Our approach to Interdisciplinary research

This document offers learning from the Agile Initiative for researchers, research facilitators, administrators, and others interested in understanding and practising interdisciplinary research in fast-paced, policy-facing projects.

What is interdisciplinary research and why should researchers care?

Agile Sprint research projects are designed to respond rapidly to urgent environmental policy challenges. These challenges rarely fall within the boundaries of a single discipline. They often require ecological evidence, social and economic analysis, legal and governance insight, policy understanding, and practical knowledge from those working beyond universities. For this reason, interdisciplinarity needs to be built into how research questions are framed, how teams are assembled, how methods are sequenced, and how findings are brought together into useful outputs.

To produce actionable research quickly, researchers and stakeholders need to work together differently. The research team cannot simply divide the problem into disciplinary parts and stitch the answers together at the end. Integration needs to happen throughout the project.

Defining stakeholders

Agile works with many different stakeholders. Stakeholders in this series refers to non-academic groups who have an interest in, may be affected by, or hold relevant knowledge, rights or responsibilities in relation to the research. These may include policymakers, practitioners, civil society groups, private sector actors, Indigenous Peoples, communities, and other knowledge holders. The relevant groups will depend on the project context.

There is a lot of debate about the nature of interdisciplinarity and what it means in practice. There are different, and often very nuanced, ways to conceptualise it, which those outside of the academic environment may not recognise. The resources at the end of this paper offer further insights and tools.

Three common terms are:

- **Multidisciplinary**: multiple disciplines working independently on a common problem
- **Interdisciplinary**: integrating two or more disciplines to create new knowledge
- **Transdisciplinary**: working beyond academic disciplines, often incorporating non-academic stakeholders such as policymakers and practitioners

How we approach interdisciplinary research

The cornerstone of our approach is to embed interdisciplinarity into a research Sprint during the design phase. Simply including several disciplines in a team does not guarantee interdisciplinarity. It takes deliberate work through agreeing shared definitions, making assumptions explicit, sequencing methods carefully, and creating outputs that do not simply sit disciplinary findings side by side.

Sprints can be hectic, particularly if the research question requires a large team delivering lots of activities, and they may take many researchers out of their comfort zones. The actions below can help develop and maintain an interdisciplinary approach and prevent researchers slipping back into disciplinary silos.

In the design phase:

Frame the question:

- Consider all the angles to the research question and what academic and non-academic perspectives would help to answer it.
- Explicitly consider the weight and importance given to each of the main disciplines in the project, including approaches and methodologies. You may want to proactively give more emphasis to disciplines which have been under-represented in the topic area in the past.

Build the team:

- Ensure that the team, including people in an advisory capacity, has the combination of disciplinary insights required.
- Be prepared to bring in new people if gaps emerge as the project progresses.

Design for innovation:

- Avoid discipline-specific work packages and sub-teams, if possible, to strengthen the interdisciplinarity and offer opportunities for researchers to expand their knowledge and skills.
- Develop realistic objectives that allow for cross-work package collaboration and integration throughout the project; do not leave integration to the end.
- Consider timelines, sequencing and contingencies. For example, if the work of one discipline relies on outputs from another (e.g. survey or interview findings informing a model), map out the sequencing and what you will do if there are unforeseen delays.
- Plan for a primary interdisciplinary output from the outset so that you are not struggling at the end of the project to work out how to represent the results as one voice.

When the project formally starts:

- Revisit the research problem to ensure that all team members have a shared understanding of the problem definition underpinning the research question. This does not mean that every discipline will frame the problem in the same way. It means making different assumptions, evidence standards, concepts and limitations explicit.

- Take time to create understanding among team members (both researchers and key stakeholders) of everyone's different disciplinary backgrounds, and the language they use. Don't assume that everyone has the same level of experience and understanding, as researchers joining the project may be required to work outside of their disciplinary comfort zones. Resolving confusion and addressing questions at the outset is a good investment.

- Ensure that anyone joining the research team after it starts, particularly research assistants, gets a good induction to interdisciplinarity in the project. Provide space for new members to ask questions and share their disciplinary perspectives. Offer mentoring and training to create more confidence.

During the project:

- Meet as regularly as possible to reduce the risk of researchers working in silos. Co-working sessions are a great way to embed common understanding between disciplines and to provide opportunities for critical questioning across disciplines.
- Organise integration meetings, reviews of emerging findings and synthesis workshops.
- Produce joint analytical memos and encourage shared authorship of core outputs.
- Develop a team ethos and internal communication style that allows everyone's voice and perspective to be heard. A shared glossary can be a useful tool.
- Be mindful that working on a rapid, interdisciplinary project can create tensions and stress; take time to recognise what has been achieved by doing the research in this way, including new skills and insights gained.

Confronting the challenges of interdisciplinary research

We recognise the challenges for many academics in doing interdisciplinary, policy-focused research. These include career-related challenges, particularly for earlier career researchers, as well as practical challenges.

Publishing can be difficult with some 'gold standard' journals not being friendly to interdisciplinary research, and some broad interdisciplinary journals being less interested in solutions-oriented research. Interdisciplinary research takes longer than traditional discipline-specific research, with a need to accommodate different methodologies and protocols, such as ethics approvals. Finally, Sprint projects often need to adapt to changes in the policy landscape, which may mean a shift in research focus or production of different outputs than originally planned.

Purposeful interdisciplinarity and integration throughout the project can help with team cohesion and capacity to respond to unforeseen events.

Top tips

These tips are based on learning from Agile, and our commitment to inclusive, collaborative and transparent research that will have long-term impact.

Reflect early on which disciplinary and non-academic insights are needed to address the research problem, and build the team accordingly.

Design interdisciplinary working into your research through **shared definitions** and **problem understanding**, avoiding breaking the research up into work streams or packages that follow traditional disciplinary lines.

Foster a working culture in which different forms of expertise can be heard, questioned and combined constructively.

Build time into the workplan for unforeseen delays and changes in the context, particularly if different work packages depend on each other.

Resources

Beaumont, N. (ed) (2020) Demystifying Interdisciplinary Working (in Valuing Nature), Valuing Nature Paper VNP25.

Knapp B, Bardenet R, Bernabeu MO, Bordas R, Bruna M, Calderhead B, et al. (2015) Ten Simple Rules for a Successful Cross-Disciplinary Collaboration. PLoS Computational Biology 11(4): e1004214.

SHAPE-ID (n.d.) Pathways to Interdisciplinary and Transdisciplinary Research: the SHAPE-ID Toolkit.

Webinar recording. "The Agile Initiative: Interdisciplinarity in fast-paced, impact-focused research". YouTube, 2024.

About the Series

The “How to do a Sprint research project” series was produced in 2026 by the Agile Initiative at the Oxford Martin School, University of Oxford.

Agile aims to revolutionise how research responds to the urgent needs of policymakers on critical environmental issues through rapid research projects called Sprints.

The aim of this series is to provide guidance on how to run a Sprint research project in contexts outside of Agile, based on learning collated by the programme support team and researchers.

This document should be cited as:

The Agile Initiative, 2026. Our approach to Interdisciplinary research. University of Oxford. Available online.

Other guides in the series include:

Equality Impact Assessment
Managing rapid research projects
Co-creating research
Theory of change in research

Available at https://www.agile-initiative.ox.ac.uk/our-approach/

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