Citizen Science Cluster Workshop
12th of December 2019
REPORT

Introduction

The Citizen Science cluster event gathered all Horizon 2020 (H2020) Science with and for Society (SwafS) projects that conduct or do citizen science as well as those that carry-out research on citizen science.

This took place in Brussels on the 12th of December 2019 and aimed to:
- Encourage networking between citizen science projects;
- Give space to take stock of results and exchange best practices;
- Facilitate closer co-operation, including the roles that can be played by strategically placed projects within the portfolio (e.g. EU.Citizen-Science, CS-Track, NewHoRRIzon);
- Co-create recommendations for integrating citizen science activities in portfolios of projects in Horizon Europe thematic areas and for promoting citizen science in R&I policy making.

This report describes each of the workshop sessions and their output and concludes with recommendations for future policy and programme initiatives.

Structure

17 SwafS projects attended the event (see Annex 1). The nature of these projects include those 'doing' hands-on citizen science activities, supporting citizen science activities, researching citizen science activities, supporting the development of aspects relating to citizen science (e.g. infrastructures, ethics, open science, science communication), developing territorial activities around citizen science, and engaging the public in science.

Agenda[1]:

1. Policy perspective on citizen science
2. The promise of a 'NewHoRRIzon' in citizen science
3. Challenges on how to enable citizen science to play a fuller role in research and innovation
4. Good practices in co-creation and co-design
5. Drawing up recommendations

Presentations and workshop sessions

1. Policy perspective on citizen science

Michael Arentoft, DG R&I-G4, presented the policy background on citizen science.

Citizen science is part of the European Commission's open science policy. Open science is more than open access to scientific publications and research data; it also includes opening up the R&I system to

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[1] See Annex 1 for the full agenda

society, creating co-ownership of R&I with citizens, and making R&I more relevant and responsive to the needs, expectations and values of society. Open science means sharing knowledge, data and tools as early as possible, not only between researchers and between disciplines, but also with society at large. Open Science has the potential to increase the quality and efficiency of R&I, enhance creativity and augment transparency of, and trust in, the science system by engaging all relevant stakeholders including citizens and civil society.

Science with and for Society's (SwafS) overall objectives are to build effective *cooperation* between science and society, to recruit new talent for science and to *pair* scientific excellence with social awareness and responsibility so as to ensure a more *responsible* science and to enable the development of policies more *relevant* to citizens. More specifically, SwafS aims to integrate society in science and innovation issues, policies and activities in order to *integrate* citizens' interests and values and to increase the *quality, relevance, social acceptability and sustainability* of research and innovation outcomes in various fields of activity from social innovation to areas such as biotechnology and nanotechnology.

The SwafS Work Programme 2018-2020 focuses on the meanings, mechanisms and challenges facing citizen science from local to European and global levels, learning from on-going experiences and innovative grassroots initiatives. In addition, the aim is to explore how citizen science can act as a catalyst to develop scientific skills and competences, act as a tool for informal and formal science education of young people and adults, counteract perceived anti-intellectual attitudes in society, raise the scientific literacy of European citizens, as well as promote social inclusion and employability.

The SwafS citizen science project portfolio includes 16 projects focused on 'doing citizen science'. Furthermore, there are an additional six projects focused on deepening the evidence base as well as practice and training on co-design and co-creation; some of these projects have now ended.

Expected impacts in terms of doing citizen science include: producing new knowledge; generating evidence on the socio-economic costs and benefits of citizen science; increasing public awareness of science and RRI; boosting capacity of local science actors and public authorities to engage with citizens; and enhancing the R&I community's ability to set scientific agendas in line with societal needs and aspirations.

Across the Horizon 2020 programme, a total of 338 projects encompass some degree of citizen science activities, of which 52 are from SwafS. A wide range of fields are covered, e.g. environmental observation, biodiversity, food systems, circular systems, sustainable cities, and nanotechnologies. In view of this blooming of citizen science activities, an important question to be answered is the type of implementation modalities needed to support such activities.

In Horizon Europe, the following legal provisions offer hooks for opening up the R&I system to citizens:
- Art 2.4(a): 'Open science' means an approach to the scientific process based on *open cooperative work*, tools and diffusing knowledge, including the elements of article 10;
- Art. 6a: The programme shall promote co-creation and co-design through engagement of citizens and civil society;
- Art 10.3: *Other open science practices* shall be promoted and encouraged, including for the benefit of SMEs;
- Art. 35: The work programme may provide for additional incentives or obligations to adhere to open science practices.

- Key impact pathway indicators:

Towards societal impact	Short-term	Medium-term	Longer-term
Strengthening the uptake of research and innovation in society	Co-creation - Number and share of FP projects where EU citizens and end-users contribute to the co-creation of R&I content	Engagement - Number and share of FP beneficiary entities with citizen and end-users engagement mechanisms after FP project	Societal R&I uptake - Uptake and outreach of FP co-created scientific results and innovative solutions

The Horizon Europe specific programme also refers to opening up the R&I system to citizens in a number of articles:
- Art. 2(c) promoting responsible research and innovation, including the precautionary principle;
- Art. 2(h) fostering open science and ensuring visibility to the public and open access to scientific publications and research data, including appropriate exceptions;
- Art. 2(n) improving the relationship and interaction between science and society, including the visibility of science in society and science communication, and promoting the involvement of citizens and end-users in co-design and co-creation processes;
- Pillar IV, Strengthening the ERA, Reforming and Enhancing the European R&I system: … open science … citizen science … incentives promoting responsible R&I, citizen engagement.

Horizon Europe foresees engaging and involving citizen and civil society across the programme, notably in the clusters, missions and partnerships.

2. The promise of a New HoRRIzon in citizen science

Erich Griesseler, Institute for Advanced Studies, Austria (NewHoRRIzon project coordinator) geared his presentation towards looking at how NewHoRRIzon's experiences can contribute to the development of citizen science.

NewHoRRIzon's objectives are to:
1. Promote the acceptance of Responsible Research and Innovation (RRI) in H2020 and beyond;
2. Co-create tailor-made actions and activities in each section of H2020 with stakeholders;
3. Stimulate learning across sectors about how to promote acceptance of RRI in H2020;
4. Provide a global perspective of RRI and disseminate information beyond the EU;
5. Develop and co-create a Societal Readiness Thinking Tool;
6. Reflect, learn and evaluate;
7. Promote integration of RRI in national R&I funding programmes;
8. Disseminate best practices to promote acceptance of RRI across H2020 and generate long term effects.

NewHoRRIzon's approach is based on Social Labs, bringing together people with common interests in solving together complex problems, building on a tradition of participatory and community-based action and research. NewHoRRIzon has established 19 Social Labs, representing all parts of Horizon 2020.

Each Social Lab is composed of 14 to 20 participants. The criteria for each Social Lab includes a wide range of disciplines and research fields; a mix of practitioners, policy/governance representatives,

academic researchers and industry; those in positions to advance change; a mix of those who are and who are not familiar with RRI as well as an overall gender and geographical balance.

NewHoRRIzon seeks to co-create and implement RRI-inspired activities in existing working environments by looking at the status of RRI in participants' organisations and asking participants what kinds of tools would help them realise citizen science activities.

Recommendations emerging from the work to date include: the necessity to convey the long-term commitment of the European Commission to citizen science; investment in training including for NCPs and funding organisations on RRI approaches and concepts; and that evaluation criteria should encompass an assessment of citizen science activities.

The following NewHoRRIzon lessons were presented as transferable to citizen science:
- Contextualise citizen science and connect to practitioners' understandings;
- Demonstrate and communicate the benefits of citizen science;
- Communicate constantly about citizen science;
- Identify change agents; network and anchor citizen science in institutions and practices;
- Social Labs need diversity, commitment, shared responsibility, active participation, concreteness and flexibility;
- Pilots may start small and should be well aligned to everyday work;
- Social labs involve group dynamics that need to be acknowledged and managed; integration, communication and exchange are vital.

3. **Workshop session 1: Challenges on how to enable citizen science to play a fuller role in research and innovation**

This workshop session, led by Rosa Arias (D-NOSES & NEWSERA), assessed the challenges of involving citizens and/or civil society organisations in research and innovation projects and agenda setting, both in the Framework Programme and in other contexts including looking at institutional barriers (e.g. do research organisations help or hinder this form of activity), trust issues such as research integrity and ethics, capacity issues within Civil Society Organisations or citizen science organisations, funding issues, networking issues, evidence base issues, etc.

The session was organised through a co-creation approach where all participants shared in advance what they consider to be the main institutional and practical challenges that need to be overcome and the actions different actors and stakeholders can undertake to respond to these challenges.

Introductory remarks:
Citizen engagement in research and innovation means involvement of citizens at all levels of science policy, agenda setting and R&I itself. Citizens can be involved in creating guidelines for the evaluation and review process (i.e. in the design of R&I policy instruments). Participatory budgeting and participatory technology assessment are examples of how to involve citizens in science policy. Citizens can also be involved in citizen science projects in the definition of research problems and questions. Citizens can collect and analyse data collection as well as be involved in the dissemination of project results via publications, conferences, science literacy and science education activities. Finally, citizens can be involved in the exploitation of research results. Science shops, ideas labs, makers' labs and participatory research are examples of good practices in this respect.

In the European Union, several Member States struggle to see how to implement citizen science. Bringing together countries, through EU-funded citizen science projects, where such networks are already strongly developed and supported by governments, along with countries where this is still under-developed, provides an immense added value in terms of support, mutual learning, role modelling and overall sharing of best practices.

The main issues reported relate to:

- ✓ Scientific disciplines being skewed to the natural and environmental sciences (e.g. Social Sciences and Humanities and public policy research are under-represented or at a different level of development);
- ✓ Full potential of citizen science still to be demonstrated;
- ✓ Lack of scientific papers published in high impact journals, and lower scientific impact than traditional science due to the limited scope of citizen science projects (mainly health and environment).

Other important aspects include:

- ✓ Citizens' role in data gathering;
- ✓ Engagement of citizens at risk of social exclusion – important to engage all levels of society;
- ✓ Barriers for engagement can include poverty, lack of social mobility, gender issues (women are underrepresented) and need to be factored into project approaches;
- ✓ Close cooperation with CSOs (knowledge coalition) is essential to promote social change and act as an interlocutor between science and society;
- ✓ Interaction between science-driven and citizen-driven approaches;
- ✓ Motivation mechanisms are key to successful engagement: access to information, games, entertainment, solving a direct problem citizens have, creating or accessing a community;
- ✓ Reward mechanisms;
- ✓ Internal biases of citizens participating in citizen science projects.

Building on this introduction, each participant identified what they perceived as the most significant challenge for citizen science, and then found a partner with whom to share it with. After presenting their respective challenges, partners agreed on how to distribute 5 points between their two challenges according to the relevance of each and then they exchanged their cards and found another partner; this was repeated several times. At the end of the exercise, the challenges with most points were identified and organised by theme as summarised below:

Challenge 1: IMPACT
- How to measure citizen science impact and how to ensure consistency
- Ensure measurement is meaningful for all stakeholders
- Find relevant indicators and methodologies that can be used to identify and monitor the impact of citizen science on society, economy, policy and science

Challenge 2: SOCIAL INCLUSION
- Be inclusive in terms of "democratising" science
- Involve all citizens including vulnerable communities
- Create effective links between practicing scientists and society, and balance inclusion and efficiency in the design of citizen science projects

Challenge 3: SUSTAINABILTY
- Find resources beyond public grant funding
- Consider how to ensure the legacy of citizen science projects
- Consider how to scale up the activity

Challenge 4: COMPLEXITY
- How to manage complexity
- How to better integrate knowledge of the community and universities
- Manage co-creation

Challenge 5: RECOGNITION
- Citizen science should be recognised as a research method in itself and not only as outreach to engage citizens
- Convince scientists to integrate citizens in their projects, tackle the lack of interest of many scientists towards citizen science
- How to implement citizen science engagement in an academic institutional setting

Challenge 6: COMMON VISION
- Get a complete and informative vision of what citizen science is
- Create a common vision for citizen science that includes all the different perspectives

In many citizen science projects, mobile apps or web platforms are developed during pilots and demonstrations, which are funded within the context of the project, occasionally these are developed further in follow-on projects for which funding has been secured. In the majority of cases, these apps and platforms sit on a shelf and are no longer developed once the project ends. The EU-Citizen.Science Platform is building a repository of citizen science resources, which will include lists of hardware and software tools. This is a step to try to face two of the above challenges: sustainability and common vision.

4. **Workshop session 2: GOOD PRACTICES IN CO-CREATION AND CO-DESIGN**

This workshop session, moderated by Maria Zolotonosa (SPARKS), focused on good practices and toolkits on citizen science for practitioners and policy makers, following the same co-creation principle involving all participants in the process. The aim of this session was to exchange ideas between participants on what are best practices when it comes to the challenges identified in the previous session.

Participants were encouraged to contribute to five questions which were identified by the moderator based on input received in advance of the session and to discuss the opportunities within each challenge and the way forward. The results of the discussions are summarised below.

1. **What are the best tools/methodologies that projects have used to engage citizens in co-creation/co-design processes?**

    - Use of different tools depending on the different phases of the projects;
    - Ensure a co-design process from the beginning;
    - Use local knowledge in data analysis;

- Identify stakeholders from the beginning of the project and work with end users;
- Offer incentives, such as prizes, recognition, etc.;
- Look for continuous engagement – piggyback on other events in a systematic way (liaise with ongoing projects at local or national level and get involved in their event planning).

2. **What are the good practices in citizen science projects when it comes to social inclusion?**

- Use intermediaries/local champions that will be trusted and better connected with less represented groups;
- Go out in the field and communicate with the socially excluded by: using language that demystifies science; avoid jargon; be creative in your communication, i.e. use various means like art or design to express scientific knowledge;
- Motivate and retain the socially excluded group by a rewards system, sponsorship, crowdfunding, offering roles to participants (like ambassadors) to give them ownership of the activities in which you involve them;
- Not all projects need social inclusion but it should be an important element to consider.

3. **What are the good practices in citizen science projects when it comes to sustainability of the activities and ensuring impact?**

- Differentiate between project activities and initiatives. Initiatives have the potential to be longer term;
- Try to use project pilots as proof of concept;
- Needs: brokerage of skills between different fields/brokerage of other funding mechanisms after the end of project;
- Design the project to allow for sustainability right from the beginning. Train partners to think about sustainability: ensure decisions are made on what is worth sustaining in the future; identify obstacles to sustainability and allocate appropriate resources; ensure that you have team members with practical experience in sustainability (technology transfer, SMEs, start-up, etc.);
- Discuss in advance the legacy your project leaves behind including websites, links to communities, etc.;
- Ensure that deliverables are saved in repositories;
- Example projects: ACTION (cascading funds, grassroots movements); MORRI, DITOS (picked up by other projects), etc.

4. **What are the good practices in citizen science projects when it comes to evaluating impact?**

- Co-create with partners and share expectations about impact and goals from the beginning of the project;
- Have an agreed methodology for collecting data to demonstrate impact;
- Involve all partners in the impact evaluation (avoid having a single partner responsible for assessing impact);
- Evaluate impact throughout the project, not only at the end;
- Ensure you know who the audience is for communicating impact.

5. **What enables trust and recognition of the value of citizen science and its outcomes in policy and research performing organisations (RPOs) and research funding organisations (RFOs)?**

- Policy makers and RFOs: offer sound scientific models; be aware that the legitimacy of citizen science methodology relies on adherence to standards (e.g. ethics and replicability of results); make sure data protection is ensured;
- RPOs: understand what concerns they have in relation to citizen science;
- Policy makers, RFOs and RPOs: need to train on the value of citizen science; show the cost of not involving citizens; cost of not doing agenda-setting in a co-creation way.

5. **Workshop session 3 : RECOMMENDATIONS**

The final workshop session, chaired and animated by Marzia Mazzonetto (EU.Citizen.Science.eu), centred on recommendations for the future. It assessed what is needed to overcome the challenges and mainstream good practices in the Framework Programme and in the European Research Area. How can citizen science help bridge the science-society divide and address issues of trust? How can citizen science support Horizon Europe to meet specific challenges in food, health, transport, energy, security, digital and industry, etc.? How to involve citizens and CSOs in the strategic planning for Horizon Europe, including in the development of missions? How should citizen science be integrated within a portfolio of actions (dedicated calls, dedicated actions, integrated actions within larger projects, etc.)?

Representatives from all participating projects sent in advance their thoughts on how to strengthen citizen science in the future. Ideas for recommendations covered many aspects of citizen science, including participatory practices, science shops, ensuring impact, sustainability, training, capacity building as well as the presence of citizen science in Horizon Europe.

Three areas of common interest were identified:
- Sustainability;
- Reliability of citizen science data;
- Rewards for citizen scientists

The recommendations were deliberately presented as provocative and arguably one-sided statements on discussion cards so as to trigger discussion, as follows:

1.	**Citizen's role in citizen science / co-creation projects should always be more than just data collection**. Future EU funding should make it mandatory to involve citizens in full co-creation processes, involving them in the research design, analysis and leading to concrete impact
2.	**National and regional citizen science networks are the best ambassadors for the future of citizen science in Europe**, as they support mainstreaming of citizen science initiatives and promote knowledge transfer. An advisory mechanism to the EC from national and regional citizen science networks should be implemented and institutionalised
3.	**Future funding should continue supporting large-scale initiatives**, such as the EU-Citizen-Science platform, as citizen science / co-creation projects need easy access to best practices, mentorship, training materials, etc.
4.	**In Horizon Europe, citizen science must be well defined** and such a definition must be incorporated in all future calls
5.	**Citizen science / co-creation proposals should always be requested to present a sustainability plan**
6.	**Mission boards should support the creation of "citizens' panels" in all Member States** that act as ambassadors for the testing of co-creation processes
7.	**Only citizen science / co-creation projects that clearly address shared social concerns** (at local or global levels) **should be supported in future funding calls**
8.	Citizen science requires "science" to change. **In Horizon Europe, acknowledgment of citizen science as a research method should specifically be mentioned in calls**.
9.	**Citizens' engagement should not happen in all types of research activities, it is not needed in fundamental research** (improvised card by moderator)

Table 1: Discussion cards on recommendations (random order)

Similar to the previous session, participants were split into five groups in order to focus the debate on the proposed recommendations. The discussion cards were distributed amongst participants. The group positioned their cards in relation to the extent to which they "agree" or "disagree". In the end, each group had a series of recommendations ranked in order (from "totally agree" to "totally disagree").

As expected, there were distinct opinions among the groups. While most groups agreed that "*in Horizon Europe, Citizen Science must be well defined*" (card n°4) and that citizens' engagement is in fact needed in fundamental science (card n°9), there was divergence of opinion on the mission boards support of the creation of citizen panels in all Member States (card n°6), and on whether citizens' role should always be more than just data collection (card n°1) *(i.e. two groups had "totally agree" and two other groups had "totally disagree").*

The last step was the conception of a call for proposals. The same five groups worked in teams to define the "best call" for citizen science. The topics considered included climate, food, health, transport, energy, security, digital industry and space. Each group explained the funding (dedicated or part of a larger programme), the scope and expected impact. Finally, all participants were invited to vote for their preferred call.

The call on education, receiving most votes, was conceived as a pan-European citizen science capacity building scheme, aiming to develop a roadmap for institutional changes, notably on tertiary and advanced levels (ISCED level 6-8) of education as well as providing opportunities for fieldwork apprenticeships in existing citizen science projects. Its expected impacts would include acceptance and awareness of citizen science research methods as well as improvement of general scientific approaches.

Next steps and conclusions

Linden Farrer (DG R&I G4) closed the meeting from the policy perspective, focusing on important opportunities for the portfolio of projects as a whole. He highlighted the importance of the projects working together. Indeed, this is written into the grant agreement for all SwafS-15, SwafS-17 and SwafS-19 projects from the SwafS Work Programme 2018-2020 ("Additional dissemination obligations"). The idea is to create a reciprocal and open science ecosystem of learning, good practice, data and evidence. Three projects, in particular, are at the centre of this system – Super_MoRRI which is developing a monitoring system for Responsible Research and Innovation, EU-Citizen.Science which is developing a central platform for citizen science in the EU, and CS-Track which is the only project tasked specifically with 'doing research on citizen science' and has a unique opportunity to benefit from the evaluation evidence being produced by all the other projects 'doing citizen science'.

In moving towards Horizon Europe, a challenge is to bring the expertise from SwafS' citizen science projects to the thematic clusters, missions and partnerships. SwafS represents a big investment by the EU in citizen science and collaborative approaches to R&I, and this investment is not only intended to create novel and excellent R&I outcomes in itself, but to diffuse new modes of collaboration across all areas of research and innovation.

An important milestone will be reached with the forthcoming Eurobarometer on "Public knowledge and perceptions of science, research and innovation", with results expected by the autumn of 2020. This is part of a long series of Eurobarometer surveys on science and society, with some questions complementing several decades of time-series. This exercise will focus in particular on co-design of R&I policy and co-creation and public engagement in R&I including citizen science. The survey should provide important pointers for policy stakeholders in all Member States and at the European level.

A second milestone later on 2020 is a conference that will take place in Berlin on 14-15 October entitled "A citizen science decade (2020-2030) in support of the Sustainable Development Goals", which will contribute to charting a pathway for citizen science to play a full role in helping achieve the Sustainable Development Goals.

The meeting was highly successful and appreciated by all participants. The active contribution by all those present coupled with the excellently organised, energetic and enthusiastic moderating from the project members themselves ensured that the full potential of such an event was maximised. It provided a valuable opportunity for all citizen science related projects funded under the SwafS

programme to come together and exchange their experiences, not only on best practises but also on difficulties and barriers to engaging with citizens. In addition, it allowed them the possibility to reflect upon and discuss recommendations for the future which will be considered by EU policy makers.

In particular, the role of EU.Citizen.Science to "coordinate" and map all citizen science activities could be fostered in the future, thus ensuring a good overview and a central knowledge hub. The project is working on an attempt to provide a common definition of citizen science and the different levels of engagement it entails, building on the very successful DITOs project:
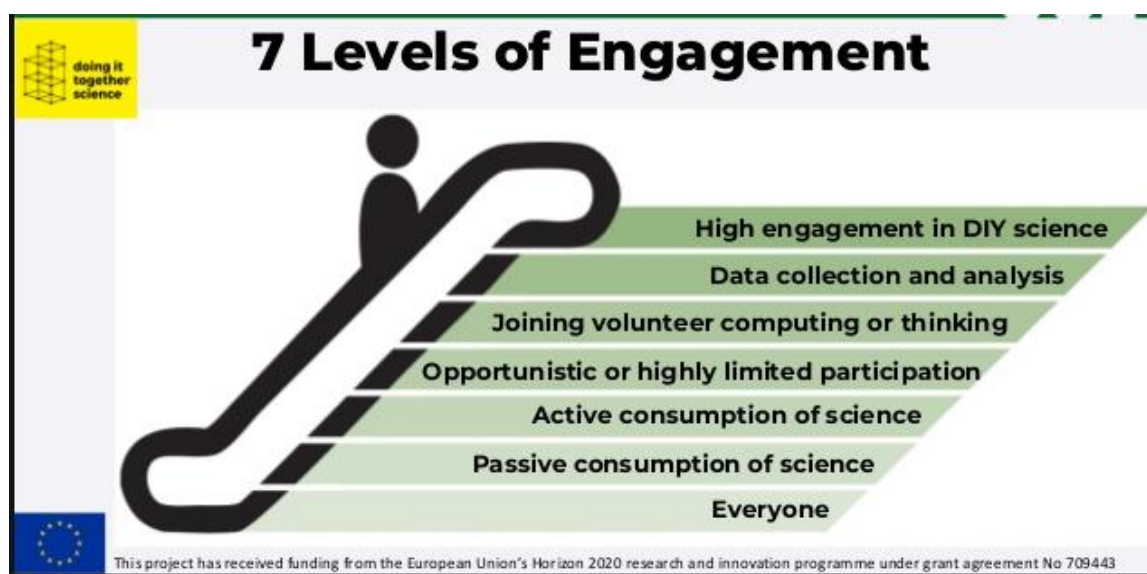
Another important objective of this event is to ensure that the links made between the projects will continue and that the projects themselves will be pro-active in constructing a community among themselves to build upon and support each other in maximising the impact of their projects. To this end, Cordis links are provided for all of the projects present in Annex 2.

ANNEX 1 - AGENDA

HORIZON 2020 CITIZEN SCIENCE CLUSTER MEETING
12 December 2019
9h00-16h30

Covent Garden – Auditorium 25/SDR1
Place Rogier 16, 1210 Brussels, Belgium

08h30	*Registration*
09h00-09h15	**Welcome & setting the scene** Ales FIALA, Science with and for Society (Research Executive Agency - REA B5)
09h15-09h30	**Policy perspective on citizen science** Michael ARENTOFT, Open Science (DG Research & Innovation RTD G4)
09h30-10h00	**The promise of a 'NewHoRRIzon' in citizen science** Erich GRIESSLER, Institute for Advanced Studies, Austria (NewHoRRIzon)
10h00-12h00	**Challenges or how to enable citizen science to play a fuller role in research and innovation** Moderator: Rosa ARIAS, Science for Change (D-NOSES & NEWSERA) Rapporteur: Colombe WARIN (REA B5)
12h00-13h00	*Networking Lunch*
13h00-15h00	**Good practices in co-creation and co-design** Moderator: Maria ZOLOTONOSA, Ecsite (SPARKS) Rapporteur: Raluca IAGHER (REA B5)
15h00-15h15	*Coffee break*
15h15-16h15	**Drawing up recommendations** Moderator: Marzia MAZZONETTO, ECSA (EU.Citizen.Science.eu) Rapporteur: Yiannis VACONDIOS (REA B5)
16h15-16H30	*Conclusion and close of the meeting* Deirdre FURLONG (REA B5) & Linden FARRER (RTD G4)

ANNEX 2 - List of participating projects

Project Acronym	Project description	Link
ACTION	ACTION will transform the way we CS today: from a mostly scientist-led process to a more participatory, inclusive, citizen-led one, which acknowledges the diversity of the CS landscape and of the challenges CS teams have to meet as their project evolves.	https://cordis.europa.eu/project/id/824603
Cities-Health	Scientific evidence about the negative health effects of urban environmental exposures is mounting. Yet key scientific gaps exist. Surveys show that citizens are increasingly concerned about the consequences of these exposures on their own health, and are engaged in data collection and activism efforts around problems such as urban mobility and air and noise pollution. The aim of the Citizen Science Project on Urban Environment and Health (CitieS-Health) is to develop an effective citizen science model at the maximum collaboration level.	https://cordis.europa.eu/project/id/824484
CoAct	CoAct proposes a radically new approach to face four "wicked" social global issues by engaging vulnerable citizens acting as in-the field competent co-researchers. The approach represents a new understanding of the underexplored field of Citizen Social Science and will result in the implementation of new or improved science-related policies.	https://cordis.europa.eu/project/id/873048
CSI-COP	The CSI-COP project will investigate GDPR compliance to better understand how far we are being tracked-by-default as we use the Internet visiting websites and apps on our mobile devices. CSI-COP will engage citizen scientists to address the growing concerns in society around privacy issues, and the methods that attempt to ensure integrity in the collection and use of data.	https://cordis.europa.eu/project/id/873169
CS-TRACK	The aim of our proposed project will seek this increased knowledge by "observing" a large and diverse set of CS activities, gathering data from the web, interviews of involved players, etc., and from a more direct inspection of running activities.	https://cordis.europa.eu/project/id/872522
DITOs	Our project, 'Doing-It-Together Science', DITOs, represents a step change in European public engagement with science and innovation. We propose moving from a model in which scientific research, innovation, and problem-solving is mainly driven by scientific/professional institutions to one based on active public participation and capacity building with various levels and strategies of engagement in the scientific process. At the core of our ethos is a recognition of people's existing expertise and the different ways people want to and do engage in science and technology	https://cordis.europa.eu/project/id/709443

D-NOSES	Odour pollution is the second reason for citizens' complaints after noise, across Europe. Frequent exposure to odour is associated with headache, stress and respiratory problems. Odour nuisance is an indicator of larger environmental issues, such as poor waste management or polluted water. Yet, odour pollution has repeatedly been ignored in environmental regulations leaving citizens defenceless. Due to the lack of regulation, situated technical studies are rarely conducted and data and statistics on odour pollution are scarce or difficult to access. D-NOSES aims to provide a solution to this largely neglected problem by reversing the way in which odour pollution is commonly tackled. Our approach is to empower citizens with RRI, citizen science and co-creation tools to become drivers of change.	https://cordis.europa.eu/project/id/789315
EnviroCitizen	EnviroCitizen proposes that the social capacity potential of citizen science extends to the very roots of what it means to be a citizen of the planet. We want to understand the ways in which citizen science involvement has been and could be in the future used to cultivate environmental citizenship, which encompasses new ways of thinking and acting in all aspects of life to promote environmental sustainability.	https://cordis.europa.eu/project/id/872557
EU-Citizen.Science	The ambition of EU-Citizen.Science is to build, fill, and promote a sustainable platform and mutual learning space providing different tools, best practice examples and relevant scientific outcomes that are collected, curated, and made accessible to different stakeholders, ranging from interested citizens over scientific institutions up to politicians and public media in order to mainstream Citizen Science in Europe.	https://cordis.europa.eu/project/id/824580
GRECO	GRECO proposal faces the specific challenge of putting Open Science into action in a research project concerning Photovoltaic (PV) Energy Research. Photovoltaics is a realistic R&D area in which to set up and operationalize an Open Science demonstrator. By adopting the model of RRI, definitively we will demonstrate how increased endorsement of PV technology will increase utilization and integration of PV technology into the electric energy supply system.	https://cordis.europa.eu/project/id/787289
InSPIRES	InSPIRES brings together practitioners and experts from across and beyond Europe to co-design, jointly pilot, implement and roll out innovative models for Science Shops (SS). The InSPIRES models integrate Responsible Research and Innovation, Open Science and Impact Evaluation as part of their DNA in order to open the research process up in a more strategic way to civil society and other stakeholders.	https://cordis.europa.eu/project/id/741677

MICS	THE MICS project brings together a transdisciplinary team to address a scientific and policy priority area where citizen science has the potential to promote a paradigm shift. Nature-based solutions (NBSs) are actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges and provide human well-being. NBSs have increasingly become policy and planning objectives, but major knowledge gaps in NBSs science have hindered their implementation and acceptance	https://cordis.europa.eu/project/id/824711
NewHoRRIzon	The Project "Excellence in science and innovation for Europe by adopting the concept of Responsible Research and Innovation (NewHoRRIzon)" sets out to promote the acceptance of RRI in Horizon 2020 (H2020) and beyond. It will work out the conceptual and operational basis to fully integrate RRI into European and national research and innovation (R&I) practice and funding.	https://cordis.europa.eu/project/id/741402
REINFORCE	Large Research Infrastructures in the field of frontier Physics have opened new observational windows to the universe and explore the structure of matter in extreme detail. These advancements require high levels of expertise and sophistication. On the other hand, society, lacking this level of expertise, merely observes these developments through outreach activities but does not actively contribute in the development of new scientific knowledge. This fact induces a gap between frontier science and society that can spawn misconceptions about the content, context and mission of public funded frontier science. The REINFORCE project comes to answer to the questions: a) Can citizens contribute in the development of new knowledge in frontier science? b) Can citizens apply this new knowledge to solve societal problems? c) How can we integrate citizen feedback?	https://cordis.europa.eu/project/id/872859
SciShops	Success of science shops is down to finding a topic that is of particular interest to a particular group of people because they need to engage throughout the science shops research process, participate in the brokering and challenge identification and take responsibility for the outcome of the process. SciShops aims at expanding and further building on the capacity of the science shops ecosystem in Europe and beyond. During the SciShops project timeframe, at least ten new university- and non-university-based science shops are being established in Europe by project partners.	https://cordis.europa.eu/project/id/741657

SPARKS	SPARKS is an awareness-raising and engagement project to promote Responsible Research and Innovation (RRI) across 29 European countries (EU members plus Switzerland). It gathers 33 organisations as partners and linked Third Parties. SPARKS will organise an interactive touring exhibition and 232 innovative participatory activities on RRI (science cafés, pop-up Science Shops, incubation activities and scenario workshops) across Europe.	https://cordis.europa.eu/project/id/665825
WeCount	WeCount aims to empower citizens to take a leading role in the production of data, evidence and knowledge around mobility in their own neighborhoods, and at street level. The project will follow participatory citizen science methods to co-create and use innovative low cost, automated, road traffic counting sensors (i.e. Telraam) and multi-stakeholder engagement mechanisms in 5 pilots in Madrid, Ljubljana, Dublin, Cardiff and Leuven.	https://cordis.europa.eu/project/id/872743