



## Co-designing Citizen Social Science for Collective Action

### D7.1

### Impact Assessment Plan

Creation of the evaluation and impact assessment framework for CoAct



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## 1. Executive Summary

The main aim of the evaluation and impact assessment in CoAct is to bring evidence of the impact that the project's citizen social science activities have on the involved actors, such as co-researchers, citizen scientists, knowledge coalition members, and professional researchers, as well as on their socio-cultural contexts.

Additionally, the formative evaluation aims at the assessment of user-acceptance factors, such as ease of use and perceived usefulness, of the involvement activities, offered materials, developed prototypes, and the research process as a whole. This input will iteratively shape our interaction activities, the materials and the prototypes, trying to detect the non-conformances that may occur during the citizen social science co-research process as well as drivers for engagement and usage.

In CoAct we follow a co-evaluation approach, which is a form of participatory evaluation that initiates the conversation on expectations, objectives, and impact already at the start of the project. Consequently, we have started the co-evaluation process with representatives from our three CoAct R&I Actions in Barcelona, Buenos Aires, and Vienna from the very beginning of the project. During the Kick-Off meeting expectations towards (co-)evaluation and anticipated challenges were discussed in separate working sessions with representatives from each of the three R&I Actions; follow-up calls with the research teams served to elaborate road maps that link co-research activities to the evaluation and impact assessment. The result of this collaboration with the three teams is a first set of indicators for each of the R&I Actions, that introduce expected outputs, intermediate and long-term outcomes on co-researchers, citizen scientists, professional researchers and knowledge coalition members, as well as the roadmaps for each of the R&I Actions. Each R&I Action started to work on its indicators separately; this initial base is then summarized in one overarching table of R&I indicators that shows commonalities and differences between cases and serves as a reference point for overarching, cross-action discussion and analysis. Although the indicator sets are not in a final stage and will be iteratively adapted and expanded during the upcoming activities with co-researchers and knowledge coalition members, we can already see that the manifold outputs expected from this project will lead to clearly identifiable intermediate outcomes, like increases in awareness, knowledge, and skills amongst all stakeholders. These intermediate outcomes are in the long-term expected to increase empowerment, self-determination and the quality of life of our co-researchers, and lead to the implementation of new measures and regulations at the side of our knowledge coalition members. Highlighting the main outputs, intermediate and long-term outcomes of each R&I Action in one matrix and then looking at all four matrices allows one to quickly answer questions like: Which R&I Action had an important impact on co-researchers? Which one impacted professional researchers? Is there a R&I Action that was successful in reaching



long-term outcomes? The indicator matrix also supports us in illustrating how our specific R&I Actions relate to MoRRI and SDG aspects.

We are aware of the fact that these long-term indicators might not only be due to our project activities and it might be difficult to causally attribute measured changes as an effect of the project. This goes for both directions of causal attribution: CoAct may cause multiple effects, and an observed effect (such as a societal change) usually has not one, but many different causes. Due to these difficulties in causal attribution, we have a strong focus on qualitative assessments and case studies that should help us to understand the expected outcomes in their breadth and depth.

Because in co-evaluation not only the impact indicators, but also the instruments to collect data for these indicators, are shaped by the involved actors, this deliverable introduces a collection of evaluation instruments that might be applied in the different R&I Actions according to the needs and preferences of co-researchers and knowledge coalition members. This collection is a first suggestion of tools that will be expanded throughout the runtime of the project, with tools being selected according to the specific requirements of the different R&I Actions. At the same time, cross-case learning activities will foster the sharing of experiences with different tools to understand which tools are most appropriate in the different settings.

CoAct started just a few weeks before Covid-19 fundamentally changed the way we live and work. As this new situation is strongly affecting the co-research activities, individually and collectively, WP7 organised reflective sessions with the research teams of the three R&I Actions to capture changes with regard to research topic, process, input, and outputs. The results from this session not only fed the contingency plan delivered to the EC, but also fostered and will continue to foster mutual learning between all project partners on how to address the new situation.

## 2. Introduction

### 2.1. Purpose of the Document

The purpose of this document is twofold. First, this deliverable prepares the ground for the evaluation and impact assessment of the CoAct R&I Actions. Based on participatory research methods, we present a participatory approach towards evaluation – or “co-evaluation” - that is grounded in current state-of-the-art; a set of methods and tools that can be applied during the process; and some first insights from three R&I Actions that contribute to the joint definition of potential impact indicators and the comparison of indicators across R&I Actions.



Second, this deliverable aligns theoretical considerations beyond the individual R&I Actions. Based on the theoretical considerations of co-evaluation, a set of generally applicable principles and values are defined. The CoAct workflow for evaluation and impact assessment as outlined below stresses the importance of cross-case learnings. The findings from the evaluation beyond the individual R&I Actions will thus be given great attention as well.

## 2.2. Structure of the Document

This deliverable is structured along six main parts:

- Theoretical background and state of the art
- Case specific information: indicator sets and roadmaps for each case
- Data collection instruments: tool of data collection instruments to extend and choose from throughout the evaluation process
- CoAct Indicators: cross-case representation of indicators, KPIs, and the connection to MoRRi and SDGs
- Covid-19 effects on CoAct: summary of changes in research topic, process, input and output due to Covid-19
- Summary and outlook

## 3. Theoretical Background/State of the Art in (Co-)Evaluation of Citizen Social Science

Evaluation and impact assessment have increasingly received attention in citizen science activities. On the one hand, funders of such actions need evidence to justify their investments, e.g. for public research funding programmes. On the other hand, citizen science actors have a similar need to assess the implications of their actions and to understand which effects citizen science initiatives have on science, on the involved citizens, and on the wider socio-ecological systems. In addition, evaluating the process of implementation contributes to a learning process that supports self-reflection and adaptive management. In a very recent publication, the authors of this deliverable give a comprehensive overview of the state of the art in evaluation of citizen science activities and conclude that it is *“necessary to keep discussions about evaluation open and self-reflective, not only to continually improve, but also to stay flexible and adaptable to the continuous evolution of citizen science itself”* (Schäfer et al. 2020).

Approaches towards evaluation in research activities tend to be understood as a systematic assessment of the operation and/or the outcomes of an activity or program, against a set of explicit or implicit standards and criteria



(Weiss, 1989). However, such a rather structured and top-down approach towards evaluation needs to be complemented with a more bottom-up and participatory view, especially when dealing with social issues at the core of the scientific question. (Co-)evaluation in citizen social science historically builds on the legacies of participatory social research and development. Underlying these is a pragmatic paradigm, deeply rooted in the material conditions and social structures of “interventional research” or “participatory action research”. The three main areas where participatory action research has been most commonly developed and practiced are development research (participatory development), management science, and education (Springett & Wallerstein, 2003). Combined with a turn to social epistemology (Fuller, 2012; Harding, 2004) in order to both study and evaluate the social dimensions of knowledge production and innovation, it is possible to focus on the manifold similarities and differences of the epistemic and normative understandings of the world that stakeholders/participants bring into a process. Participatory action research (PAR) (Alderson, 2008; Fals-Borda & Rahman, 1991) paved the way for our contemporary understanding of participation in citizen science. PAR consists of a set of approaches that are emphasising the involvement of the research subjects as co-researchers on equal footing in the research process (Whyte, 1990).

Participatory evaluation is deeply rooted in international community development arising in the 1960s with a growing attention on multiple perspectives in decision making. Precursors include emancipatory and action-oriented research and community education in the 1970s. As a concept it also builds on approaches that go beyond the mere assessment of research output and scientific quality, since there is growing demand both by involved stakeholders and by research policy to generate more insights about the broader impact of either publicly funded research or potentially risky technology. This broader interest in the impact and potential risk of research dates back to the 1980s and 1990s (Williams & Grant, 2018). It was also triggered by a more general trend towards the opening and democratisation of social research and the changing relationship between social science and society (Burawoy, 2016; Gibbons et al., 1994). In particular, the systematic assessment of policy programs – not only for scientific research – gave rise to bring into question the common roles and functions of both social inquiry and social inquirers. The often-neglected expertise and knowledge of the participants of social research came into focus, and with it the need for democratic pluralism. In line with Cousins & Whitmore (1998), Brisolara suggests to differentiate along a continuum of types of participatory evaluation: on the one hand practical, utilised within the status quo-oriented evaluation, and on the other hand action-oriented, ideological, participatory evaluation (Brisolara, 1998).

A comprehensive approach to citizen science evaluation and impact assessment has been provided by Kieslinger et al. (2017). Their framework (Fig.1) suggests indicators for three dimensions of participatory scientific processes:





1) scientific aspects, 2) individual actors, and 3) socio-ecological/economic systems. For each of these dimensions the framework suggests process-based and outcome-based evaluations: a) “process & feasibility” collects formative input for an adaptive project design and management. b) “outcome & impact” brings evidence of a project’s benefits to its participants and their surrounding contexts in which the project is embedded, and shows how much an intervention’s impact contributes to the project’s expected and possibly unintended goals.

	Process & Feasibility	Outcome & Impact
Scientific dimension	<ul style="list-style-type: none"> <li>* Scientific investigations</li> <li>* Data &amp; systems</li> <li>* Evaluation &amp; adaption</li> <li>* Cooperation &amp; synergies</li> </ul>	<ul style="list-style-type: none"> <li>* Scientific knowledge &amp; publications</li> <li>* New research fields &amp; structures</li> <li>* New knowledge resources</li> </ul>
Citizen scientist dimension	<ul style="list-style-type: none"> <li>* Target group alignment</li> <li>* Degree of involvement</li> <li>* Facilitation &amp; communication</li> <li>* Communication &amp; synergies</li> </ul>	<ul style="list-style-type: none"> <li>* Knowledge &amp; attitudes</li> <li>* Behavior &amp; ownership</li> <li>* Motivation &amp; engagement</li> </ul>
Socio-ecological & economic dimension	<ul style="list-style-type: none"> <li>* Target group alignment</li> <li>* Active involvement</li> <li>* Collaboration &amp; synergies</li> </ul>	<ul style="list-style-type: none"> <li>* Social impact</li> <li>* Ecological impact</li> <li>* Wider innovation potential</li> </ul>

Figure 1: Citizen Science Evaluation Framework by Kieslinger et al., 2017

Evaluation in citizen science today refers to the assessment of the value of its different outcomes and of its processes. According to the authors, who also recently published a reflection on evaluation in citizen science (Schäfer et al. 2020), evaluation should be understood as a learning process that supports self-reflection and adaptive management, while on the other hand helping to understand which effects citizen science initiatives have on science, involved citizens and socio-ecological systems. Thus, both types of the above presented evaluation, process-based and outcome-based, are crucial for evaluating citizen science projects and will also be considered in the context of CoAct.

It is important to mention that within the three dimensions of the framework a prioritization of indicators is required and it needs to be adapted to the project context and specific objectives. As stated by the authors, projects are not expected to cover all aspects of the framework equally. For example, in CoAct, where we are collaborating on societal issues in co-constructed research actions, the expected outcomes on the individual participants (= citizen scientists, co-researchers) and on the socio-economic dimensions (co-defined by the knowledge coalitions) might be prevailing over scientific outcome in terms of academic publications from a



participant's point of view. This prioritisation in evaluation does not neglect the interest in scientific advances, but the focus of the evaluation will need to be defined jointly and reflect the participants' concerns.

Citizen social science projects aim to be characterised by openness and diversity. Whereas typical social research projects are commonly carried out by designated research institutions and professional social scientists, affiliated with universities, research organisations, or public sector administration, citizen social science projects include non-traditional stakeholders, such as civil society organisations, schools, and individuals. Such projects might even be initiated or led by private individuals without any formal affiliation. Thus, objectives, methods, and actors involved in such projects are as diverse as the topics and social concerns covered. This calls for tailored forms of evaluation that take into account the expectations, benefits and challenges raised and experienced by all involved actors, as well as more general social impacts. Furthermore, with the increased political interest in participatory formats and the involvement of citizens in the co-creation of solutions to tackle societal challenges, more funding is available for such endeavours. This as well creates the need to design transparent and useful evaluation procedures, so that knowledge is generated to the greatest benefit and meeting a broad spectrum of participants' objectives.

The jointly defining of expected outcomes (by all actors) and the selection of methods on how to provide evidence for these defines a participatory approach to evaluation, which Mayer et al. (2020) recently labelled *co-evaluation*. It is defined as a process that involves all relevant actors in a project in an iterative evaluation practice and combines methods of participatory action research for evaluation purposes. Co-evaluation is inspired by community based participatory research as well as science and technology studies' perspective on the evaluation of public participation exercises in research. Project goals and objectives, understanding of success, challenges, and unintended aspects are collectively discussed and documented at the beginning of a project and regularly revisited during the research design and execution, ideally even beyond the project's end. Assessment and intended impacts hence become transparent entities in the project design and important elements of the research tools inventory. With this participatory approach towards evaluation, which we want to apply in CoAct, we feel that citizen and community benefits as well as the wider socio-political and ecological impact can be equally assessed, next to scientific goals, and form an integral part of the evaluation scheme.

During the co-evaluation process, which is conducted as a team effort that includes relevant stakeholder representatives, the assessment procedures and applied methods may vary greatly in their manifestation, from surveys to storytelling and cultural probes, depending on the context. A set of available tools for data collection will be presented further below. As CoAct implements citizen social science activities in very diverse settings, these instruments need to be adapted accordingly and with the involvement of co-researchers. The highlights of the co-



evaluation outcomes will be presented in the form of output/outcome matrices presented below that will be amended by detailed analysis that stems from qualitative analysis. WP 7 will not only conduct a cross-action analysis but also stimulate the cross-case reflection and mutual learning between the different R&I Actions - to not only discuss which outputs/outcomes were generated in which project contexts, but also to learn from the different evaluation approaches applied in the different contexts.

CoAct will involve the following research participants (defined in more detail in D9.2):

<b>Co-researchers</b>	Citizens in a vulnerable situation, due to their lived experience in relation to the social concerns that motivate the collective R&I Actions. They co-create the collective research tools, participate in the research data collection and the analysis and interpretation of results. They may participate in research promotion and presentation of results.
<b>Knowledge coalitions</b>	Are formed by representatives of public administrations, CSOs, educative organisations and co-researchers. They can create the structural framework for research, participate in the research process, implement and discuss possible solutions etc.
<b>Citizen scientists</b>	Might contribute to the participatory research process via digital platforms in order to collect massive robust scientific evidence to respond to the co-researchers' concerns.
<b>Professional researchers</b>	Academic researchers representing the scientific partner organisations of CoAct.

*Table 1: Overview of CoAct research participants*



Research participants will be involved in 4 different R&I Actions:

<b>R&amp;I Action #1 Mental health care, Barcelona</b>	<b>R&amp;I Action #2 Youth employment, Vienna</b>	<b>R&amp;I Action #3 Environmental justice, Buenos Aires</b>	<b>R&amp;I Action #3 Gender equality, Europe</b>
Ongoing	Ongoing	Ongoing	Planned for 2nd part of the project
Presented in Chapter 5.1	Presented in Chapter 5.2	Presented in Chapter 5.3	Presented in Chapter 5.4

Table 2: Overview of CoAct R&I Actions

## 4. Co-Evaluation Approach in CoAct

As stated above, in CoAct we are integrating insights from community-based participatory research, participatory learning and action (Bozalek & Biersteker, 2010), and participatory monitoring and evaluation (Cousins & Whitmore, 1998; Estrella & Gaventa, 1998). Our evaluation approach in CoAct thus has a strong emphasis on collective discussions, learning and critical reflection. We refer to this approach as co-evaluation.

Co-evaluation is a form of participatory evaluation that initiates the conversation on expectations, objectives and impact already at the start of the project. Ideally, this happens already when the research design is co-created with different stakeholders, or at least, when the participation of actors is negotiated. This conversation across actors should be extended beyond the project funding time frame, if possible, in order to discuss and assess the manifold types of impact of a collaboration (a project, a program, creation of an institution, etc.). Co-evaluation clearly takes a transformative stance, as it includes co-creation methods that aim not only at learning about a situation but also at overcoming hindrances, tackling issues, and finding solutions to problems, such as how to measure the success of a research project in terms of stakeholder benefits.

The combination of experiential learning e.g. about power, difference, and inequality with critical reflection of socio-political and cultural relations and assumptions deeply embedded in processes of social change, provides a robust basis for inclusive evaluation procedures. Furthermore, in transdisciplinary research it has long been considered crucial that co-creation processes require some sort of coordination and expectation management as well as attention to the community building processes, in other words “some a priori conceptualization of which internal and external people need to work together, what they want to do together, and what value they will



create as a new community” (Gouillart, 2012, p. 2). In such processes, different normative regimes need to be aligned or configured in such a way that benefits for all participants are considered in a balanced way. Evaluation procedures of such participatory processes therefore must consider not only the expectations towards the results and benefits, but also the expectations towards the ways knowledge is produced.

#### 4.1. Co-Evaluation Principles and Research Ethics

As a guiding principle in European science and innovation policy, "Responsible Research and Innovation" (RRI) is structuring the reflection of ethical, legal, and social implications of research and innovation. RRI emphasises the necessity of anticipation, participation, inclusion, reflection, and orientation towards social problems in research projects. The wider outcomes and social impact of participatory research are however difficult to measure. For example, the degree of participation and involvement of research participants, the un/intended changes in practices or policies, and the potential to reach the sustainable development goals (SDGs) all need to consider various contexts. Instead of proposing a set of predefined methods, co-evaluation rather builds on a set of principles while aiming to adapt to the situative contexts. In the following Table 1 we present the main characteristics of co-evaluation, adapted to the specificities of CoAct, that we consider our co-evaluation principles.

Co-evaluation principle	Explanation
Participant ownership	Evaluation is oriented to the needs of the participants in an inclusive and balanced way. Participants take certain actions and responsibilities for project outcomes and their assessment.
Openness and reflexivity	Participants meet to communicate and negotiate to reach a consensus on evaluation results, solve problems, and make plans for the improvement of the project, evaluation approaches, indicator definition, and impact measures; input should be balanced and representation should be guaranteed for all involved stakeholders
Transformation	Emphasis is on identification of lessons learned, improvement of benefits and wellbeing for all participants.



Flexibility	Co-evaluation design is flexible and determined (to the extent possible) during the group processes. The mix of formats and methods used should reflect the project aims and potentially empower marginalised perspectives.
Documentation and transparency	Whenever possible and ethically desirable, evaluation procedures should be documented and made accessible to participants, or even the wider public.
Timing	Co-evaluation has to start as early as possible, but latest during the negotiation of research questions and design of methodology.

Table 3: Main characteristics of co-evaluation, adapted from (Patton, 2008)

## 4.2. Co-Evaluation Workflow in CoAct

The main difference between co-evaluation and conventional types of research evaluation is that participants are also involved in the decision on evaluation instruments. By today, participatory research in all fields is exploring evaluation approaches to accommodate the diversity of perspectives and experiences of research stakeholders. In the case of a citizen science project evaluation, it is therefore necessary to focus not only on the scientific outcomes, but also on the different motivations and expectations in regard to the socio-ecological and economic dimension both of the process and the outcome, as well as on the impact in those dimensions. Of particular importance in that regard is the “growing push for new ways of defining and measuring success” (Moschetti, 2003, p. 18) of participation. Exploring the changes or even “transformative changes” brought about by an intervention requires a robust set of measures for success (including targets and methods to measure and discuss them) that could be co-created at the beginning of the project and dynamically developed further throughout the project. Therefore, we developed – in line with the set of principles above – the following workflow for close cooperation with the case studies (WP3-WP6):



<b>CoAct Evaluation Workflow Elements</b>	
Connecting, building trust, and representing all participants	Before co-evaluation can start it is important to establish strong relationships with the R&I Actions, based on firm understanding of the case topic and field, as well as getting to know the case partners and involved stakeholders. ZSI will act as provider and moderator of the co-evaluation processes, but participants are encouraged to take ownership and co-define the objectives and co-shape the instruments together. Another important aspect is the protection of participants in vulnerable situations, while still involving them equally in the co-evaluation procedures, and making room for marginalised voices that are not represented in some processes. While all project partners are highly sensitive to issues that might arise from that fact, co-evaluation will also seek to provide the right measures and formats for inclusion, while safeguarding the personal rights of participants.
Regular meetings	In regular sessions, remote or on-site visits, ZSI will listen to the project developments, meet with project leaders and participants, propose evaluation measures and formats, reflect on prior experiences and challenges, and co-create the right settings for co-evaluation. It is important to establish continuity in the exchanges with the case teams and participants, keeping the right balance between informal exchanges and more formal, formatted encounters (e.g. interviews, etc.).
Iterative development	By aligning case priorities, planned activities and objectives with the co-evaluation strategy, we are deploying road maps for each case. Those roadmaps are dynamic documents that will guide the processes of definition, observation, documentation, reflection, and necessary adaptation. They further provide an important basis for the cross-case learnings and overall project documentation.
Cross-case learning	Experiences from the co-evaluation in the different R&I Actions will be shared in cross-case learnings, where we share common challenges, good practices, and learnings from the field. One example on how we stimulate cross-case learning is the Covid-19 reflection that is presented further below in this document.
Creating a pool of instruments	Out of the broad range of the existing participatory method inventory, we provide R&I Actions with instruments and help tailor them to their needs, through a joint selection process. Experiences with instruments will be discussed among all R&I



	Actions in the project and will be documented and shared widely via the citizen social science toolkit.
Opening know-how	An important aspect of the chosen co-evaluation approach relates to the dimension of open science. In the process of co-evaluation, informed consent procedures and open data strategies are determined collectively by the participants. More details on how this is handled by CoAct and in the specific R&I Actions can be found in the deliverables of WP9 as well as in D2.3 (due M24).
Learning from feedback	Based on principles of mutual respect, trust, and responsibility, we pay particular attention to response-ability. This means that during and also for 10 years after the project (as defined in WP9), we will make sure that there are open channels for feedback by all project participants but also from external stakeholders. Feedback will be documented and, whenever possible, fed back into the development process.

Table 4: CoAct co-evaluation workflow

### 4.3. Capacity Building for Co-Evaluation in CoAct

As stated previously, in participatory evaluation a close collaboration and a trusting relationship with co-researchers and other involved actors is crucial. However, the evaluation lead team from ZSI is not interacting with all actors from the R&I Actions directly, but is mostly interfacing with the project partners leading the different R&I Actions. Thus, it is important that the principles and values of co-evaluation are shared across the consortium. Similarly, partners may need to be advised on the most appropriate tools and methods to apply to a specific participatory research setting. Cross-learning and capacity building within the consortium is an important element of the whole evaluation approach.

Raising awareness for the core principles of co-evaluation has already started during the kick-off meeting, and partners have started to share their experiences with participatory approaches. Regular online webinars as well as consortium meetings are also used to continue this process, exchange experiences, and possibly experiment with participatory methods within the consortium. A Covid-19 reflection session during the online consortium meeting in early June 2020 was already a very enriching experience of cross-partner learning and reflection.





## 5. CoAct R&I Actions: Setting the Scene and First Insights

This section presents the CoAct R&I Actions from an evaluation perspective. During the kick-off meeting in Barcelona (15.-16. Jan 2020), a matrix approach inspired by the log frame methodology (Örtengren, 2004) was chosen to collect input from the partners regarding the processes, expected results, and contextual conditions of the R&I Actions. It was a first step to describe the specific context of each R&I Action and explore expectations at various levels, mostly from a research management perspective. It should be stressed that the research participants, like co-researchers and knowledge coalition members, were not involved in this activity yet.

Following up on the initial plans from each R&I Action, a co-evaluation roadmap was elaborated (see below for each respective R&I Action), which serves as a living document that is updated in regular co-evaluation calls and adapted to the specific requirements of each case. In the following sections we present the different R&I Actions with respect to our co-evaluation approach in more detail.

### 5.1. Mental Healthcare, Barcelona

#### 5.1.1. Setting the Scene

In this R&I Action, the involved citizens' community is constituted by adults with an experience of mental disorders and their families, living in Barcelona city and its metropolitan area. As co-researchers, they contribute their lived experiences in the context of mental health social support networks. The aim of the research process is to strengthen these social support networks through a participatory approach in the context of citizen social science, and thus to help individuals with an experience of mental health and their families advocate for the importance and effectiveness of social support networks as facilitators in the recovery process. Social networks act as a preventive factor in situations of isolation and social exclusion. Yet scientific research on the role of the family and other social support networks in the recovery process is still scarce and lacking evidence. The project seeks to make visible the broad community of people and institutions involved in the field of mental health (knowledge coalition), and to place at the centre of the research the voices and knowledge of individuals with an experience of mental health and their families (co-researchers). The knowledge coalition thus guides, monitors, and gives support to the co-researchers. The results of the interaction and cooperation between co-researchers and the broad community of citizens who will participate in the digital conversation (chatbot) is intended to provide the necessary evidence to legitimize the proposals of individuals with an experience of mental health and their families.





Figure 2: R&I Action on Mental Health Care in Barcelona

### 5.1.2. Indicator Matrix Barcelona

In the following we have created a first matrix of expected outputs, intermediate and long-term outcomes for co-researchers, knowledge coalition members, and the involved researchers of the Barcelona R&I Action. This matrix is a result of a first reflection session with case owners during the kick-off meeting (see also the Annex for more details) and further co-evaluation reflection sessions during the first months of the project.

We want to stress that this matrix needs to be understood as a “living document”. Most of the activities with knowledge coalition members and co-researchers will only start when writing this deliverable or after that (due to the delays brought about by Covid-19). Therefore, indicators are expected to change, be enriched, and some of them discarded as a result of the upcoming reflections with the different stakeholders. Outputs illustrate directly measurable, quantitative results of an intervention. Outcomes are the effects of the outputs on the target group.

	Co-Researchers & Citizen Scientists	CoAct for Mental Health Professional Researchers	Knowledge Coalition
<b>Output</b>	<ul style="list-style-type: none"> <li>· 30 co-researchers identified and involved in the co-design of the digital conversation (chatbot) (individuals with an experience of mental health, informal caregivers)</li> <li>· 500 volunteers identified and involved through the digital conversation (chatbot) (individuals with an experience of mental health, families, informal caregivers,</li> </ul>	<ul style="list-style-type: none"> <li>· Developed methods on how to engage co-researchers in all research phases; formative feedback from co-researchers</li> <li>· Developed methodologies for collective data analysis; formative feedback from co-researchers and citizen scientists</li> <li>· A set of crowd-sourced data related to social support networks in mental health</li> </ul>	<ul style="list-style-type: none"> <li>· No. of knowledge coalition members identified and involved in the case (public administration, mental health service providers helping families in the recovery process)</li> <li>· Workshops with knowledge coalition members organised; formative feedback on workshops and the whole research process</li> <li>· Policy recommendations and</li> </ul>



	<p>professionals and anyone concerned by mental health)</p> <ul style="list-style-type: none"> <li>· Workshops and engagement opportunities organised for co-researchers and citizen scientists; active engagement of co-researchers and citizen scientists</li> <li>· Perceived usefulness of the workshops, engagement activities, and the whole research process</li> </ul>	<ul style="list-style-type: none"> <li>· Developed model for dynamic informed consent generation</li> <li>· Developed prototypes of materials and tools; formative feedback from co-researchers</li> </ul>	<p>action plans to strengthen social support networks in mental health</p>
<b>Inter-mediate outcome</b>	<ul style="list-style-type: none"> <li>· Self-reflections on co-researchers' role inside mental health ecosystems</li> <li>· Higher awareness for and a better understanding of mental health social support networks</li> <li>· Higher data literacy of co-researchers</li> <li>· Better understanding of citizen social science process</li> </ul>	<ul style="list-style-type: none"> <li>· New insights about the co-research process (especially about what did not work)</li> <li>· New insights into social impact assessment of citizen social science activities</li> <li>· New insights about roles and behaviour of all members of the mental health care ecosystem</li> <li>· Lessons learned on how to use crowd-sourced data to understand mental health care ecosystems</li> <li>· Scientific publications</li> </ul>	<ul style="list-style-type: none"> <li>· Better understanding and awareness of social support networks</li> <li>· Networking and experience exchange with other knowledge coalition members</li> <li>· Better understanding of citizen social science and how it aims to address societal challenges</li> </ul>
<b>Long-term outcome</b>	<ul style="list-style-type: none"> <li>· Improved skills on mental health social support networks</li> <li>· Increased self-determination of people with mental health issues and their families and informal caretakers</li> <li>· Clear improvements in lives and recovery for families and individuals with an experience of mental health issues</li> </ul>	<ul style="list-style-type: none"> <li>· Demonstrated effectiveness of citizen social science</li> <li>· Sustainable links to the stakeholders in the mental health ecosystems</li> <li>· New research questions related to mental health ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>· Implementation of new tools and strategies to strengthen social support networks</li> <li>· Public Administrations: implementation of recommendations and new policies based on evidence and by listening to individuals with a mental health experience</li> <li>· Mental Health Federation: implementation of new processes and methods to enlarge their social impact and public visibility</li> </ul>

Table 5: Output/outcome matrix for the Barcelona R&I Action

The expected outputs and outcomes reflected in the matrix can be linked to the following SDGs.



The CoAct project has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No. 873048



Figure 3: SDGS supported by the R&I Action on Mental Health Care in Barcelona

The expected indicators support the following MoRRI aspects: OA1 - Open Access Literature, OA3 - Social media outreach, PE2 – Policy-oriented engagement with science, PE3 – Citizen preferences for active participation in S&T decision making, SLSE 4 - Citizen science.

What needs to be considered specifically during evaluation:

- Establish a culture of open sharing of learnings that allows for sharing negative experiences too
- Be as easy as possible and intelligible to citizens
- Take care not to overburden individuals with an experience of mental health issues and their families participating in the project
- Clearly define who uses the data/results of the research and who has data ownership
- Question power relationships during the research process
- Give an equal voice to the different participants: experts in the research team, in the knowledge coalition, and the specific target group of individuals with an experience of mental health issues, their families, and informal caregivers

### 5.1.3. Co-Evaluation Roadmap Barcelona

In the following we present the Barcelona co-evaluation roadmap, which again is understood as a “living document” that helps both case owners and the co-evaluation team to keep track of the most important activities with co-researchers, volunteers, and knowledge coalition members in the Barcelona R&I Action. It supports linking research activities with co-evaluation activities for the mutual benefit of both.

<b>Project phase</b>	<b>Building of knowledge coalition</b>	<b>Creation of Micro Stories</b>	<b>Collective Digital Conversation</b>	<b>Collective Data Analysis</b>	<b>Collective Actions</b>
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<b>Stakeholders</b>	City Councils, Regional Government, Association of persons with lived experience in Mental Health + support organisations	Co-Researchers Dynamization and cooperation specialist Computational Social Scientists FSMC team (perhaps) Graphic illustrator Narrator	Citizen Scientists	Co-Researchers Knowledge Coalition	Co-Researchers Knowledge Coalition Mental Health Assembly
<b>Activities</b>	<ul style="list-style-type: none"> <li>· Invitation letters (May)</li> <li>· 1st online meeting - introduce the project, 2nd July 2020</li> <li>· 2nd online meeting - framing the subtopics, forming working groups, 23rd July 2020</li> </ul>	<ul style="list-style-type: none"> <li>· First contact with co-researchers, September 2020</li> <li>· F2F or online meetings with co-researchers (October)</li> </ul>	Collective solving of dilemmas/ scenarios with the contribution of more than one participant	to be defined with stakeholders	to be defined with stakeholders
<b>Co-evaluation tasks</b>	<ul style="list-style-type: none"> <li>· Review and add questions to letters sent out in June.</li> <li>· Take part in workshops</li> <li>· Document expectations discussed in 2nd workshop</li> <li>· Include formative evaluation session in 2nd workshop</li> </ul>	Collect impact of sharing micro-stories  Possible Method(s): <ul style="list-style-type: none"> <li>· Interviews,</li> <li>· Cultural probes,</li> <li>· Content analysis of micro stories</li> </ul>	Collect impact of taking part in the digital conversation  Possible Method(s): need to be defined when more details are clear	to be defined	to be defined

Table 6: Co-evaluation roadmap Barcelona

#### 5.1.4. CoAct FrenaLaCurva

In response to Covid-19, the Spanish CoAct partners (UB and FSMC) participated in the “FrenaLaCurva” Open innovation festival<sup>1</sup>, a Spanish national initiative to support citizen-driven open social innovations that has in the meantime been taken up across Latin America. During the original festival 10 projects were selected, to which citizens could sign up to work collaboratively on social challenges in an intensive 5-day sprint (27. April - 1. May

<sup>1</sup> <https://frenalacurva.net/>



2020). The projects were supported by selected mentors and were offered online support tools as the whole collaboration was taking place remotely.

The aim of the CoAct FrenaLaCurva project was to co-develop an online platform that would serve as an open space for people to share their experiences during the time of the pandemic in relation to mental health. The vision was to create a space for people to anonymously share their experiences, concerns, pose and answer dilemmas, and relate to the stories or micro-stories of others. During the sprint, participants were expected to co-create the technological environment, the stories, and the visualisations.

In total, 29 participants were involved in the activity, including 4 research team members, 1 moderator and 1 mentor. Most of the participants were from Spain (25), but the group also included 2 participants from Chile, 1 from Ecuador, and 1 from Mexico. The expertise of the participants covered a broad spectrum: citizen science researchers and practitioners, social scientists, a therapist, nurse, political scientist, lawyer, public health representative, urban studies student, medical technician, industrial designer, political strategist, illustrator, and people working in audiovisual communication, television, and marketing.

During the 1-week sprint, the participants worked in three groups: 1) content (writing the stories from their own experience or from others, making visual stories), 2) technology (constructing the digital support for the stories to be shared and commented), 3) communication (structuring the messages, writing common texts for the platform, community building and messages for communication). Communication worked mostly via Telegram channels and online meetings. At the end of the sprint, a first prototypical version of the CoAct FrenaLaCurva platform<sup>2</sup> was ready and the results were presented at the festival closing day.

In order to capture the experiences from the participants, an online survey was distributed right at the end of the sprint, including a set of open and closed questions (see Annex 1 for the complete questionnaire). 9 participants provided their answers (7 female and 2 male).

Overall the responses we received are very encouraging. Participants stressed the good working atmosphere during the intensive online collaboration phase and the importance of raising awareness for mental health issues. The main motivation to participate in the project was to collaboratively create change and show solidarity. In addition, participants wanted to learn from others and create awareness about the topic of mental health. During the collaborative phase they enjoyed the respectful working atmosphere, meeting new people, and the way the

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<sup>2</sup> <http://coactfrenalacurva.net/>



whole process was coordinated. Only in terms of decision taking one participant expressed their wish for more debate and collective strategic discussion.

These responses highlight the satisfaction with the first prototype results from the sprint, and there was an agreement that these tangible results of the co-creation process were just a first step that needs to be taken forward in order to be useful to a wider community. Still, survey results indicate a clear potential for the platform in terms of inclusion, empowerment, and awareness as well as de-stigmatisation of the topic of mental health issues. Most participants also confirmed their interest and willingness to continue working on the project in the future, as they all identified some personal value from their participation. The personal experience was related to learning about how to work remotely, meeting new people, as well as learning about the concept of citizen science.

Figure 4 below summarises the results received from the survey.

Motivation	Collaboration	Results of team work	Usefulness of results	Personal value	Potential value of platform
<ul style="list-style-type: none"> <li>• Solidarity, collaborative effort, sharing</li> <li>• Develop tools for change; social innovation</li> <li>• Learning</li> <li>• Raising awareness for mental health topic</li> </ul>	<ul style="list-style-type: none"> <li>• New ways of working remotely</li> <li>• Meeting new people</li> <li>• Good coordination</li> <li>• Good energy, mutual respect</li> <li>➢ Be more involved in strategic discussions &amp; decision taking</li> <li>➢ Missing system of debate</li> </ul>	<ul style="list-style-type: none"> <li>• Responding to the needs</li> <li>• MVP achieved</li> <li>• Great multidiscipl. team</li> <li>• Great participation</li> <li>• Great moderation</li> <li>• Agreed deadlines met</li> <li>• Following clear objectives</li> </ul>	<ul style="list-style-type: none"> <li>• A tangible example of a co-creation exercise</li> <li>• Useful tool that needs to be improved</li> <li>• Has been simplified a lot to have something viable, needs to be taken to the next level</li> <li>• Feedback from outside is needed</li> </ul>	<ul style="list-style-type: none"> <li>• Sharing</li> <li>• Learning</li> <li>• Working remotely</li> <li>• Awareness of mental health problems</li> <li>• Meeting new people</li> <li>• Discover the concept of citizen science</li> </ul>	<ul style="list-style-type: none"> <li>• inclusion</li> <li>• Awareness</li> <li>• Collaboration</li> <li>• De-stigmatising metal health</li> <li>• Empowerment of citizens</li> <li>• Motivate others</li> <li>• Sharing of experiences</li> <li>• Empathy, respect</li> </ul>

Figure 4: Summary of CoAct FrenaLaCurva survey results

The commitment and interest from this international group has led work package 3 to reconsider their engagement focus and expand it to a wider group of interested citizens, who will be included in the further activities of this R&I Action on mental health. The reach beyond the regional community may be considered a first indication of the potential impact beyond the regional context to be expected from this R&I Action





## 5.2. Youth Employment, Vienna

### 5.2.1. Setting the Scene

In this R&I Action the citizens' community involved is constituted by young people between the ages of 15 and 18 living in Vienna, who do not attend school or other types of education or training, and who take part in social policy measures by the Public Employment Service Austria (AMS). Young people are involved as co-researchers, ask their colleagues about interests and needs, and work on the conceptualisation and improvement of new (maybe different) measures that support young people out of school with education, training, and finding work. The aim of the research process is to create measures that meet the young peoples' specific needs and thus increase involvement in and reduce dropout rates of these social policy measures. Insights from the research process are disseminated and reflected with knowledge coalition members, aiming for the implementation of the new measures in practice.



Figure 5: R&I Action on Youth Employment in Vienna

### 5.2.2. Indicator Matrix Vienna

In the following we have created a matrix of expected outputs, intermediate and long-term outcomes for the Vienna R&I Action. Again, we want to stress the fact that this is a living document, and indicators will certainly be changed, enriched, and some of them discarded as a result of the upcoming reflections with our stakeholders on their specific expectations and intended results from the CoAct project.





	<b>Co-Researchers</b>	<b>CoAct for Youth Employment Professional Researchers</b>	<b>Knowledge Coalition</b>
<b>Output</b>	<ul style="list-style-type: none"> <li>· 25 co-researchers build research teams and develop research questions (pupils of AusbildungsFit institutions between 15-18 years)</li> <li>· Workshops and engagement opportunities organised with co-researchers</li> <li>· Perceived usefulness of the workshops, engagement activities and the whole research process</li> <li>· High participation</li> <li>· High interest and openness towards participatory process</li> </ul>	<ul style="list-style-type: none"> <li>· Developed methods and a process on how to involve underage co-researchers in all research phases</li> <li>· Negotiations with young people about social methods for youth employment &amp; their adaptations</li> <li>· Rethinking and adopting new social methods for youth employment</li> <li>· Defining new methodological questions</li> <li>· Developed prototypes of youth employment measures and tools (also an output for co-researchers); formative feedback from co-researchers</li> </ul>	<ul style="list-style-type: none"> <li>· Stakeholders identified and involved (policymakers, "Production schools", providers, grassroots social workers, pedagogues, parents/legal guardians)</li> <li>· Workshops with knowledge coalition members organised; formative feedback on workshops and the whole research process</li> <li>· Policy guidelines and models for new social measures on youth employment</li> </ul>
<b>Inter-mediate outcome</b>	<ul style="list-style-type: none"> <li>· Self-reflections on and increased awareness for pupils' own needs and expectations and reflections of current systems and measures</li> <li>· Consciousness building</li> <li>· Having a voice in the process of restructuring measures</li> <li>· Gaining new competences</li> </ul>	<ul style="list-style-type: none"> <li>· Insight into the lifeworld of youths and the needed measures to lead them to employment or alternative occupational opportunities</li> <li>· Best practice experiences when coaching co-researchers (dealing with group dynamics, marginalisation, etc.)</li> <li>· Increased understanding of expectations of citizen science's ideal learning environments</li> <li>· Scientific publications</li> </ul>	<ul style="list-style-type: none"> <li>· Policymakers, providers, social workers, pedagogues, parents learn about the ideas &amp; living worlds of the underage pupils of production schools</li> <li>· Networking and experience exchange with other stakeholders</li> </ul>
<b>Long-term outcome</b>	<ul style="list-style-type: none"> <li>· Empowerment</li> <li>· Alternative measures and youth-appropriate offers</li> </ul>	<ul style="list-style-type: none"> <li>· Demonstrated effectiveness of citizen social science</li> <li>· Sustainable links to the knowledge coalition members</li> <li>· New research questions related to youth employment</li> </ul>	<ul style="list-style-type: none"> <li>· Implementation of better measures and youth appropriate offers</li> </ul>

Table 7: Output/outcome matrix for the Vienna R&I Action

The expected outputs and outcomes reflected in the matrix can be linked to the following SDGs.



The CoAct project has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No. 873048



Figure 6: SDGS supported by the R&I Action on Youth Employment in Vienna

The expected indicators support the following MoRRI aspects: OA1 - Open Access Literature, OA3 - Social media outreach, PE2 – Policy-oriented engagement with science, PE3 – Citizen preferences for active participation in S&T decision making, SLSE 4 - Citizen science.

What needs to specifically considered during evaluation:

- Different expectations by young people/knowledge coalition members/researcher as well as within the groups
- Involvement of social workers of production schools needs to be decided, as the involvement of parents, carers, youth/child care workers may be critical
- Co-research process is set to be rather short (from Oct 2020 to June 2021) -> high fluctuation possible, high flexibility necessary
- Challenging group dynamic working with underage co-researchers
- Clear definition of access to data; data transparency vs. privacy concerns of underage target group
- Translation of legal rights and responsibilities to understandable language
- Type of data relies on young people's capacities and interests
- Evaluation as a means to show and/or open up different paths
- If results differ from expectations, it should not be a point of contention, but a jumping off point to strengthen research design, etc. in the future
- Work with second level observation protocols, which are transparent to the observed target groups

### 5.2.3. Co-Evaluation Roadmap Vienna

The following table shows the co-evaluation roadmap for the Vienna R&I Action that supports us in linking the planned case activities with co-evaluation tasks.



Project phase	Building of knowledge coalition	Research Co-Design including inclusive toolbox	Conducting Research	Data Analysis and Results Interpretation	Transformation of results into action	Data Analysis and Transformation of results into action
<b>Stakeholders</b>	Ministry of Social Affairs, “Education until 18” representatives, Public Employment Service, Coordination Office, Vienna Employment Promotion Fund  “AusbildungsFit” (formerly “Produktionsschulen”)	Co-researchers coalition	Co-researchers coalition	Co-researchers coalition	Co-researchers coalition and knowledge coalition	Academic researchers, maybe with some involvement of co-researchers who are still available to us
<b>Activities</b>	<ul style="list-style-type: none"> <li>· Semi-structured qualitative interviews to capture current measures of youth employment, experiences and expectations of kc members</li> <li>· F2F or online meeting</li> <li>· Analyse current social measures of youth unemployment, prepare tools for conducting research and for group building activities</li> </ul>	<ul style="list-style-type: none"> <li>· Co-design of the research process</li> <li>· Preparation of a tool box for citizen social science activities for young people</li> <li>· Try-outs of methods</li> </ul>	<ul style="list-style-type: none"> <li>· Co-researcher coalition works on the research questions</li> <li>· Academic researchers provide participatory and social methods for co-researchers</li> <li>· Parallel meetings with KC to share research results</li> </ul>	<ul style="list-style-type: none"> <li>· Collaborative analysis and discussion of results</li> <li>· Analysis and transformation into action are cyclical</li> <li>· Parallel meetings with KC to share research results</li> </ul>	<ul style="list-style-type: none"> <li>· Collaborative transformation of research results in implementable measures and actions</li> <li>· Parallel meetings with KC to share research results</li> </ul>	<ul style="list-style-type: none"> <li>· Transformation into action</li> <li>· Report / articles in journals / participation in policy meetings and conferences</li> </ul>
<b>Co-evaluation tasks</b>	<ul style="list-style-type: none"> <li>· Review and add questions to the semi-structured interviews</li> <li>· take part in meetings</li> </ul>	<ul style="list-style-type: none"> <li>· Propose concrete evaluation instruments to co-researchers</li> <li>· Decide on co-evaluation aims and tools with co-researchers</li> </ul>	Collecting evidence for impact of the co-research process  Possible Method(s):  Observation  Interviews, focus groups  Cultural probes,  Workshop evaluation			To be defined

Table 8: Co-evaluation roadmap Vienna



### 5.3. Environmental Justice, Buenos Aires

#### 5.3.1. Setting the Scene

In this R&I Action, the citizens' community is constituted of inhabitants and workers in the Matanza Riachuelo basin, which is a highly polluted area at the southern city limits of Buenos Aires. As co-researchers they identify socio--environmental risks in their living environment, reflect on different levels of acceptance/non-acceptance of these risks, and determine appropriate, fair responses to these. The aim of the research process is to assess these outcomes in the context of official sanitation policy, identify divergent patterns of desired and actual policy solutions and processes, and thereby advance clean-up policies and improve the situation of people with regards to their health and rights. Insights from the research process are disseminated and reflected with knowledge coalition members, aiming for the implementation of the proposed measures in practice.



Figure 7: R&I Action on Environmental Justice in Buenos Aires

#### 5.3.2. Indicator Matrix Buenos Aires

In the following we have created a first matrix of expected output, as well as intermediate and long-term outcomes for the Buenos Aires R&I Action. As in the two R&I Actions before, indicators will be changed, enriched and some of them discarded as a result of the upcoming reflections with the stakeholders.



	<b>Co-Researchers and Citizen Scientists</b>	<b>CoAct for Environmental Justice Professional Researchers</b>	<b>Knowledge Coalition</b>
<b>Output</b>	<ul style="list-style-type: none"> <li>· 200 co-researchers identified and involved in the case</li> <li>· Workshops and engagement opportunities/mapping organised for co-researchers; active engagement of co-researchers in this process.</li> <li>· Perceived usefulness of the workshops, engagement activities and the whole research process</li> </ul>	<ul style="list-style-type: none"> <li>· Developed methods and a process on how to map social risks</li> <li>· Developed prototypes and tools (e.g. Facebook page, Blog, Maps/mapping, FARN library)</li> <li>· Set of crowd-sourced data on social risks (this is also an output for co-researchers)</li> <li>· Open, horizontal discussion with co-researchers and knowledge coalition members on social risks</li> </ul>	<ul style="list-style-type: none"> <li>· Knowledge coalition members actively involved (different neighbourhoods; socio-environmental assemblies; NGOs; Universities/bottom up researchers (groups); legal actors; policymakers; trade unions; representatives/national ombudsperson; private sector/start-ups (“new economic actors”), worker’s cooperatives</li> <li>· Policy brief on Environmental Justice: social perception of risks and model replicability in European contexts</li> </ul>
<b>Inter-mediate outcome</b>	<ul style="list-style-type: none"> <li>· Capacity building, increased knowledge</li> <li>· Engagement, Mobilisation</li> <li>· Data literacy</li> </ul>	<ul style="list-style-type: none"> <li>· Richer expertise on social risks and their mapping</li> <li>· Lessons learned on how to successfully organise research processes involving citizens in all phases of research</li> <li>· Scientific publications</li> <li>· Open Data publication</li> </ul>	<ul style="list-style-type: none"> <li>· Capacity building of the knowledge coalition members</li> <li>· Acceptance of citizen expertise by authorities</li> <li>· Legal instruments to fight social risks</li> </ul>
<b>Long-term outcome</b>	<ul style="list-style-type: none"> <li>· Improved quality of life</li> <li>· Decision power</li> <li>· Information complaints, contact points</li> <li>· Policy engagement</li> </ul>	<ul style="list-style-type: none"> <li>· Validity of citizen social science models for policy making</li> <li>· Sustainable links to the knowledge coalition members</li> <li>· New research questions related to social risks mapping and citizen science practices</li> </ul>	<ul style="list-style-type: none"> <li>· Implementation of recommendations on how to improve the sanitation policy</li> <li>· Changes of regulations</li> </ul>

Table 9: Output/outcome matrix of the Buenos Aires R&I Action

The expected outputs and outcomes reflected in the matrix can be linked to the following SDGs.



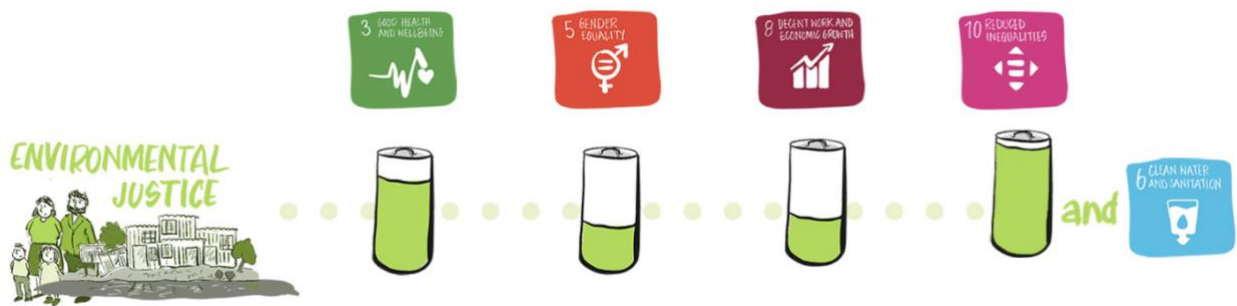


Figure 8: SDGs supported by the R&I Action on Environmental Justice in Buenos Aires

The expected indicators support the following MoRRI aspects: OA1 - Open Access Literature, OA3 - Social media outreach, PE2 – Policy-oriented engagement with science, PE3 – Citizen preferences for active participation in S&T decision making, SLSE 4 - Citizen science.

What needs to specifically be considered during evaluation:

- Will policy-makers be receptive?
- Prior experiences with research – scepticism because a lot of research done with no policy changes

### 5.3.3. Co-Evaluation Roadmap Buenos Aires

The following table presents the co-evaluation roadmap for the R&I Action on Environmental Justice in Buenos Aires that helps us in linking case activities with co-evaluation tasks.



Project phase	Building of knowledge coalition	Recognition workshop (in stand-by at the moment)	Collective mapping	Datathons, Analysis and Results Interpretation	Transformation of results into action
<b>Stakeholders</b>	CSO, scientists, and policy-makers with experience in environmental justice in Riachuelo	Knowledge coalition members	Co-Researchers, Coalition, Organisations, Iconoclastas	Co-researchers Coalition	Co-researchers Coalition
<b>Activities</b>	<ul style="list-style-type: none"> <li>· Expert interviews with community members, researchers and policy makers to capture roles/experiences in the basin, priorities of socio-environmental issues and potential options of solutions.</li> <li>· F2F or online meeting</li> <li>· Online micro-workshops</li> </ul>	<ul style="list-style-type: none"> <li>· Define territorial division</li> <li>· Identify dimensions &amp; categories</li> <li>· Produce a mapping kit</li> <li>· Define a dissemination strategy for the mapping WS</li> <li>· Expectation management</li> </ul>	<ul style="list-style-type: none"> <li>· Mapping WS:</li> <li>· Collective creation of maps about social and environmental risk</li> <li>· Identification of key steps in sanitation policies</li> <li>· Digital mapping:</li> <li>· Prioritisation of risks</li> <li>· Addition of indicators and categories</li> </ul>	<ul style="list-style-type: none"> <li>· Open Hackathon:</li> <li>· Elaboration of indicators and visualisations</li> </ul>	Mobilisation of stakeholders to take action, based on citizen generated data and maps
<b>Co-evaluation tasks</b>	<ul style="list-style-type: none"> <li>· Review and add questions to the interview guidelines</li> <li>· Take part in meetings if possible</li> </ul>	· Meeting evaluation	Collecting evidence for impact of the co-research process and mapping  Possible Method(s): <ul style="list-style-type: none"> <li>· Observation</li> <li>· Questionnaires</li> <li>· Workshop evaluation</li> <li>· Interviews, focus groups</li> <li>· cultural probes,</li> <li>· workshop evaluation</li> </ul>	To be defined	

Table 10: Co-evaluation roadmap Buenos Aires

## 5.4. New Citizen Social Science Spaces: Gender Equality

During the second part of the project, CoAct will launch three open calls for citizen social science projects focusing on gender equality. Each call will have different gender perspectives, focusing on topics such as the gender gap in affordable housing and urban planning, the gender wage gap, and opportunities and risks of digitalisation for





gender equality. Civil society organisations, especially feminist and other grassroots gender movements (including non-binary ones), will be encouraged to participate. The selected participants will receive mentoring from our consortium partners.



Figure 9: Gender Equality Research Pilots from a European initiative to be selected

The evaluation of the gender and socially differentiated impact of any project is notoriously difficult, since gender is just one among many dimensions of inequality. One has to identify how a project came to change hierarchies, norms and values, resources and power distribution on the level of individual lives up to communities or whole regions. In general, we can distinguish between gender-specific and gender-redistributive participatory evaluation methods (Murthy 2015, Kabeer 1994). For CoAct, we will focus on the latter to evaluate “how far existing norms, distribution of resources and power have been challenged on the basis of gender, and other identities” (Murthy 2015: 5) instead of merely looking at how differentiated needs have been addressed.

The European Research Area ERA is striving for gender equality in research and innovation<sup>3</sup>. Complementing its three-fold focus on “abolishing structural barriers to women’s careers in through institutional changes, gender balance in decision-making, and integration of the gender dimension in research and innovation” it will be important to ask how to broaden the scope to include these dimension in the evaluation of participatory citizen social science projects, and how to engage more broadly with the question of impact in gender-related interventions. Once again we learn from the field of development cooperation on gender sensitive participatory evaluation. The following measures are suggested in this context and should be considered from the start of any co-evaluation process<sup>4</sup>:

<sup>3</sup> Standing Working Group on Gender in Research and Innovation (2019) Innovating innovation: Policy brief on gender and innovation (ERAC 1210/19). Available at <https://data.consilium.europa.eu/doc/document/ST-1210-2019-INIT/en/pdf>.

<sup>4</sup> Table adapted from the DAC (1998) Guidelines for Gender Equality and Women’s Empowerment in Development Cooperation. Paris: OECD, and Sierra B (2000) Criterios para la evaluación con perspectiva de género. In: Revista Española





<b>Effectiveness</b>	The extent to which the project achieved its objectives, particularly in terms of the benefits achieved without reference to the costs incurred to obtain them
<b>Efficiency</b>	Analysis of the degree to which gender equality results are achieved at a reasonable cost; whether the benefits have an equivalent cost for all beneficiaries and whether these are allocated equitably
<b>Relevance</b>	A measure of the extent to which the intervention objectives are adjusted to attend to the different problems and needs of marginalised and non-marginalised groups. This criterion also focuses on whether the methodology adopted by the intervention helps the beneficiaries to perceive the limitations imposed on them and to overcome them
<b>Impact</b>	The contribution of the intervention to a broader policy on gender equality, to the sectorial objectives of equality and to the advancement towards equality on a long-term basis
<b>Participation</b>	This is linked to the inclusion of strategic gender needs in the intervention and the ownership of it by the target groups. The quality of participation refers to the degree to which participation is accompanied by greater equality of living conditions and relative position. For example the presence of women does not guarantee that their positions are effectively integrated and empowerment is enhanced.
<b>Sustainability</b>	The proportion of the achievements in gender equality that are maintained after the project end

Table 11: Guidelines for Gender Equality and Women's Empowerment

The specific gender actions will be selected in a series of open calls. Thus, from an evaluation perspective, it is important that the measure presented in Table 9 will be addressed from the start and will be included in the call text. Applicants will be requested to add conceptual thoughts on how to implement co-evaluation based on these measures in their projects.

From today's perspective the expected outputs and outcomes will be linked to the following SDGs.

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de Desarrollo y Cooperación, 6. Madrid: IUDC, partly reproduced from Espinoza (2013: 176) Moving towards gender-sensitive evaluation? Practices and challenges in international-development evaluation;



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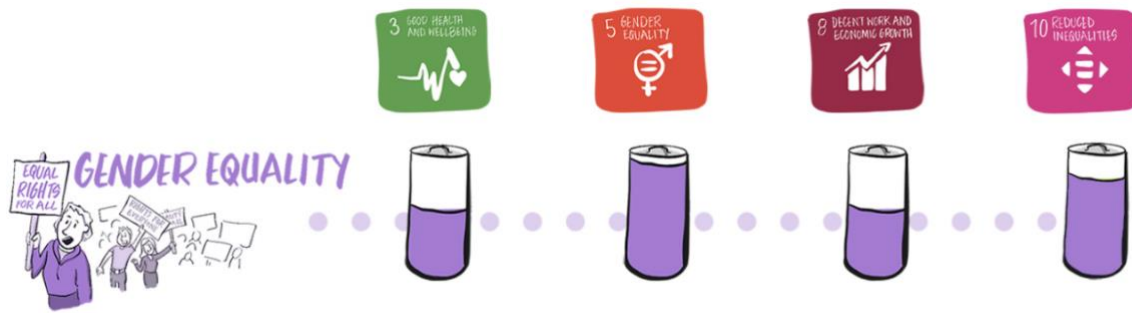


Figure 10: SDGs supported by the R&I Action on Gender Equality in Europe

## 6. Pool of Data Collection Instruments

In this chapter we introduce a collection of evaluation instruments that might be applied in the four different R&I Actions. As the focus of our evaluation and impact assessment is in understanding potential causal attributions between project outputs, intermediate and long-term outcomes, as well as drivers and barriers for participation, we will mainly focus on qualitative data collection instruments.

Nevertheless, these qualitative data can and will be supplemented with some quantitative data. These are for instance collected via surveys or via access statistics from our technical prototypes and engagement instruments.



	Subjective data	Objective data
Qualitative data	Interviews, focus groups Cultural probes Experience sampling Mappings, network maps Workshop evaluation	Content analysis of messages shared in our digital platforms
Quantitative data	Experience sampling Questionnaire Workshop evaluation	Access statistics to our digital platforms

Table 12: Potential data collection instruments

It is a first suggestion of tools that will be expanded throughout the runtime of the project and tools selected according to the specifics of the different R&I Actions. Cross-case learning activities will foster the sharing of experiences with different tools to understand which tools are most appropriate in the different settings. In the following, we will describe a variety of instruments we have collected for specific settings and purposes:

- First we have gathered a set of instruments that help to collect feedback on workshops and meetings, as there are a high number of encounters planned in each of the R&I Action.
- Second, we have collected instruments that help to collect experiences, while participants are actively involved in the research activities (in-situ).
- Third, we propose some instruments that help to collect feedback and opinions after an activity or a series of activities was conducted.
- Fourth, we add suggestions on what instruments and tools can be used to transfer the presented approaches into an online setting as more and more activities have to be done in a remote setting due to the COVID-19 situation.
- Fifth, we propose gender-sensitive participatory evaluation methods for the gender use case specifically.

## 6.1. Workshop Evaluation Instruments

The following set of workshop evaluation instruments is from its initial description oriented towards face-to-face workshops. As we are confronted with the Covid-19 situation and are currently moving workshops to the digital world, transferring these workshop evaluation methods to the digital world is requested. As will be seen, many of



these formats work with flipcharts, post-its, stickers etc. So using adequate online tools, like Miro, that copy the way of working with flipcharts and post it's in the digital world would work well to apply the workshop evaluation instruments. Furthermore, we will test new digital formats in the course of the R&I Action development.

### 6.1.1. Mood Meter

The mood meter helps to collect ongoing feedback of participants throughout the workshop.

- Draw a table on a flipchart with specific events of the workshop as columns, and three rows.
- In each row add a card and draw: a happy face, an indifferent/straight face and an unhappy/frustrated face.
- At the end of each workshop event/activity ask participants to pass by the flip chart board as they leave and place a dot sticker to indicate their mood (happy, indifferent or unhappy)
- The dots placed on the meter will show clearly whether or not participants are happy with how the workshop is going. If the Mood Meter shows that a significant number of participants are unhappy, you can inquire further by asking participants in plenary for clarification, and you can use their feedback to improve the remaining sessions in the workshop.

*Online version: Workshop events, different faces and dots can be easily visualised in an online world using Miro, or Google Documents.*

### 6.1.2. Human Scale

The human scale is a good instrument that can be used whenever workshop organisers want to have the participants' opinion on a specific question or to collect feedback at the end of the workshop.

Participants respond to questions from the workshop facilitator by taking positions along an imaginative measurement scale on the floor of the meeting room. This exercise can lead to interesting discussions on why participants have chosen to stand in a particular spot on the scale, and what could be done differently.

- Create a straight line on the floor using masking tape. Ensure the line is long enough for participants to cluster around comfortably
- Label one end of the line as 0% for instance and the other 100%, or one end as “don't agree at all” the other end as “fully agree”.
- Ask 2-3 questions that help participants reflect on the activity/session they have just experienced.
- Give participants time to decide where on the scale they would like to stand in response to the question



- Once all participants have taken position on the scale, look for patterns and clusters. Choose a few participants and ask them why they chose to stand on a particular spot of the scale.
- Optional: Note down the question on parallel on flipchart and work out a quick average where people stand, record this on the flip chart including keywords on peoples' explanations
- This can be added to by allowing people to make comments below using post-its.

*Online version: Taking positions in a room along an imaginative measurement scale is difficult in the online world. But we experimented with other approaches. For instance, in a video conference call we asked participants to turn their cameras on, we asked the question and people can provide their feedback by lifting their arm: very high arm = 100% agreement, very low arm = 0% agreement, and all the nuances in between.*

### 6.1.3. Final Evaluation Using Flipcharts

This method is used at the end of a meeting. It provides a visual record of a meetings' strengths and weaknesses, encouraging open exchange between participants.

- Compile a set of 5-6 evaluation questions (e.g.: To what extent were your expectations of the event met? To what extent did we meet the objectives (then list the main objectives of the event)? How effective was the facilitation? To what extent was the event personally enriching?)
- Write your evaluation questions on a flip chart, below each question add a scale with "5= best" and "1=worst" or "poor", "fair", "average", "good", "excellent", or create a table of evaluation questions and scale categories.
- When it's time for the evaluation exercise, ask participants to individually rate the questions by placing dot-stickers in the appropriate column for each question. Give them enough time to do so, don't observe them, remain apart or even leave the room.
- Alternative: after everyone has completed their evaluation, take note of the majority ratings and any clusters, and ask questions for clarification.
- Alternative: Define the evaluation questions or the objectives that are evaluated at the end of the meeting, in the beginning of the meeting together with participants.
- Alternative: Flip charts could be replaced by a mobile device tool like Mentimeter.



*Online version: Evaluation questions and scales can be once again visualised using Miro or GoogleDocs. Another option would be the usage of tools like Mentimeter, where participants can be asked to provide their rating individually in the form of a survey, but results from all answers are immediately shared and can be discussed together.*

#### 6.1.4. Hand Evaluation

This method is a good method of evaluating a workshop.

- Give participants a piece of paper and access to pens.
- Ask participants to draw around their hand, and record the following on the fingers of their hand:
  - Thumb – something good, something they enjoyed
  - Index finger – something they would like to point out (could be good or bad)
  - Middle finger – something bad, something they did not enjoy
  - Ring finger – something they will treasure from the activity/event
  - Little finger – something little they want to add (could be good or bad)
  - Palm – a prediction for the future – what are they going to do next?

*Online version: Workshop participants can be furnished with an electronic document that contains the hand and provides them the opportunity to add their feedback to each of the fingers.*

#### 6.1.5. Target Evaluation

This is again a method to evaluate a workshop, but also to collect participants' opinions on specific questions throughout the workshop.

- Draw a dart board on to flip chart paper.
- Divide into sections, with each section standing for instance for a task or an expected outcome of an activity.
- Ask participants to score tasks/outcomes, the best being closest to the bullseye, the worst being furthest away.



*Online version: The dart board could be prepared in a collaborative working tool like Miro and participants invited to provide their scores digitally.*

#### 6.1.6. Facebook Wall

This method is normally used for the evaluation of a workshop or session, but can also be used as an instrument throughout the workshop to collect the participants' opinion. It borrows its name from Facebook, as it uses mechanisms that are well known from the online social networking platform. But actually all activities take place in the real world, using flip charts and post-its.

- Create a set of “posts” that make evaluation points for the session or event with spaces for dislikes and likes around the post.
- Then get the people to like or dislike the post.

*Online version: Again the method of using flipcharts and post-its can be visualised in Miro. Another interesting tool for this specific evaluation method is Padlet.*

#### 6.1.7. Graffiti Wall

This is a very open format of collecting participants' experiences, opinions, ideas and thoughts.

- Put up some paper on a wall.
- Ask participants to write their thoughts on the wall.
- It is often helpful to start by writing some key questions to get the group going, e.g.: What did you enjoy? What do you want to do next?

*Online version: For this very open format Miro or Padlet would be examples for collaborative tools that let people simply share their thoughts on a wall.*

#### 6.1.8. Written Survey

This method is an alternative approach to the final evaluation using flip charts described above. It can be distributed as a “paper & pen questionnaire” at the end of the workshop; or as a link to an online form shared with participants after the workshop via email. It gives participants more time to reflect on their answers, but then misses the opportunity to have a final look at the evaluation outcomes with all participants together.



*Online version: It can also be sent as online survey at the end of the workshop.*

### 6.1.9. Write a Postcard to Your Future Self

This method helps to remind participants of the outcomes of the workshop some months after it has taken place. At the end of an enriching workshop, participants might be very enthusiastic about what they want to do with the newly gained knowledge upon their return, which activities to engage or start, with which other participants to follow up with. Using this technique, the positive changes envisioned by workshop attendees is captured.

- Ask participants during the last session of the workshop to write a postcard to themselves as a reminder for future actions, e.g. how they want to use what they learned, what their action plan is, how they want to change current practices, ...
- Collect the postcards
- 2-4 months after the workshop, send out the postcards to participants as a reminder of what they planned.

*Online version: Create an online postcard template, ask participants to write a postcard to themselves, keep the postcards stored and send them 2-4 months via e-mail to participants.*

## 6.2. In-Situ Evaluation Instruments

In-situ evaluation instruments help to collect participants' experiences, ideas and feedback while they are actively involved in one of the CoAct activities.

### 6.2.1. Cultural Probes

Cultural probes (Gaver et al 1999, Crabtree et al 2003) offer fragmentary insights into the rich nature of people's lives and are well applicable in sensitive settings. Probing is a design-oriented user involvement and research technique based on in-situ recording and documentation of users' experiences, feelings, attitudes and values by purposefully inviting and provoking them to reflect, verbalize, and visualize their (inter)actions and contexts. The technique of probing studies users in their own context by means of probes, which come in many shapes and forms and can contain all kinds of artefacts (like a camera, diary, images, postcards, ...) accompanied by evocative tasks.

Cultural probes were initially applied during the testing of new designs and prototypes, but they can be applied in every setting that requires people to collect experiences, feelings and attitudes during an activity (i.e., "in-





situation”). The cultural probe contains instruments like a camera, postcards to the researchers (e.g. to note ideas, concerns, things to take care of or focus on during subsequent discussions), a personal diary to record the participants’ daily activities, etc. After the activity, the facilitator collects the cultural probes and conducts guided interviews using the probes as memory clues. During the interviews, the probes serve as triggers for enriched discussions, as they allow the interviewers to link to the respective situation or activity where the cultural probe was used.

The following link refers to a nice example of how cultural probes can be employed:

[https://idreamindin.files.wordpress.com/2014/01/probe-final\\_v4.pdf](https://idreamindin.files.wordpress.com/2014/01/probe-final_v4.pdf)

Cultural probes have already been used in other citizen science projects, too:

<https://reparakultur.org/was-sind-cultural-probes/>

The concept of cultural probes has also been reflected as being a potential digital instrument – the so-called “**digital probes**”. Today's smartphones offer the opportunities to collect information in different formats, like typing text into diaries, taking pictures, video and audio-files, answering questionnaires, ticking tasks, etc. These digital probes offer the advantage that contact with the researchers can be created whenever wanted: the researchers can support, remind, investigate. In addition, digital probes can also be enriched by the experience sampling method, where small messages at certain time points trigger the participants to get active in their documentation of experiences. These triggers can be related to places or a specific time point, for instance. Another option could also be to mix digital probes with the “traditional” cultural probes.

On the negative side, digital probes have turned out to work mainly for younger people with the adequate digital skills, while being less accessible to older people. In addition, questions of privacy become even more important to be addressed properly when using digital probes.

### 6.2.2. User Experience Sampling

The Experience Sampling Method (ESM) enables researchers to capture information about participants’ experiences in a specific moment. ESM provides a valid instrument for systematic self-reports allowing to create an archival file of daily experiences. Upon receipt of random signals, participants respond to questions about their objective situation and their subjective state at that moment, like their cognitive, emotional, and motivational states (Larson & Csikszentmihaly, 2014). Such data can be used to generate summary accounts without the biases introduced by retrospection over relatively long periods, and allow for the observation of changes in participants over time, as well as individual differences in such changes.



In the traditional ESM study, participants are alerted randomly via digital applications (e.g. on smartphones) during fixed windows of time and asked what they are doing at that moment. But triggers can also be related to other things, for instance to certain places (GPS) or activities (e.g. along the google activities scale, like driving, walking, sitting ...). As ESM can be quite disruptive to participants' current activities, one way of reducing disruption is to ask participants to briefly enter certain information when alerted and then later on have them fill out a more extensive survey. To aid in participant recall, participants are sometimes encouraged to take photos or videos for later review in retrospective interviews or surveys, which is methodologically similar to the digital probes described above.

There are existing ESM applications such as Maestro and the Personal Analytics Companion (PACO) which alert the participant, present them with a set of questions, and automatically log the data.

A study that investigated how far users preferred an automated trigger (e.g. whenever a person does something there is a message sent) over the users' individual non-automated decision showed that users liked taking their own decisions; they thought that the data they provided in this case is richer and more meaningful (Chang et al. 2015)

### 6.3. Evaluation Instruments Pre and/or Post Experience

#### 6.3.1. Interviews

One of the main data collection methods in CoAct will be semi-structured interviews. We will for instance use this technique in the first phase of the project to collect experiences and expectations from knowledge coalition members, and in the later stage of the project to investigate intermediate and long-term effects in the three R&I Actions. Methodologically we can combine these interviews with additional instruments, such as cultural probes, that serve as visual inputs during the interview process. The main instrument of our semi-structured interviews are question guidelines, that cover the main aspects under investigation. These guidelines support the interviewer's memory on the topics of research and provide a framework of orientation to ensure comparability of interviews. They include ideas for questions guiding towards individual topics as well as pre-formulated questions to start discussions. These initial questions are broadly formulated and function "like an empty page which is filled out by the interviewee in his or her own words, structured in his or her own way" (Witzel, 2000). Narrative elements of the interview allow the interviewee at the same time to determine what is relevant for them. Through this, initial concepts that are reflected in the question guidelines are continually improved and enriched with empirically collected material.



The interviews are tape-recorded for later transcription, if agreed upon by the interviewee. Whether a recording permission is granted or not, memory minutes are elaborated by the interviewers directly after the interview, keeping records of the topics discussed, comments on situative and non-verbal aspects of the interview, as well as topics and ideas which are suggestions for later interpretations. If interviews are not recorded, interviewers will take notes and prepare detailed protocols to replace the transcript.

For the analysis of the interviews, the research team will conduct qualitative content analysis of the transcripts as proposed by Mayring (Mayring, 2000). The applied method is a technique of summarisation, whereby categories are created in an inductive procedure by reducing, paraphrasing and generalising relevant text passages using a software like MAXQDA<sup>3</sup>. The central aspect of the employed technique is to develop categories resembling the original data as closely as possible without formulating theories or concepts in advance.

The analysis will be conducted in three steps: 1) summarising, 2) explicating and 3) structuring. Systematic contrasting of R&I Actions, aiming to find similarities and differences amongst them, will follow the development of case-specific main topics.

At least two researchers will be involved in the analysis of every transcript. Only those categories and respective subcategories all can agree on will be introduced or retained. This method of co-analysis guarantees improvements of objectivity. The results do not depend on one specific person and are reproducible independently of the individual researcher. The question of how we address data privacy issues in this context is answered in detail in the deliverables of WP9.

### 6.3.2. Focus Groups

Focus group discussions are moderated group discussions on a certain topic with approximately 10 participants (Mayring, 2002). The method is widely applied in qualitative research and considered as a sort of group interview, where a semi-structured approach guides the group discussion while also relying on the responses themselves to move the interview or conversation along. The method is used for an explorative approach to reveal opinions, needs, and interests of the different interviewed groups and is normally used in three ways: it can serve as the principal data source for research, can be supplemented with, or be itself supplementary to other sources of data, such as surveys, interviews, etc.

In comparison to one on one interviews, focus groups have the advantage of allowing researchers to observe interactions on a topic, and to experience similarities and differences in participants' opinion directly, instead of deriving them from analyses of separate statements from individual interviewees (Morgan, 2011).



In recent years, articles started referencing online focus groups, which provide the advantage of participants being able to take part from far-flung settings. There are also asynchronous focus groups that are for instance organised via email, and synchronous focus groups that make use of instruments like videoconferencing systems and chats. A comparison of traditional in-person and online focus groups showed that the content of the data generated in both formats is remarkably similar (Woodyatt, Finneran and Stephenson, 2016). For sensitive topics, online focus groups might even foster participants opening up more than they would in person. In our international setting, and particularly given the current Covid-19 situation, these online focus groups might become a valuable tool for evaluation purposes.

Additional variations on the focus group format are the use of stimulus materials and projective techniques to create less analytical and more imaginative responses. For instance, moderator-introduced items and activities such as pictures, stories, videos, or game-like approaches are utilised to spark active discussion via free-form, creative opportunities for reflection.

### 6.3.3. Concept Mapping

One such technique is concept mapping (Morgan, Fellows and Guevara, 2008). Concept mapping is based on activities in which participants explore their own thinking about the topic at hand. It uses stimulus material in the form of ideas or concepts that are either produced beforehand by the moderator, or by participants themselves, and involves the whole group in arranging these concepts into one physical map. The goal is to create a map that summarises the participants' thinking on a key topic, by arranging and connecting a set of ideas or concepts that are related to this topic. In the following, we describe a step-by-step approach to implementing concept mappings:

- The moderator introduces the key topic for the concept mapping (often written down or printed out on paper for all participants to read through carefully).
- Then cards are distributed to participants and the moderator asks to think and write down two or three key issues that are related to this topic (things that can be summarised in a few words only).
- Then the group refines the initial suggestions. Participants read out their ideas and the moderator works with the group to find similar ideas, writing them down on new cards.
- When this is done, the moderator asks about other concepts that have not been mentioned and written down yet; they are written on additional cards. This continues until the group agrees that the most important concepts have been captured.



- Having completed this selection of concepts, the group now selects the most important 12-15 concepts (e.g. by voting with sticky dots that could be pinned to preferred concepts). For this selection process the moderator could indicate that concepts should have a relatively important relation to the topic and should be relatively different from each other.
- Now the remaining concepts are arranged in a physical mapping that captures the relationship between concepts.
- The moderator asks the group to identify a pair of concepts that are closely related to each other and then asks the group if this pair should be near the centre, off on one side or somewhere in a corner. If this initial pair is rather central, the moderator could ask which other concepts or pairs of concepts are related to this initial pair. If it is rather on the side, the moderator could ask participants to choose another pair of related concepts and place it in relation to the first one.
- Stepwise all concepts are placed on the map and the relation between these concepts discussed and described on the map.
- Alternatively the group could discuss potential concepts that might become central (if there is no central concept on the map), or about opportunities that other concepts could become central (if there is one central concept on the map).
- Thus, this initial concept mapping allows us to reflect on potential changes in importance of concepts and relations between them.

If there are several focus groups with different types of participants, it would also allow to compare concept maps between different target groups or types of participants.

Another option for stimulating creative reflection in addition to the classical analytical approach of focus groups is the work with visualisations and metaphors. One very concrete technique that uses these approaches are network maps as described below in chapter 6.3.3.

Whenever we think of group discussions in the form of focus groups, there are important ethical challenges to be considered and addressed during the informed consent process. These challenges are well described in Sim and Waterfield (2019), and include aspects like consent, confidentiality, and anonymity due to the unpredictability of the discussions taking place in the group, and the researcher's limited control over what participants may subsequently communicate outside the group. These challenges will be carefully addressed when organising a focus group.



#### 6.3.4. Ego-Centric Networks / Network Maps

An interesting approach to investigate the social networks of participants, is the use of ego-centric networks. These networks examine people's immediate neighbors and associated interconnections, which helps us learn how individuals correspond with their social network. It is a methodological tool used to understand the structure, function, and composition of network ties around an individual. Ego-centric network analysis assesses individuals' personal community networks across any number of social settings. It is concerned with the way people's patterns of interaction shape their individual-level outcomes (such as health, voting behaviour, employment opportunities, etc.). Ego-centric analysis shifts the analytical lens onto a sole ego actor and concentrates on the local patterns of relations in which that ego is embedded, as well as the types of resources to which these relations provide access (Carolan, 2014).

Ego-centric analysis can be used to investigate peoples' personal networks, but it can also be applied to draw a future scenario of what they would like their social networks to look like, or to record after an intervention in what way a certain activity/communication instrument/etc. appears in people's ego-centric networks or has changed this network. Thus, this method might be interesting for instance in the mental health R&I Action in Barcelona.

#### 6.3.5. Pre/Post Questionnaires

While qualitative data collection methods deepen the researchers' understanding of the most relevant aspects influenced by the CoAct project's interventions in the different R&I Actions, including the concepts and principles behind them, quantitative questionnaires support the collection of broader feedback. Questionnaires are a common tool for citizen scientists to self-assess the perceived benefits from their involvement in a research endeavour, such as learning new knowledge, increasing their awareness for certain topics, learning about the processes of scientific inquiry, and getting a deeper understanding of scientific outcomes. There are also some initial shared resources online that help collect insights into participants' motivations, satisfaction, benefits, self-efficacy, etc (Phillips et al., 2018). Although these resources were developed with a strong focus on natural sciences and environmental protection, we can adapt and extend them to investigate individual outcomes from citizen social science activities. In addition, pre/post data from the questionnaires can be used to evaluate participants' expectations towards the project and satisfaction with engagement opportunities and the research process as a whole.



As soon as co-researchers and knowledge coalition members decide on the usage of questionnaires, the evaluation team will support use R&I Action partners in defining the variables, extracting them from previous research and testing them with respect to reliability and validity. To determine the effectiveness, strengths, and weaknesses of a questionnaire, a survey pre-test will always be performed. The aim is to create a reliable question format and a good wording and order. Cognitive pre-tests (comprehension probing) (Pruifer & Rexroth, 2000) with approximately three to five participants will be performed: Cognitive pre-testing is a well-known method to collect verbal information regarding survey responses and to evaluate whether the question is measuring the construct the researcher intends to measure. The results from pretesting will then be used to adjust problematic questions in the questionnaire.

#### 6.4. Online Support Tools

As a reaction to the current COVID-19 pandemic, interactions within the R&I Actions have to be at least partly transferred into online settings. While this situation is clearly not ideal for many participants, it may also enrich the process and allow us to partially expand the groups of stakeholders to be engaged. This change in setting needs to be reflected and will be jointly discussed in the consortium as part of the cross-case learning.

Most of the evaluation methods and instruments for co-evaluation presented above can be applied in online settings. Nowadays we have a wide range of online collaboration software available that offer the possibilities of connecting people remotely, jointly editing documents, creating new digital artefacts, and documenting all interactions. For most of the tools available, there are proprietary systems as well as Open Source versions available. In addition, many collaboration software providers offer a limited free version with restricted access to certain features or restricted number of users, and an extended version with usage fees. Typical collaboration tools that we envision to be used for online co-evaluation purposes are e.g.:

- Video conferencing systems: Zoom, Skype, jitsi, GoToMeeting
- Chat Apps: WhatsApp, Telegram, Signal
- Online tools for brainstorming, mapping, etc: Padlet, Miro
- Online polls: Mentimeter, Slido

While we can make great use of these online collaboration tools, communication and collaboration via digital media requires some adaptations, and when using them for our purposes we need to consider certain aspects. A prerequisite for any online interaction is the access to a stable internet connection, which might not always be available for our co-researchers, knowledge coalition partners, or other stakeholders. A second aspect to consider when planning any online interaction is the required digital skills. While many of us have adapted to a remote and



digitally mediated working style, this might not be the case for all CoAct co-researchers and other stakeholders. Thus, when introducing a new digital tool it is important to consider the digital skills of all participants and make sure that people can familiarise themselves with the digital environment and work processes. Depending on the specific settings of the R&I Actions we will try to find the most appropriate online support tools.

Another crucial aspect for any digital co-evaluation interaction and citizen social science in general is the responsible management of personal data. Data privacy and data security need to be considered and secured according to the data management plan of the project. Thus, when working in remote online settings with co-researchers, research subjects, and all other actors engaged in the different R&I Actions it is important to both obtain informed consent from the participants, and to make sure that data shared online is handled according to the defined data management processes (see Deliverables D1.2 and D9.3).

### 6.5. Gender-Sensitive Participatory Evaluation Methods

Applying gender-sensitive evaluation methods to collect evidence for impact in the Gender Equality Research Pilots will certainly be key. As we have not launched the open call for citizen social science initiatives addressing gender equality yet, we are unable to define output and outcome indicators and suggest concrete evaluation instruments. Nevertheless, we can already point to useful collections of participatory evaluation methods. In the *Toolkit on Gender-sensitive Participatory Evaluation Methods* (Murthy, 2015), we find a long list of tools that are either conducted individually with participants or as group exercises with several participants, and take gender issues specifically into focus. Some of these group exercises are very interesting to our project and could be adapted to the specific context and expected impact (see some examples in the following Table 11).

<p><b>Gender and diversity sensitive resource mapping</b></p>	<p>To map changes (and reasons) in which communities own private land (and of what quality), which do not, and who has access to and control over common property resources and who does not.</p> <p>To map changes (and reasons) in whether it is men or women within the households who own land and access to/control over common property resources.</p>
<p><b>Mapping of decision-making power from a gender lens.</b></p>	<p>To discern the degree of decision-making by women in community level accountability structures and ascertain whether the degree of decision-making has improved.</p>





<b>General and gender-related conflict mapping</b>	To map general and gender-related conflicts, and the increase/decrease in conflicts since project inception
<b>Time-line of changes in women's lives</b>	To ascertain changes in women's status over time, and reasons for the same (project/programme or other factors).

Table 13: Selected gender-sensitive evaluation methods (taken from Murthy, 2015)

## 7. CoAct Indicators Set

### 7.1. KPIs

In the Description of Work, CoAct already defined a set of KPIs that will be gathered across the R&I Actions and can be regarded cumulatively as general project KPIs. The three indicator tables above from the different R&I Actions all feed into achieving these general KPIs (see Table 12 below).

	<b>Co-Researchers &amp; Citizen Scientists</b>	<b>CoAct Professional Researchers</b>	<b>Knowledge Coalition</b>
<b>Output</b>	+250 co--researchers engaged in CoAct! R&I Actions +70 co--researchers trained on (Open) data literacy	+3 inclusive and Open tools created for Citizen Social Science practices, left Open in GitHub and CoAct! website	+15 public bodies and institutions effectively engaged in R&I Actions  +2 new digital platforms for collaborative Citizen Social Science created and left Open in GitHub
<b>Outcomes</b>	+70% of co--researchers interested in further participating to R&I processes +70 % of co--researchers felt that they really contributed to the research and innovation process	+5 Open Access scientific papers with co--researchers as co--authors (KPI 1) +4 conceptual scientific Open Access papers, based on CoAct! methodological framework +15 CoAct! presentations at international scientific conferences, left open in Zenodo	+3 actions plans or better or new policies measures proposed  +15 public and/or scientific conference presentations of results made by co--researchers, left open in Zenodo and CoAct! website

Table 14: CoAct KPIs



The R&I Actions will feed these KPIs differently, as they are set up in very different contexts, work with different target groups and address highly diverging topics. Thus directly comparing the impact of the different R&I Actions will not be possible, but the following R&I Action indicators will allow us to understand outputs and outcomes from each action in more detail and see which R&I Action impacted the participating co-researchers, professional researchers and coalition members in the short- and long-term.

## 7.2. Qualitative Co-Created R&I Action Indicators

In Chapter 5 we introduced the outputs, intermediate, and long-term outcomes that we expect from the citizen social science activities, addressing co-researchers, professional researchers, and knowledge coalition members. These indicators emerged from first online and face-to-face working sessions together with the consortium partners. As we mentioned, these indicators are only a starting point, as the upcoming workshops and discussions with our target groups will help us capture and better understand their specific expectations and desired outcomes from their involvement in the CoAct project.

In the following table we have summarized the main R&I indicators from the separated tables above, to provide an overview of this initial baseline that will be continuously adapted and critically reflected, as we work with the knowledge coalition and the co-researchers (see Table 13 below).

	<b>Co-Researchers &amp; Citizen Scientists</b>	<b>CoAct Professional Researchers</b>	<b>Knowledge Coalition</b>
<b>Output</b>	Nr. of identified and involved co-researchers  Workshop and engagement opportunities organised; active engagement of co-researchers  Perceived usefulness of engagement activities and research process	Developed methods and a process how to involve citizens in citizen social science; formative feedback and practical experience  Developed prototypes, tools and materials that help to investigate the research topic  Crowd-sourced data  Open discussions on social problems and potential solutions	Knowledge coalition members identified and actively involved;  Workshops and engagement opportunities organised;  Perceived usefulness of workshops and involvement activities  Policy briefs and guidelines



<b>Inter-mediate outcomes</b>	Capacity building, increased knowledge Engagement, Mobilisation Awareness, consciousness, understanding of the topic under research Higher data literacy Better understanding of citizen social science processes	Richer expertise on the case-specific social topic under investigation Lessons learned and experiences on citizen social science processes (what works and what does not work) New insights into social impact assessment of citizen social science activities Scientific publications Open Data publication	Capacity building of the knowledge coalition members Networking and experience exchange with other stakeholders Acceptance of citizen expertise by authorities; learning about the living world of citizens. Better understanding of citizen social science and how it aims to address the selected societal challenges
<b>Long-term outcomes</b>	Empowerment Decision power Self-determination Improved quality of life Alternative and appropriate measures that address the case-specific social challenges	Validity of citizen social science models for policy making Sustainable links to the knowledge coalition members New research questions related to the topic of research and citizen science practices	Implementation of new tools and strategies to address the case-specific social challenges Changes of regulations

Table 15: Co-created R&I indicators

In the course of the project, WP7 will construct a cross-case comparative scheme. Even if the indicators will be very different, we will be able to show which indicators work better in which setting, and which indicators could still be worth a try in another R&I Action.

### 7.3. Wider Relevant Indicators

In 2015 the EU MoRRI<sup>5</sup> indicators were introduced to respond to the need to assess RRI aspects in national research systems and provide a useful tool for the purposes of evaluating research funding and policies at the national level. As such, these national level indicators with a focus on performance of research funding and research performing institutions are not applicable to the evaluation of social innovation activities and even less for grassroots innovations, such as those brought forward in citizen social science activities. Still, the six key dimensions of RRI identified by MoRRI of ethics, governance, public engagement, science education, open access, and gender equality provide an appropriate basis for evaluating RRI in grassroots innovations. CoAct has thus been building on these key dimensions and initially brought forward a first attempt to map some of our general KPIs to the RRI indicators (see Figure 7 below).

<sup>5</sup> <http://morri-project.eu/>



Similar to MoRRI indicators, the United Nations Sustainable Development Goals (SDGs) scheme introduces a set of universal sustainability goals which as such do not provide clear indicators for assessing the sustainability of social grassroots innovation actions. SDG impact assessment and evaluation methods are still in a development stage, especially considering the establishment of metrics to measure the impact of innovation and new technologies on the SDGs. Therefore, we have identified a first selection of generally relevant SDG indicators and made an initial mapping of these indicators with our general CoAct KPIs (see Figure 11 below).

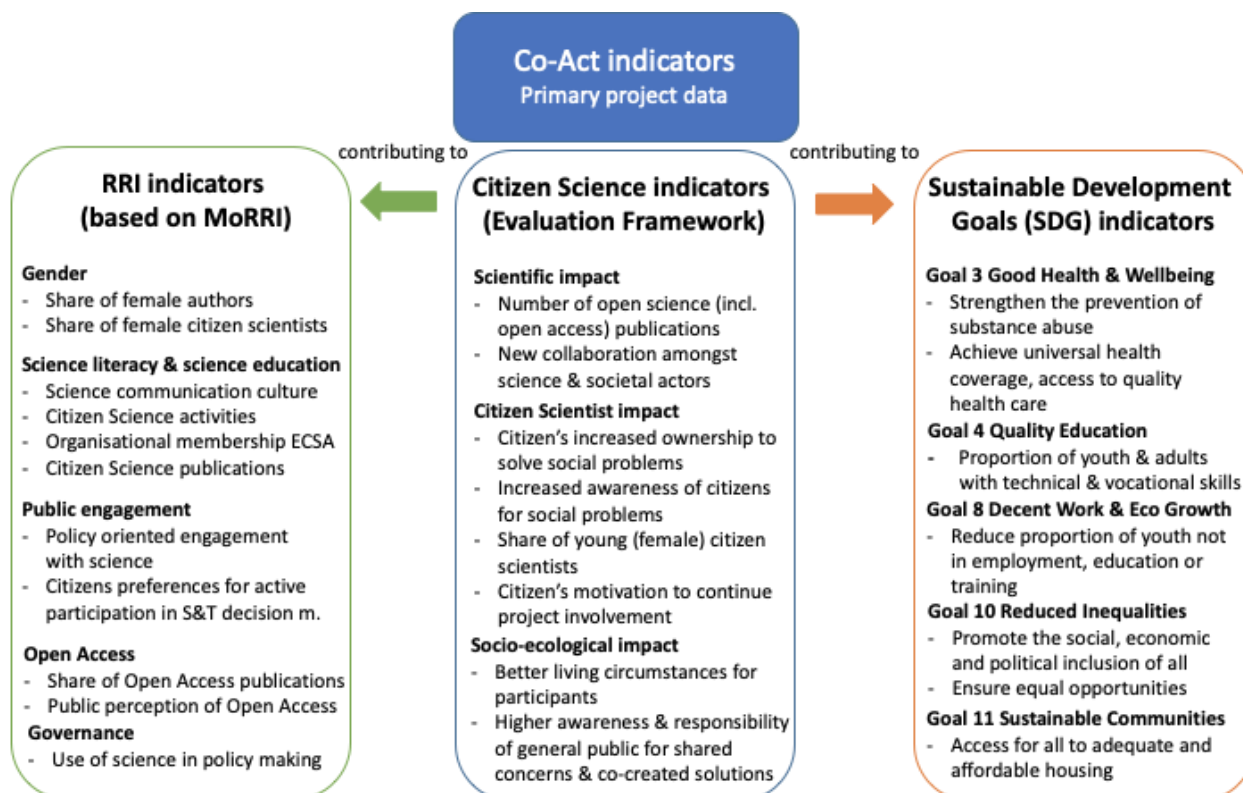


Figure 11: CoAct's relation to MoRRI and SDG indicators

We will critically reflect and contribute with lessons learned concerning the applicability of MoRRI and SDGs on CoAct citizen social science activities. Some MoRRI indicators are currently being critically revised by the SuperMoRRI project as there has been an agreement that MoRRI has not fully considered bottom-up social innovation processes, as the indicators have been focused on research institutions. In this, SuperMoRRI will contribute to advance beyond the MoRRI project by developing a proper scientific understanding of the complex and diverse relationships between RRI policies and practices and their societal, democratic, economic, and scientific benefits. Being at an experimental level, the indicators will mostly be of qualitative nature, but with the

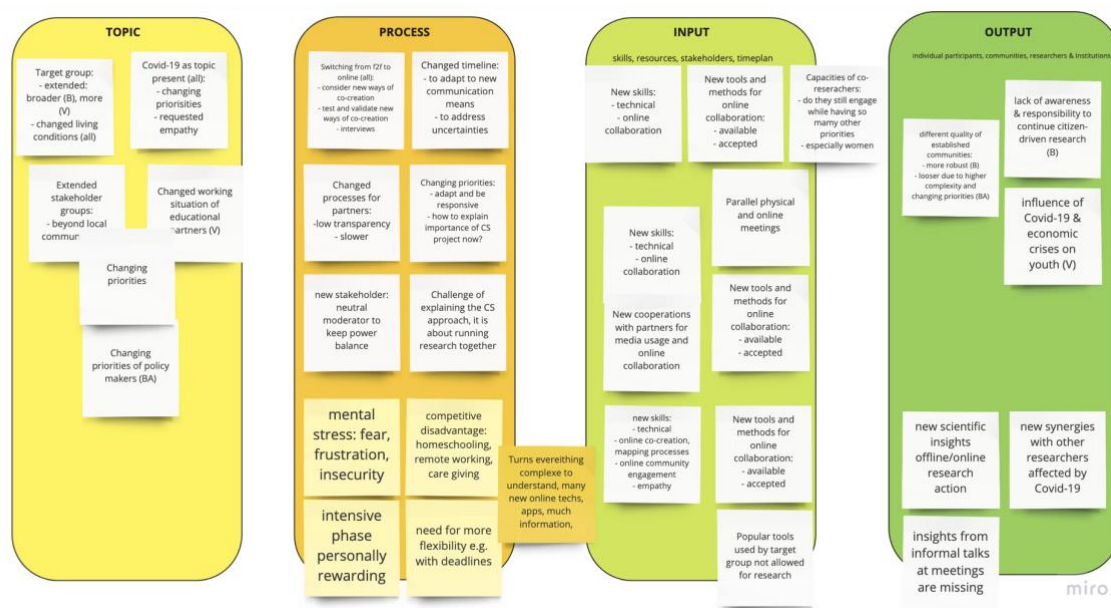


experiences from the R&I Actions we also expect to provide quantitative indicators to be added to the current evolution of MoRRI indicators.

## 8. Covid-19 and its Effect on CoAct

The Covid-19 crisis has been critically affecting the CoAct project since March 2020, as all partners are situated in countries where the pandemic had a severe societal impact. As reported in the CoAct Covid-19 contingency plan, that was elaborated as part of Task 1.3 Project Quality Assurance and Risk Mitigation and shared with the project officer, the pandemic has not only slowed down the overall research process, it has also put researchers in challenging working situations, while also affecting the R&I Actions directly in terms of the social challenges they focus on. It has also increased the vulnerability of the co-researchers in all three R&I Actions, which has to be considered in our co-evaluation approach.

In order to assess how Covid-19 is affecting the R&I Actions individually and collectively, WP7 organised individual reflective sessions with the research teams of the three R&I Actions as well as a collaborative cross-case reflection session. The input from the individual research teams was anonymised and presented in a structured way to the whole CoAct team. This led to further discussions on mutual support, alternative approaches, and new formats, as all three teams are faced with the challenge to move part of their activities from face-to-face encounters to online interactions with their various stakeholders. Figure 12 below shows the results of the collective Covid-19 reflection session.



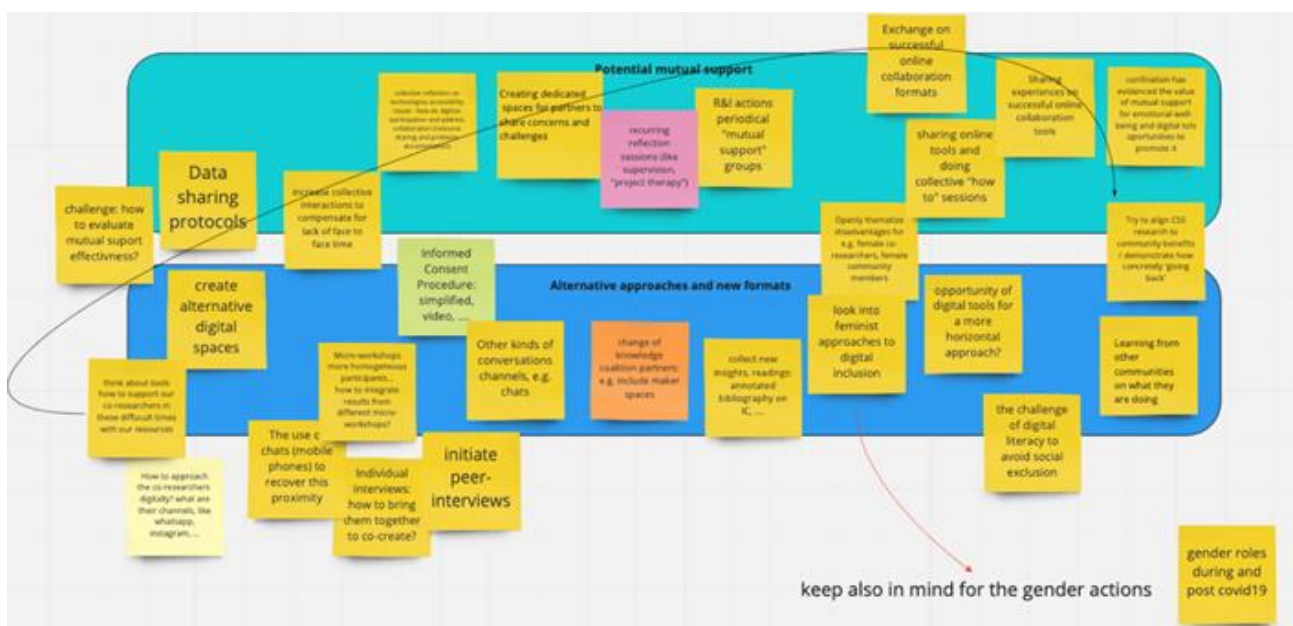


Figure 12: Raw results of the collective Covid-19 reflection session

From a co-evaluation perspective it is important to adjust to the changing situation and support the R&I Actions in adapting to the changing priorities of their stakeholders, most importantly the co-researcher and the knowledge coalition members. It is important to jointly brainstorm with these stakeholders on how to align the CoAct research to better support co-researchers’ communities and their concerns. This may also imply that some of the indicators defined for the three R&I Actions may still change in the course of the project, due to the specific needs and changing situation of the co-researchers. Thus, a flexible adaptation may be requested and is part of the core principles of co-evaluation (e.g. openness, reflectivity, flexibility) as defined above.

## 9. Summary and Outlook

Evaluation approaches in citizen science have advanced significantly over the last years. While traditionally projects were mostly assessing their academic output in terms of scientific data and published insights, we nowadays have a good knowledge pool and best practices on how to assess impact beyond the purely quantitative publication output. Typically, participation in a citizen science project is associated with a learning process on the side of the participants, with the learning outcomes being assessed according to standard protocols. When it comes to assessing transformative effects of learning, such as changes in behavior, awareness, and stewardship, these are often based on assumptions, and are rarely evaluated in a transparent way by the projects (Bela et al., 2016; Phillips et al., 2018). There are even less experiences in citizen science on how to assess outcomes such as a





sense of empowerment, a feeling of contributing to science, or insight into one's values and interests (Groulx et al., 2017). This is however precisely one of the challenges we want to address in the evaluation of CoAct.

In citizen social science we are faced with challenges from the lifeworlds of our co-researchers, who are most likely less concerned with academic output and publications. Instead, they expect some changes in their personal lives and their socio-economic contexts from their participation in citizen social science endeavours. In CoAct, we have chosen to follow a co-evaluation approach, precisely in order to integrate the interests of our co-researchers in a relationship that is decidedly non-hierarchical. Because of this, we expect this participatory approach towards evaluation to be a rough and challenging journey that will however reward all actors with valuable insights into how citizen social science can contribute to facing social challenges in alternative and beneficial ways for all people involved.

Our next steps in co-evaluation will continue with established processes and following the basic principles as described in Chapter 4 above. In the first engagement sessions with the co-researchers and the knowledge coalition members it will be important to establish these non-hierarchical relationships and create joint ownership over the process. Equally important for the further implementation of a co-evaluation process will be the establishment of an open, trusted, and reflective collaborative culture across the R&I Actions. Mutual learning across the R&I Actions and capacity building across the project partners is going to play an important role in the coming project phases.

In addition to working across the R&I Actions, we also want to learn from others beyond the consortium. To this end, we have already started to get in contact with other relevant projects and exchange experiences on evaluation and impact assessment approaches in citizen science, such as MICS, and eu-citizen.science project.

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## 11. Annexes

### Annex 1: Coact FrenaLaCurva Questionnaire

¡Gracias por tu participación en CoActFrenaLaCurva! Por favor, tómate un momento para darnos tu opinión rellenando esta pequeña encuesta.

Esta información es recogida por el Centro de Innovación Social de Viena, Austria, que es socio del proyecto de Ciencia Ciudadana SocialCoAct. Los datos recogidos en esta encuesta se utilizan únicamente para fines de investigación, son tratados de forma anónima y no serán compartidos con terceros.

Rellenando esta encuesta aceptas estas condiciones, de las que puedes retirarte en cualquier momento. En caso de cualquier pregunta o solicitud con respecto a esta encuesta, te invitamos a contactar a la Dra. Barbara Kieslinger ([kieslinger@zsi.at](mailto:kieslinger@zsi.at)) en primera instancia, o a informar a [coact@zsi.at](mailto:coact@zsi.at)

1. ¿En qué ámbito de trabajo participaste principalmente? (relatos, tecnología, comunicación)
2. ¿Cuál fue tu motivación para inscribirte en el desafío de CoActFrenaLaCurva? (pregunta abierta)
3. ¿Qué tan satisfecha estás con la colaboración durante esta semana? Por favor, díganos por qué. (escala + campo de texto abierto)
4. ¿Qué tan satisfecha estás con los resultados de todo el equipo que trabaja en el desafío de CoActFrenaLaCurva esta semana? Por favor, díganos por qué. (escala + campo de texto abierto)
5. ¿Qué tan útil calificarías los resultados de esta semana para los demás (tal y como está ahora)? Por favor, díganos por qué. (escala + campo de texto abierto)
6. ¿Cuál es el principal valor para tí personalmente por haber participado en esta actividad? (campo de texto abierto)
7. ¿Cuáles crees que son los principales valores potenciales de la plataforma CoActFrenaLaCurva durante la crisis de Covid-19 y después?
8. ¿Algún otro comentario que quieras compartir? (campo de texto abierto)
9. ¿Tu rango de edad es?
10. ¿Cual es tu sexo?
11. ¿Cual es tu profesión?
12. ¿Cuál es tu residencia actual?



### English Translation:

Thanks for your participation in the CoAct FrenaLaCurva activities! Please take a moment to give us your feedback by filling in this short survey.

This information is collected by the Centre for Social Innovation in Vienna, Austria, who is a partner in the CoAct Citizen Social Science project, responsible for evaluation. The data collected from you in this survey is used solely for research purposes, is treated only in anonymised form and will not be shared with any third party.

By filling in this survey you agree to these conditions, from which you can withdraw at any time. In case of any questions or requests regarding this survey, you are invited to contact Dr. Barbara Kieslinger ([kieslinger@zsi.at](mailto:kieslinger@zsi.at)) in the first instance, or to inform [coact@zsi.at](mailto:coact@zsi.at)

1. In which working areas did you mostly participate? (content, technology, communication)
2. What was your motivation to sign up for the CoAct challenge? (open text field)
3. How satisfied are you with the collaboration during this week? Please tell us why. (5 point scale + open text field)
4. How satisfied are you with the results from the whole team working on the CoAct challenge this week? Please tell us why. (5 point scale + open text field)
5. How useful would you rate the outcomes from this week for others (as it stands now)? Please tell us why. (5 point scale + open text field)
6. What is the main value for you personally to have participated in this activity? (open text field)
7. What do you think are the major potential values of the platform during and after the Covid-19 crisis? Please tell us why? (open text field)
8. Any other comments you would like to share? (open text field)
9. What is your age range? Below 18; 19-29, 30-39, 40-49, 50-59, 60 and over
10. What is your gender? Male, female, diverse, prefer not to say
11. What is your profession? (open text field)
12. What is your profession? (open text field)
13. In which country do you currently live? (open text field)



## Annex 2: Kick-Off Meeting Co-Evaluation Reflection

### R&I Action on Mental Healthcare in Barcelona:

	Level: Process	Level: Results	Dimensions: Science/Citizens/Policy / (Socio-) Economy / Environment
Expectations	establish a well functioning process of regular exchange (via online diary and regular meetings)	a culture of open sharing of learnings; also sharing negative experiences	Focus more on the “social” aspects of Citizen Science
Objectives	<ul style="list-style-type: none"> <li>- Science/Citizen Science view: Learn about roles and behaviour of all members of mental health care ecosystem</li> <li>- Mental health patients view: Have a satisfying life; self-determination; meaningful process.</li> <li>- Other participants view: Have great power in research agenda decision making, meaningful process for families</li> <li>Knowledge coalition view: public administration, mental health service providers helping families in the recovery process (Federation)</li> </ul>	<ul style="list-style-type: none"> <li>- Demonstrate effectiveness of Citizen Science</li> <li>- Personal caregiver plan (Federation) + IT support (UB)</li> <li>- Improve recovery process</li> </ul>	<ul style="list-style-type: none"> <li>- Giving an equal voice to the different participants: Experts in the research team, in the knowledge coalition and the specific target group of people with mental health issues and their families and informal caregivers</li> <li>- Science-CS: Crowd-sourced evidences to improve quality of life of all actors</li> </ul>
Methods	<ul style="list-style-type: none"> <li>- individual talks with stakeholders</li> <li>- Discussion groups, workshops with representatives, caregivers, self-experience, professionals,</li> <li>- focus groups with co-researchers</li> <li>- Develop collective data analysis methodologies</li> </ul>	<ul style="list-style-type: none"> <li>- As easy as possible, and, intelligible for citizenships</li> <li>- Relation with family: all have issues → taking it away from personal level</li> <li>- Define &amp; prioritise resources for caregivers</li> </ul>	<ul style="list-style-type: none"> <li>- Scientists: Learning about the process (especially about what did not work)</li> </ul>
Objects, Data, Performance	<ul style="list-style-type: none"> <li>- Identifying co-researchers</li> <li>~50 co-researchers: self-experience, caregivers, professionals</li> <li>~500 volunteers: families, caregivers, mental health</li> </ul>	<ul style="list-style-type: none"> <li>- Families finding new tools and new strategies to manage mental health care provision</li> <li>- Useful, unique</li> <li>- Municipality: Provide/receive</li> </ul>	<ul style="list-style-type: none"> <li>- Strategies for families on how to accompany the persons with mental health problems from recovery model</li> </ul>



	<p>patients</p> <ul style="list-style-type: none"> <li>- Level of participation: Co-design, collaboration, co-creation</li> <li>- Taking care of not overloading families and users participating in the project</li> <li>- Psychiatric, NOT neurological, mental health (i.e. not dementia)</li> </ul>	<p>recommendations and new policies based on evidence and by listening to persons with mental health issues</p>	
Evaluation	<ul style="list-style-type: none"> <li>- Clear expectation management on all levels</li> <li>- Defining point for participation in the evaluation; when and how to involve which actors?</li> </ul>	<p>Have some points of comparison between the different case actions of CoAct</p>	Evaluate Social Impact
Benefits	<ul style="list-style-type: none"> <li>- Citizen Scientists: Self-reflect on their role inside mental health ecosystem</li> <li>- Mental Health Federation: New processes and new methods to enlarge their social impact and public visibility</li> <li>- Participants: Enjoy the process and gain data literacy</li> </ul>	<ul style="list-style-type: none"> <li>- First prototype of materials and tools</li> <li>- policy recommendations</li> <li>- Clear improvements in lives and recovery for families and users</li> <li>- Scientists: Scientific publications</li> <li>- Co-researchers: Being heard, listened to, given a voice</li> </ul>	Produce some new policies and implement them
Openness, RRI, Legal Framing	<ul style="list-style-type: none"> <li>- Feeling secure in the process</li> <li>- Generate some new model for dynamic informed consent</li> </ul>	<p>Clear definitions of who uses data/results; data ownership</p>	questioning power relationships

R&I Action on Youth Employment in Vienna:

WP4 Vienna	Level: Process	Level: Results	Dimensions: Science / Citizens / Policy / (Socio-)Economy / Environment
Expectations	<ul style="list-style-type: none"> <li>*Challenging Group Dynamics</li> <li>*Different Expectations by young people/stakeholders/ researcher as well as within the groups</li> </ul>	<ul style="list-style-type: none"> <li>*Ideas for new measures</li> <li>*More insight into the lifeworld of youths</li> </ul>	<p>*Stakeholders: Policymakers, "Production schools", Providers ("Träger", e.g. WAFF, Sozialministerium(sservice), FSW, Caritas, VHS, ...), Grassroots social workers, Pedagogues, Parents/legal guardians</p>



			*Involvement of parents, carers, youth/child care workers may be critical
<b>Objectives</b>	<ul style="list-style-type: none"> <li>*Successful process with co-researchers</li> <li>*High participation</li> <li>*High interest and openness by stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>*Better measures and youth appropriate offers</li> <li>*Research results about expectations of citizen science's ideal learning environments</li> </ul>	
<b>Methods</b>	<ul style="list-style-type: none"> <li>*Co-Research process is set to be rather short (weeks) -&gt; high fluctuation possible, high flexibility necessary</li> <li>*Negotiations with young people about methods &amp; adaptations</li> <li>*rethinking methods &amp; methodological questions</li> <li>*PAR - methods depend on target group's capacities &amp; Research Interests</li> </ul>	<ul style="list-style-type: none"> <li>*More adapted methods</li> </ul>	<ul style="list-style-type: none"> <li>*Parents* involving themselves in the process (unconstructively)</li> </ul>
<b>Objects Data Performances</b>	<ul style="list-style-type: none"> <li>*Involvement of social workers of production schools needs to be decided</li> <li>*Type of data relies on young people's capacities / research questions</li> <li>*All social scientific methods - qualitative &amp; quantitative -may come to use</li> </ul>	<ul style="list-style-type: none"> <li>*If results differ from expectations, it should not be a point of contention, but a jumping off point to strengthen research design, etc. in the future</li> <li>*2nd level observation protocols transparent + used with target group</li> <li>*Interviews/observation protocols (non participatory)</li> </ul>	<ul style="list-style-type: none"> <li>*Possible changes within structures (e.g. production schools) would necessitate a change in research design</li> </ul>
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>*Observation, Participant Observation, PAR -&gt; evaluate features and peculiarities of each approach</li> <li>*Ongoing reflection of research process with co-researchers</li> <li>*Meetings with stakeholders during the process</li> <li>*Research diary (all co-researchers)</li> </ul>	<ul style="list-style-type: none"> <li>*Evaluation as a means to show and/or open up different paths</li> <li>*Evaluation of results: Focus on the specifics of an underage target group</li> </ul>	<p>3 Levels:</p> <ul style="list-style-type: none"> <li>*Academic Research Level</li> <li>*Citizen Science Level</li> <li>*Policy Level</li> <li>- PAR is usually successful on at least one level</li> <li>- Evaluate and focus on value on different levels</li> </ul>



<b>Benefits</b>	For Citizen Scientists: - Gain competences - Consciousness building - Empowerment	*Adapted methods	*Citizen Scientists being taken seriously *Citizen Scientists getting a voice in the process of restructuring measures *Policymakers measures *Policymakers learn about the ideas & living worlds of their target group
<b>Openness RRI Legal Framing</b>	*Translation of legal responsibilities to understandable language *Underage Co-Researchers Best practice experiences when coaching co-researchers -> dealing with group dynamics, marginalization, etc.	*2nd level data (observations, analysis, etc.) -> less raw data & no personal data	*Which publics get access to which data? *Data transparency vs. privacy concerns of underage target group

R&I Action on Environmental Justice in Buenos Aires:

<b>WP5 Buenos Aires</b>	<b>Level: Process</b>	<b>Level: Results</b>	<b>Dimensions: Science / Citizens / Policy / (Socio-)Economy / Environment</b>
<b>Expectations</b>	*Richer expertise *Solution *Will policy-makers be receptive? *Prior experiences with research – scepticism because a lot of research with no modifications	*Decision power	*Quality of life *No habermasian society! *Preconditions? Promises? (Pollution for 150 years) *Poverty *Change of government *Privacy
<b>Objectives</b>	*Authorities need to accept citizen expertise *Validity of citizen social science models for policy	*Participation of citizens *Change of regulations	*Sanitation policy *Challenge the authorities
<b>Methods</b>	*Engagement *Mobilisation *Open, horizontal discussion	*"Trueque" – Barter	*Economic perspective



<b>Objects Data Performances</b>	<ul style="list-style-type: none"> <li>*Regular meetings, phases</li> <li>*Assembly meeting places, word of mouth, mobile phones</li> <li>*Form of organisation, Governance</li> </ul>	<ul style="list-style-type: none"> <li>*Facebook page</li> <li>*Blog (Mining?)</li> <li>*Maps/mapping</li> <li>*FARN library</li> </ul>	<ul style="list-style-type: none"> <li>*Information complaints, contact points</li> <li>*Different neighbourhoods; Socio-environmental assemblies; (Position?); NGOs; Universities/bottom up researchers (groups); legal actors; policymakers; trade unions; representatives/national ombudsperson; private sector/start ups (“new economic actors”)</li> <li>*Companies/local industries missing</li> </ul>
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>*Economic components</li> </ul>	<ul style="list-style-type: none"> <li>*Platform</li> <li>*Citizen alerts</li> </ul>	<ul style="list-style-type: none"> <li>*New green solution</li> <li>*<b>Greenwashing!?</b></li> </ul>
<b>Benefits</b>	<ul style="list-style-type: none"> <li>*Policy programme,</li> <li>*Formal/informal power, consultative powers</li> <li>*Sustainability</li> <li>*Mobilisation</li> <li>*Engagement format – positive impact?</li> </ul>	<ul style="list-style-type: none"> <li>*Capacity building!</li> <li>*Legal case -&gt; legal instruments!</li> <li>*Sensors, local wifi network</li> <li>*Tourism</li> </ul>	<ul style="list-style-type: none"> <li>*How to put forward the economic situation</li> <li>*Resettlement/Clean up</li> </ul>
<b>Openness RRI Legal Framing</b>		<ul style="list-style-type: none"> <li>*Capacity building: Building the capacity to connect; campaigning, networking, professionalisation</li> <li>*Access to supreme court</li> <li>*Speed!</li> </ul>	<ul style="list-style-type: none"> <li>*Contact with industry</li> </ul>

