

Toolkit for collaborative working

across disciplines and sectors in
environmental research, policy and
practice

**The Institution
of Environmental
Sciences**

 **ACCESS**
Advancing Capacity for Climate
and Environment Social Science



University
of Exeter



UNIVERSITY OF
SURREY

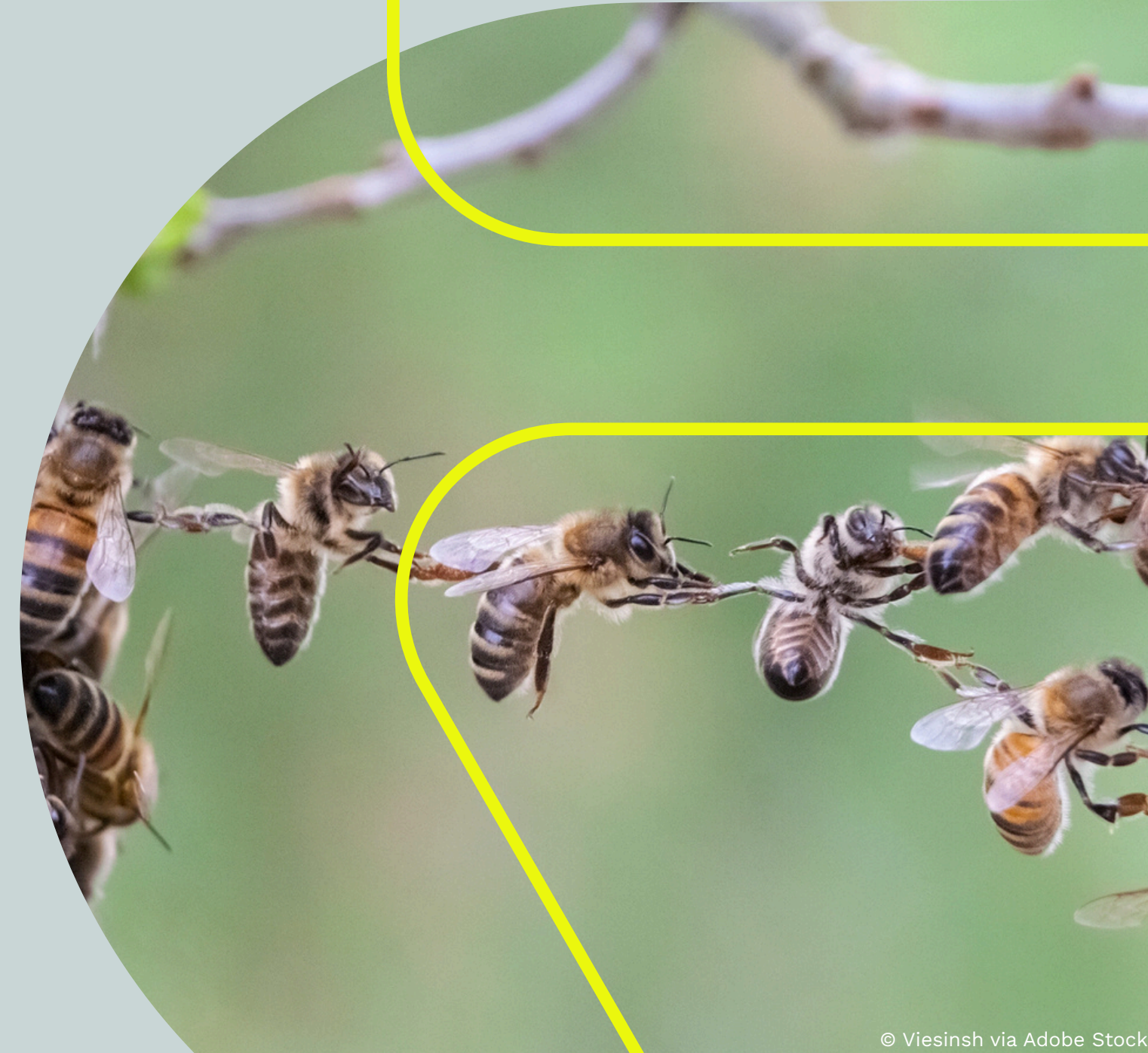


Economic
and Social
Research Council



Overview

1. The toolkit: What, who, why and how?
2. The toolkit: Using the BRIDGES framework
3. Interdisciplinary and collaborative working
4. Conclusion



Section 1: What, who, why and how?



What is this toolkit for?

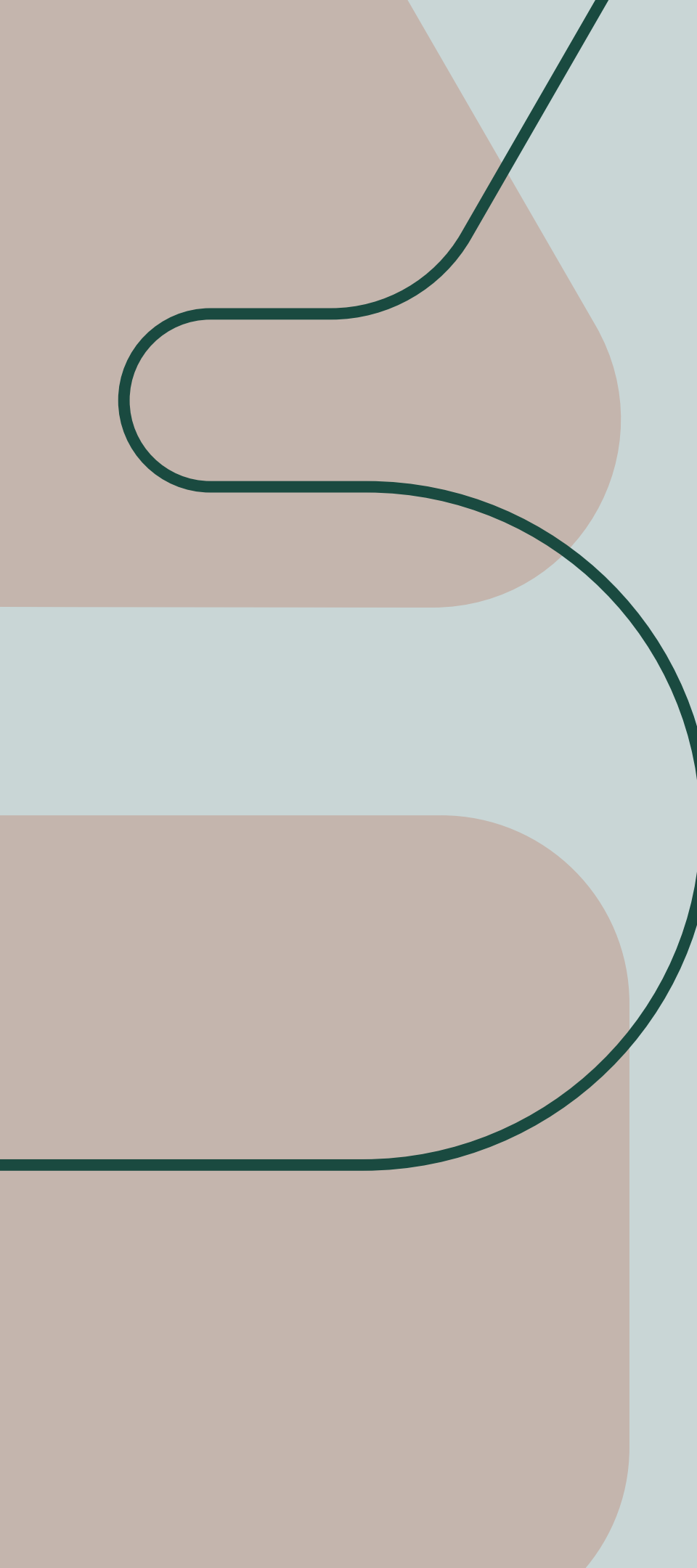
Collaborative working is complex but essential to tackle environmental issues. This toolkit is designed to provide a practical approach to undertaking collaborative projects.

- There is a shared recognition of the value of collaborative working across sectors and disciplines, practical barriers often limit effective collaboration
- This toolkit aims to strengthen interdisciplinary and collaborative working between environmental and social sciences through a set of practical resources
- The toolkit was developed over the course of a year, with input from over 40 environmental researchers and practitioners. It has been produced jointly by ACCESS and the Institution of Environmental Sciences (IES), drawing on their complementary missions and extensive networks

Who is this toolkit for?

The toolkit has been designed to be used by anyone wishing to explore, explain, and champion the value of collaborative working across disciplines, sectors, seniorities, and specialisms in the environmental sciences.

- This includes those working in academia, industry, consultancy, policy, government, public bodies, NGOs and practitioners wishing to explicitly consider interdisciplinary collaborative working
- This may include project managers, researchers, funders, practitioners, stakeholders, researchers, or beneficiaries
- The toolkit is intended to support your understanding of the value of collaborative working in addressing complex environmental challenges, what collaborative working involves, and how different methodologies can support effective collaborative working that delivers positive impacts for the project and participants



Why use the toolkit?

Collaboration is not just an academic idea; it's a practical way to deliver more effective, resilient and deliverable projects in real-world conditions.

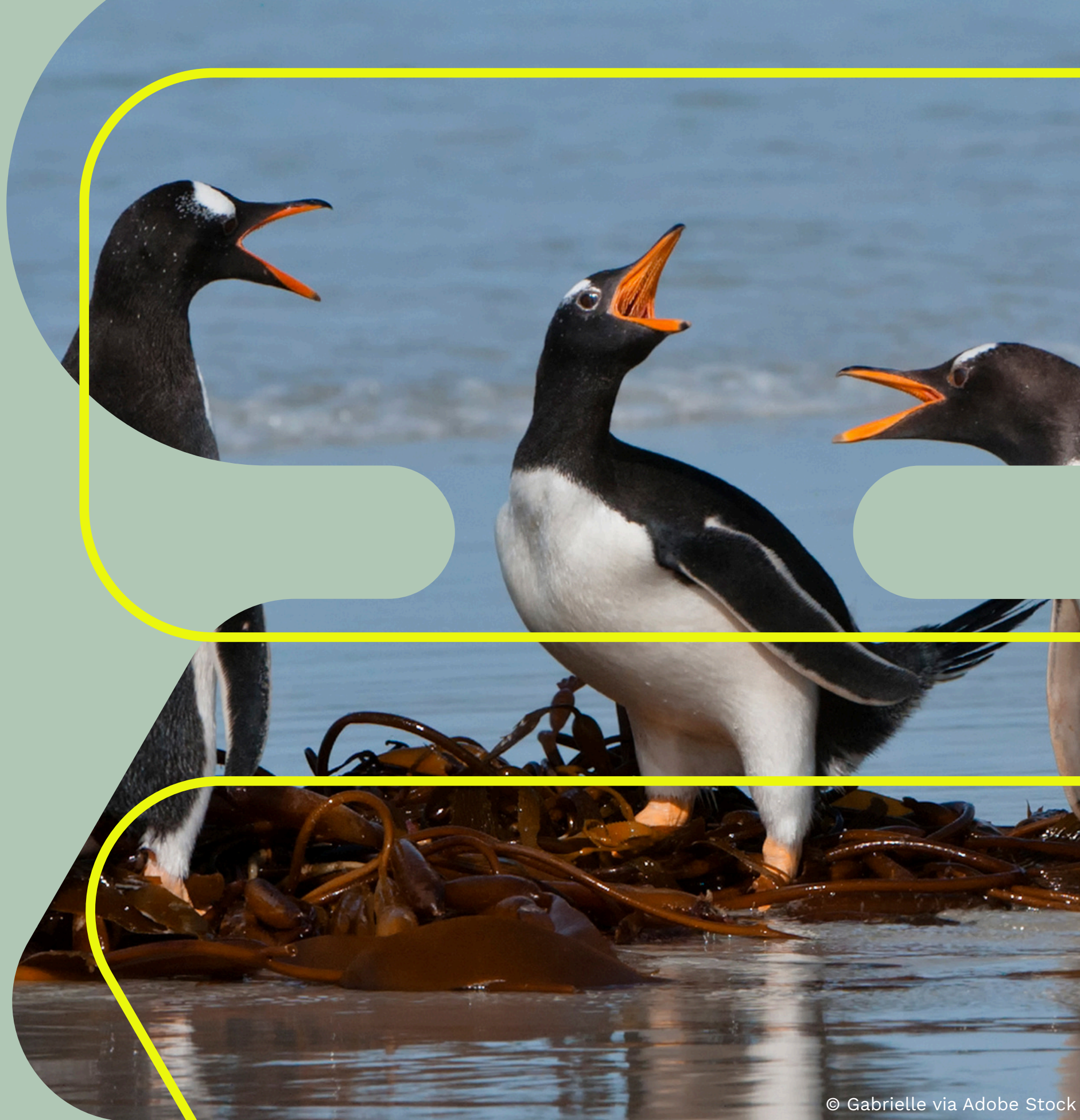
- Most environmental challenges are complex interdisciplinary challenges that require integration of a wide set of expertise to identify and implement effective, acceptable solutions
- Whilst there is a shared recognition of the value of collaborative working across disciplines and sectors within the environmental sciences, it can be difficult to adopt in practice
- Knowing where to start, who to involve and how to collaborate can be challenging, especially when resources are limited

How to use the toolkit

The toolkit introduces the 'BRIDGES' framework: a series of principles to get you started when undertaking collaborative work.

- It is not prescriptive, and is designed to be iterative and can be adapted to suit your needs, capacity, and resources
- While the toolkit is designed to be used as a whole, it can also be navigated selectively depending on your needs, project stage, and context
- Additional resources are given for further detail and for more in-depth engagement. Click on the boxes on each page for further information.

Section 2: The toolkit



‘BRIDGES’ framework for collaborative working

- The 'BRIDGES' framework is framed around six questions to support the development of collaboration across disciplines and sectors. It is designed to help users consider when and how collaboration adds value, rather than prescribing a single approach.
- Collaborative work is an iterative process and progress is rarely linear. Build in time to plan and revisit assumptions, methods and goals. The toolkit can be used in full or adapted depending on context, capacity, and available resources.





When to engage with each principle

- It is designed to be iterative and reflexive and can be adapted as necessary or suitable. However, we encourage you to engage with each principles at least once. Each of the questions are relevant throughout projects or programs of work. Although, some may be particularly important to consider at particular points during the project.
- The table on the following slide offers a suggestion as to when to use certain principles within the BRIDGES framework throughout the duration of your project.

Key:

Green: high importance

Orange: medium importance

Beige: low importance

Before Setup & build	Start Objectives & planning	During Develop & deliver	After Outputs & outcomes
Build	Build	Build	Build
Reflect	Reflect	Reflect	Reflect
Integrate	Integrate	Integrate	Integrate
Develop & grow	Develop & grow	Develop & grow	Develop & grow
Evaluate	Evaluate	Evaluate	Evaluate
Share	Share	Share	Share

Build understanding and the right team

What knowledge and insights are needed to understand and address the issue?

What impact are you aiming to achieve with the collaboration?

- From the start, consider what input may be needed, and review and adjust on a regular basis. When different knowledge needs are identified, consider how this will feed into team composition and roles to ensure appropriate expertise and insight is represented.
- Try and consider the wider picture: including, for instance, potential intended and unintended consequences of interventions, policies, or technologies, and
- wider contextual and social factors that explain the issue.
- A clear outcome of this stage is an agreed problem definition that reflects these multiple perspectives and provides a shared foundation for the work that follows.
- Consider who may need to be recruited or brought in, or where and how to strengthen capacities of existing teams.

Extra resources:
Appendices C & I

Reflect and adapt to drivers and barriers for collaboration

What are the drivers and barriers for collaboration within the team?

- From the start, it is important to try and understand the different drivers and barriers for collaborative working in the team. Power dynamics, lack of confidence, and feeling unable or willing to speak up can form significant barriers to successful collaboration
- A good understanding of team member motivations and abilities to collaborate can help develop an effective plan for collaboration and integration in the work
- Gaining a clear understanding of the potential drivers and barriers of collaborative working helps grow capacity for tailored support and collaboration

Extra resources:
Appendices D & I

Integrate knowledge and insights

How are different perspectives included, reflected and integrated in the development of aims, objectives, activities and outputs of the work?

- It is essential that team members do not work in silos but share a common goal, know what their role is in the achievement of that goal, and how their work relates to that of others.
- Ensure that everyone understands how different perspectives and inputs (including their own and that of others) interact and contribute to intended outcomes, and how collaborative activities support this.
- Agree clear collaborative outputs and outcomes, ensuring these reflect the interdisciplinary nature of the work.

Extra resources:
Appendices E & I

Develop and grow a collaborative culture

How does the project provide the support, time, space, and resources needed for meaningful collaboration?

- A supportive culture is key for successful collaboration. It is everyone's responsibility to contribute to the development of such a culture.
- Finding common ground and building common language across key concepts, themes, and methodologies is fundamental to effective collaboration. Take the time to listen and learn from each other and develop a common understanding.
- Create a culture of openness, respect, and mutual learning, where different perspectives can be shared, challenged, and explored constructively.
- Embed reflection and learning throughout the project, using reflexive questions and regular reviews to assess how collaboration is working and what may need to change.

Extra resources:
Appendices F & I

Evaluate learning and impact

How are the learnings, experiences, benefits and challenges of collaborative working evaluated and reported upon?

- Evaluation should consider both the success of the project itself and the effectiveness of the collaborative process used to deliver it. This includes considering not only whether the desired outputs and impacts were achieved, but also whether the right perspectives, stakeholders, and forms of knowledge were included, how well they were integrated, and what may have been missed.
- Reviewing how the outcomes and outputs of the work may have been affected (positively or negatively) by approaches adopted for each of the six principles of the BRIDGES framework can support learning and benefit future work.
- Importantly, evaluation should not be left until the end of a project. Building in regular opportunities for reflection throughout the project can help teams identify challenges early, adapt their approach where needed, and strengthen collaboration over time.

Extra resources:
Appendices G & I

Share outcomes and outputs

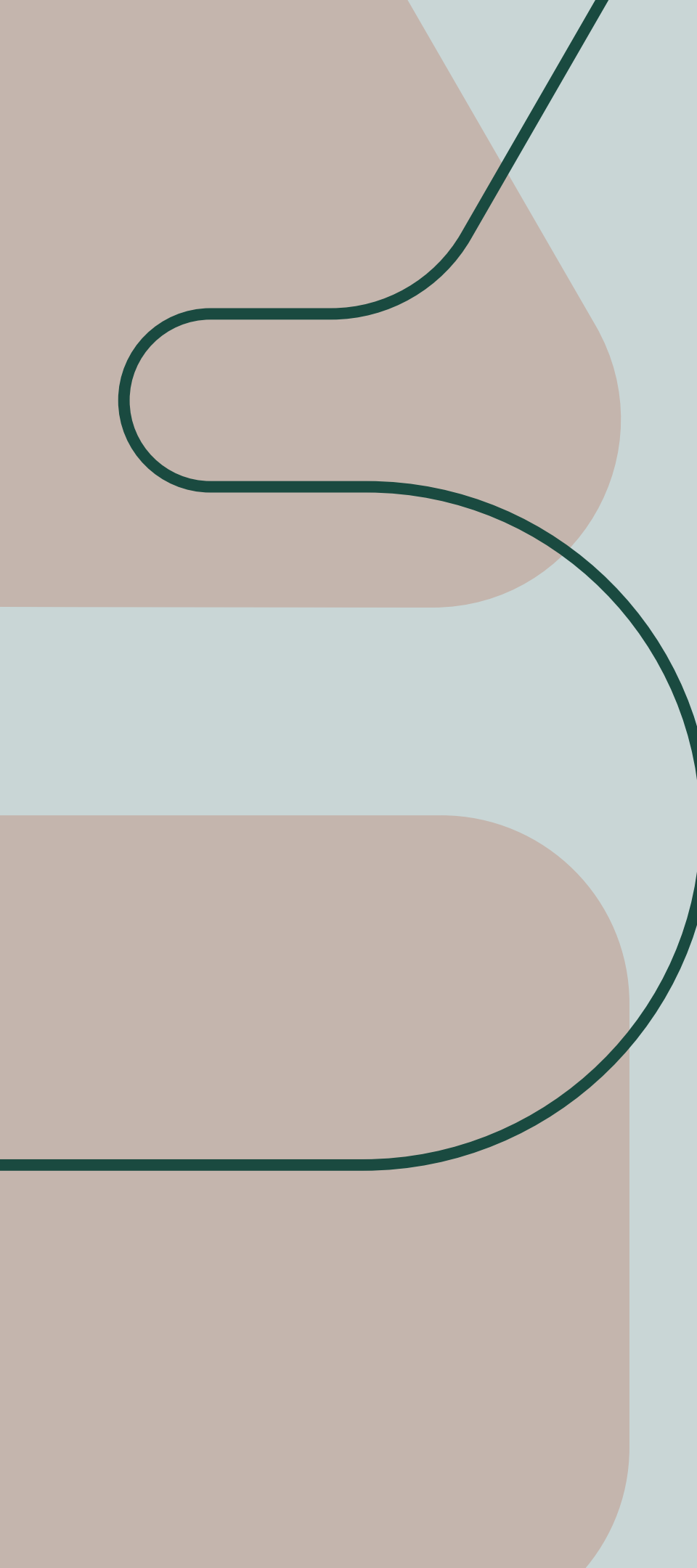
How are collaborative outputs planned, produced and reviewed?

- Collaborative working should result in outputs that reflect the contributions of different disciplines, sectors, stakeholders, and forms of knowledge. Start planning these outputs from the start, alongside discussions about integration, roles, responsibilities, and intended outcomes.
- Agree from the outset how collaborative outputs will be developed, reviewed, and recognised. This may include establishing guiding principles for authorship, contribution, intellectual property, and decision-making.
- Be aware that collaborative outputs often need to be communicated across sectors and disciplines to different audiences, including researchers, practitioners, policymakers, funders, community partners, and the general public.

Extra resources:
Appendices H & I

Section 3: Understanding interdisciplinarity and collaboration





What is collaborative working?

“.. a way of working that integrates information, data, techniques, perspectives, concepts, etc. from different disciplines, sectors, stakeholders or bodies of knowledge (including public knowledge) to address problems and find solutions that go beyond the scope of a single perspective.”

This includes types of interdisciplinary working, cross-sector working, etc.

Types of disciplinary and collaborative working vary depending on who is involved and how knowledge is integrated

Intradisciplinary

One discipline, perspective, viewpoint or sector

Crossdisciplinary

One discipline perspective, viewpoint or sector with awareness of others

Multidisciplinary

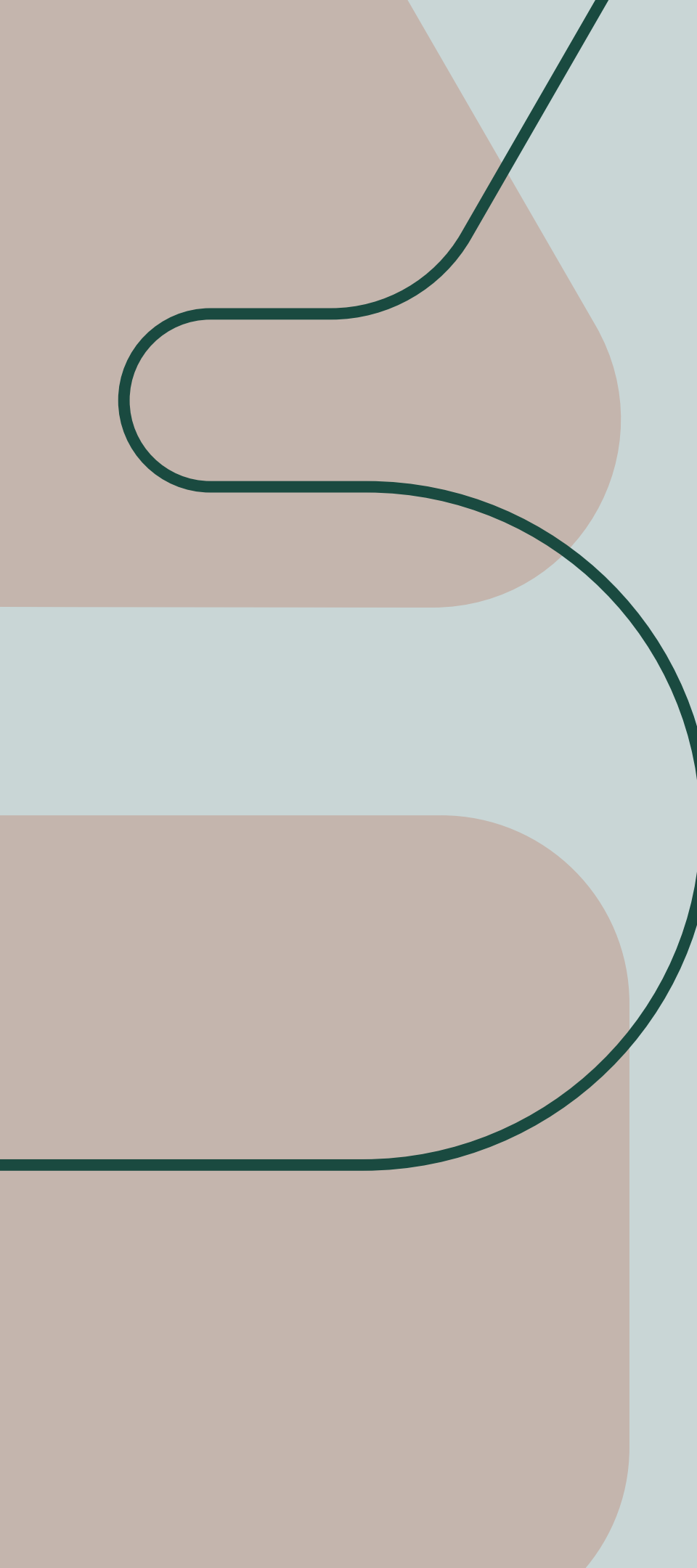
Different disciplines, perspectives, viewpoints and sectors working alongside each other

Interdisciplinary

Integration of contributions of different disciplines perspectives, viewpoints and sectors

Transdisciplinary

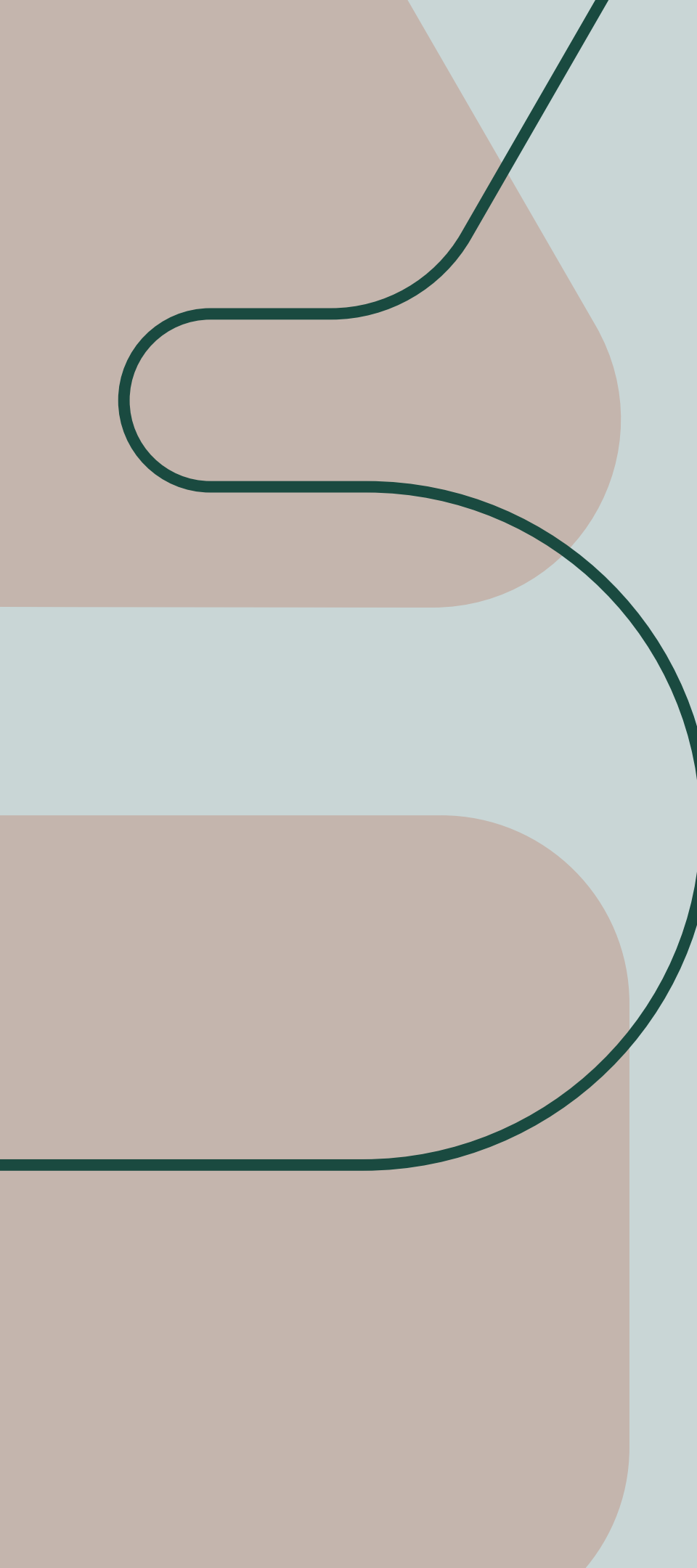
Holistic integration of academic disciplines, non-academic sectors and societal knowledge, perspectives and viewpoints.



Why is collaborative working important?

- To tackle ‘wicked problems’ that many environmental scientists are facing right now, like climate change, biodiversity loss and pollution, collaborative working is key.
- Working in a collaborative way can result in better and more solutions with multiple benefits for people and nature. It can provide longer-lasting and novel solutions to challenges using creative and innovative thinking and greater methodological rigour.
- It an increase opportunities and professional development for individuals.

Tip: Highlighting the benefits of collaborative working can support motivation and engagement

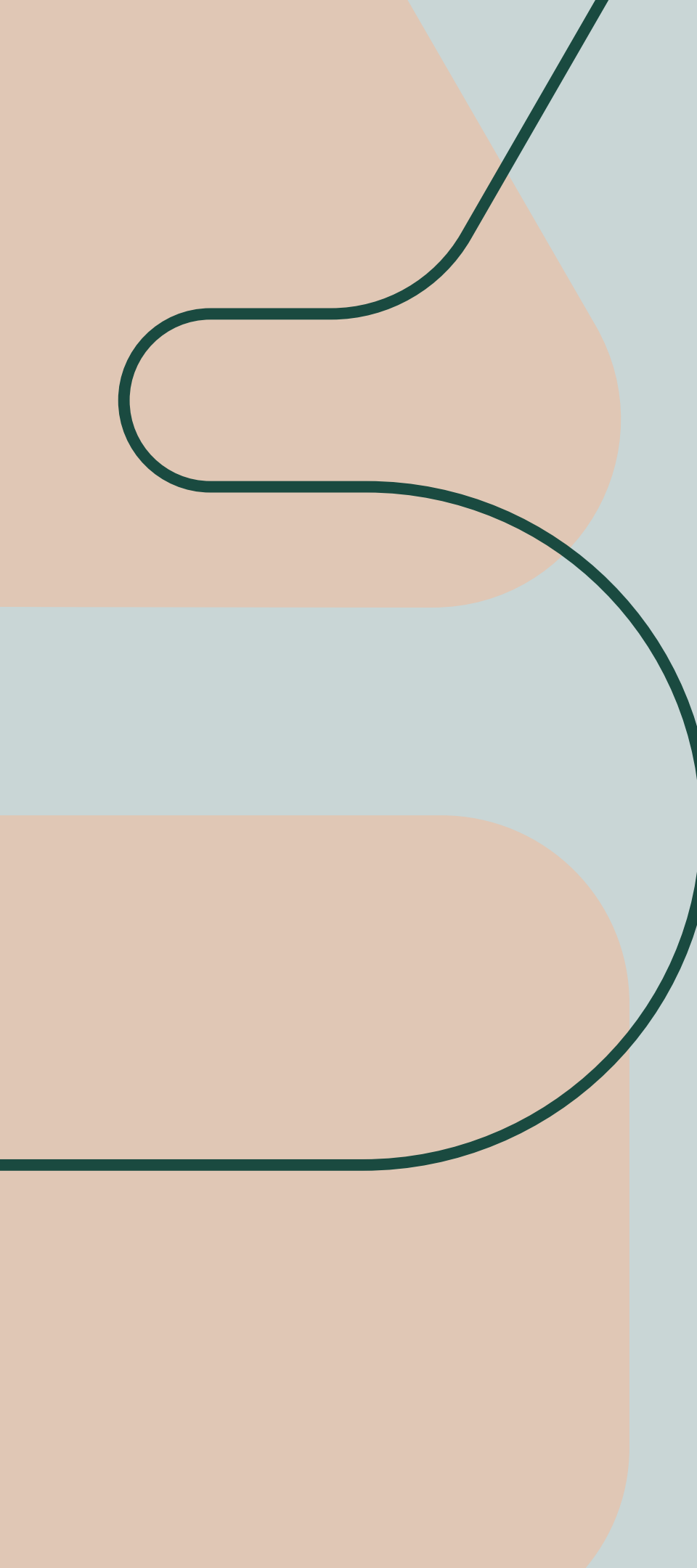


Making the case for collaborative working

Collaborative working across disciplines and sectors is often seen as time-consuming or complex. However, when applied effectively, it improves project outcomes, reduces risk, and delivers greater long-term value. It can offer:

- Better solutions to complex problems
- Reduced risk and unintended consequences
- Stronger stakeholder trust
- Greater innovation

There is also an increasing expectation from funders and policy to work in collaborative ways



Providing opportunities for collaborative working

- Collaborative working can lead to more creative, inclusive, and effective approaches to complex challenges.
- Effective collaboration is shaped by people's capabilities, opportunities, and motivations to work together.

Tip: Early reflection on these factors can help teams build stronger and more supportive collaborative practices from the outset.

The next slide explores capabilities, opportunities and motivations in more detail.

Behaviour

Engaging in collaborative working

Capabilities

Being able to attend or travel to meetings, to speak up, to join in, to understand, to learn, to engage.

Motivations

Wanting to work with people from other disciplines and sectors, to learn, to explore, to challenge ideas.

Opportunities

Having the time, space, resources to do so. Being supported by colleagues, managers, team members, team leads.

Section 4: Conclusion



Top tips for successful collaborative working

Interdisciplinary work is an iterative process and progress is rarely linear. Build in time to plan and revisit assumptions, methods and goals.

Differences in perspective are not obstacles to overcome, but a core part of the process. Collaborative working is as about combining expertise AND about building relationships, trust and shared ways of working.

Different backgrounds come with different languages, assumptions and ways of working. Take the time to develop a shared language and make assumptions explicit early on.

Be attentive to power dynamics and value different forms of knowledge that contribute in different ways. Regularly reflect on how the project is evolving, whose perspectives are shaping it and what might need to change.

The process can take longer than expected. Be realistic about what can be achieved within given time and resource constraints.

Next steps

Interdisciplinary, collaborative working is central to finding solutions to our planet's complex environmental problems and to support the transition to a more sustainable future.

Interdisciplinary working is difficult, and each project will come with a new set of challenges. We hope this toolkit can offer some guidance.

Additional resources:

- Toolkit and accompanying resources
- Case study report

[Access the toolkit](#)

How this toolkit was produced

This project was led by Advancing Capacity for Climate and Environmental Social Science (ACCESS) and the Institution of Environmental Sciences (IES).

This toolkit was co-produced by a group of approximately 30 people from varying backgrounds, disciplines and experience within the environmental sciences, e.g. academia, consultancy, government, NGOs who came together in a series of workshops between November 2025 and June 2026.

A case study survey was completed to test out some of the ideas and provide examples of successful and unsuccessful collaborative working in the environmental field.

[Access the toolkit](#)

Reference

This slide deck summarises the key steps of the **Toolkit for collaborative working**.

ACCESS is a 5-year ESRC funded (ES/W00805X/1) knowledge –exchange program that aims to champion and coordinate environmental social science in the UK in interdisciplinary research, training and policy and practice to help address key environmental challenges spanning biodiversity, sustainability and decarbonisation.

The Institution of Environmental Sciences (IES) is the professional body for environmental scientists and professionals. It supports and unites a dynamic network of members who work to accelerate the transition to a sustainable future.

This project is funded through the ACCESS flex fund.

[Access the toolkit](#)