, it is of key importance that the new person puts efforts into understanding the project and acts in a supportive manner.

3.2 Dissemination and communication with relevant stakeholders[7]

In the interviews carried out during the evaluation, two specific activities came up concerning the dissemination and communication with relevant stakeholders: the *Policy Conference* in Brussels in November 2016 and the *Toolkit on Public Engagement with Science*. These activities will therefore be the focus of discussion in this section. They will also function as framework for discussing what has worked well and what could have worked better regarding the dissemination of results from the PE2020 project.

[7] The information in this section is based on Dissemination plan 2014, Dissemination plan 2015, Dissemination plan 2016 and interviews with members of the Scientific Advisory Board.

3.2.1 The policy conference

From the first year of the PE2020 project, dissemination have been structured in specific dissemination plans within the framework of WP5. The plans have been updated once a year, following internal evaluations, with the latest update in 2016. The dissemination plans have identified relevant stakeholders and different channels for communicating the results of the project. The 2016 dissemination strategy states a "lively and well-functioning communication and cooperation with related EU-projects such as the sister-project Engage2020 as well as CASI".[8] The stated well-functioning cooperation with CASI[9] is concretised by the joint policy conference in Brussels 16-17 November 2016, which members of the SAB have described as successful and useful in terms of dissemination. It is with some regret that we note that the costs for the evaluator to participate at the policy conference was not covered by PE2020. It would have been most useful for the evaluation if our participation had been covered.

The collaborated effort between PE2020 and CASI in setting up the policy conference meant an avoidance of unnecessary competition between the two projects. However, one interviewee states that the timing of the conference could have been better, since it was held at the same time as the project Knowledge4Innovation (K4I) held a policy dialogue at the European Parliament. This became a bit of a challenge, since many relevant potential participants of the policy conference, mainly parliamentarians from the EU, were attending the event by K4Iinstead. Nonetheless, the policy conference had 208 registered participants, which was well over the expected amount.

Members of the SAB that participated in the policy conference state that there was an underrepresentation of some important stakeholders. Specifically the business sector was identified as underrepresented, as well as NGOs, and people from the natural sciences and innovation areas. It was suggested that the underrepresentation might have been depending on miscommunication. The mentioned parties might be interested in the methods presented at the policy conference, but they do not necessarily use the term "public engagement".

According to one of the interviewees, PE2020 was more successful than CASI in communication during the policy conference. Instead of simply summarising the project and its findings, the PE2020 project was able to open up for discussion on general issues, thus providing more useful information to the external stakeholders participating in the conference. This statement is in accordance with the general perception observed in the interviews, that the communication and interaction with external participants of the project overall has been working very well and that the dissemination has reached relevant stakeholders.

3.2.2 The toolkit on public engagement with science

The toolkit website is still under review and will be added to the PE2020 website as a subpage by the end of the project. There is however some details to be discussed about the format and design of the toolkit; according to one interviewee, it could have been more innovative.

During the consortium meeting in November 2016 the project leaders discussed how the toolkit could be advertised and who the possible users were. It was concluded that it would not be enough to simply mail the list of stakeholders identified in the dissemination plan. The decision was that more thinking was needed on how to disseminate the toolkit in a way so that it will be of sustainable use. The sustainability of the toolkit, as well as the website, is one of the major challenges for the final phase of the project according to one interviewee.

[8] Dissemination plan 2016

[9] Full title: Public Participation in Developing a Common Framework for Assessment and Management of Sustainable Innovation

3.2.3 Beyond PE2020

Considering the size of the project and the way it was structured, the observation we have from the interviews is that the involved stakeholders have been sufficient and relevant, and that the dissemination overall has been appropriate given what the project wanted to achieve.

The parts of the dissemination and external communication identified as troublesome are mainly referred to as general and common problems within EU-projects. Throughout EU-projects, there is a lack of partners and stakeholders from southern Europe and eastern Europe, and one interviewee states that it would have been desirable to involve partners that gave the project more geographical spread. It is also suggested to include NGOs in future collaborations concerning public engagement. NGOs could contribute with intermediation towards a more unusual public to the academic world. It is a major issue to reach a less educated public, which the NGOs could help with.

The advantages of having a specified dissemination budget has been shown, not only by the policy conference and the toolkit on public engagement with science, but also by the fact that the dissemination of the PE2020 project has resulted in collaborations that will go beyond the project's ending. One interviewee mentions the example that the pilots have led to several projects being started, especially in Finland and Italy.

4 Concluding remarks and recommendations

In this final phase of the PE2020 project, it is naturally essential to pay particular attention to finalising all the remaining deliverables. The picture being painted at the consortium meeting in November 2016 was that the remaining deliverables are all under control to be done by the end of the project the last of January 2017.

It must be concluded already now that the PE2020 project has been successful. The goals have been reached, and in some cases, they have been reached with a good margin, like the example of number of scientific publications. Our impression is that the project and its management has been sufficiently flexible along the way, and has adapted and rearranged whenever there has been a need to deviate from the original plans. This is important in all research projects; the research activity always contains an element of unpredictability, which needs to be handled. The conflict with the partner at Aarhus University was unfortunate, but without active 'healing management' directed towards the remaining partners, the outcome could have been even worse. Now the negative impact was after all limited.

Dissemination and sustainability of the project outcomes are the only concerns. We think that the dissemination could have been more active from the beginning, and aimed at involving and informing more stakeholders than has been the case. Not least could more NGOs and also academic organisations have been involved. The very research topic as such calls for particular attention and efforts in this respect. To put substantial effort into dissemination and outreach during the project's final phase seems to be of key important in order to meet expectations from the EC and the public.

Moreover, there should be plans for how to utilise the project's outcomes after the project has ended. The toolkit is the key outcome and disseminating it seems highly important. It is however not only PE2020's responsibility to do this, but it is also the European Commission's responsibility. We feel concern regarding this, and suspect that with limited spread of information about the toolkit's existence, and with little or no maintenance of it some time after the end of PE2020, it risks becoming irrelevant and more or less forgotten. If this would happen, it would in fact mean that PE2020 was after all partly a failure. Any measure that can be taken, by PE2020 itself or by the funder, in order to secure sustained relevance of the toolkit, will be of critical importance and should be given high priority. Hopefully, the positive decision of the European Commission to fund the FIT4RRI project, which builds partly on the PE2020 project and aims to apply the toolkit in collaboration with several research performing and funding agencies in the EU, will prove to secure sustained life of the PE2020 toolkit.