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Guideline on ARCH co-creation approach

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Executive Summary

This document was prepared in the framework of the research project ARCH: Advancing Resilience of historic areas against Climate-related and other Hazards, specifically Work Package 3, which concerns co-creating resilient and sustainable historic areas with the cities of Bratislava (Slovakia), Camerino (Italy), Hamburg (Germany) and Valencia (Spain). Its purpose is to establish a harmonised methodological approach and framework for the cooperation between scientific partners and city partners within the project.

More specifically, this document serves to define a common vision, principles and a practical framework ('rules') for working together, as well as identifying possible barriers and suggesting strategies to overcome these. It was developed drawing on literature review, but also input collected from the project team, through two workshops (held in Bratislava in June 2019 and in Brussels in November 2019), organised and facilitated by ICLEI.

Revisions were made in October-November 2020, following discussion with the project team at an online meeting in September 2020.

1. Introduction

1.1. Purpose and context of this report

The purpose of this document is to ensure a harmonised methodological approach for cooperation between scientific and city partners in the research project ARCH: Advancing Resilience of historic areas against Climate-related and other Hazards.

ARCH will develop a unified disaster risk management framework for assessing and improving the resilience of historic areas to climate change-related and other hazards, including tools and methodologies to be combined into a collaborative disaster risk management platform for local authorities, urban/peri-urban populations, and (inter)national expert communities. To support decision-making at appropriate stages of the planning and management cycle, different models, methods, tools, and datasets will be designed and developed.

The project will actively support local work in the four partner cities of Bratislava (Slovakia), Hamburg (Germany), Valencia (Spain) and Camerino (Italy). More specifically, this document serves to define a common vision, principles and a practical framework ('rules') for working together, as well as identifying possible barriers and strategies to overcome these.

The target audience is the project team (researchers and city partners) directly engaged in the ARCH consortium, however it is anticipated that the framework provided may also offer a basis for city partners to engage and work effectively with their local stakeholders.

1.2. Structure of this report

The report is divided into six parts. Following this introduction, Part 2 provides background and the methodology used to develop this document. Part 3 reflects on definitions of co-creation from literature and other projects, before defining an ARCH project-specific vision for co-creation. Part 4 outlines six principles that will support the process as well as self-assessment questions to prompt partners to reflect on how to make these principles operational in their own working approaches. Part 5 describes potential challenges and obstacles that may arise within a co-creation process and provides recommendations on how to tackle them. Finally, Part 6 proposes an operational framework for the project team to work together.

2. Background and methodology

2.1. Background

The ARCH project team intends to adopt a co-creation process to ensure that project results are applicable and relevant in practice. This process includes all members of the project team and underpins the various strands of research that will be developed in different units during project implementation (Work Packages).

It is anticipated that employing such an approach will be beneficial in terms of:

• Creating and enhancing productive working modes and co-ownership of results;

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- Producing knowledge that may trigger societal change for more resilient cultural heritage;
- Influencing governance and policy making;
- Engaging stakeholders in improving cultural heritage resilience;
- Increasing mutual understanding of relevant issues among technology providers (i.e. scientific partners) and users (i.e. city partners and their colleagues);
- Stimulating a continuous and productive dialogue among technology providers and users to determine needs, identify corresponding solutions and support their uptake in practice.

The first version of this document (completed in November 2019) was developed drawing on literature review and the experience of the authors in facilitating collaborative research. In addition, it synthesised input collected from the ARCH research team, through two workshops (held in Bratislava in June 2019 and Brussels in November 2019), organised and facilitated by ICLEI - Local Governments for Sustainability (ICLEI Europe). The first half-day workshop was divided in two parts. The first part focused on exploring definition, principles, obstacles and operational framework in small rotating groups. The second part focused on defining city needs in relation to their key heritage assets. The second workshop was a shorter session that involved critically reviewing and further developing the draft guideline, again divided into small groups. A third workshop was conducted online in September 2020 (ca. 14 months into the project), due to travel restrictions related to the Covid-19 virus outbreak. Project partners were invited to respond to a short survey in advance, reflecting on their experience of using this document. The workshop included feedback sessions, in three groups that focused on reviewing the co-creation process in practice so far - and areas to improve it. The original version of this document was used to guide this review, focusing specifically on Part 3 Vision, Part 4 Principles (even if not addressed in a separate group, co-creation principles were brought up during the workshop in multiple occasions), Part 5 Obstacles, and Part 6 Operational Framework. The document was then revised to incorporate the feedback gathered at this time. All partners were invited to review the revised version, before it was finalised by the lead authors.

2.2. Gender statement

This document has been developed taking into consideration the guidance on gender in research provided in the Project Handbook (D1.2). The need for gender mainstreaming arises from historical and continuing disparities in power distribution between people of different gender identities (including between men and women, but also the LGBTI community). This is significant to a process of co-creation, where imbalances in power, e.g. between scientific partners and city partners, may serve to impede an effective and positive collaboration. The ARCH co-creation process is based on equality (see Part 4 Principles). During the process, equal opportunity should be provided to all members of the consortium (and external

participants, if and when involved) – regardless of their sex, religion or gender – to express views, knowledge, experience and suggestions. This is partly the role of the ICLEI WP3 team as facilitator of the process, but also a responsibility of those partners who will be involved in leading meetings, workshops and other events. Partners in this position should review relevant guidance on the subject, such as (e.g. the gender sensitive checklist for facilitators in the City of Vienna's *Gender Mainstreaming Made Easy*¹). All partners should also review the discussion in *State-of-the-art Report 5: Gender mainstreaming in building cultural heritage resilience* (D7.1) to become familiar with the objectives of gender mainstreaming and strategies

3. Our vision: what does co-creation mean to the ARCH team?

3.1. What is co-creation?

There is growing interest in the concept of co-creation among researchers and funders of research (particularly in Europe) with a view to securing greater research impact and uptake of new knowledge by end-users. The term has become prominent in research on urban resilience, environmental and disaster risk management, but there is no consensus on how best to do it.

According to the ACCOMPLISSH project, "The definitions of co-creation are varied, and the terminology used to describe the processes equally so. The general focus of co-creation, however, is on a process by which different people come together to work on common issues towards a mutually agreed goal" [3].

In practice, co-creation can involve different activities, different levels of intensity and different degrees of ownership over the results – depending on the field, the participants and the aims [1]. For example, the level of participation in cultural heritage conservation may differ from emergency response when it comes to who participates, who takes decisions or influences them, who is involved, to what extent and with what purpose. In addition, levels of co-creation can differ in the course of a project, or several roles can be present (or not) at the same time.

Looking at the field of public innovation, Voorberg et al. assert that co-creation is "the active engagement of actors who hold different types of knowledge and resources with the aim to generate collaboratively outcomes openly defined by the facilitators of the process. Outcomes can vary and can include vision narratives, new understandings of problems and opportunities, hybrids of solutions, agendas or other" [2].

¹ The publication *Gender Mainstreaming Made Easy* includes advice on planning and facilitating events. See https://www.wien.gv.at/english/administration/gendermainstreaming/principles/manual.html

3.1.1. The ARCH co-creation definition

The RESIN project team found that "while there is no single normatively 'good' definition of cocreation or associated methods, there is evidence to suggest that research adopting a cocreative approach can benefit from a clear, common understanding of the concept and process established at the outset" [1]. While the ARCH Grant Agreement provides a starting point for a project-specific understanding, project partners have refined that definition as follows:

"Within the ARCH project, co-creation is the democratically governed creation and joint development of knowledge and solutions by the project partners and their stakeholders based on trust, accountability, credibility, inclusiveness, transparency and flexible communication. The co-creation process in ARCH takes an adaptive approach that responds to changing realities and endeavours to transfer results to local governments and communities."

4. Co-creation Principles

This section defines six principles of co-creation for the ARCH project, following their initial identification at the kick-off meeting in Bratislava. These principles are intended to provide a shared basis for effective and positive working relationships, by establishing value-based norms that partners should adhere to in working together. The co-creation principles are presented together with a series of self-assessment questions for partners to reflect on in order to actively incorporate these principles into their research methodologies and working approaches.

1. Equality

A successful co-creation process is based on equal collaboration between the parties involved; this means equality in contribution to shared tasks, but also that partners will be equally respected and considered equally relevant for the project, despite their different roles and responsibilities.

Self-assessment questions:

- Do I consider all partners equally important in decision-making processes within the project?
- Is each participant from my organisation, department or institution equally heard in project meetings?
- Does each participant have enough time to present their ideas or doubts about processes and activities within the project?

2. Openness

A successful co-creation process demands the active and engaged involvement of all partners from the early stages of the project. All interests, opinions and ideas should be treated with the same consideration and respect, in order to maximise trust, credibility, legitimacy and co-ownership of results. Meetings should offer safe (online and face-to-face) environments for project partners to exchange ideas and brainstorm, as a breeding ground for creative thinking.

Self-assessment questions:

- Is acquired knowledge shared with other partners?
- Is the extent of knowledge shared adequate for partners to understand the nature of the implemented activities?
- Do project meetings provide opportunities for open exchange on objectives, plans and strategies among partners?

3. Transparency

A successful co-creation process demands everyone involved to be transparent, honest, and realistic about the desired outcome(s) of the project, its scope of action, and the limits of partner involvement and participation. For scientific partners, this is particularly important throughout design, planning and implementation, in order to maintain commitment and promote the uptake of results. In the interest of transparency, all information needs to be accessible to all partners (and potentially key stakeholders).

Self-assessment questions:

- Am I willing to share information and results, generated within the project in a timely manner with partners?
- Are there limits to my capacity that I need to communicate to other partners?
- Will my interest in transparency be affected if I am exposed to different and potentially challenging situations, unlike the way I am used to doing things?

4. Flexibility

A successful co-creation process demands that processes, plans, and activities within the project should allow for flexibility and be ready to adaptively respond to changing needs and priorities. Flexibility relates to the content of the project (e.g. topical issues, agreed objectives, plans, and activities), interaction processes (e.g. working modes) and ways of exchange between partners (shift between online and face-to-face meetings and events, based on circumstances).

Self-assessment questions:

- Am I prepared to interact and communicate with the rest of the partners in informal and 'unplanned' ways?
- Does my organisation provide a safe space for continuous testing, evaluating, and adjusting of tools and methods?
- Am I ready to accept different working modes or changes in processes, plans and activities, following discussion and consideration of the full consortium or the partners involved in a specific WP?
- Am I open to accepting and acting upon changes to objectives, plans, activities and priorities based on changing needs?

5. Inclusiveness and reflexive / iterative learning

A successful co-creation process demands active and inclusive involvement of all project partners from the early stages of the project, as well as maintaining a 'continuum of participation' (with changing intensity and types of participation). Iterative learning and reflexivity form an integral part of the experimentation process and the consolidation of outputs. Effective learning environments should be created to let the involved partners create and test new processes, while a continuous feedback cycle of evaluating results and adjusting actions and activities, helps to improve results.

Self-assessment questions:

- Do I ensure that day-to-day activities at work (and online) and steps taken within the project support inclusiveness of all voices, partners and involved stakeholders?
- Is my organisation updating constantly relevant actions that will ensure the inclusiveness of all partners in our activities?

6. Trust, accountability and credibility

For a successful co-creation process, each partner needs to feel a sense of obligation or willingness to accept responsibility for decisions, but also for the implementation of actions and activities within their scope of work, effectively and in accordance with internal and external deadlines. This is also crucial to building trust between partners. Each partner needs to assign responsibilities within their own teams, but also key persons to undertake specific actions, according to their background, capacities and capabilities, and make sure that other partners are aware of who is handling what. These key persons will also be responsible to assign and communicate adequately about responsibilities with the rest of the co-creation partners, respecting other deadlines, functions, tasks and activities.

Self-assessment questions:

- Is it clear to me, who in my organisation is leading on specific tasks accountable to deliver expected outcomes?
- Is there a clear, mutually agreed long-term vision for the project and its expected outcomes (e.g. in the form of a formal or informal manifesto or terms of reference)?
- Do I (and my colleagues or relevant teams) make sure that day-to-day activities at work and steps taken within the project align with that vision?
- Are the timelines that I set for tasks and outputs discussed with contributors and adjusted if necessary (and if possible, without adversely impacting the work of others)?
- Do I do what I say I will?
- Do project meetings provide opportunities for informal exchange outside of formal business (e.g. dinners, extended breaks, site visits), as a means to build relationships and strengthen trust?

5. Dealing with obstacles

Co-creation is not a necessarily easy process, and to avoid delays and failures during project implementation, it is good to identify and discuss openly the obstacles and challenges that may occur, anticipate them and consider possible solutions in advance.

The following table lists some of these obstacles, and provides recommendations on how to tackle them.

What obstacles can we expect?	Recommendations to overcome these obstacles	
Mismatched terminology	 For all: Read and make use of the <u>ARCH project glossary</u>, available on the ARCH website Use definitions and repeat regularly Ask for clarifications Avoid using (technical/scientific) jargon Use sessions at the project's general assemblies to address terminology issues 	
'Lost in translation' feeling	 For all: If needed, and following agreement with the coordinator, shift budget within WPs and ensure that translation services are covered for key materials Use online translation tools for "standardised" simple translation Keep texts simple. 	
Unrealistic or mismatched expectations	 Keep texts simple. For scientific partners: Provide examples of intended outcomes Be honest about what can and cannot be achieved in the project Adjust objectives defined within Grant Agreement if needed to better match local situations. Be clear about the necessary amount of work and resources required for intensive work phases For all: Discuss principles and what these mean to the group in practice If a new staff member joins the project, provide this cocreation guide, as well as a briefing on work done so far. 	

What obstacles can we expect?	Recommendations to overcome these obstacles	
Difficulties in engaging stakeholders	 For city partners: Figure out what stakeholders need – communicate this to research partners. Clarify budget issues with stakeholders outside the project team, make clear to them that they gain nonmonetary benefits from the project. Keep in mind that partners at the local level have their own needs and routines and try to respect them, even if this means that certain project demands cannot be met. Get stakeholders involved early! Develop a protocol for engaging local stakeholders Maintain ongoing communication with stakeholders Establish a regular meeting schedule to communicate with stakeholders, bring them up to date with recent ARCH updates, but also hear from them on major developments and/or changes in their work. Be responsive and flexible where possible. If face-to-face engagement is not possible, explore the options in the <u>ARCH digital stakeholder engagement toolkit</u> (created in May 2020). For scientific partners: Ask about needs, listen to answers; look to project activities to see how these can support. Open, clear and consistent communication between scientific partners and city partners (and their stakeholders). 	
Lack of integration and leadership	 For all: Establish a timeline for coordinating activities and revisit throughout project If an anticipated time conflict appears, mention it to the project team as early as possible 	

What obstacles can we expect?	Recommendations to overcome these obstacles	
Lack of capacities, time, and resources	 For city partners: Look at resource gaps and identify where the project might be able to support Ask scientific partners if they can support Coordinate internally for more support, try turning to local stakeholders if they can support in any ways For all: Communicate possible capacity issues (e.g. staff member leaving) in advance If a commitment / deadline cannot be met, say so as soon as possible Align the project needs, responsibilities and timelines with the local processes (time and capacity-wise) and link to existing processes and activities 	
Lack of skills and knowledge	 For all: Be honest if there is a lack of knowledge and try to find out what is needed to "close" the gap Look for existing guides and information sources Look to the project team for support 	
Remote, insufficient or in- transparent communication	 For all: Be honest about arising issues and changes to circumstances; in addition, stay alert about potential changes in the working mode of partners If something cannot be achieved, say so. Do not make vague promises and then not follow through Make the most of face-to-face meetings (or online meetings) to clarify needs and expectations Introduce and explain communication and collaboration tools, be clear about how and when to use them Be mindful of your time, but also the time of partners, i.e. not too many meetings / calls Have a single point of contact for stakeholders to be efficient in communication 	

What obstacles can we expect?	Recommendations to overcome these obstacles	
Videoconference/online meeting saturation (due to Covid-19 virus outbreak)	 For all: Organise shorter and more efficient meetings Break down traditionally longer meetings, like general assemblies, into more numerous, but shorter, sessions Use a mix of media to communicate with partners (telephone calls, videoconference, emailing etc.) Explore interactive online tools that could replace to some extent at least, face-to-face meetings and events, e.g. online whiteboards and polling tools. Also see the ARCH digital stakeholder engagement toolkit (created in May 2020) for ideas. 	
Being too fixed in roles / professional background and not being adaptable	 For all: Be aware of the different roles and backgrounds project members bring to the team Reflect on your usual approach to your work, how this project might be different, and if anything needs to change Recognise own knowledge gaps and make an effort to understand concepts and contribute to fields that are not considered as 'own' 	

What obstacles can we expect?	Recommendations to overcome these obstacles	
Imbalances in power (e.g. arising from certain partners – usually the scientific or technical partners – having defined much of the research agenda at the outset of the project).	 For all: Acknowledge possible imbalances in power (research agenda largely defined by profession researchers rather than city partners; perception of partners as 'beneficiaries' of research and scien partners as 'experts') Recognise the value of different kinds of knowledge the team – not just so-called 'expert' knowledge Make space and time at meetings and events foreground expertise and knowledge of city partne.g. structuring agendas so that non-technical partr have opportunities to take the lead For WP and task leads, invite feedback on propomethodologies and approaches Avoid terminology that reinforces power imbalan (e.g. 'case studies' implying a uni-directional process research, or setting up a false distinction betw 'research partners' and others – we are all engage collaborative research!) Make sure meetings are not dominated by 'the loud voices', but facilitated to include input from less-vorparticipants. Align as much as possible the different timeframerimplementation between research and policy-making 	
Lack of conflict resolution process	 For all: Communicate concerns to ICLEI WP3 team as the process facilitator Use conflict resolution mechanisms within organisations Mistakes can happen, find solutions and alternatives, instead of fixating on the mistake 	
Intellectual property rights	 For all: Make agreements, if possible; these should be made as early as possible Consult the ARCH Grant Agreement or the Project Handbook if needed Consult the ARCH D1.3 Data Management Plan 	

6. Operational Framework

Based on the vision, principles and likely obstacles outlined above, we propose the following framework for the project team to work together, divided between an overview of the management framework that will practically support the team, and a checklist for all partners, but also separately for scientific and city partners.

6.1. How we plan to manage quality

The following is a list of mechanisms that are already in place to manage the co-creation process. The list includes mechanisms described in the Grant Agreement and others that have been agreed upon after the project began.

- This guideline itself serves as a fundamental departure point for the co-creation process, acting as 'terms of reference' for the project team. It was evaluated and revised by ICLEI with input from the project team halfway through the project (November 2020).
- The stakeholder advisory board (SHAB), defined in the management structure of the project (see ARCH Grant Agreement, Part B, Section 3.2) mirrors the executive board, providing a parallel avenue for city partners to share experiences and concerns, to then be taken to the executive board by the SHAB chair.
- A local research (scientific) partner is assigned to every city to provide technical support and capacity sensitive to local needs.
- The ICLEI (WP3) team will facilitate the co-creation process in order to ensure that activities take place in a coordinated manner and to provide a further channel to address concerns.
- Regular joint calls for all city partners and their local research partners (monthly at first due to intensity of project tasks, though this may reduce in frequency at some point). Other scientific partners are invited to attend every second call. Focus of calls: to date these have been focused on WP3 tasks for delivery in the first year of project and peerto-peer updates. Now that the city partners have completed (or nearly completed) their two major deliverables from WP3 (baseline report and local work plan) the focus will likely shift to implementation of the local work plans and co-development of tools led by scientific partners.
- From October 2020 onwards, regular (monthly) joint calls for scientific partners are being held, focused on coordination between WPs and the integration of the various solutions under development.
- Documentation of city and scientific partner calls is shared with all partners. From October 2020, a blog format is being trialled – intended to be more accessible – combining key points from city calls with updates from scientific partners. News will include: city updates (content taken from monthly city calls), solutions updates (content taken from monthly technical calls), and dissemination updates (covering

Deliverables and publications, Resources, and Events and opportunities; content provided by all with something relevant to report). This is in response to an expressed interest from some partners to receive more information about ongoing project activities. While primarily for internal communications, it may also provide a basis for providing updates to external parties, e.g. colleagues not directly involved in the project.

• Four co-creation workshops will be held over the lifespan of the project. The final three will provide time and space to reflect on the co-creation process and address concerns.

6.2. Who does what?

The following provides an overview of general division of tasks and responsibilities between the project partners, as well as a self-checklist, but it is not a comprehensive list. See the Grant Agreement for more details.

Everyone should:

- Make sure new team members joining the project (i.e. the consortium) receive this document.
- Check back from time to time on the common vision established with this document, to see if you the way you are working matches it.
- Refer to the common definitions established in the state-of-the-art-report (WP7) in the live <u>Glossary</u> on Confluence. Appoint a Glossary manager to inform the team of any changes or additions.
- When facing a problem, refer to the self-assessment questions (Part 4) and ideas for dealing with obstacles (Part 5) outlined in this document.
- Copy the relevant local research partner(s) in **all** correspondence with city partners (using distribution list for each city research team).
- Copy the ICLEI (WP3) team in key correspondence with city partners and their local research partners (using distribution list for this purpose). Key correspondence includes: agenda and minutes of meetings held between scientific partners, city partners (and additional local stakeholders), surveys or other requests for information circulated to city partners.
- Raise concerns with the ICLEI WP3 team at the earliest opportunity (e.g. excessive requests, unclear information, and lack of response). ICLEI will attempt to address this with the persons involved and in accordance with D1.2 guidance. If not possible to resolve, the next step will be to raise the issue with the Project Coordinator.
- Use **joint** calls (and face-to-face meetings if possible, bearing in mind that these are increasingly rare in light of Covid-19) to raise questions and resolve outstanding issues. Communicate answers to questions of broader relevance to broader group. Dedicate time in meetings and calls to address outstanding issues needing further action (e.g. use of Confluence project management platform).

- Assign key persons to undertake specific actions, according to their background, capacities and capabilities, and make sure that other partners are aware of who is handling what
- Keep emails as concise as possible and highlight action points!
- To keep others informed (and stay aware) of coming project meetings, use the joint meeting directory. This covers **all** significant internal meetings, milestones, and deliverables ahead for the duration of the project. "Significant" meaning meetings that could potentially be of interest to multiple partners and that are not "spontaneous coordination calls". If you "watch" this site you'll be notified via email every time this page is changed. Thus, if you are not invited to a meeting, but think you should be, you could contact the person that entered said meeting.

City partners should:

- Actively contribute to the agenda of and participate in regular joint calls with all other cities and their local research (scientific) partners.
- Identify local stakeholders, establish a partnership with selected ones, develop a corresponding local work plan, which should be updated when needed, and establish a mechanism for regular engagement for the duration of the project.
- Invite local stakeholders to external events co-organised by ARCH or in which ARCH has some online or physical presence – based on an assessment of stakeholder interests and needs.
- Support all scientific partners in understanding local needs, collecting data, and identifying and engaging end users for the tools under development.
- Engage directly in the tool development and exploitation process (by identifying needs, trying out prototypes, providing feedback etc.) and/or identify end users willing and able to do so.
- Engage directly in opportunities to contribute to the revision of existing standards and development of new ones, through participation in workshops and online meetings (e.g. meetings on the development of a CEN Workshop Agreement or other standards).
- Use this document for defining local framework for engaging with stakeholders. Consider introducing the ARCH vision and principles at a workshop with stakeholders.

Local research (scientific) partners should:

- Attend and actively support preparation of city partners for regular joint city calls.
- Support city partners as-needed in completing project tasks and with technical support and guidance related to their expertise.

All scientific partners should:

- Attend joint cities calls on a bi-monthly basis to stay in touch with city updates (OR read the monthly blog update) and provide technical expertise if needed.
- Participate in each of the four co-creation workshops held throughout the project.
- Support city partners with technical support and guidance related to their expertise.
- Identify user groups for planned outputs early on and discuss expectations and needs.
- Adopt an agile research / development process: After early discussions of user expectations and needs, create prototypes / mock-ups for users to get feedback and further requirements in order to move the process forward in manageable increments aimed at user-needs.
- Aim to gather input via structured interviews or informal conversations face-to-face or by phone rather than questionnaires if possible. Also consider the tools and methods listed in the <u>ARCH digital stakeholder engagement toolkit</u> (created in May 2020).
- Be aware of language barriers questions posed in English may need to be translated by city partners into the local language. Anticipate this by keeping questions concise and clear, allowing time to translate guidance materials or interview questions into the local language, and enlisting support to conduct interviews from city partners and local research partners.
- Try to identify mismatches between user expectations and researcher capacity if something cannot be done within the scope of the project say so clearly, with specific reasons and as early as possible.
- Obtain feedback from the ICLEI (WP3) team before circulating major requests for input to city partners, e.g. surveys, interviews, workshop agendas. Communicate clearly when the feedback is needed and allow at least two weeks for review and response.
- Engage directly in identifying together with ICLEI and DIN tool exploitation potential and engage in the standardisation process

Co-creation facilitator (ICLEI) should:

- Establish and maintain the framework for co-creation.
- Facilitate regular joint city calls and four co-creation workshops.
- Provide feedback to all research partners on proposed agendas for workshops and meetings.
- Update the monthly blog entry with key points from regular joint city calls.

Local stakeholders should:

• Engage with activities identified in local work plans as led by city partners.

• Engage in project activities (workshops, meetings, calls etc.) as deemed of use and interest.

The table below outlines responsibilities for specific tasks.

Task	Who	When
Co-creation workshops (i.e. the four over the course of the project) and regular joint calls: invitations, minutes and agenda	ICLEI	Circulate agenda for information during the week before call/workshop. Circulate minutes (or other documentation) within three weeks of call/workshop.
Other workshops and calls: invitations, minutes and agenda		Circulate agenda for information during the week before call/workshop. Circulate minutes within three weeks of call/workshop.
Information gathering and dissemination: questionnaires, interviews, meeting/workshop agendas	ENEA, SOGESCA, INGV, DIN, Tecnalia, Fraunhofer, UNICAM, Bratislava, Camerino, Hamburg, Valencia	Send to ICLEI for feedback at least two weeks before intended issue.

7. References

- [1] E. Chapman, S. Hanania, A. Connelly, J. Carter, and M. Dumonteil, "Developing the RESIN tools, advancing local adaptation," 2018.
- [2] W. H. Voorberg, V. J. J. M. Bekkers, and L. G. Tummers, "A Systematic Review of Co-Creation and Co-Production: Embarking on the social innovation journey," *Public Manag. Rev.*, vol. 17, no. 9, pp. 1333–1357, Oct. 2015.
- [3] K. Vandael, A. Dewaele, A. Buysse, "Guide to co-creation", p.6 June 2018
- [4] C. Garzillo, V. Rebollo, and & Reil, A., "Co-creating Knowledge & Tools for Nature-Based Solutions in Urban-Regional Innovation Partnerships. Guidance for URIP leaders on interacting with researchers and local stakeholders"