(Grant Agreement 101093921)

HORIZON-MISS-2021-CLIMA-02-05 - Local engagement of citizens in the co-creation of societal transformational change for climate resilience

Deliverable D3.1 - Guidance on design and implementation of the in-person Agora

WP3 – Living Digital Environment for Knowledge Co-Production

February 2024

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Document History

Deliverable Title	D3.1 – Guidance on design and implementation of the in-person Agora
Brief Description	This report (D3.1) provides an overview of the transdisciplinary co-productive design principles considered when designing in-person AGORA workshops to explore the barriers and enablers to citizen and stakeholder engagement and how the workshops supported co-designing the Digital Agora. The process and outcomes of these in-person AGORA workshops are focussed on throughout this report, in addition to other engagement activities undertaken throughout the AGORA project.
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February 2024	8	SEI Oxford, SEI HQ, UNIGE, ICLEI, BSC, ECSA, CMCC	Internal review submission (5th February 2024)

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December 2024	9	SEI Oxford	Glossary added

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Executive Summary

This report (Deliverable 3.1 (D3.1)) presents an overview of the transdisciplinary co-productive design principles considered when designing in-person AGORA workshops to explore the barriers and enablers to citizen and stakeholder engagement and how the workshops supported co-designing the Digital Agora. The process and outcomes of these in-person AGORA workshops are focussed on throughout this report, in addition to other engagement activities undertaken throughout the AGORA project.

This guidance has been developed based on the steps taken within the AGORA project to conduct in-person AGORA workshops focusing on engagement methodologies and the co-creation of the Digital Agora.

The AGORA workshops were planned and undertaken using the following 5 key steps, based on the steps of the Tandem Framework, and used throughout this report guidance:

- **Scope, Identify and Engage** – this step includes defining the term "engagement", research into different engagement methodologies, and research into co-production enablers and barriers.
- **Co-Explore** – the co-explore step involves designing and undertaking the two co-production and co-creation workshops which are the focus of this report.
- **Co-Produce** – the co-production step involves continuous feedback and input to build on the information collected at the workshops for the design of the Digital Agora.
- **Integrating Outcomes** – this step identifies and highlights the key outcomes identified during the workshops for the creation of the Digital Agora.
- **Monitoring, Evaluation and Learning** – to monitor and evaluate online platforms, key indicators have been identified that will inform how the platform can be further refined and improved over time.

Within the AGORA project, engagement with citizens and stakeholders is undertaken at different stages, in different locations, and for different purposes. Engagement methodologies have been researched and analysed, undertaken at four different pilot case study locations (Germany, Sweden, Italy, and Spain), co-production enablers and barriers have been identified through desk research, and two in-person workshops have been organised to discuss engagement methodologies and the Digital Agora. These engagement activities have been ongoing simultaneously and are briefly mentioned throughout this report to support the key outcome.

As a next step within the AGORA project, the information collected and discussions held within the workshops, will be used to co-create the Digital Agora. Engagement with citizens, stakeholders and a Steering Committee for ongoing feedback on the Digital Agora will continue throughout the project allowing the platform to be continuously updated and improved.

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1. Introduction

1.1. Project Background

This report (Deliverable 3.1 (D3.1)) is part of the EU-funded Horizon Europe project **AGORA – A Gathering place to cO-design and co-cReate Adaptation**[1]. The project aims to support communities and regions participating in the Mission on Adaptation to Climate Change[2] by leveraging and advancing best practices to effectively engage citizens and stakeholders in adaptation decision-making and action.

Within the AGORA project, engagement with citizens and stakeholders is undertaken at different stages, in different locations, and for different purposes. Engagement methodologies have been researched and analysed, undertaken at four different pilot case study locations (Germany, Sweden, Italy, and Spain), co-production enablers and barriers have been identified through desk research, and two in-person workshops have been organised to discuss engagement methodologies and the Digital Agora. These engagement activities have been ongoing simultaneously, and are briefly mentioned throughout this report to support the key outcome.

The key outcome of this report is to provide information and guidance on the design and implementation of the two in-person AGORA workshops, that aimed to discuss engagement methodologies and collect feedback for the co-design of the Digital Agora.

To see the glossary, including definitions of the "co" terms used throughout this document please see Annex 3.

1.2. Aim

This report (Deliverable 3.1 (D3.1)) presents an overview of the transdisciplinary co-productive design principles considered when designing in-person AGORA workshops to explore the barriers and enablers to citizen and stakeholder engagement and how the workshops supported co-designing the Digital Agora. The process and outcomes of these in-person AGORA workshops are focussed on throughout this report, in addition to other engagement activities undertaken throughout the AGORA project.

[1] The AGORA project effectively engage and support citizens and stakeholders in adaptation decision-making and action. Please visit the AGORA project website here: https://adaptationagora.eu/

[2] The EU Mission: Adaptation to Climate Change focuses on supporting EU regions, cities and local authorities to build resilience against the impacts of climate change. For further information please visit the website here: https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/adaptation-climate-change_en

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Text box 1. Task 3.1 description

The in-person Agora workshops will use transdisciplinary co-productive design processes to identify barriers to and enablers of best practice in the methodologies mapped and analysed in WP1. This will be done in collaboration with scientists, knowledge managers, decision-makers, civil society, academics, experts, social partners, policy-makers, entrepreneurs and other relevant actors. Using input from WP2 and WP4, and established methods of co-production (e.g., Tandem approach), these events will identify key methodological principles in citizen and stakeholder engagement approaches that ensure their needs are met. These dialogues will also provide input to the development of the evaluation framework (Task 3.2). Additionally, these in-person Agora will be used to co-design the layout, feel and function of the Digital Agora (Task 3.3) with stakeholders, who are strongly connected with the target users of the Agora and their networks. Stakeholders in this group will be invited to join a steering committee that will provide ongoing feedback on and input into the development of the Digital Agora to ensure it meets and evolves with users' needs.

To achieve the aim, the report focuses on two workshops which were conducted to engage with citizens and stakeholders and determine the best engagement methodologies, as well as co-design and co-create the Digital Agora. The first workshop took place at the European Climate Change Adaptation (ECCA) conference in Dublin, Ireland, between 19-21 June 2023 and focussed on "Community-Driven Climate Resilience: Engagement & Data". Approximately 45-50 people attended the workshop. The second workshop took place at the Adaptation Futures 2023[3] conference in Montreal, Canada, between 2-6 October 2023, focussing on "Good Practice Community and Citizen Engagement for Accelerating a Climate Resilient Future in Europe and Beyond" and approximately 17 people attended the workshop. Both workshops involved a presentation, Mentimeter, and a world café.

1.3. Structure of the report

This report aims to support and guide readers in the process of undertaking transdisciplinary co-productive design principles considered when designing in-person AGORA workshops to explore the barriers and enablers to citizen and stakeholder engagement and how the workshops supported co-designing the Digital Agora.

Within this report, the conceptual background of definitions and co-production methods are discussed, as well as the AGORA project pilot case studies, to highlight the background research and activities within the AGORA project that took place to help support the preparation of the workshops.

Following the section on the conceptual background and pilot case studies (Section 2), the report moves on to the guidance for designing the in-person AGORA workshops, and this is categorised into 3 key steps throughout the guidance including:

- Scope, Identify and Engage (Section 3);
- Co-Explore (Section 4); and
- Co-Produce (Section 5).

Section 4 explains what took place during the two workshops. The report then discusses the outcomes and results of the workshops, highlighting how the outcomes can be integrated on to the Digital Agora (Section 6), and finally the report includes a section on and evaluation and learning (Section 7).

[3] For further information about Adaptation Futures 2023, please visit the Adaptation Futures website: https://adaptationfutures.com/

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2. Conceptual Background

To frame this guidance, citizen and stakeholder engagement has been researched and analysed, in four different pilot case study locations (Germany, Sweden, Italy, and Spain), and enablers and barriers have been identified through desk research. In addition, following the Tandem framework[4] (Daniels et al., 2020, Bharwani et al., in review) and the Theory of Change (ToC) methodology, two in-person AGORA workshops have been undertaken to explore engagement methodologies and the Digital Agora.

2.1. Engagement definition

Due to the different types of engagement being undertaken within the AGORA project, it is important to determine what is meant by 'engagement', to support a clear and standardised understanding of engagement. Literature on citizen and stakeholder engagement provides a variety of definitions and criteria for the term 'engagement', sometimes used interchangeably with 'participation', and what could be involved within this. The AGORA project's focus on engagement is bounded using five characteristics that ensure the process is a goal-oriented form of 'discursive participation'.

Text box 2. What is engagement? (Adler & Goggin, 2005; Carpini et al., 2004; Ekman & Amnå, 2012; Willis et al., 2022)

What is 'engagement'?
- Includes discourse with other citizens and/or stakeholders: actions of talking, discussing, debating, and/or deliberating
- Expressly considers "talking" as a form of participation
- Focuses on local, national, or international issues of public concern

Can:
- Be linked to civic and political processes
- Occur through a variety of media (not only face-to-face exchanges)

Following discussions within the AGORA project, it was deemed necessary to establish a definition of engagement that is relevant to the work and tasks being undertaken to (a) define concept boundaries; and, (b) support the scope of the activities to be conducted. This definition needed thus to include the types of participation and engagements planned throughout the AGORA project, such as in the pilot regions, but also, by determining this definition early within the AGORA project, has helped to limit the scope for what engagement encompasses and ease any confusion or misunderstanding related to the term. The full definition and definition research is available in the Task 1.1 (T1.1) interim report: Review and update of citizen engagement initiatives (AGORA project T1.1)[5].

Although the definition focuses on engagement, it is important to note that it is considered a form of public participation. There are several forms to make the public inclusive of decision-making processes related to public concern, and engagement implies more intensive and, as mentioned above, talk-centric forms of participation. This specification is part of the debate on deliberative democracy and the role of societal actors –public decision-makers, academia, practitioners-, in putting into place empowering forms of engaging with the public (see for a further discussion Carpini et al., 2004).

[4] For further information about the Tandem Framework please see here: https://weadapt.org/tandem/
[5] The T1.1 interim report can be found on the AGORA project website here: https://adaptationagora.eu/wp-content/uploads/2024/01/MS2_AGORA_Intermediate-Mapping-of-CEI-and-Pilot-identification.pdf

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For further information on research and definition activities on citizen engagement initiative mapping, reviewing, and analysis, please see the two interim reports:

- Review and update of citizen engagement initiatives (AGORA project T1.1)[6]
- Review and analyse existing methodologies and recommendations (AGORA project T1.2)[7]

2.2. Enablers and barriers to co-production processes

Prior to citizen and stakeholder engagement, it is essential to identify blocking factors to the process and the levers needed to overcome them. To this end, as part of Work Package (WP) 4, the AGORA project carried out a systematic literature review of barriers and enablers to stakeholder and citizen engagement in climate change adaptation. A total of 123 papers were selected and analyzed to highlight the main categories of factors experienced by adaptation practitioners when designing and implementing co-production processes[8]. Among these factors we focus here on those that specifically affect the implementation of engagement methodologies.

The main barriers identified (n=44) as key to defining the methodology were of different types (Figure 1). First the *lack of motivation of citizens and stakeholders* to engage in such processes, especially due to lack of time, incentives or awareness. Then, a *lack of recognition and valuation* of the potential contributions to the process of citizens and stakeholders by authorities or adaptation practitioners (e.g. in terms of knowledge, skills and capacity to bring inputs and solutions). Two other challenges are related to existing *power issues* (e.g. gender issues, intra-group power, hidden power) and *conflicting interest* (e.g. entrenched thinking, distinct motivations) among the different stakeholders, hampering both people engagement and commitment. Finally, one important barrier is related to *complexities associated with the topic* of climate change, and in particular the use of sophisticated and complex language, data and solutions leading to confusion and differences in understanding among the participants.

[6] The T1.1 interim report can be found on the AGORA project website here: https://adaptationagora.eu/wp-content/uploads/2024/01/MS2_AGORA_Intermediate-Mapping-of-CEI-and-Pilot-identification.pdf

[7] The T1.2 interim report can be found on the AGORA project website here: https://adaptationagora.eu/wp-content/uploads/2024/01/MS15_AGORA_T1.2-interim-report.pdf

[8] This literature review was conducted as part of WP4 to support Deliverable 4.1 on 'Enablers and barriers to co-design, co-develop and co-implement solutions for climate resilience'. is underway and is expected to be finalised in month 24 of the AGORA project.

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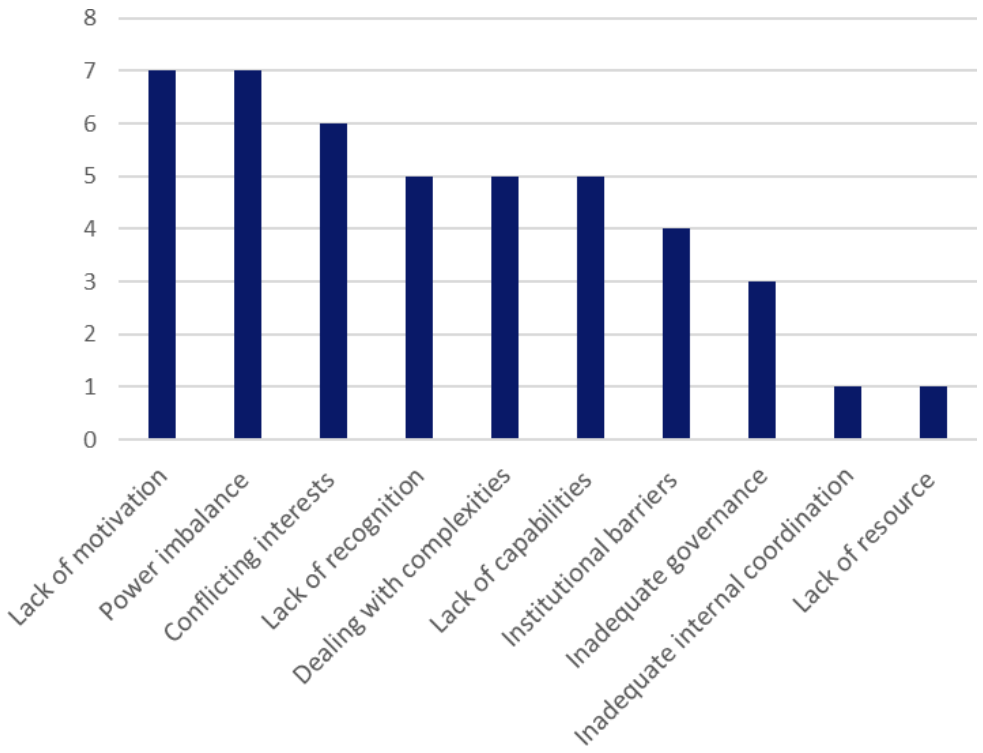

Figure 1. Main barriers to engagement - categories identified within the literature review.

To tackle some of these barriers, many levers have been described in the literature (n=181) and offer good guidance to design engagement methodologies (See Figure 2). In particular, this involves *building an inclusive approach* by ensuring that all stakeholders, genders and social groups are represented, as well as an *integrative approach*, ensuring that all knowledge, viewpoints and needs are considered and incorporated. This approach should also be *relevant*, for example when adapting to specific contexts or when developing a systemic perspective. Finally, the need to *build strong communication* within the participants was highlighted as an important lever to engage people in the long term (e.g. offering a dialogue space, practicing of transparency, building trust).

Other levers to be considered that support stakeholder and citizen engagement are somewhat beyond the control of the organizers of the co-production processes. This is the case, for example, with regards to *stakeholder motivation* (e.g. based on experiences of climate impacts/risks, climate change acknowledgment), their *capacity to engage* (e.g. people incomes, education, awareness) or *existing social capital, norms and networks*. However, this information could be addressed with a well designed co-production process or if the co-production workshops are focusing on these levers and how to overcome these.

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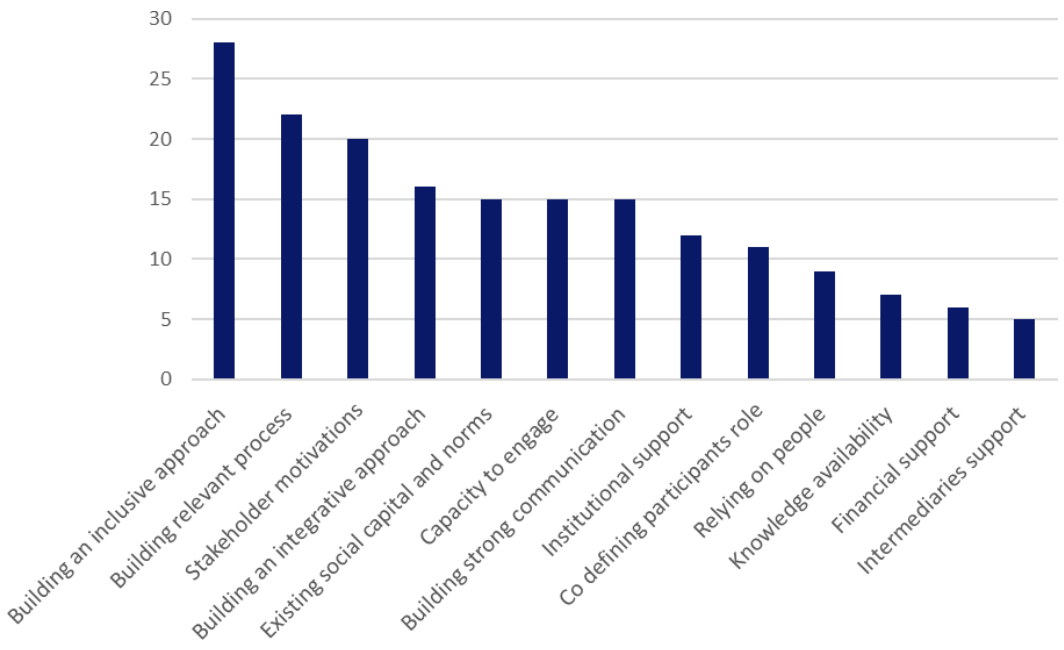

Figure 2. Main enablers to engagement - categories identified within the literature review.

2.3. Co-production methods

Within the AGORA project, two of the co-production methods used are the Tandem Framework and the ToC methodology. In particular, these methods were used when planning and conducting the in-person AGORA workshops focussing on engagement methodologies and the co-creation of the Digital Agora.

2.3.1. Tandem Framework

The Tandem framework[9] designed by Daniels et al. (Daniels et al., 2020, 2019; Bharwani et al., in review), aims to inform, guide, and structure interactions between participants, including citizens, in a decision-making process and research. The framework is based on the principle of a tandem bicycle. Two people with differing skills, styles, and fitness levels need to overcome these differences to pedal in harmony to move forward to reach a given destination. To achieve this, riders need to communicate with one another, and to adapt their individual approaches, learn by doing, perhaps somewhat tentatively at first, until a rhythm is set.

Whilst the Tandem framework can be used in different projects and decision-making processes, the framework has already successfully been used within multiple projects and decision-making processes. For example, the Tandem framework was used to improve co-production of climate services for agriculture in Nigeria (Butterfield & Osano, 2020), co-designing climate services to support adaptation to natural hazards in Sweden (André et al., 2020), co-designing climate services for water planning in Colombia (Santos Santos & Swartling, 2020) and to support collaborative solutions to climate change impacts in Lusaka, Zambia (Daniels et al., 2019).

Tandem has also been applied in SEI research on climate risk assessments in the European context (André et al., 2023) and to co-design climate services. Specifically it aims to: 1) strengthen and develop

[9] To learn more about the Tandem Framework and the online guidance available for co-design processes, please visit here: https://weadapt.org/knowledge-base/climate-adaptation-learning-resources/tandem-online-guidance-for-climate-services/

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relationships and networks and increase institutional embedding; 2) improve climate information uptake and use; 3) increase capacity, confidence and a shared understanding of climate information (by users) and the decision context (by providers); and 4) serve as a useful (non-prescriptive) guide for providers, intermediaries and users to co-design and structure an effective process for collaborative learning and action (Bharwani et al., in review).

Within the AGORA project, the Tandem framework was applied to the citizen and stakeholder engagement workshops, following the table structure below. Although the Tandem framework contains in-detail questions to consider throughout a project and engagement process, these were adapted and considered at a higher level for the preparation of the two in-person workshops focussing on citizen and stakeholder engagement.

Table 1. Tandem framework overview (Bharwani et al., in review)

Element	Description and notes on application
Element 1. Scope, identify and engage *The processes in step 1 can lay the foundation for deeper discussions of challenges, goals, governance and information needs in Element 2.*	
1 a) Scope risks, vulnerabilities, challenges and decision context	Initial scope and review of the risks, vulnerabilities, challenges and decision context (not climate focused to begin with).
1 b) Identify relevant actors & champions	This element helps to identify and engage relevant actors and champions and can begin to nurture new collaborations and partnerships that sustain beyond the lifetime of the project.
1 c) Engage relevant actors & champions	Many of these questions will be returned to in later stages and understanding of the issues increases.
Element 2. Co-explore – go deeper *Questions on socio-economic challenges (Element 1) are equally important to cover (even if the scoping stage is not needed because previous work has been done), so they are also included in Element 2.* *This is an opportunity to delve deeper into some of the same questions with the targeted group of stakeholders identified in Element 1.* *This may start to reveal some context-led indicators for monitoring progress towards achieving shared resilience goals.* *Many of these questions will be returned to in later stages, as understanding of issues, capacity and confidence increase.*	
2 a) Co-explore challenges and goals	At this early stage, identification of shared goals may already reveal some useful context-led indicators for monitoring progress towards achieving resilience goals.
2 b) Co-explore governance context	Consider the different levels of participation or engagement of actors and their knowledge in decision-making when co-designing co-production activities.

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2 c) Co-explore information needs	Co-explore information needs, data, models, sources, assumptions and formats. Understand specific climate data and information required by users; the capacity building interventions needed to interpret and apply it; and, how this information is best presented and communicated to support its uptake and use.
Element 3. Co-produce new knowledge	
3) Co-identify, appraise and co-design solutions	Appraisal should include consideration of uncertainty, maladaptation, synergies, trade-offs and co-benefits.
Element 4. Cross-cuFng elements and benefits provided by the processes above *Apply iterative and reflexive learning to deepen understanding of adaptation challenges. Monitor progress towards goals as confidence, knowledge, relationships and capacity increase.*	
Monitoring, evaluation and learning (MEL)	MEL considerations should be integrated throughout the elements above and any learning should further refine and hone iterative co-exploration and co-production processes. Regular and systematic feedback mechanisms are established.
Communication	Tailored communication of climate and other information to meet appropriate and relevant formats and terminology.
Capacity development	An ongoing by-product of the co-production process.
Partnership development	An ongoing by-product of the co-production process.
Financing models	Strategy to operationalize and institutionalize the climate service.

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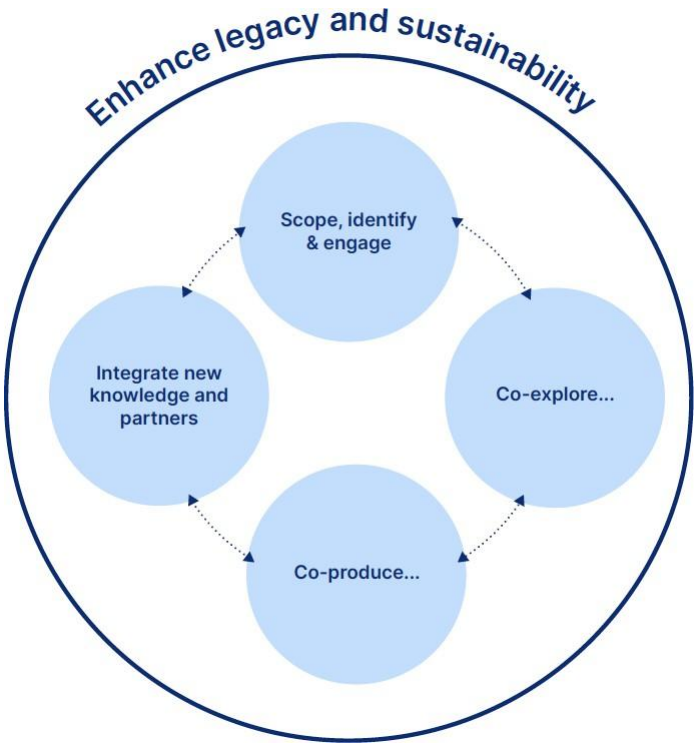

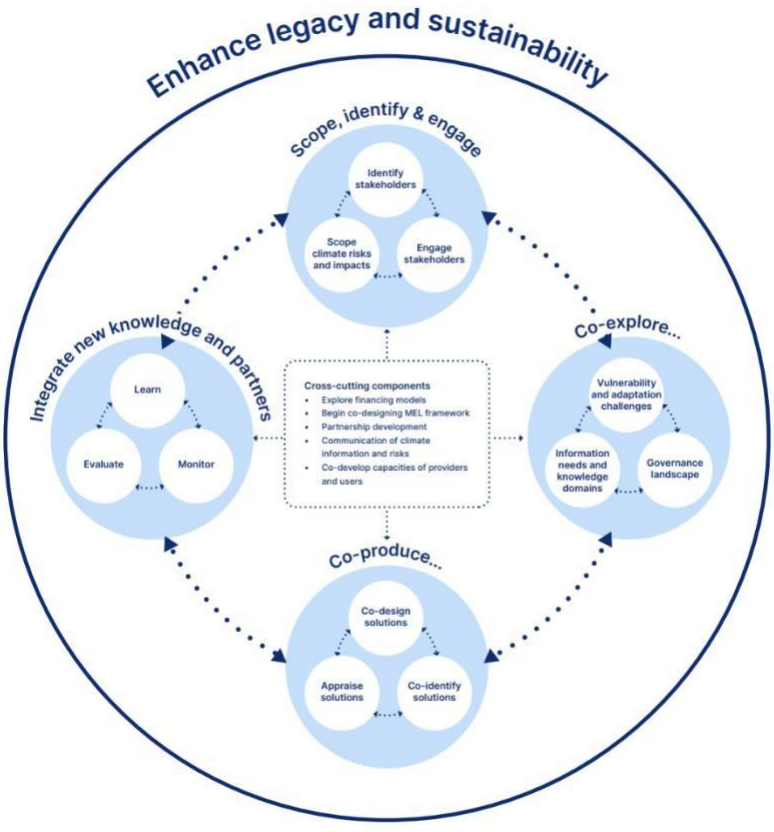

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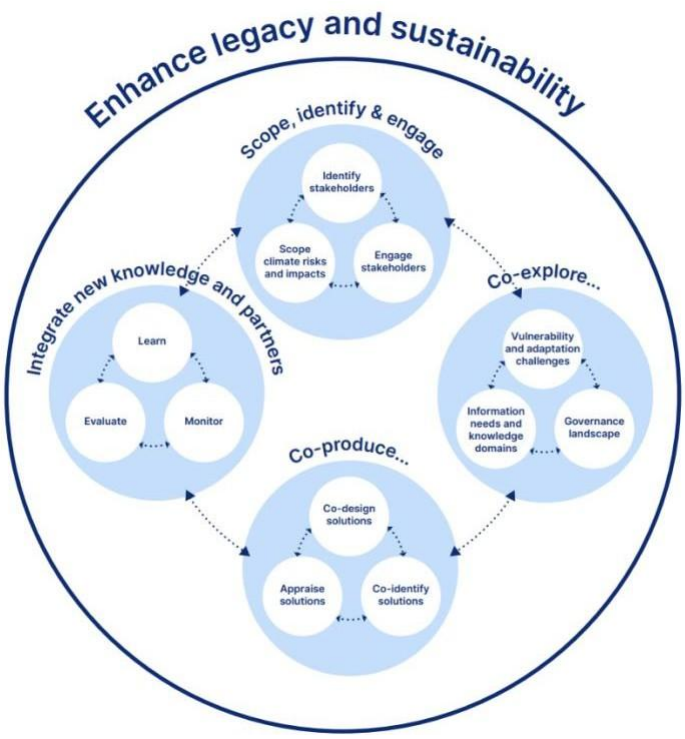

Figure 3. The Tandem Framework step by step process (Tandem Guidance – weADAPT, 2024).

2.3.2. Theory of Change Method

A ToC is a process used to determine the longer-term or end goal of a project or activity, and work backwards from this goal, to determine how this can be achieved. A ToC is often created using participatory or co-production processes. There are 5 main steps to creating a ToC:

1. Identifying the longer-term goal of the project or activity

The first step is to determine the longer term or end goals of a project or activity. This longer-term goal should be the overall aim of the project or activity so when determining this it is important to identify what would the project or activity like to achieve. The longer-term goal should be clear and plausible to achieve.

The next step is to identify the impact of the project or activity. Defining the impact should include looking at elements including: who is going to be impacted, who will the longer-term goal be significant for, and what change will this have. By identifying the longer-term goals and impacts early on within the ToC method, it helps to guide the planning process and keep citizens or stakeholders involved in the co-production process engaged and motivated, especially when the longer-term goals and impacts are directly relevant to them.

2. Understanding the context

In order to ensure the project or activity is successful, relevant, and useful it is important to understand the context in which it is being implemented. This step should occur in parallel with step

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1 as a clear understanding and analysis of the context and needs, helps inform the rationale of the project or activity.

To support an increased understanding of the context, the current situation relating to the problem or topic of interest should be assessed, stakeholders and citizens engaged and mapped, the implications of the problem, the capacity for response to mitigate or resolve the problem, resources available, and existing or similar projects and activities in the location.

3. Mapping backwards from the longer-term goal and impact and creating a map framework

Once the previous steps have been completed, a ToC maps backwards from these goals to determine how they could be achieved – asking 'what are their pre-conditions?'. The mapping backwards is often referred to as identifying pathways (Taplin & Clark, 2012) and this step includes identifying different requirements necessary to meet the goal, basic assumptions about the context and requirements, highlighting key tasks and steps to be taken to meet the longer-term goal, and identifying potential challenges. As part of the backwards mapping and pathway creation stage it is useful to map out each step using a diagram or framework set-up, to clearly see all information within each of the steps.

4. Discussing the assumptions needed to achieve the longer-term goal

This step focuses on a critical reflection on the ToC process and is used to help determine if the activities identified during the mapping step are appropriate and realistic for influencing change and achieving the aims and impacts of the project or activity. Assumptions can be hard to explicitly identify as each individual has different perceptions and pre-conceived assumptions. This is why it is important to breakdown assumptions and critically reflect on these between all of those involved in the project or activity. Otherwise, a disconnect between understanding and actions of individuals may lead to further misunderstandings within a project.

5. Creating measurable indicators

In order to measure progress on the longer-term goals and the project or activity overall, it is useful to identify measurable indicators during a ToC. The progress of the project or activity can be measured using the indicators, throughout the project or activity timeline. This helps to identify if the project is on track to achieve the longer-term goal and can further learning within the project.

2.4. AGORA Pilot Case Studies

Next to extensive research and analysis into engagement methodologies, the AGORA project, as part of WP2, has actively undertaken engagement activities across four distinct pilot case study locations: Germany, Italy, Spain, and Sweden. Throughout the initial phase of the project, emphasis has been placed on engaging stakeholders, with plans to broaden engagement to include citizens in the subsequent months. These efforts culminated in inception workshops held in all pilot regions during the final months of 2023.

The scope of citizen and stakeholder engagement within the pilot case studies brought local communities together to collaboratively identify vulnerabilities and gaps in their capacity to adapt to climate change, determining areas requiring urgent intervention. Throughout the AGORA project, these communities will engage in a continued co-creation process to develop innovative, soft climate adaptation solutions, fostering collaboration among local stakeholders and citizens in implementing these solutions.

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From this initial stage of the engagement process (the Scope, Identify, and Engage step) there has also been the opportunity to gather feedback and input that might support co-designing the Digital Agora.

For further information on the AGORA project pilot case studies and the engagement conducted during September-November 2023, please see the online report here on events with citizens, stakeholders and decision-makers.[10]

3. Guidance: Designing the in-person AGORA Workshops

3.1.Scope, Identify, Engage

The first step in conducting a co-production workshop involves scoping and identifying the aims of the workshop, together with participants where possible, developing clear outcomes, and on this basis creating a clear understanding of the engagement to be carried out within the workshops, and the potential engagement methodologies to do this. Where participants cannot be involved in co-defining the aims and scope, the context must be understood well enough to be confident that the scope and aim are of relevance and importance to participants, or that the agenda is flexible enough that it can be adjusted to meet these needs.

This first step allows time for background research, planning, and creation of a clear plan on how to conduct citizen engagement. Within this section, we focus on applying the co-production methods elicited above defining engagement types, creating a ToC and preparing for the workshops.

Building on the research and information conducted so far within the Scope, Identify, and Engage step, preparation for the co-production workshops can start. First, and before conducting engagement with citizens and stakeholders, the objective of the engagement must be identified. Within the AGORA project this included determining what the AGORA project was trying to achieve, how citizens and stakeholders could be involved, and potential engagement opportunities with citizens and stakeholders. Then in more detail, what would the AGORA project aim to do within each workshop and how would it reach these outcomes. To identify the objectives of each session, the AGORA team determined the outcomes and what information was needed to inform these, through a ToC.

3.1.1. Co-creating a theory of change

To support the design of the workshops, the ToC methodology was used to help structure what information needed to be co-explored by participants to create a ToC. This encouraged participants to create a comprehensive description and plan of long-term goals, assumptions behind the goals, and determine the steps to reach the longer-term goals.

In particular, the Adaptation Futures world cafe workshop (October, 2023) was planned using the ToC methodology. This involved four tables within the workshop where participants would move around the tables, answering the questions to create a ToC. The overall aim of the AGORA project and Digital Agora was shared with participants in the presentation before the world cafe.

1. The first table involved identifying potential audiences, opportunities, barriers and potential solutions to applying citizen and stakeholder engagement methodologies for each audience. Each participant picked a card which contained a profile/role (government, engineer, NGO

[10] For further information on the events within the pilot case studies, please see the AGORA website outputs here: AGORA-MS8-Events-with-citizens-stakeholders-and-decision-makers-at-least-one-for-Key-Pilots.pdf (adaptationagora.eu)

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etc.) for the discussions on challenges, enablers, and solutions to citizen and stakeholder engagement.

2. The second table discussed what impacts the project (and Digital Agora) could have related to climate change, at a high level. This table focussed on the impacts of the project and building on their roles and context discussed from Table 1, what impacts different citizens and stakeholders would want it to have. The table identified shorter-term impacts, as well as longer-term impacts, before ranking the impacts in order of priority.
3. Table 3, identified the measurable indicators that could be used to measure progress to achieving the impacts discussed in Table 2. This table also considered impacts and relevant indicators participants had considered or used in their own experience.
4. The final table, Table 4, focussed on implementing the information and how this could be used on the Digital Agora. Discussions on the table focussed on translating the impacts and indicators into practice in an online platform, like the Digital Agora. Participants shared how citizens and stakeholders could be engaged through an online platform (e.g. discussing key features and key content) and then built (using creative materials such as Play-Doh) their highest priority for the Digital Agora online platform.

3.1.2. What is the objective of the Digital Agora?

During the planning and preparation of the AGORA project, the Digital Agora was described as an integrated discussion and learning space and a resource hub. The Digital Agora will be a living digital environment co-designed with stakeholders (T3.1). The Digital Agora will make up the main part of the AGORA project toolbox. The Digital Agora will be built as a weADAPT[11] microsite and will provide a place for stakeholders to network and communicate, enabling them to find and connect with peers with shared challenges, in similar contexts, and learn from good practices. As well as providing dedicated spaces for discussion and knowledge co-production, the Digital Agora will feature individual and organisation profiles that facilitate the identification of relevant peers and potential collaborators. Complementing this, an integrated resource hub will provide accessible information and knowledge for local government, municipal services and networks, and communities. Resources will include local to municipal level tools and approaches with case studies/stories sharing experience (enablers, barriers, lessons learned) on the ongoing implementation of these tools and approaches, and will connect to the two Digital Academies being created within the AGORA project:

1. Digital Academy to access and use Climate Data and monitor Climate Risks
2. Digital Academy against Climate Change Disinformation

To ensure the Digital Agora is useful, information and feedback was collected during the in-person workshops, to support the creation of a co-designed output.

3.1.3. What is the objective of the workshops?

A transdisciplinary co-production workshop was also held at European Climate Change Adaptation (ECCA) Conference: Actionable knowledge for a climate resilient Europe (June, 2023) to facilitate dialogue across research and government, practitioners, civil society, private sector, and international organizations and foundations. The overarching objective of the session was to foster peer-to-peer learning on citizen and stakeholder engagement in adaptation planning and action. This involved actors across the science-society interface sharing good practice, opportunities and barriers to engagement;

[11] weADAPT is a dynamic, collaborative space for online knowledge exchange on climate change adaptation issues. To find out more about weADAPT please visit the website here: https://weadapt.org/about-weadapt/

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co-creating innovative solutions for empowering vulnerable groups, integrating local knowledge, gender and equity considerations; and developing strategies for evaluating effectiveness of citizen and stakeholder methodologies.

Following the input and outcomes from the ECCA workshop, the Adaptation Futures 2023 workshop (October 2023) focused on 'Good practice community and citizen engagement for accelerating a climate resilient future in Europe and beyond'. This built upon the main objective of fostering peer-to-peer learning on citizen and stakeholder engagement in adaptation planning and action. Whilst preparing for the workshops we determined the anticipated outcomes of the workshops, which included the identification of good practice in citizen and stakeholder engagement methodologies; peer-to-peer learning and knowledge exchange; improved networks among participants; better understanding of evaluation opportunities; and ideas for a co-designed Digital Agora.

4. Co Explore - designing participatory and co-creative Workshops

The two in-person AGORA workshops include the workshop on "Community-Driven Climate Resilience: Engagement & Data" at ECCA and the workshop on "Good practice community and citizen engagement for accelerating a climate resilient future in Europe and beyond" at Adaptation Futures. Both of these workshops were planned to follow the Tandem Framework, highlighted in Section 2.3.1.

Both workshops were organised as World Café workshops which took place in a large room with several small tables among which participants can rotate. A facilitator remained at each table to ask key questions and note down key points. Participants engaged at each table through open discussions and/or participatory activities including drawing, building, and scenario role playing. These activities and smaller discussion groups helped create an informal and inclusive setting for peer-to-peer learning and co-production. In particular, participatory drawing, building, and scenario role playing can improve the communication and accessibility of ideas as it mitigates language barriers and breaks down hierarchies and power structures. Whilst both workshops were conducted using a world cafe format, both workshops were structured differently.

4.1. ECCA Workshop

4.1.1. Workshop Structure

The European Climate Change Adaptation (ECCA) conference took place in Dublin, Ireland between 19-21 June 2023. As part of the AGORA project, partners working on WP3 attended the conference and led the workshop.

In preparation for the ECCA workshop, we identified the specific questions and topics to discuss with citizens and stakeholders, based on our initial research and requirements. These questions focused on co-exploring challenges, information needs, previous experiences, and how we could use the knowledge and discussions from the workshop and put this into action. The ECCA workshop was a combined workshop focussing on the AGORA project and the I-CISK project[12]. The AGORA project had three tables and I-CISK project had one table in the world cafe workshop.

A joint workshop was created titled "Community-Driven Climate Resilience: Engagement & Data". The session lasted 75 minutes and was set up in the following format:

- Introduction (5 minutes)
- Presentation (10 minutes)

[12] For more information on the I-CISK project please visit the project website: icisk.eu

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- Mentimeter (5 minutes)
- World Café (50 minutes)
- Wrap up (5 minutes)

Participants of the workshop had approximately 50 minutes to visit the tables and were encouraged to spend time at each table, moving between tables after approximately 20 minutes, allowing participants to join discussions at least at two tables.

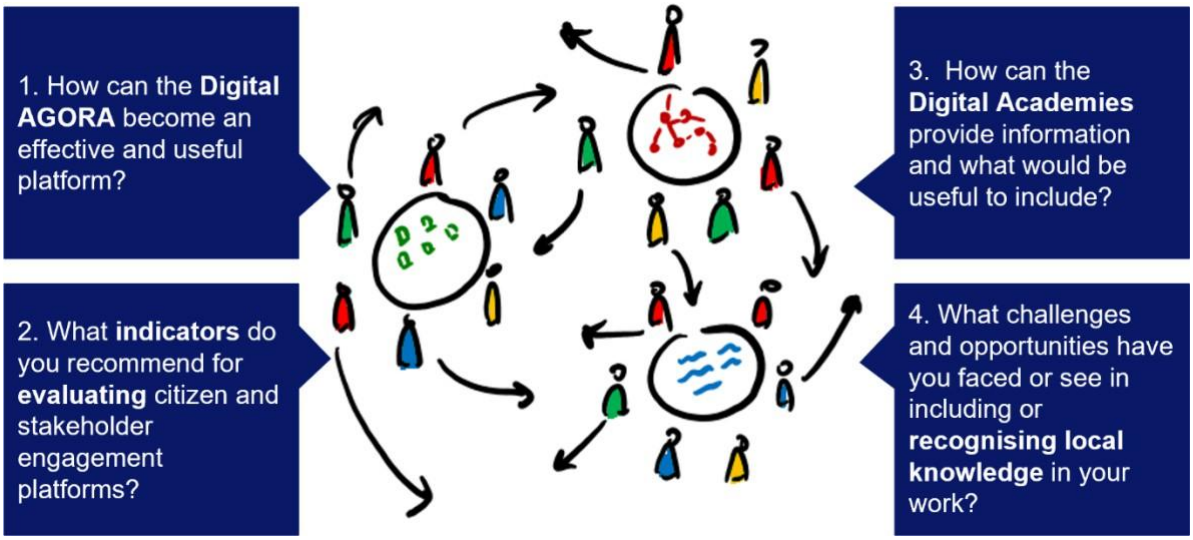

Figure 4. ECCA World Cafe set up. Please note, Table 4 is part of the I-CISK project, not part of the AGORA project

Within each of the tables the facilitator guided the participants through a set of question to encourage discussion and gather input, feedback, and share experiences relating to the topics, as seen in Table 2, below.

Table 2. ECCA World Cafe table topics and specific questions.

Table Overarching Question	***Table Specific Questions***
1. How can the Digital AGORA become an effective and useful platform?	- What are the novel opportunities and known barriers to engaging citizens with the Digital Agora? - Do you use online/digital platforms for citizen science/climate change/or other topics already? If so, which ones and why do you use them? If not, why not? (links to Q2) - What barriers or challenges have you faced when accessing and using online platforms? - Are there specific topics of interest which the current online platforms are not providing? - Are there key features that you can think of to make online platforms more user friendly?

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	- Which tool/s do you use for co-production and/or capacity development?
2. What indicators do you recommend for evaluating citizen and stakeholder engagement platforms?	- What outcomes are the most important to consider when evaluating citizen engagement processes? - How can you measure progress towards these outcomes? - What indicators and methods can be used to measure these outcomes?
3. How can the Digital Academies provide information and what would be useful to include?	- Which kind of expectations do you have for a digital academy on climate data? - What content would you like to find in a digital academy on climate data? - How can we facilitate the access of climate data through a digital academy? - How can we monitor climate risk through a digital academy? - How can we fight climate disinformation through a digital academy? - What content would you like to find in a digital academy on climate disinformation?

4.1.2. Mentimeter

In addition to the world cafe workshop, a questionnaire was used to collect information and engage with citizens and stakeholders. This interactive software allowed questions to be asked and answered online, gathering answers in tables or creating word clouds which were displayed on screen to the session participants. Participants were asked questions to gather empirical data responses:

1. What are the main barriers and limitations of existing climate platforms and tools enabling the use of climate information?
2. How should the Digital AGORA and Digital Academies encourage stakeholders and citizens to engage and actively participate with the platforms?
3. How can the Digital Academies effectively facilitate learning and access to materials?

4.2. Adaptation Futures Workshop

4.2.1. Workshop Structure

The Adaptation Futures 2023 conference took place in Montreal, Canada between 2-6 October 2023. As part of the AGORA project, SEI Oxford and SEI Headquarters partners working on WP3 attended the conference and led a collaborative workshop on 'Good practice community and citizen engagement for accelerating a climate resilient future in Europe and beyond'.

The workshop lasted 90 minutes and was set up in the following format:

- Introduction, Presentation, and Mentimeter (15 minutes)
- World Café (65 minutes)
- Wrap up (10 minutes)

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Within the world cafe there were four tables identified to fit a ToC, and the workshop was conducted as if the participants were creating a ToC for the Digital Agora, within the workshop.

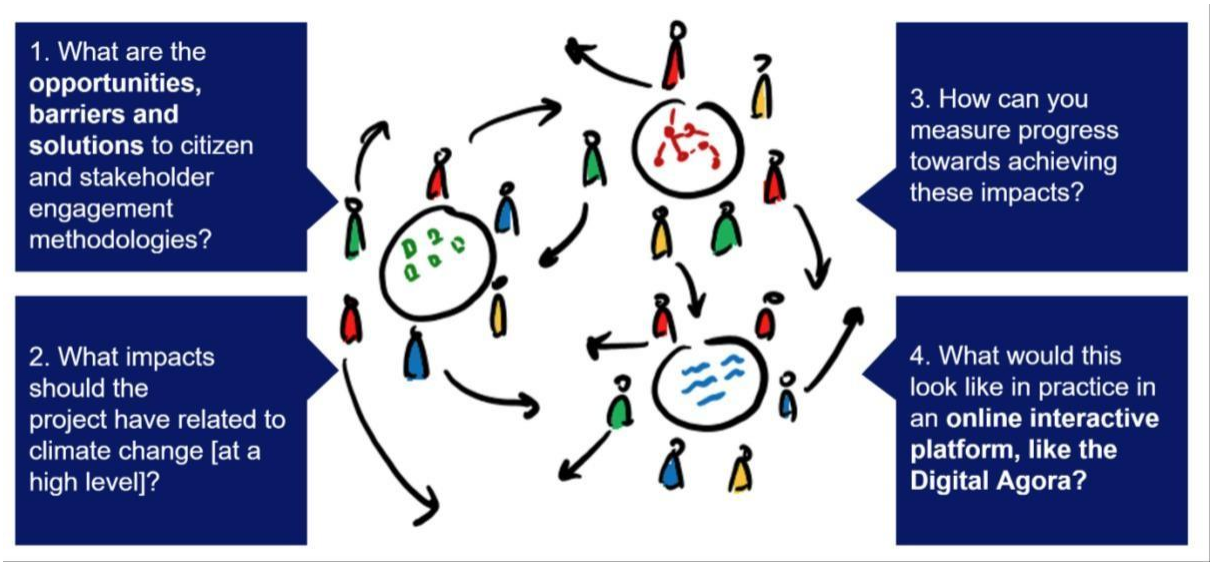

Figure 5. Adaptation Futures World Cafe set up. Please note, Table 4 is not part of the AGORA project and so it is not referred to.

Table 3. Adaptation Futures World Cafe table topics and specific questions.

Table Topics	***Table Instructions***
1. What are opportunities and barriers to applying citizen and stakeholder engagement methodologies?	- Participants picked up a card at random from the table containing a "profile/role" that they would use for that exercise. - Once profiles/roles were identified challenges, enablers, and solutions to citizen and stakeholder engagement were discussed from the opinion of the profiles/roles. - Participants then built the main/biggest/highest priority challenge.
2. What impacts should the project (and Digital AGORA) have related to climate change [at a high level]	- Based on the Malmo case study information shared during the initial presentation, and participants wider experience, and taking into consideration the role you previously had. - Participants identified the main impacts the AGORA project should have in the short and long term. - Participants then discussed and ranked the highest priority impacts.
3. How can you measure progress towards achieving these impacts?	- Based on the wider impacts discussed on Table 2 or thinking about impacts of projects from participants wider experience, participants identified indicators that could be co-created to measure the impacts.

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4. What would this look like in practice in an online platform, like the Digital Agora?	- Participants were asked what their key priorities are to see on the Digital Agora, considering the impacts they had been thinking about on previous tables and if there were no limits. - Participants discussed how they would like to engage with an online platform or what would make this platform most useful to them. - Participants then built their key priority item/feature/content (etc.) that they would like to see on the Digital Agora.

Whilst all tables during the workshop aimed to have an interactive format, in particular tables 1 and 4 had creative activities including building and drawing. These interactive activities were conducted to engage participants and encourage creative thinking in response to the questions and discussions. This was very effective, and participants were eager to use their creative skills in this capacity. Examples of some outputs can be seen below. Focusing on the outputs from table 4, where participants built their key priority item/feature/content (etc.) that they would like to see on the Digital Agora

4.2.2. Mentimeter

The Mentimeter questionnaire was used to collect information and engage with citizens and stakeholders during the presentation, at the beginning of the workshop, and then question 3 was asked during the wrap up section of the workshop. Participants were asked:

1. Which online knowledge platforms are you using?
2. What are you using this/these for?
3. What's missing that would be most useful given the impact that AGORA is trying to achieve?

The third Mentimeter question focused on a similar topic to table 4; however, this was asked after the world cafe part of the workshop and after each participant had then gone round each of the four tables. This question aimed to capture any additional thoughts participants may have had regarding priorities for the Digital Agora, and gather empirical information on this topic.

5. Co-Produce – Listen to feedback and build on it through regular iteration

Following the co-explore step of the Tandem Framework, there is the co-production step. This step aims to build on discussions and outcomes of the co-exploration step and gather continuous feedback from citizens and stakeholders throughout the engagement process and the design process of the Digital AGORA. During the workshop sessions, participants were asked to sign-up to the AGORA newsletter to keep up to date with the project information, and at Adaptation Futures participants were asked to sign-up to a user testing group for the Digital Agora, if interested. From the Adaptation Futures session 8 people signed-up to the user testing group for the Digital Agora. The user testing encourages participants to provide feedback and opinions of the functionality and design of the Digital AGORA, based on the session discussions and their experience. Unfortunately, it is difficult to identify how many participants signed-up to the mailing list from the workshops as the online sign-up information was shared but the online sign-up form does not specify how sign-ups heard about the AGORA newsletter.

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Additionally, stakeholders from the sessions who shared their information may be invited to join a steering committee that will provide ongoing feedback on and input into the development of the Digital AGORA to ensure it meets and evolves with users' needs.

6. Results and Outcomes

The key results from discussions and workshops are highlighted throughout this section, focussing on initial and scoping topic discussions, best practices to citizen and stakeholder engagement, and how these findings can be translated into the Digital Agora. At each of the workshops there were a different number of participants present. Approximately 45-50 people attended the workshop. The second workshop took place at the Adaptation Futures 2023 conference in Montreal, Canada, between 2-6 October 2023, focussing on "Good Practice Community and Citizen Engagement for Accelerating a Climate Resilient Future in Europe and Beyond" and approximately 17 people attended the workshop. The differences in number of participants and responses throughout the workshops should be noted when interpreting the results.

6.1. ECCA Outcomes

6.1.1. Scoping discussions

The workshop at ECCA provided the opportunity to discuss three key questions relating to the AGORA project, and in particular how the Digital Agora can become an effective and useful platform.

The Mentimeter survey included three open questions reported below:

1. What are the main barriers and limitations of existing climate platforms and tools enabling the use of climate information? (29 responses)

The main barriers and limitations of existing climate platforms is the lack of understanding (which includes having relevant, clear, and simple terms, and not too much technical language); knowledge gaps and lack of training (users are unclear how to use the data or may have limited computer literacy); complexity of the data and a lack of trust (scattered information, data not easy to use, fragmentation, not easy findable climate information for specific purposes); lack of dissemination of the platform.

2. How should the Digital AGORA and Digital Academies encourage stakeholders and citizens to engage and actively participate with the platforms? (27 responses)

The Digital AGORA and Digital Academies could encourage stakeholders and citizens to engage and actively participate with the platforms by: mapping the target groups and encouraging stakeholder dialogue; co-designing and co-developing the Digital AGORA with stakeholders and citizens from the beginning; making the Digital AGORA funny, entertaining, and attractive, also with incentives (as token/prizes); fostering user friendliness; outlining the benefits for users; showcasing examples, sharing learnings between practitioners, sharing needs and solutions; clear dissemination.

3. How can the Digital Academies effectively facilitate learning and access to materials? (24 responses)

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The Digital Academies could effectively facilitate learning and access to materials by: remaining current and updated; making Academies clear and understandable, actionable, with intuitive interface, simple language, and videos, pictures and stories; fostering the visualization; promoting open/free access to downloadable materials; facilitating access and learning; demonstrating the relevance, usability, and legitimacy.

Figure 6. Cloud of the key-worlds emerging from the Mentimeter survey on expectations and suggestions of the Digital AGORA and Academies.

6.1.2. ECCA Digital Platform Discussions

Challenges and opportunities engaging citizens with online platforms

Participants in the ECCA workshop noted the key challenge to engaging citizens in climate change adaptation activities was that it was not an immediate day to day priority, and citizens often do not see the longer-term impact of climate change and how they personally will be affected e.g. youth may feel less vulnerable to current, more frequent heatwaves than the elderly, so this may not be an immediate concern for them. The challenge is further developed as participants noted that people often don't believe change will happen by engaging or participating in action, and it can be difficult to change this view.

It is important to demonstrate citizens' value and contribution towards projects and that this has been successful in other projects by having a meeting with citizens at the beginning, middle, and end to show how their contributions are being used and how valuable they are. In order to actively engage citizens in projects it was suggested to play 'holiday games' e.g. at Easter hiding easter eggs and asking people to submit locations of specific locations they pass to collect data. But the key take away from this challenge of engaging citizens and stakeholders with an online platform is that it takes time to build trust with people you are engaging with, and we should take every effort to establish this from the beginning.

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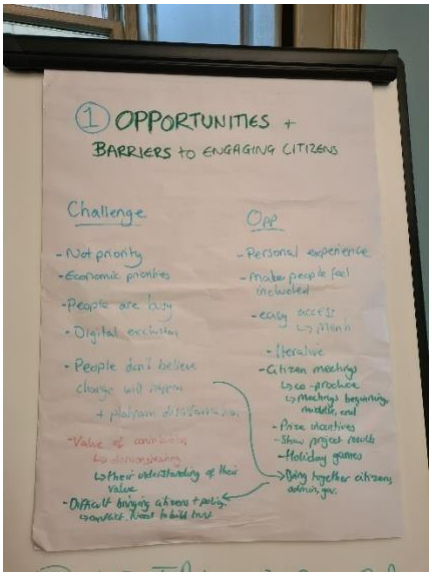

Figure 7. Challenges and opportunities to engaging with citizens flipchart notes.

Use of online platforms

If, and how often stakeholders and citizens use online platforms can vary, especially with the vast number of platforms and information online already. Participants at one world café table were asked if they used online platforms (all participants said they did in some capacity) and how. A reoccurring topic was transparency of platforms and platforms being transparent with when their information was last updated. Some concern was expressed from participants as it can be hard to keep platforms updated and there are a lot of platforms available online after a project has finished but they are never updated and no longer used (but this is not clearly indicated). Many people focus on using government platforms to gather information as it is perceived as authoritative.

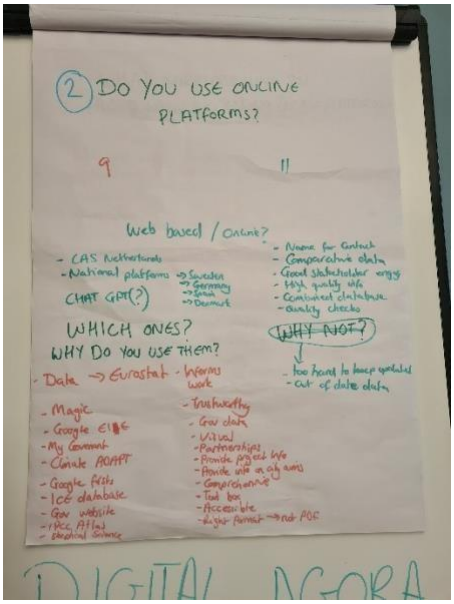

Figure 8. Use of online platforms flipchart notes

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Barriers to accessing platforms

Participants at the world café table discussed key barriers to accessing platforms. The key barrier mentioned was that platforms are not all open access, and some require payment in order to access information available. Furthermore, participants highlighted that ensuring the data is credible, up to date, and transparently sourced are key barriers to accessing information, in particular climate data. When accessing data online it is key to be able to understand how the data was gathered, any clear bias related to the data, and when the data was last updated.

Further barriers to accessing platforms online related to the functionality of the platforms themselves rather than the content. Participants discussed barriers and challenges on platforms highlighting that some platforms are not user friendly, do not have clear links to data and information available, and do not clearly indicate how to use or interpret the data, which can cause barriers to those accessing the information unless they have specialised knowledge regarding this.

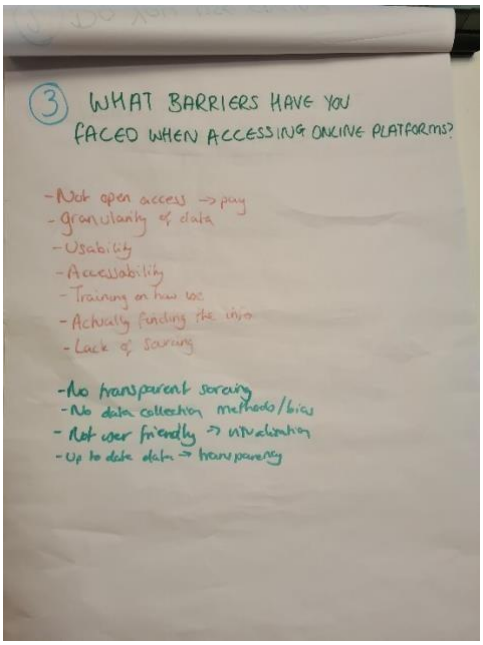

Figure 9. Barriers to accessing online platforms flipchart notes

What could be included on the Digital Agora that would be useful?

Although there are a lot of online platforms already available, there are some gaps in topics, in particular surrounding climate change adaptation and citizen/stakeholder engagement. In order to ensure the Digital Agora and Digital Academies would be useful to citizens and stakeholders, key topics of interest were highlighted during the ECCA workshop. These topics of interest included:

- Behavioural change
- Exposure, vulnerability, risk
- Energy efficiency and granular data
- Cascading effects
- Status of adaptation activities
- Information on ongoing or upcoming climate action

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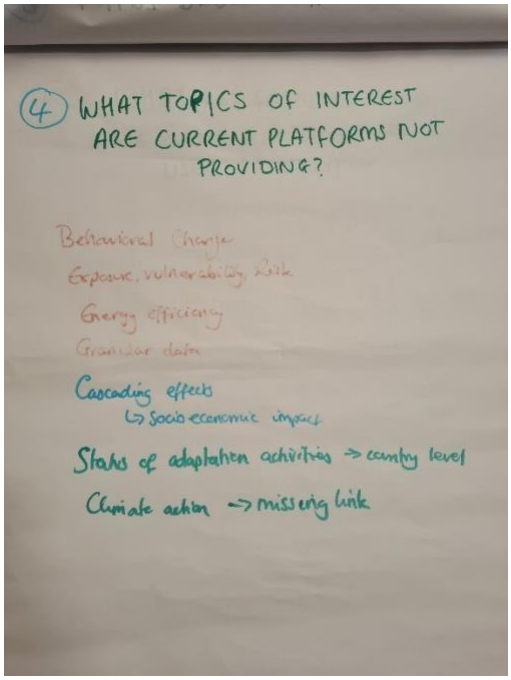

Figure 10. Topics of interest for online platforms flipchart notes

6.2. Adaptation Futures Outcomes

6.2.1. Best practices for citizen and stakeholder engagement

During the Adaptation Future workshop, participants were asked to identify key enablers and barriers applying citizen engagement methodologies. By analyzing them, best practices can be derived for the implementation of the engagement and the Digital Agora design. The detail of factors identified are listed in Annex 2. The categorization provided in the systematic literature review, conducted in parallel within the AGORA project, was applied to classify these barriers and enablers highlighting some best practices (Figure 11 and 12).

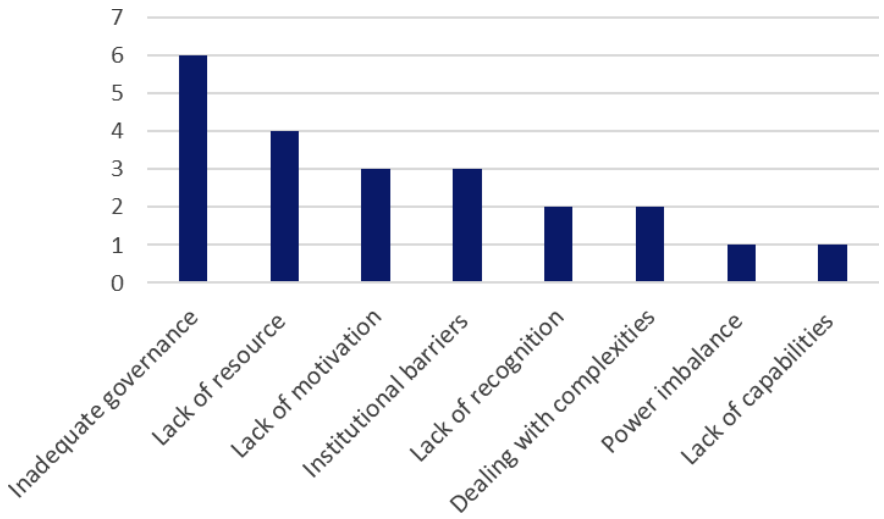

Figure 11. Barriers to engagement, main types identified workshops.

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Barriers identified by participants are mostly related to external factors (Figure 11) such as non-supportive governance system (e.g. lack of coordination and communication among authorities) and institutions (lack of government and financial support) or the lack of motivation to engage (e.g. limited time to dedicate, lack of risk perception). However, one important barrier to engagement relies on the lack of resources, such as knowledge and data on climate impacts, gaps that will be addressed by the Digital Agora. These barriers should be identified and acknowledged during the scope, identify, and engage phase of a project (Section 3.1).

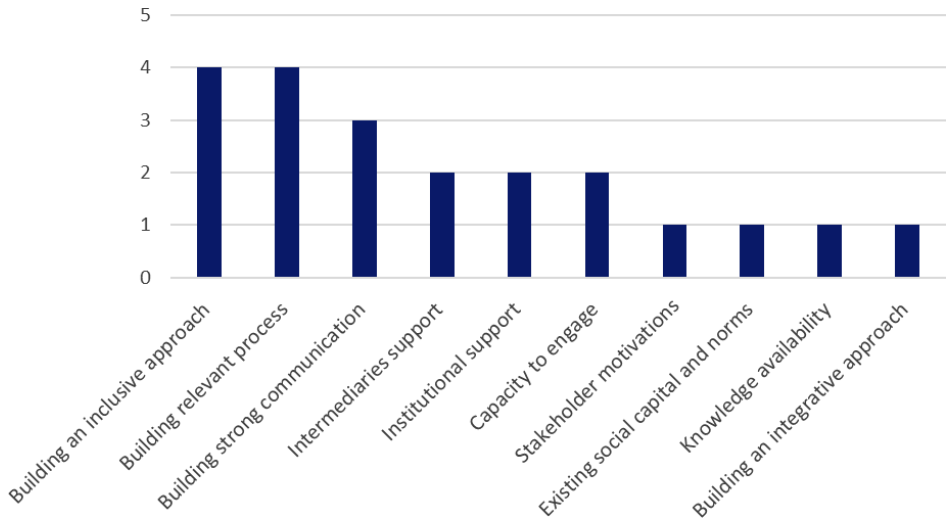

Figure 12. Enablers to engagement, main types identified workshops.

The enablers highlighted are examples of good practices that could be followed and developed during all the key steps of the engagement process. Building an inclusive (e.g. getting the right people at the table, early engagement), and context relevant (e.g. adapted language, addressing local people claims) approach must be defined upstream during the scoping phase and maintained throughout the process. Also, building strong communication, especially based on positive and inspiring stories and examples, throughout the process could help to foster trust, relationships and legitimacy. The role of intermediaries has been highlighted and in particular the need for representatives of vulnerable populations that have little capacity to engage themselves.

All of these enablers and barriers identified within the Adaptation Futures workshop were taken into consideration and used to co-design the Digital Agora, as seen in Section 6.4 below.

6.2.2. Priorities for the Digital Agora

Within Table 4 at Adaptation Futures, as well as the final Mentimeter question, participants were asked to think of key features for the Digital Agora and then identify their top priority feature. Common answers discussed included:

- Interactive visualisations e.g. maps, graphs etc.
- Networking opportunities and key contacts for specific areas
- Key information on funding sources
- Community champions for using the platform

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Figure 5 shows a “Project in a box” and a “Toolbox”. Whilst similar ideas, this exercise emphasised how useful compiling and sharing information on a project in one place can be, and how this is something that participants would be interested in seeing on the Digital Agora.

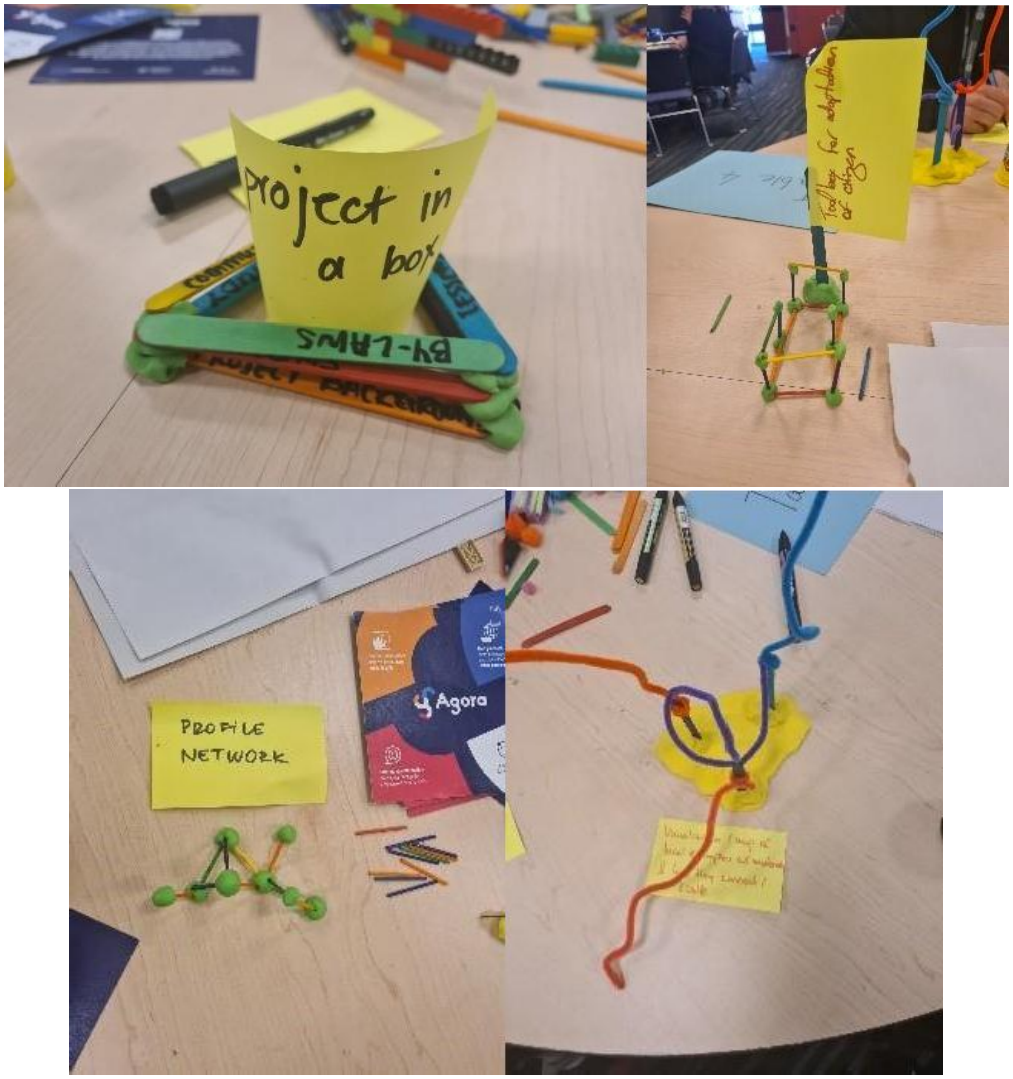

Figure 13. Key priorities for the Digital AGORA, built by session participants on Table 4.

Following the World Café session participants were asked a similar question via the Mentimeter, in order to gather this information from all participants after attending each of the workshop tables. The answers are reported below and further highlight key priorities including ensuring information available is context relevant (e.g. adapted language, addressing local needs, accessible), includes clear communication channels for knowledge sharing and especially based on positive and inspiring stories and examples.

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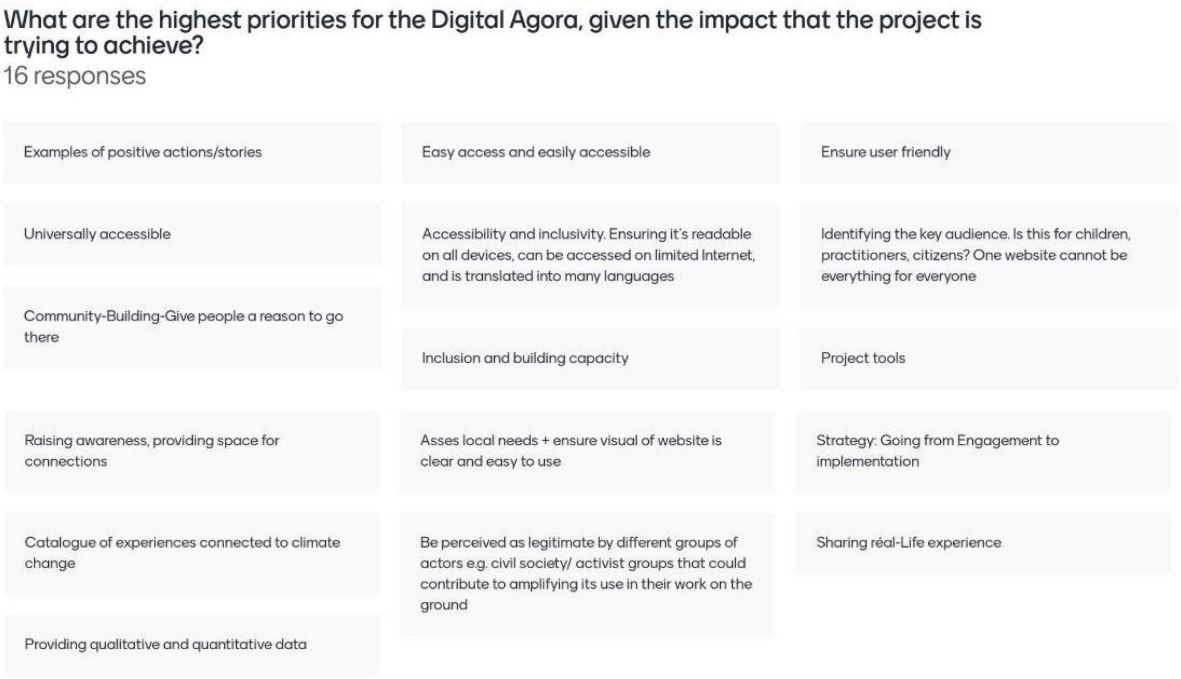

Figure 14. Highest priorities identified for the Digital Agora, by session participants.

For more detailed information regarding the answers to the questions please see Annex 2.

6.3. Evaluation Framework

The AGORA Evaluation Framework was developed through an iterative co-design process engaging academia, civil society organizations and policymakers. This was done through a review of scientific literature, a three-round Delphi study, and the two interactive workshops at ECCA and Adaptation Futures where workshop tables focused on indicators and measuring or evaluating the project.

The AGORA Evaluation Framework provides a comprehensive approach to monitoring, evaluation, and learning in citizen engagement processes pertaining to climate change adaptation. It evaluates four impact pathways:

1. **Relevant knowledge and action –** where the citizen engagement process produces knowledge and action aligning with the local context, policy priorities, and social dynamics, and enjoy support and acceptance among citizens, decision makers, researchers, and other stakeholders.
2. **Just representation and participation –** where the citizen engagement process amplifies marginalized voices and enables fair participation of citizens and other stakeholders.
3. **Mutual learning –** where the citizen engagement process enables citizens, decision makers, researchers, and other stakeholders to learn from one another.
4. **Improved collaboration –** where the citizen engagement process builds, develops, or improves partnerships based on trust and respect among citizens, decision makers, researchers, and other stakeholders.

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To assess the effectiveness of citizen and stakeholder engagement methodologies for enhancing climate resilience developed in T3.2, the evaluation framework will be applied and validated in the pilots[13]. The results of the co-evaluation process will be fed back into WP3 to further populate the Digital Agora and later be used in T6.2.

6.4. Outcomes from Pilot Region Studies

The pilot region studies have offered valuable insights into both the barriers and enablers of successful co-production processes.

Understanding Diverse Motivations: While a strong interest among those already active in climate adaptation and sustainability was found, engaging broader stakeholder groups was harder, requiring a deeper understanding of their diverse motivations. Shared benefits like networking and learning can be powerful motivators. It's crucial to listen to stakeholders, explicitly asking about their expectations for engagement to ensure that the process meets their needs and to strengthen connections.

Addressing Power Dynamics and Inequality: The potential for power imbalances and conflicting interests among participants exists. Therefore, acknowledging these possibilities early on during stakeholder mapping and selection is key. Building an inclusive and integrative approach by ensuring all stakeholders, genders, and social groups are represented, as well as all knowledge, viewpoints, and needs are considered and incorporated, can increase recognition and valuation, empowering and motivating participants to further engage and contribute.

Facilitating Balanced Participation: Facilitators often encounter situations where some individuals dominate discussions while others remain silent. While respecting that some may not wish to be overly active, equipping facilitators with appropriate methodologies and techniques is crucial. The pilots successfully employed icebreaker activities (adapted to participant preferences), smaller group discussions to encourage participation from quieter individuals, and “talking in rounds” to ensure everyone has a space to intervene and share their ideas. In one of the pilot regions, a closing round focused on gathering further expectations, wishes, and concerns played a vital role in shaping the network's future and understanding everyone's needs.

Addressing Complexity and Knowledge Gaps: The inherent complexity of the topic can lead to confusion, misunderstanding, and inequality. Setting clear project aims and sharing them openly with engaged individuals is crucial. Equally important is ensuring clarity and proper definition of the aims for both the "engager" and the stakeholders, allowing for flexibility throughout the process. The pilots found success in inviting participants to informational events before the official inception workshops, introducing terminology and basic concepts they would encounter. This approach allowed for early engagement and ensured equal access to knowledge, levelling the playing field for discussion.

Building Understanding Through Individual Engagement: Offering individual calls with stakeholders during engagement allowed them to fully understand the project, ask questions, and provide valuable feedback. This personalized approach fosters higher clarity and understanding before embarking on co-creation or collaboration, leading to increased consent, clarity, and understanding of the shared goals, ultimately maximizing the chances of success. While achieving such clarity often requires

[13] For further information on T3.2 and D3.2 within the AGORA project, please see here: AGORA-D3.2.pdf (adaptationagora.eu)

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significant simplification, especially when engaging citizens, it is a necessary investment for successful co-production.

6.4.1. Lessons from Pilot Regions for the Digital Agora design

Beyond gaining project understanding, individual calls with stakeholders presented an opportunity to delve deeper into their specific interests and opinions regarding digital platforms, particularly those focused on climate adaptation knowledge. Here some examples of questions that were asked to gather key input for co-designing the Digital AGORA:

- Do you use or are you registered on any existing digital platforms or knowledge platforms for climate adaptation?
- Which platforms do you find most valuable, and why?
- What are the biggest barriers you experience when using these platforms?
- What functionalities or features would you like to see in the Digital Agora to best serve your needs?

Focused primarily on stakeholders within Germany, this activity highlights valuable insights, although it's important to remember they primarily reflect the German context and may not translate directly to other countries.

Stakeholders frequently mentioned the national platform, "ZentrumKlimaanpassung – Beraten, vernetzen, gestalten[14]", and expressed satisfaction with its offerings in terms of resources, networking and consultancy. The stakeholders expressed also appreciation for European platform's excellent resources but mentioned time constraints preventing them from fully exploring all available materials. As a result, they tend to prioritize national platforms. Language preference also played a role, as stakeholders generally favored their native language for engaging with climate-related topics.

Respondents emphasized the importance of context-specific approaches to climate adaptation processes and regulations, which further reinforced their preference for national platforms. Despite this emphasis, there remained a strong interest in cross-border learning, particularly from regions with more experience in climate adaptation. For instance, Southern European countries have historically coped with warmer climates, providing valuable insights that stakeholders can learn from to address current heatwaves in Germany.

6.4.2. Sustaining Stakeholder Engagement in the Co-creation Process

Despite the pilot case studies being at an early stage of engagement, the sustained involvement and connectivity of stakeholders during the co-creation phases at the inception workshop are noteworthy. As part of the inception workshops, a network of stakeholders and citizens was created from the pilot case studies. Recognizing that a lack of ongoing participation is often a challenge in co-creation processes, understanding how participants themselves value continuous engagement becomes pivotal.

Participants across all the pilot regions were provided with opportunities to sign up for updates and express interest in sustained participation. Notably, a significant majority in Sweden, Italy, and Dresden (either all or almost all of them, e.g. >30 in the case of Italy) expressed a keen interest in staying

[14] To visit this national platform website, please see here: https://zentrum-klimaanpassung.de/

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connected to the AGORA process and local activities. Despite a slightly lower number in Spain (5 out of 18 total participants), a considerable portion of participants there also indicated their interest.

After the inception workshops, a tailored approach was adopted for each region. In Sweden and Spain, participants were invited to subscribe to the AGORA newsletter. In Italy, before the workshop commenced, participants had to sign the informed consent, within which was a request to subscribe to the AGORA newsletter. In Dresden, connectivity was primarily facilitated through an internal local mailing list, where a notable number of participants (14 out of 24) actively chose to stay connected, indicating their motivation to continue collaborative efforts within the network.

Common among the pilot regions is the shared intention to re-engage participants through future events, with a significant emphasis on co-defining next activities. Examples include additional inception workshops in Sweden and Italy, a follow-up meeting in Dresden to assess results and identify priorities, and various focus groups with citizens and civil society on climate adaptation challenges. The AGORA consortium is actively exploring strategies to empower stakeholders to shape the project's outcomes, considering that promoting networking activities should be coordinated with other events, such as the focus groups and the final co-creation session, to maintain relevance and coherence in the discussions and activities.

While representatives from the AGORA consortium express satisfaction with the current level of stakeholder engagement, an important consideration emerges regarding the substantial effort required to maintain this engagement. The need for continuous outreach, periodic calls, and thoughtful interaction with stakeholders is acknowledged. Striking a balance between keeping stakeholders engaged and preventing fatigue requires careful consideration. Therefore, it is recommended to allocate sufficient resources, both in terms of time and budget, for ongoing engagement efforts, including regular communication, addressing queries, and fostering a supportive, caring environment. This approach acknowledges the social work and sensitivity required to sustain meaningful stakeholder involvement throughout the co-creation process.

6.5. Feedback for Digital AGORA

Workshops at the ECCA and Adaptation Futures 2023 conferences identified several priority areas the Digital Agora aims to address. This was in the form of both thematic areas and in terms of functionality. For example, suggested data gaps that the Digital Agora will be able to address include:

- Information on exposure, vulnerability and risk
- The status of adaptation activities (if they are being planned, ongoing, or completed)
- Information on ongoing or upcoming climate action

To continue with a highly iterative and co-creative process, a first draft of design ideas was created incorporating this feedback and shared with the AGORA project team. Further feedback and iterations with a design and technical development team allowed us to create a key set of priorities for development, in a phased approach. The original set of ideas proposed are shared below:

Idea 1: Discovering climate change adaptation projects

The Digital Agora will provide a map-based interface showcasing existing climate change adaptation projects in Europe to make the projects easily discoverable by location and encourage learning from projects. The map feature will pull in data from weADAPT which include relevant all Climate-Adapt[15] case studies, to showcase and connect different case studies and projects taking place within Europe.

[15] To visit the Climate-Adapt website, please see here: https://climate-adapt.eea.europa.eu/

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During both workshops participants revealed that they were unsure what other climate change adaptation projects were taking place within Europe, and the status of projects online was unclear. For example, some project websites remain static and it is unclear if projects are planned, ongoing, or completed. Within the Digital Agora platform, uploaded information will include a 'modified' date so users can see how recently this has been updated and the status of the project.

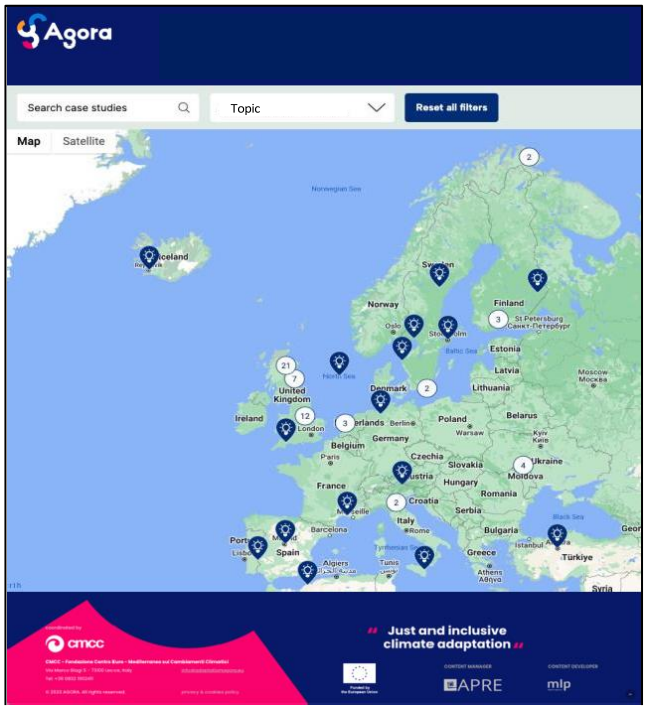

Figure 15. Making European climate change adaptation projects visible.

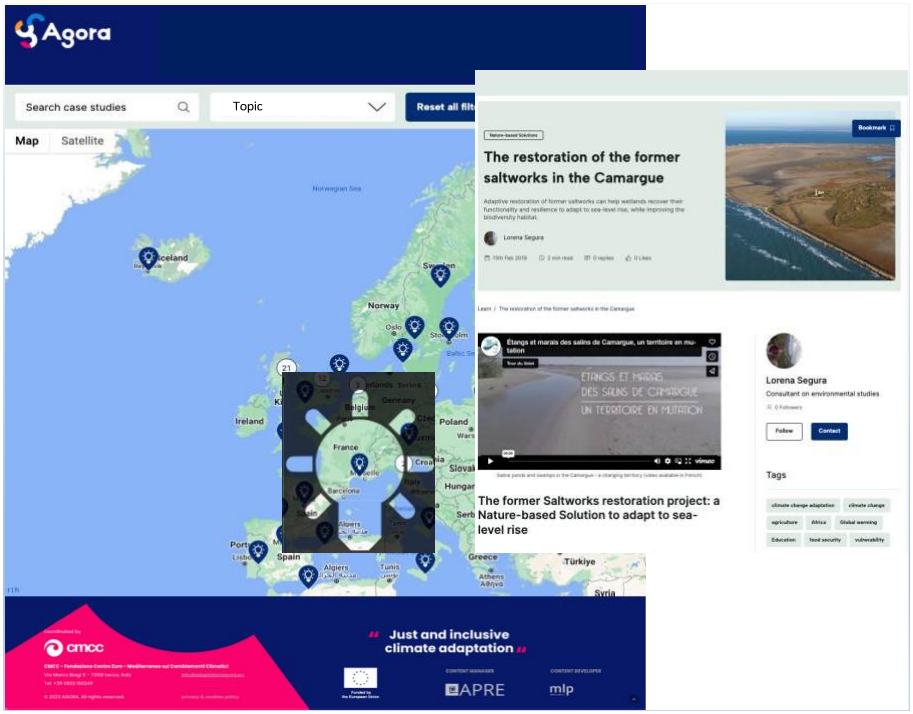

Figure 16. Details of adaptation projects taking place in Europe.

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Idea 2: Stakeholder and institutional coordination and collaboration

The Digital Agora will facilitate networking between members and organizations through different features. In particular, the map-based interface will allow the user to search projects that target heterogenous communities by region and topic. In the same way, experts with particular skills or interests will be searchable to support collaboration and communication. Finally, organizations will also be discoverable through their expertise and projects to further enhance coordination and reduce potential redundancy and replication of initiatives, that can instead build on each other. Content will also be findable through a tagging feature which will link content with similar or related content, tagged the same e.g. organizations, members or projects will be suggested to a user based on their interests.

Figure 17. Search AGORA community projects and members.

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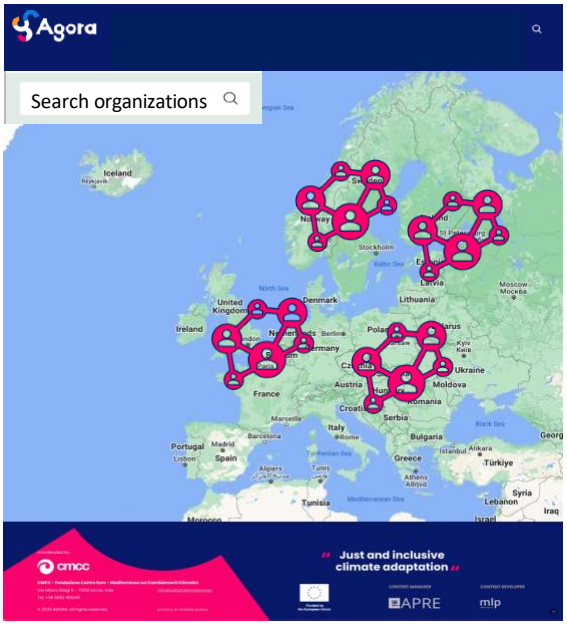

Figure 18. Search for organizations.

Idea 3: Connecting with communities (to build trust and reduce disconnect)

Throughout the workshops, citizens and stakeholders often commented that there was a disconnect between different actors when conducting climate change adaptation projects. Stakeholders suggested there are challenges in engaging with actors, such as citizens, and encouraging them to participate in climate change adaptation projects because it was not an immediate day to day priority, and citizens often do not see the longer-term impact of climate change and how they personally will be affected. The challenge is further developed as participants at the workshops noted that citizens and other actors often don't believe change will happen by engaging or participating in projects, and it can be difficult to change this view.

Suggested solutions to increase engagement with different actors, communities, and citizens on platforms such as the Digital Agora included actively engaging actors throughout the project cycle, and ensuring the Digital Agora is user friendly and meets users' needs.

Consequently, the Digital Agora will facilitate networking between individual peers through its map-based interface. This will allow the user to search for individuals based on regions, skills, area of expertise and project involvement, if relevant. A dynamic messaging interface will further allow users to connect with each other, if they wish to, and share information in group discussions. These features aim to support and encourage communication, collaboration, and connection between users.

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Figure 19. Discussion spaces.

Idea 4: Addressing language needs

Within Europe, and globally, there are many climate change adaptation projects taking place using different languages. During the workshops language barriers was highlighted as a potential challenge when sharing information at national or regional level. Consequently, the Digital Agora will have a Google translate plug-in that will enable the translation of content into over 130 languages, including several European languages.

The Google language plugin aims to increase accessibility and knowledge sharing between projects and users within different locations.

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Figure 20. Google Translate Plug-in of available languages.

Idea 5: Addressing vocabulary needs

One of the main barriers and limitations of existing climate platforms, that was highlighted at the workshop, is the terminology used. Different citizens and stakeholders working on climate change adaptation projects may have different understandings of terms, or not understand certain terms used. These discussions highlighted how it is important to ensure digital platforms such as the Digital Agora have relevant, clear, and simple terms, and do not use technical language without a clear explanation of the terminology.

Therefore, key terms used on the Digital Agora will be supported by 'pop-up' definitions provided by an AGORA project glossary which uses the Intergovernmental Panel on Climate Change (IPCC)[16] as its source. An innovative feature of this is that synonyms of terms will also be provided, meaning that terms used in different ways by different stakeholders, citizens, or communities can still be captured, and 'related' content can still be discoverable if described using different terms.

Scope notes[17] will also support a shared understanding of how terms are used within the projects by providing clear definitions and synonyms for terms, highlighting how terms can be used differently by different communities. The taxonomy that drives this glossary, while originally sourced from the IPCC, will be supplemented with additional adaptation related terms. This creates the foundation for a glossary linking national and regional platforms and supports connecting content in more dynamic ways for accelerating learning and climate action.

[16] For further information on the IPCC Glossary, please see here: IPCC Glossary Search
[17] Scope notes are a note providing a definition or sharing synonyms of a word.

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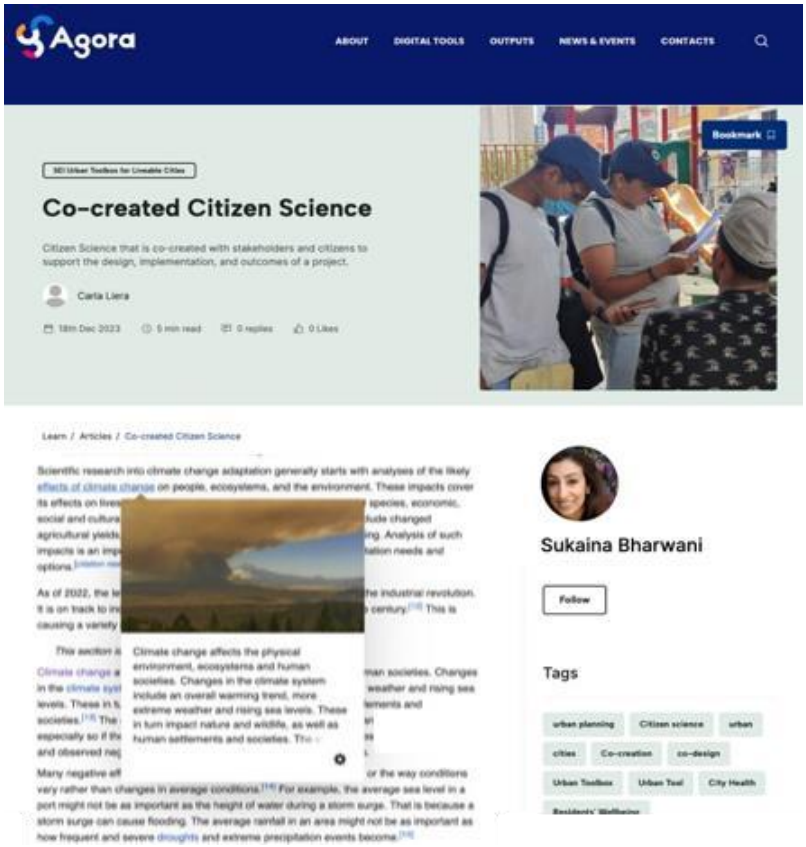

Figure 21. Agora glossary with definitions and scope notes.

Idea 6: Integrated toolboxes

From the workshop sessions, in particular Adaptation Futures, participants discussed how useful and informative it is to share information about projects, methodologies, and research through a toolbox format. The toolbox format ensures all information is easily locatable and accessible to users, encouraging users to delve further into the information and explore the resources available. On the Digital Agora, toolboxes will be created in a similar style to databases such as on weADAPT[18]. These toolbox databases will initially be created focussing on engagement methodologies and inventories created within the AGORA project.

A toolbox for stakeholder engagement mapping methodologies (T1.1) will be available to ensure legacy beyond the lifetime of AGORA. This will include the ability for users to continue to suggest new tools over the course of the project and beyond its lifetime.

Another searchable database that will be created based on information from the AGORA project is the inventories developed in T3.4. These toolboxes will be supported by the Adaptation Glossary and vice-versa. That is, terms used in T1.1 and T3.4 to standardize how stakeholder engagement methodologies are used and how data in the inventories are described will be used to supplement and enhance the Adaptation Glossary where they add value and fill gaps in the existing IPCC glossary.

[18] weADAPT includes databases based on themes or networks. To see more about weADAPT, please see here: https://weadapt.org/

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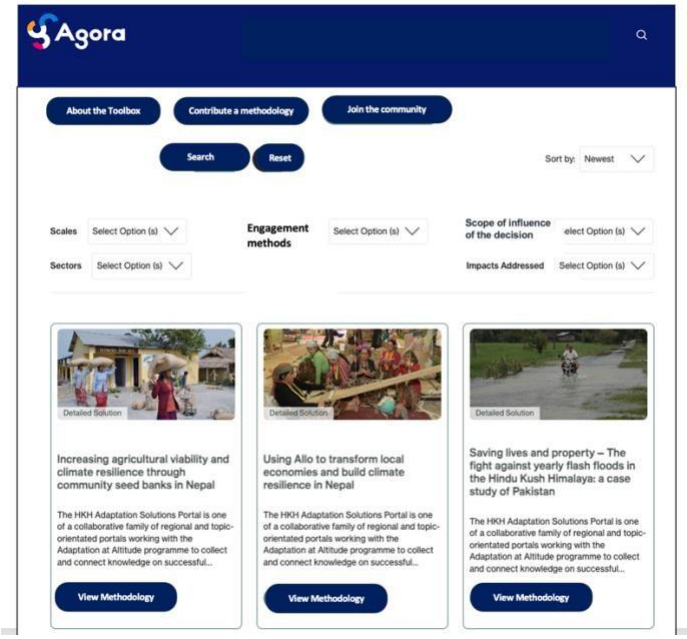

Figure 22. Potential Agora Toolboxes.

Idea 7: Building capacity to use climate data

Although information and data on climate change and adaptation is available on platforms online already, at national and regional levels, participants at the workshops indicated that some of the data can be difficult to use and interpret. It was highlighted that building capacity to use and interpret information and data would be beneficial for users.

To build capacity, as part of the AGORA project, learning courses will be developed on two Digital Academies (T3.4 and T3.5). One Digital Academy will focus on accessing and using climate data and monitoring climate risks, and the other Digital Academy will focus on combatting climate change disinformation. Both Digital Academies aim to support capacity building and increase knowledge sharing.

The need for capacity building and accelerated learning may also be supported by standardized templates for the course modules on the Digital Academies. This could support the Digital Academies to prepare material for their audiences and ensure these are consistent for ease of use and increased familiarity when going through the available courses. Furthermore, the Digital Academies and their courses may be supported by the Adaptation Glossary and vice-versa. That is, terms used in T3.4. to explain how terms are described and used can be added to the Adaptation Glossary where they add value and fill gaps in the existing IPCC glossary.

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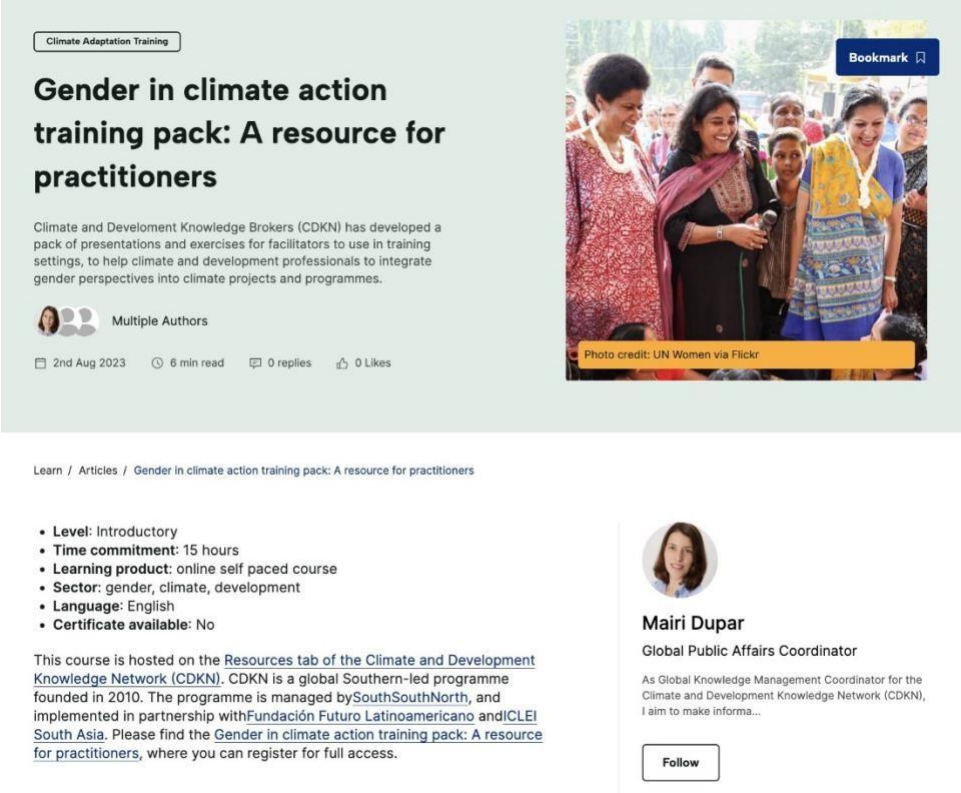

Figure 23. Capacity building resources.

Idea 8: Production of and access to synthesized knowledge

In addition to capacity building through the Digital Academies, as mentioned in Idea 7 above, the need for capacity building and accelerated learning will be supported by standardized templates for knowledge sharing. This will include standardized templates for articles and case studies shared on the Digital Agora which will allow and encourage users to discover, read, and compare information more easily.

Idea 9: Inspiring stories that promote change

Another key outcome identified during the workshops was the need and interest in having positive stories available to read and learn from on digital platforms. The demand for positive stories can take the form of visual stories on the platform in the form of Storymaps[19]. The advantage of this is that they can also incorporate any spatial and geo-referenced data on the pilots that are being produced in the project. Each pilot will be able to showcase its own Storymap over the course of the project, and the Digital Agora will provide a standardized template for others to add their stories also.

[19] To find out more about StoryMaps please visit the ArcGIS StoryMap website: www.storymaps.arcgis.com

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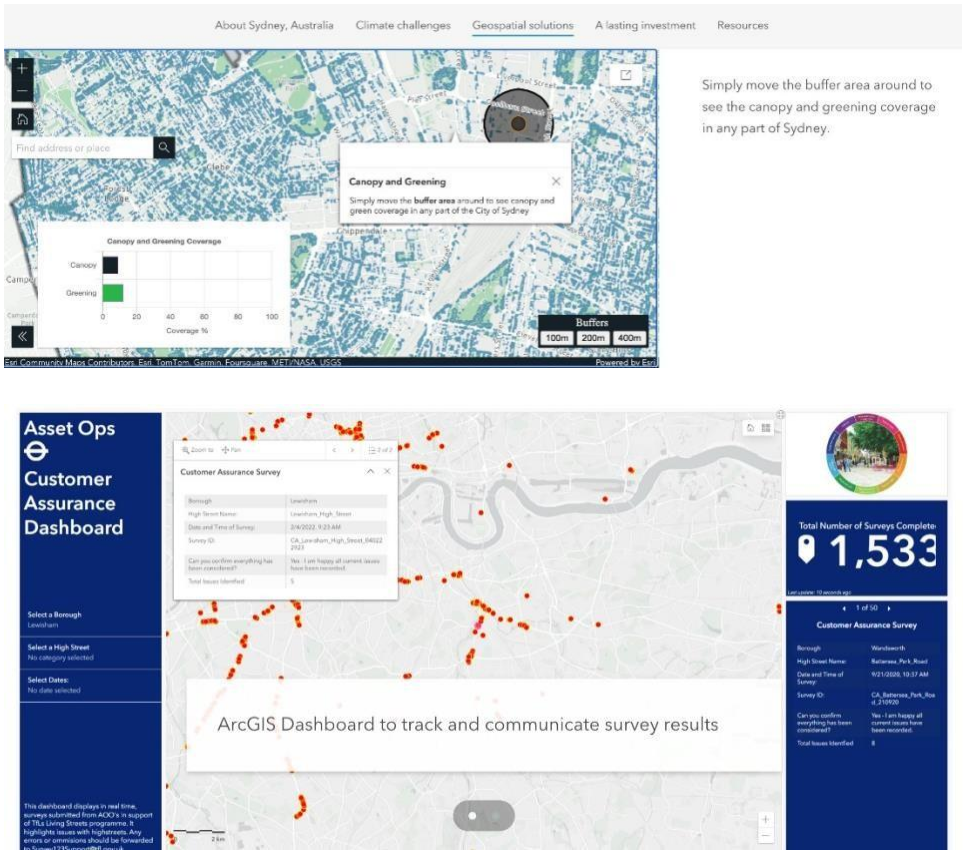

Figure 24. Potential Storymaps.

Extensive feedback and prioritization have been collated on these ideas from the project consortium. As a result, the design of the Digital Agora is planned in a phased approach:

- Phase I will focus on the visual representation of who is doing what, and where in Europe (Idea 1). This will showcase a range of maps, filtering case studies, projects, organizations, networks and showcasing the pilots etc.
- Phase II will focus on creating more interactivity between users with discussion spaces (Ideas 2 and 3).

7. Measuring what we value - evaluating the impact of the Digital Agora

Based on experience with evaluation of the impact of the weADAPT platform (Bharwani et al., in preparation), we will monitor and evaluate the effectiveness of the Digital Agora over the lifetime of the project, and beyond. Based on the features and functionality described above, we have considered some indicators for measuring progress towards the objectives of the Digital Agora. This type of evaluation design ensures that we do not simply value those indicators that we can measure, but rather that we are able to measure those elements of the platform that we value and we know are valued by users.

To monitor and measure effective engagement with user needs and the objectives of the Digital Agora, we have suggested a set of indicators that capitalize on the unique features of the platform. Some of

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these can be easily collated through regular software analytics (SA) whilst others require deeper consideration and inclusion from the outset in design tasks associated with platform development. Such functionality then also requires special monitoring and a set of curated analytics (CA). Several such analytics cannot be curated in an automated way and may require manual efforts (M).

7.1. Potential indicators (including proxy indicators) for impact evaluation

Table 4. Activity, connectivity and cross-fertilization between knowledge, members and networks for learning.

Software analytics (SA) e.g. Google, social media platforms etc.; Curated analytics (CA) e.g. developed on weADAPT; Surveys (S); Manual (M).

Example indicator	How this is captured	Notes on types of impact (direct and proxy indictors)
How much content organizations share	CA	Active organizations
Themes that organizations contribute to	CA	Activity and cross-fertilization if organizations are contributing to multiple themes
Topics (tags) most organization content is connected to	CA	Activity, connectivity and cross-fertilization across knowledge and network. Can potentially reveal gaps in the knowledge and network
Number of times content sits across different themes and networks	CA	Activity, connectivity and cross-fertilization. Not an indicator of poor content if this is low, but this needs to occur to some degree for knowledge to get out of silos.
Number of followers and individual/organization has or how many individuals/organizations they follow	CA	Activity and connectivity between organizations
Number of times organizations are clicked on	SA	Activity, connectivity, popularity and relevance of the work of the organization
The degree to which 'messaging' occurs between members	CA	Activity, connectivity between members
The extent to which LinkedIn groups are sharing AGORA content	SA	Activity, connectivity and cross-fertilization
How much content is shared using the 'Shared on LinkedIn feature'	SA	Activity, connectivity and cross-fertilization. May imply sharing of content through other professional networks also.
Number of members registered in a single organization	CA	Activity within an organization
Number of complete organization profiles	CA	Activity by an organization: Indicator of active organizations (these are completed before content is published).

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Number of complete personal profiles	M	Indicator of active members (these are requested to be complete before content is published).
Number of times the newsletter is forwarded	SA	Activity, connectivity and cross-fertilization
Number of new knowledge networks and themes	M	Multiplier effect

*Table 5. **Increasing accessibility through language**, translation, capacity development and user-relevant syntheses*

Example indicator	**How this is captured**	**Notes**
Analytics of readership of 'Introduction to' articles, training modules and Academies	SA	Accessibility, popularity and relevance of capacity development material
Use of translation feature	SA	Accessibility through languages other than English
Which languages content is translated into	SA	Diversity of languages used
Number of times content is 'bookmarked'	CA	Popularity and articles or training material are timely and relevant
Citation analytics	SA	Traditional measure of impact
Newsletter download analytics	SA	Readability of syntheses featured in the newsletter

Table 6. Just, inclusive and equitable knowledge sharing valuing multiple knowledges

Example indicator	**How this is captured**	**Notes on types of impact (direct and proxy indictors)**
Number of community-based and organizations registered	CA	Inclusivity and equitable access of different knowledge types
Cultural and geographical diversity of contributors	CA	Diversity of sources and knowledge
Level of inclusion of and engagement with local knowledge and local knowledge holders	CA	Just and equal representation of all knowledge types
Frequency of inclusion of synonyms and scope notes in taxonomy	CA	Indicative of aim to create a shared understanding
Diversity of range of thematic content	M	e.g. practical and policy related vs academic

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Diversity of knowledge types (disciplines)	CA	e.g. disciplines
Number of times and what type of content is 'bookmarked'	CA	Popularity, and content is timely and relevant
Which languages content is translated into	SA	Diversity of languages used
Diversity of knowledge types (formats)	CA	E.g. podcasts, webinars, blogs, case studies
Diversity of range of thematic content	M	E.g. policy, practical vs academic

Table 7. Trust-building by being timely, neutral & policy-, research- and practice-relevant

Example indicator	**How this is captured**	**Notes on types of impact (direct and proxy indictors)**
Analytics of featured downloads by geography, institute/affiliation and professional role of contributor	M	Quality and breadth of resources shared
Citation analytics	SA	Traditional measure of impact
Contributors changing status e.g. from subscribers and browsers to avid readers, activists, Editors or Champions	CA	Increasing engagement
Newsletter reads and how often the newsletter is shared through social media	CA	Indicative of a trusted source
How often the newsletter is downloaded (so that it can be printed or read later)	SA	Indicative of a trusted source
Social media shares, likes etc	SA	Multiplier effect
Number of times and what type of content is 'bookmarked'	CA	Popularity and content are timely and relevant

Table 8. Sharing multi-sectoral place-based knowledge at different scales

Example indicator	**How this is captured**	**Notes on types of impact (direct and proxy indictors)**
Number of times case studies are accessed vs. session time	SA	Depth and richness of engagement
Number of times and what type of case studies are 'bookmarked'	CA	Popularity, and case studies are timely and relevant

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Diversity of geographical location of contributions	SA	Diversity
Diversity of geographical location of contributors	SA	E.g. small islands
Analytics of featured downloads by number of saves, geography, institute/affiliation and professional role of contributor	M	Diversity and spread of type and source of content
What tags most contributor content connects to	CA	To identify expertise, interests and geographies
Which languages content is translated into	SA	Diversity of languages used

Table 9. Enhancing FAIR and decolonized search and discovery

Example indicator	**How this is captured**	**Notes on types of impact (direct and proxy indictors)**
Number of times and what type of content is 'bookmarked'	CA	Popularity, and content are timely and relevant
Which languages content is translated into	SA	Diversity of languages used
Number of followers and individual/organization has or how many individuals/organizations they follow	CA	Links to activity, connectivity
How much the green design and low energy elements of the site are used	CA	Effectiveness in increasing accessibility
Analytics of featured downloads by number of saves, geography, institute/affiliation and professional role of contributor	M	A possible indicator that content is downloaded to read ofline
Newsletter reads and how often the newsletter is shared through social media	CA	Indicative of a trusted source.
How often the newsletter is downloaded (so that it can be printed or read later)	SA	Indicative of a trusted source.
How many times and which words are hovered over (e.g. to see definitions, synonyms etc.)	CA	Which terms users require clarity on or definitions for
Number of new taxonomy terms and synonyms created and defined, and by whom	CA	Ensuring local and other minority groups are involved in the development of content, terms, synonyms and

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		definitions. Just and equal representation of all knowledge types, viewpoints and interpretations of information

8. Guidance Summary

This report (Deliverable 3.1 (D3.1)) summaries the transdisciplinary co-productive design principles considered when designing in-person AGORA workshops which had the aim of exploring the barriers and enablers to citizen and stakeholder engagement and how the workshops could co-design the Digital Agora.

Within the AGORA project, engagement with citizens and stakeholders has been, and will continue to be, undertaken at different stages, in different locations, and for different purposes. Throughout this report activities are highlighted including conceptual background research on engagement methodologies and co-production enablers and barriers identified through desk research, as well as engagement activities undertaken at four different pilot case study locations (Germany, Sweden, Italy, and Spain). However, the report focuses on the two in-person workshops that were held at ECCA and Adaptation Futures conferences in 2023. Both conference workshops, provided space to hold discussions and co-production activities relating to engagement methodologies and the Digital Agora.

The AGORA workshops were planned and undertaken using the following 5 key steps, based on the steps of the Tandem Framework, and used throughout this report guidance:

- **Scope, Identify and Engage** – this step includes defining the term "engagement", research into different engagement methodologies, and research into co-production enablers and barriers.
- **Co-Explore** – the co-explore step involves designing and undertaking the two co-production and co-creation workshops which are the focus of this report.
- **Co-Produce** – the co-production step involves continuous feedback and input to build on the information collected at the workshops for the design of the Digital Agora.
- **Integrating Outcomes** – this step identifies and highlights the key outcomes identified during the workshops for the creation of the Digital Agora.
- **Monitoring, Evaluation and Learning** – to monitor and evaluate online platforms, key indicators have been identified that will inform how the platform can be further refined and improved over time.

As a next step within the AGORA project, the information collected and discussions held within the workshops, will be used to co-create the Digital Agora. Engagement with citizens, stakeholders and a Steering Committee for ongoing feedback on the Digital Agora will continue throughout the project allowing the platform to be continuously updated and improved.

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Annex 1. ECCA Results

1. What are the main barriers and limitations of existing climate platforms and tools enabling the use of climate information?

29 Answers

Lack of understanding	Lack of structure	Terms and language
Most require computer literacy many potential users don't have	No common data model	Terms and language
Not starting with the decisions or challenges that the intended user is dealing with	complexity	Scattered information
They are not known by relevant stakeholders	Poor end user usability	Inaccessible language
Technical language	Not easily usable	Complexity and lack of training
Appropriate levels of funding and access to skill need to engage and translate	Complexity of data	The information, that they exist. People tend to inform on YouTube and not on a random internet platform
Data complexity	Lack of proper outscaling	Fragmentation
Too many different tools that are scattered	To complicated	Who knows where all these tools are located ?
File formats for some data	Information overload	lack of understanding, need for training how to use them
Proliferation of information and determining what is "authoritative"Climate information that is fit for purpose	Unclear target groups, lack of strategy for how to ensure that people use it/for how to embed it	

Figure 25. Answers submitted on the Mentimeter to the question "What are the main barriers and limitations of existing climate platforms and tools enabling the use of climate information?".

2. How should the Digital AGORA and Digital Academies encourage stakeholders and citizens to engage and actively participate with the platforms?

27 Answers

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Figure 26. Answers submitted on the Mentimeter to the question "How should the Digital Agora and Digital Academies encourage stakeholders and citizens to engage and actively participate with the platforms?".

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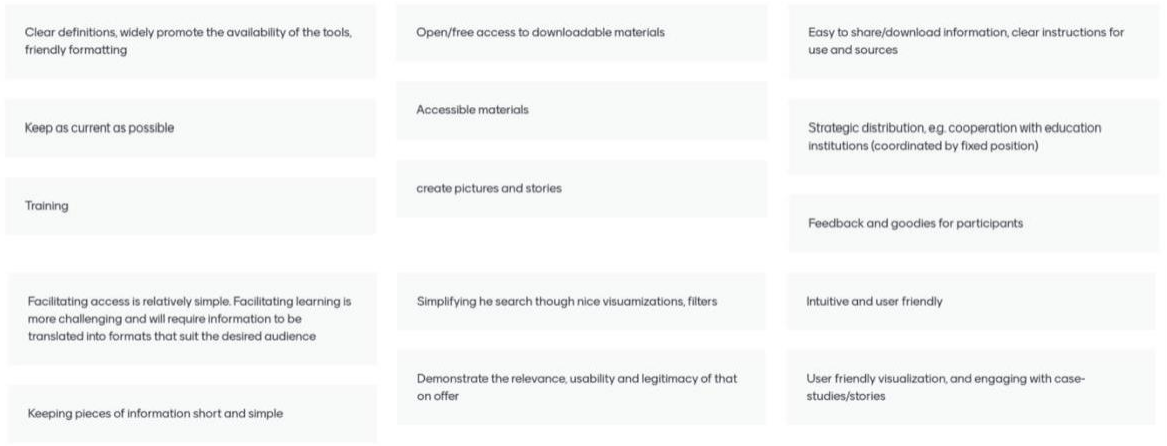

Figure 27. Answers submitted on the Mentimeter to the question "How can the Digital Academies effectively facilitate learning and access to materials?".

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Annex 2. Adaptation Futures Results

Which online knowledge platforms are you using for your work?
33 responses

Figure 28. Word cloud answers about which knowledge platform session participants are using.

What are you using these online knowledge platforms for?
19 responses

Connect people and literature review	Grey literature review	Downloading and analyzing data
References	Downloading data for municipal climate change adaptation	Literature research
Look for specific evidence, support statements, look for methodologies	Academic articles for research	Examples
White papers	Contacts	Best practices examples
Case studies	Guidelines	Research papers
climate data downloads, narrative stories	Obtain data	Peer to peerOnline course
Examples of positive actions/stories		

Figure 29. Answers submitted about why session participants are using online knowledge platforms.

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Table 10. Barriers and solutions to citizen and stakeholder engagement methodologies identified

Barriers / considerations	**Enablers / solutions**
Coordinating stakeholders and efforts across governance scales e.g. federal, provincial, city, levels.	Taking time to ensure understanding, listening and collaboration.
Not getting support from national government to take on this additional task of climate change.	Building relationships and trust, connect and reinforce.
Communication across ministries and to stakeholders	Addressing language needs
Disseminating the information	Getting the right people at the table (representation).
Reason to come back (time element has effect). Competition for time (need to attract users)	Recognising diaspora and need for community connections. Need to be culturally, aware and build bridges.
Providing sufficient funding. Engaging municipality in financing and handling political support. Challenge to provide funding for locally led adaptation.	Learning from the health sector where there exists a scientific/medical vocabulary to reduce distance and misunderstanding.
Identifying gaps between the cause versus the effect in terms of geographic location, e.g. the cause of the heat wave.	As an elderly person, I would like representatives to visit my home and I would like accessible transportation provided opportunities.
Structural discrimination, cultural alienation, racism, prejudice and language needs	I would like representative who are accessibility-informed.
Access to sufficient climate data.	Need for positive inspiring stories that promote change. “Tell motivating stories as examples on how to be an adaptation superhero”.
Disconnect with communities.	Reduce existing siloes
Engage municipalities: enable staff capacity to engage with language, expertise, and knowledge.	Reaching out to get new immigrants involved. Reduce cultural barrier. “I need to feel the space does not alienate me. Need to feel welcome.” “Ensuring space is safe for me and my loved ones.”

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Resilience of the existing healthcare systems - are they ready for climate change adaptation?	Engaging activists early on and taking their claims seriously in order to build legitimacy and trust around the process/ platform.
As an activist I have a lack of time and capacity to engage on top of ongoing activities I carry out	Municipality needs to know what data should be shared with healthcare workers to support the link between climate change and hazards and health in order to prevent risk.
Rules and regulations (competing and siloed)	Address “illusion of stakeholder inclusion.”
Engage municipalities re needs and access e.g. for the elderly	Need to know what to do and how to access programs.
Limited knowledge of the impact structural conditions and situation.	Consider behaviour change wheel (Mitchie, 2011) - identifying behaviours we want to change and acting through, policy, technical interventions, etc
Lack of legitimacy of the platform (from activist perspective), vis-a-vis political claims (antagonism)	Address competing mandates, and find people to meet with
Bureaucracy	Diverse group engaged, at every step
Cognitive bias: e.g. “as a young person, I do not feel very much at risk from heatwaves as I am young and healthy” therefore not much incentive for youth to engage	Need slow and transformational engagement.
Healthcare staff don’t necessarily see the relationship between health and climate change. They are overworked and don’t have time to engage beyond what their patients absolutely need.	

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Annex 3. Glossary

Within AGORA, a common Glossary is being developed so that all key terms related to climate change adaptation are used to refer to the same concepts, and these are applied in all activities ranging from face-to-face events within the Pilot regions to all the digital tools. Therefore, in all the learning journeys included in the Digital Academies, as well as within the Digital AGORA the concepts are always used respecting the definitions provided in the AGORA Glossary. While this final document will be presented at the end of the project, the main concepts used throughout have been agreed upon and are a core part of the Glossary, so have been included in this document within Annex 3 to provide an overarching framework for reference.

Term	Definition
Climate services	Relevant, credible, and accessible to users, acknowledges uncertainty, is communicated through a user-specific format, and is timely for user needs. It is developed by users and producers through tailored interaction, while building trust, and increasing users' capacity for using the service and understanding the issue at hand. The service delivers benefits to the user and supports better decision-making for adaptation
Co-benefit	A positive effect that a policy or measure aimed at one objective has on another objective, thereby increasing the total benefit to society or the environment. Co-benefits are also referred to as ancillary benefits.
Co-Creation	Collaboratively creating outputs like tools or policy recommendations. A process that can add value and increase innovative potential through intentional experience design
Co-defined	To articulate the implicit and explicit meaning of a particular term together with one or more people, in this case climate change adaptation strategies, policies or actions.
Co-design	To create ways in which challenges can be addressed together with one or more people, implementing different methodologies and/or approaches such as lateral thinking to propose innovative solutions to current pressing climate change related issues. It may also include devising effective and sustainable problem-solving techniques and strategies directly applicable to the challenges that need to be addressed.
Co-develop	To determine the best manner to satisfy the requirements for an expected output together with one or more people or organizations. This includes evaluating baseline requirements and consider all potential alternatives to solve a particular climate risk or impact challenge.
Co-evaluation	To validate potential solutions or partial solutions to a particular challenge or issue jointly with one or more people. This implies considering available information, processes and how adequate the solution is in meeting the needs and expectations of stakeholders.

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Co-production	“Iterative and collaborative processes involving diverse types of expertise, knowledge and actors to produce context-specific knowledge and pathways towards a sustainable future” (Norström, et al., 2020:183).

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