INVENTORY of CS STRATEGIES and POLICIES in COST COUNTRIES BACK GROUND INFORMATION -Draft 18/02/2019-

BACK GROUND: Why and What

At European level, <u>the White Paper on Citizens Science</u> by the Socientize project rolled out a strategy for a substantial increase of the use of Citizens Science (CS), and practice in the scientific advance as well as in policy making. However, there are still several open questions to be addressed at both, European and Country level like:

How is the current situation across COST countries? Where do we find Citizens Science practices and strategies, and where are apparently absent, who lead them, and what approaches are proposed to promote CS in society, science and policy?

By mapping CS strategies and policies in various COST countries, we (as a group of interested parties, including the members of working group 3 "Improve society-science-policy interface" of the COST Action 15212 on Citizens Science) would like to improve our knowledge and understanding of i) how the concept and practice of Citizens Science manifests in different national contexts, ii) what impact these have, with particular attention to policy making processes, and iii) how these can be promoted and further developed both at European and Country level.

By carrying out this survey, three main outputs as key milestones to the direct benefit of the stakeholders contributing to the exercise will be produced, through a stepwise approach and building on each other:

- In the short term, the first phase of the survey will lead to the development of a set of *Citizens Science COST Country Sheets*, one for each COST country, as a *common tool* for describing the landscape at Country level (in terms of practices, stakeholders and impacts), outlining the main issues, and drawing preliminary conclusions in terms of state of the art, potentialities and challenges for CS practices existent, and/or to be introduced/promoted in their respective country.
- In the medium term, the collection of the Country Sheets will build the first Pan-European Inventory of CS strategies, initiatives, practices, and mapping of related stakeholders, at COST country level. The proposed survey will provide then the overall picture, and an initial outline of the different stage of development of CS in Europe and beyond
- The Survey will provide the necessary material for carrying out an initial analysis of the potentialities, challenges and related influencing factors within the COST countries and

at EU level, as a basis for the provision of recommendations for the promotion, development and mainstreaming of CS practices in support to policy making.

The **envisaged approach** to the survey relies on the following **main principles**:

- The Country Sheets will be built using a stepwise approach and acknowledging country differences. An Analytical Framework will serve as a tool to provide the underlying structure for the survey exercise and subsequent examinations. The Analytical Framework concentrates on 3 main building blocks, each addressing key aspects of CS initiatives/strategies, namely, General Information, Methodological Approach, Relevance and Impact. With your support, a short iterative approach will be applied in order to test this framework on real cases, revise its structure if needed, fine-tune its content, and validate the overall approach.
- The Analytical Framework underpinning the survey, must be **usable**, **meaningful and relevant** to different country contexts, and would help CS practitioners identify and present an initial set of CS initiatives, strategies and practices at different levels (national/regional/local). These elements may already exist or being planned by both, public authorities as well as other stakeholder institutions in the COST countries. This Framework is meant to help information acquisition, subsequent analysis and, possibly, some comparison of relevant information, in a comprehensive and consistent fashion.
- To initiate this exercise, the survey must rely on a *minimum amount of information* that would allow for a meaningful analysis, ultimately leading to sound reflections, conclusions and recommendations for possible ways ahead to support the promotion, end eventually mainstreaming, of CS approaches both, at European and COST Country level.
- Finally, for this to be an effective and sensible exercise, its governance should be based on the principle that the *process of data acquisition must be realistic and contextualised*. We have to make sure to allow the (i) asking of relevant questions, (ii) to the best positioned people inside the different COST countries, and (iii) possessing the best available knowledge for providing sensible information.

It is for the above reasons we are calling upon your support in your quality of COST MC Member.

What has been done so far

Up to August 2018, two workshops have been organised to conceptualise and refine the intended survey in terms of objectives, scope and methodology (content, material, processes and stakeholders to be involved). The idea of creating a pan-European comparison of the development and implementation of CS strategies and policies was first formulated in the

invitation to a COST workshop 19th March at ISCTE-University Institute of Lisbon¹. The meeting called for case examples of national CS strategies by practitioners from Germany, Austria, Spain and Portugal and asked for feedback on a first version of the collection of survey questions, henceforth to be called Analytical Framework. A summary of discussion is available in the COST workshop report².

Based on the findings from these discussions, the Analytical Framework was refined and sent out to another group of practitioners, again in a combined attempt to gather information while still receiving comments on the survey set-up. Inputs have been received from Albania, Austria, Germany, Lithuania, Portugal, and Spain.

Findings from these steps of work were then presented at the workshop "Citizens Science Strategies in Europe" at the ECSA international conference 2018 in Geneva, 6th June. The results of this workshop have been used to produce this conceptual paper, more details can be found in the workshop report³.

ROADMAP: How, Who and When

Following the two workshops, on the basis of the experience from participants in collecting the necessary information presented to the workshops, and intense discussions on the preliminary findings, the implied collection processes, and actors to be involved, the COST WG 3 "*Improving the science-society-policy interface*" came also to the conclusion that it would be advisable to call for the support of our COST MCs, in order to help in the *iterative information gathering and country-based analysis process*. We consider it the best possible way ahead and a rare asset that only a COST Action can provide in order to deliver the desired knowledge to its members ad to the wider community.

It was suggested to concentrate the core of the Country Sheets and the underlying Analytical Framework along 3 main building blocks, each addressing key aspects of the CS initiatives/strategies, namely: *General Information, Methodological Approach, Relevance and Impact.*

Notably, we do not expect to receive an equal level of detail from each country at the same moment in time, as CS stands at different level of developments across the different COST Countries - and all around the globe. Nevertheless, in order to carry out the Survey with a minimum amount of information, we suggest some parts of the Analytical Framework to be *mandatory* and addressed in full, whereas all the others to the "highest possible" detail.

¹ https://www.cs-eu.net/events/internal/workshop-wg-3-pan-european-comparison-development-and-implementation-cs-strategies

² https://www.cs-eu.net/news/workshop-report-wg-3-pan-european-comparison-development-and-implementation-cs-strategies

³ https://www.cs-eu.net/news/workshop-report-wg-3-citizen-science-strategies-europe

In preparation to the actual survey and country-level analysis, their respective templates, both for the Country Sheet and the Analytical Framework, need to be agreed (as a first version to start from).

We envisage the following *Roadmap* to achieve the above objectives as follows:

- 1. Firstly, as COST WG 3 Members, we are calling upon your experience and knowledge in order to acquire some initial feedback about this exercise, the proposed process and instruments, by replying to the few questions included in the COST MCs Feedback Form up to the best of your knowledge until mid March 2019.
- 2. On the basis of the filled in Analytical Framework, we would like to ask the COST MCs to produce their "Country Sheet" by end of April 2019. These County Sheets should aim at summarising the main issues and draw preliminary conclusions in terms of state of the art, potentialities, challenges and recommendations for CS practices to be introduced/promoted in their respective country.
- 3. The preliminary results will be presented and discussed with the occasion of the COST MC meeting on the 4th of June 2019 in Latvia, in order to outline the main issues, trends, influencing factors, commonalities and possible impact on policy making processes. On that occasion, the methodology for analysing the preliminary impact will be presented, discussed and possibly validated
- 4. At a workshop at BOKU in Vienna on 4th and 5th of November 2019, the COST WG 3 Representatives, under the lead of EC-JRC⁴ and MfN⁵, offers to develop a *Pan European Analysis of CS Strategies and practices in COST Countries* based on the information extrapolated from the Country Sheets produces by the COST MCs, and on the basis of the outcomes from the workshop of the 4th of June.

This analysis should provide the **overall picture of CS in Europe and beyond**, with the objective to **draw some conclusions and provide** *recommendations* for the promotion of CS practices at EU level.

More specifically, this exercise will analyse the results from the Country Sheets, and the underlying Analytical Framework, including the different socio-scientific-political contexts, related stakeholders, their dynamics, resources, methodologies, variables and factors that influence CS initiatives and their impact on the citizens/communities, science and policy dimensions. This will be followed by the identification of pre-requisites for fostering CS good practices, and recommendations for improvements and, finally, the identification at EU level of possible areas of applications that could benefit from CS approaches most (e.g. Environment, energy, urban management, health, agriculture, to name a few).

⁴ The European Commission's Joint Research Centre, Ispra, Italy

⁵ Museum für Naturkunde, Berlin, Germany

5. On this basis, the WG 3 Representatives, under the lead of EC-JRC⁶ and MfN⁷, intend to develop a *Pan-European Inventory, of CS strategies, initiatives, practices and related stakeholders mapping, at COST country level* based on the analysis of of the Analytical Frameworks and the compilation of the Country Sheets, that will be provided on-line for access to the public thereby allowing a direct and constant updating of the repository by the Stakeholders themselves.

EXPECTED OUTCOME and the WAY FORWARD:

The intended **Outcome from this joint exercise** is manifold, and it offers:

- A first concrete step to move towards the production of a comprehensive and coherent representation of CS policies and practices at both EU and COST Country level;
- A dedicated spring board for further research, development, and promotion of CS practices and initiatives both at national and at EU level;
- Knowledge and Evidence-base for the development of EU and national policy papers documenting the challenges and benefits of the use of CS as source of information for policy making.

The different participants to this work will benefit from diverse *Specific Outputs*.

- ✓ COST Countries and COST MCs will gather information about the state of the art within their country by elaborating the *Country Sheets* outlining the main features of CS strategies and practices, an outlined mapping of stakeholders and their dynamics, preliminary conclusions and possible recommendations. With such information they can promote CS within their country and, at the same time, share knowledge, practices and approaches amongst different countries.
- ✓ WG3 members may want to elaborate more on the *Country Sheets* and stimulate specific country reflections, knowledge exchange, learning paths, etc.
- ✓ The Institutions dedicated to the political promotion of CS both, at national and international level (like the MfN, EC-JRC, ECSA, etc.), will benefit from the evidence gathered in the *Analysis of CS Strategies and Practices* and its impacts in Europe. This exercise will lead to a better understanding of the state of development of CS in the EU and neighbouring countries, and help identify future directions. It will help also to identify successful approaches for promoting CS in COST Countries, and also possible needs for EC action in order to promote CS across Europe, and in different areas of application.
- ✓ The compilation of the Analytical Frameworks and the Country Sheets will feed into a *Pan-European Inventory*, which will be translated into a first **on-line version of a** *Living*

⁶ The European Commission's Joint Research Centre, Ispra, Italy

⁷ Museum für Naturkunde, Berlin, Germany

Inventory of CS strategies, initiatives and practices, with related stakeholders mapping, at COST country level. The inventory should be accessible publicly and be used as a hub for the hosting, elaboration and exchange of information by CS communities of practices – at lease at EU and COST Country level. Stakeholders Institutions, like the MfN, ECSA, and EC-JRC, will support these developments collaboratively.

RELATED DOCUMENTATION

- Annex I : FEED BACK FORM from COST MCs in preparation to the Survey (first release) 18/02/2019
- Annex II : COUNTRY SHEETS Template (tbd)
- Annex III : ANALYTICAL FRAMEWORK (first release 18/02/2019) (revised on the basis of the discussions and feedback from Lisbon and Geneva WSs)