

ATTENUATE co-creation protocol

July 2025

ATTENUATE is a collaborative project focused on unlocking private sector funding for climate adaptation, building the case for greater public sector investment, and addressing governance barriers to investment. Led by the Grantham Research Institute on Climate Change and the Environment in collaboration with the Environment Agency, Green Finance Institute, Love Design Studio, Paul Watkiss Associates and the University of Bath, the project is funded by the UKRI-Defra 'Maximising UK Adaptation to Climate Change' programme.

For more information, see www.lse.ac.uk/granthaminstitute/projects/attenuate



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1. Introduction

This Co-creation protocol sets out how co-creation methods and principles will be applied in practice to deliver the ATTENUATE project. It provides an overarching foundation which will be implemented across all work packages (see the Appendix for an overview of ATTENUATE work packages).

The protocol, led by LSE and PWA, was developed by ATTENUATE consortium members at the start of the project to ensure understanding and agreement from the outset. We will learn together as the protocol is implemented and may update the document to reflect new insights and approaches as the project progresses.

This document is primarily intended for ATTENUATE consortium members, but it will also be shared externally to support the uptake of co-production approaches in related projects, to share learning and insights and ensure that ATTENUATE project stakeholders can access information about our overarching approach.

2. Context

For adaptation finance to work effectively, it is important to consider local needs and contexts, build ownership and trust among stakeholders, promote transparency and inclusivity, and strengthen social resilience. For example, initiatives that involve multiple stakeholders, including vulnerable and marginalised groups with diverse priorities and perspectives, in designing solutions can help ensure that strategies are better tailored to local needs and are more relevant for locally led decision-making for climate change. When stakeholders are involved not just in planning but also in implementing projects (Mauser et al., 2013), they are more likely to stay committed, increasing the chances of success.

Furthermore, initiatives that draw on the collective knowledge and experiences of diverse stakeholders, in combination with scientific and research expertise, can lead to more innovative and adaptable solutions and improve their uptake (Mauser et al., 2013). For instance, while climate risk information is often produced from a scientific perspective, contextualising it with an understanding of local needs can improve resonance for policymakers (Hanson et al., 2019) and improve the effectiveness of uptake and impact.

Using participatory co-creation processes can help ensure that climate adaptation projects are inclusive, locally appropriate, and truly aligned with community needs. Co-creation involves different groups working together towards a shared goal, allowing them to exchange knowledge, ideas and perspectives throughout the process (Galan et al., 2023). There is a well-advanced literature on the general process of co-creation and co-design, and this has been applied to climate change research recent years, including: Dilling and Lemos (2010), Mauser et al. (2013), Hegger et al. (2012), Hegger and Dieperink (2014), Groot et al. (2014), Beier et al. (2016), Hollaender and Groot (2014), Moser (2016), Visman et al. (2016), Harvey et al. (2017), Vincent et al. (2017), Vincent et al. (2018), Galan et al. (2023), and Howarth et al. (2021).

The ATTENUATE project is implementing a co-production approach that leverages and operationalises existing expertise. This protocol builds on best practice established through more in-depth literature reviews in other research projects (e.g. Watkiss et al., 2018, McGlade et al., 2021; McGlade et al., 2022).

3. Definitions

For the purposes of the project, we understand co-creation to be “a structured science-practice interaction, focused on joint working and knowledge production that informs policy and decision-making processes” (McGlade et al., 2022).

Co-creation involves three main stages:

1. **Co-design** is the participatory design of a research project with stakeholders (the users of the research). The aim is to jointly develop and define research questions that meet collective interests and needs.
2. **Co-production** is the participatory development and implementation of a research project with stakeholders. This is also sometimes called joint knowledge production.
3. **Co-delivery** is the participatory design and implementation for the appropriate use of the research outcomes, including the joint delivery of research outputs and exploitation of results.

4. Aim and methods of co-creation

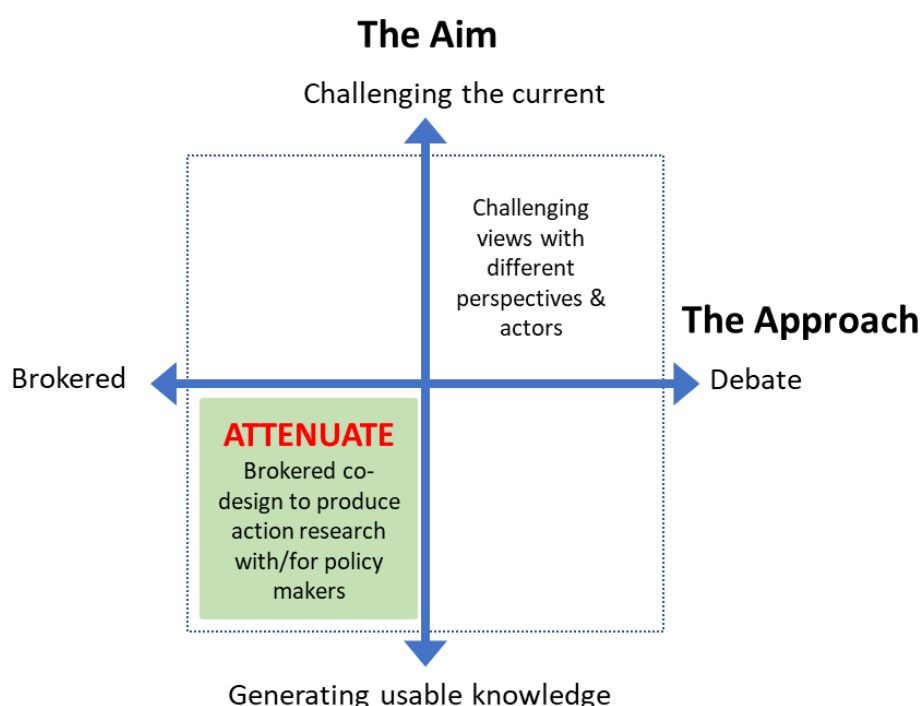
There are different types of co-creation and co-design approaches, which use different methods. These are shown in Figure 1 using the framework of Harvey et al. (2017). The axis of the figure relates to the **objective** of the co-creation, and whether this is on:

- **Instrumental co-design**: sometimes termed utilitarian or prescriptive co-design. This is focused on creating useable knowledge (to inform decision making); or
- **Emergent (critical/reflexive or descriptive)** co-production, which proposes new transformative ways of challenging existing thinking and narratives.

There are also different **methods** that can be used for the process of co-creation:

- **Brokered co-design** (with use of intermediaries or brokers who help to mediate across boundaries)
- **Assembly**: bringing together academic and non-academic actors to debate worldviews in an open intellectual and social space, to invite conscious reflection.

Figure 1. Position of the project on the Co-Creation Matrix



Source: Adapted from Harvey et al. (2017)

The ATTENUATE project will prioritise the use of instrumental co-design delivered using a brokered approach. This will enable us to produce actionable insights and **generate knowledge that is directly useable** by decision-makers and end-users. We also recognise that emergent co-production has a crucial role to play in exploring complexities and building shared understanding of different perspectives. Where possible, we will incorporate activities that create space for emergent co-creation, particularly as part of Work Package 3 which focuses on changing the political economy through use of storylines and may benefit from a stronger focus on debating different approaches. It is important to note that opportunities for emergent co-production will be more limited due to time and resource constraints and that the instrumental, brokered approach will be the focus of the project.

The ATTENUATE project is building on the previous co-creation approaches identified in Section 2 and adopts a series of co-creation principles (see Box 1).

Box 1. Co-creation principles for the ATTENUATE project

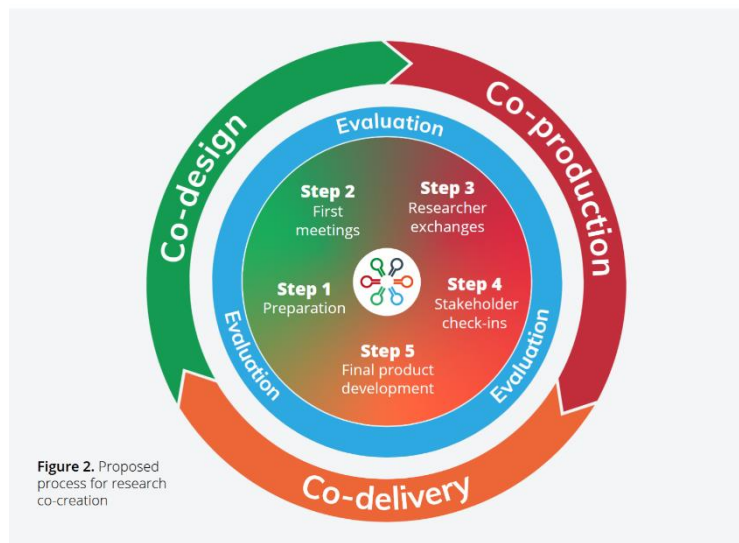
1. **Process orientated**, recognising the process is as important as the outputs. Clearly defined and well-structured processes and outcomes increase the likelihood of stakeholder engagement and ownership.
2. **Objective- and outcome-led, with clearly identified roles and responsibilities**. The literature recommends that the roles and responsibilities of all participants are mutually understood and agreed upon. Goal setting and role identification should happen early in the process to foster effective collaboration.
3. **Targeted, ensuring representative stakeholders are involved**. There is a need to limit the number of actors to keep the process manageable, but it is important to ensure a representative selection of stakeholders with different perspectives is included.
4. **Transparent and inclusive, to allow alternative views**. The literature stresses that co-design processes have to be built for inclusivity and creativity, not just for efficiency and effectiveness. The success of joint knowledge production will be enhanced if different perspectives of stakeholders are recognised and respected.
5. **Time managed, with enough time, resources and facilities to deliver the process**. The literature reports consistently that effective co-creation demands significant time and effort, and recommends that projects allow sufficient time for the process, including time and resources to build and maintain relationships with stakeholders.
6. **User and decision orientated**, with the aim to meet user needs and produce information of relevance for decisions and decision-makers, while managing expectations.
7. **Joint product orientated**, using outputs to build the engagement and co-production process. The review of good practice co-production highlights that successful co-production often has an emphasis on producing joint outputs, such as joint knowledge products.
8. **Iterative**, with an ongoing process of review, learning and update throughout the project. Co-creation should be seen as an ongoing and collaborative process. Adjustment may be needed, especially when stakeholders work together for the first time. Regularly reviewing the process, including research assumptions, criteria and methodologies, ensures the usability of outputs. The literature highlights that there is a need for an aligned monitoring, evaluation and learning (MEL) process to support the iterative approach.

Sources: Watkiss et al. (2018); McGlade et al. (2022).

5. Co-creation phases

To put these methods and approaches into practice, the project will apply a three-phase process: co-design, co-production and co-delivery, as summarised in Figure 2.

Figure 2. Proposed process for research co-co-creation



Source: McGlade et al. (2022)

Below we describe how the ATTENUATE project will apply each phase and related steps.

Co-design phase

During the co-design phase, the ATTENUATE project will build understanding and agreement on the co-creation approach across the project consortium. It will also identify government, private sector and civil society stakeholders through stakeholder mapping and actively involve these stakeholders in co-design meetings to understand their needs and jointly shape the focus of the project case studies.

We will implement the following activities:

Step 1: Preparing: design and implement co-creation

- Agree overall lead for the co-creation process. This is to ensure effective coordination and support the consortium to act as effective knowledge brokers and boundary agents for the overall co-creation process. This role will be led by LSE, supported by PWA. LSE will implement regular **Work Package lead meetings to support implementation of the protocol and ensure consistent application across the project**.
- Discuss co-creation expectations as a consortium and develop shared understanding and agreement on the proposed approach. Document the agreed approach in a co-creation protocol (this document).
- Recognise that the consortium will make assumptions about how different stakeholders may wish to engage with ATTENUATE. The consortium will actively listen to and involve stakeholders in shaping their ongoing involvement through all stages of the co-creation process.
- Assign a 'relationship manager' from within the consortium for each project case study who will be responsible for communication with case study contacts. During the preparation phase all engagement with case study stakeholders must go through the relationship manager to limit the risk of stakeholder fatigue and reduce duplication of effort. As the co-creation process progresses, direct engagement with case study stakeholders will extend beyond the relationship manager to include wider consortium members. The relationship manager will work with consortium members and deep dive stakeholders to ensure that this is a carefully managed process with clear and coordinated communication. Given it is the joint lead on case studies in work package (WP) 4, and pre-existing relationships, **PWA** will act as the relationship manager for the **HM Government** case study, the **Environment Agency** will manage the relationship with **West Midlands** and **LSE** will manage the relationship with **Hackney**.
- Use stakeholder analysis to identify a group of representative stakeholders and prioritise them based on their power, interests, and eligibility to influence. In addition, collate a stakeholder database to support effective stakeholder management for the project's activities. Additional stakeholders will be added as the co-creation

process is implemented and the consortium works to build understanding, test assumptions and explore stakeholder interests and values.

- Formally approach Deep Engagement (case study) Stakeholder organisations to build on relationships developed when the ATTENUATE project proposal was written in 2024. Follow up to agree detailed arrangements for their participation, setting out expectations over the project lifetime and securing their involvement. For each case study, we hope to involve a core group of two to three individuals who have the opportunity to make an impact, to effectively balance the potential for impact with the need for some resilience of stakeholder engagement. Implementation of the case studies, including in-depth case study workshops, will also involve lighter touch involvement from a larger group to stakeholders.
- Identify WP background information requirements, such as baseline assessment of case study capabilities (from WP 2), and climate data interests (WP 3). Carry out desktop research to access background information and engage with relationship managers if feedback is required from case study stakeholders.
- Begin a stocktaking and gap analysis on adaptation finance, to understand the current state-of-the-art, and to identify potential research gaps and policy questions.
- Synthesise the stock-take and gap analysis into an accessible format for stakeholders and share in advance of the first workshop. This could involve multiple formats, including a policy brief, podcast and/or animation.
- Plan the first Stakeholder Workshop. The workshop will be held in person, in line with recommendations from the ATTENUATE introduction to co-creation document. The Environment Agency will lead both planning and organisation of the workshop, fully involving the wider consortium.

Step 2: Begin implementing co-design with a wider group of stakeholders

Run the first Stakeholder Workshop. This is likely to include:

- Presenting the synthesis of the stock-take and gap report.
- Building shared understanding of case study contexts and how new knowledge will be used to influence change. These insights will help to shape the research questions.
- Discuss research gaps and areas of interest with stakeholders using a participatory approach to identify preferences for proposed research areas and questions, but also to allow stakeholders to add additional areas of interest.
- Identify and analyse the roles of relevant stakeholders involved in climate adaptation finance in the UK, and prioritise those with the power and interest to drive meaningful change.
- Begin co-design of WP 3 narratives. This will include reflecting on current use of climate information and experiences of dealing with risk and uncertainty. These discussions will be the starting point of an ongoing co-creation process where WP 3 will work alongside case study stakeholders to create bespoke narratives and storylines.
- Identify a set of research-for-impact opportunities. This identifies potential policies, strategies or plans, or end-user decisions, that the research can feed into.
- Identify possible joint knowledge products (outputs), which could be developed jointly with or for stakeholders (for example, policy briefs, bankable adaptation project pipeline).
- Work with stakeholders to further develop stakeholder and system maps. Evaluate stakeholder views on the stakeholder workshop and the co-design process (formal evaluation at the end of the workshop) and take on board lessons from this.

At the end of this phase, there will be a clear and agreed process, with agreed roles and responsibilities.

Co-production phase

The objective of the co-production phase is to deliver the ATTENUATE project through an iterative and collaborative process with stakeholders. This phase will include a mid-way checkpoint for stakeholder review. It involves the development and delivery of the three **case studies** (London, West Midlands and UK) in collaboration with Deep Engagement Stakeholders.

The following activities will be undertaken in the co-production phase:

Translate stakeholder interests and agreements from the co-design phase into a work programme for the project.

- This will include the specified hazards, risks, sectors and sub-sectors of interest for the analysis. It will also include mapping out a detailed co-creation process for developing narratives and storylines (WP 3).
- Develop and agree an implementation plan with researchers (from each partner in the consortium) to deliver co-creation within the project with the stakeholders. This matches stakeholder needs with research interests, working within the boundaries and work plan of the project.

- The output of the stakeholder workshop and needs, and the agreed implementation plans, are set out.

Steps 3 and 4: Researcher exchanges and stakeholder check-ins

Note that the points set out below provide an indication of the likely approach to implementing co-creation with the case studies. This section of the co-creation protocol will be further developed in Autumn 2025 after the co-design stage is completed.

Agree and deliver the case study work with each Deep Engagement Stakeholders (DES). With the agreed plan, there is then a move to the case study work and a continual programme of research and engagement with stakeholders.

- Agree co-produced case study work programme, outputs and use with stakeholders. This is led by each case study relationship manager and is informed by careful coordination with WP leads to ensure that work packages are joined up and aligned. The work programme will also be aligned with stakeholder capacity and contributions agreed in advance.
- Meet regularly with researchers to discuss co-creation experiences. This takes place at each consortium meeting.
- Meet regularly with stakeholders to discuss progress (both positives and challenges).
- Hold up to three workshops per case study to gather input from stakeholders and evaluate views on process and progress. The workshops will include opportunities to adjust case study goals, methods and outcomes, present interim results and discuss plans for joint knowledge products.
- Hold one dedicated storyline and narratives (WP 3) development workshop. WP 3 activities will also be integrated as part of general case study workshops.

Co-delivery phase

The aim of the co-delivery phase is to develop products and tools that synthesise the project's findings and then jointly disseminate these. In this phase, the consortium will engage with stakeholders to develop and refine the key messages from the research and to shape joint knowledge products. These outputs will then be disseminated by researchers and stakeholders to reach decision-making contexts.

While this phase tends will mostly take place towards the end of the project, the collaborative development of knowledge products is an ongoing process.

Step 5: Final product development

The following activities are identified for the co-delivery phase:

- Agree and finalise the research outputs (e.g., policy briefs) in collaboration with stakeholders.
- Gather feedback on interim versions and where relevant agree on the key messages these joint knowledge products should highlight.
- Identify joint opportunities for presentations at events or meetings with decision-makers to share results and support uptake in relevant processes and documents.
- Identify opportunities (e.g. networks, newsletters, events) to disseminate results to the broader communities of interest and arrange targeted activities (e.g. meetings, presentations to facilitate uptake of results by specific decision-makers). The ATTENUATE project manager will maintain a list of opportunities to promote project outputs and will log details of conferences and events where consortium members have submitted abstracts or sessions.
- Hold a final dissemination event, including presentations by stakeholders as well as researchers. This is proposed as a final large stakeholder workshop towards the end of the project to present the final study results.
- Hold a roundtable event to provoke dialogue and deliberation on key findings and next steps for implementing the investment framework.
- Implement a dissemination strategy based upon non-technical briefs, webinars, a user-friendly results' explorer, and multimedia digital book.

Evaluation phase

The Environment Agency will support the consortium to evaluate and learn from experiences of implementing the co-creation protocol. A standard set of reflection questions have been developed and made available through an online form. Consortium members will use the online form to capture reflections and learning at regular intervals during the project. The Environment Agency will analyse feedback at regular intervals to support double loop learning.

The evaluation process will support the consortium to optimise the cocreation process and will provide a record of learning that partners can use beyond the ATTENUATE project as they consider wider application of cocreation approaches.

6. Operationalising the protocol

The ATTENUATE consortium includes a diverse set of partners with varying degrees of experience in operationalising co-creation approaches. LSE, supported by PWA, will provide overall leadership and support for all consortium members as the protocol is applied. Emphasis will be placed on sharing skills and experience to ensure that all consortium members can actively contribute and apply the principles and specific tasks required.

The relationship managers and work package leads will incorporate and contribute to the co-creation protocol principles and activities when designing and developing all project deliverables.

The LSE PI and Project Manager will track implementation of the co-creation approach, working with relationship managers and WP leads to support connections, capture learning and address challenges and conflicts.

Overall progress will be reviewed as a standing item at Co-Director meetings, as well as with the wider consortium. Feedback will be sought from stakeholders as part of the wider evaluation process.

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Appendix: Overview of ATTENUATE work packages

