

// Research Question / Gap

What specific research question, gap, or hypothesis are we addressing, and why does it matter to our field?

How can we make complex research on topics such as marine plastics, renewable energy or health innovation more accessible and engaging to local communities?

// Current Research Approach

Which part of the research lifecycle do we want to explore – and how do we currently work in that area?

The focus is dissemination and engagement. Researchers often prepare text-heavy reports or academic presentations. These may be shared with community stakeholders but can be difficult for non-specialist audiences to understand or use.

// Challenges / Bottlenecks

Where do we run into difficulties, limitations or unnecessary effort in this part of the research?

- Limited time to prepare tailored materials.
- Difficulty simplifying technical language without losing accuracy.
- Inconsistent outreach formats across research teams.

// AI Opportunity

Where could AI help with the challenges we identified, and what would it need to do?

AI could help draft plain-language summaries, suggest content for visual explainers and generate FAQs or key messages for different audiences.

// Prototype

What small, testable use of AI could we try?

Use one completed study on microplastics in coastal waters as a small test.

Give AI the research material and ask for a 300-word plain-English summary plus three key messages for a community workshop. Researchers would review the outputs for accuracy, nuance and suitability before use.

// Ethics

What ethical, disciplinary or integrity issues should we keep in mind?

Outputs need to be fact-checked to avoid oversimplification or misrepresentation. Researchers remain responsible for accuracy and for preserving nuance before anything is shared.

// Alignment

What wider priorities or commitments should shape this use of AI?

AI could help identify connections with relevant regional priorities, funder strategies or wider frameworks such as the Sustainable Development Goals. In this case, likely areas include civic and community engagement, sustainable communities, public participation in science and making research more accessible beyond academia.

// Success

How would we know whether using AI here was genuinely worthwhile?

- Positive feedback from community partners on clarity and relevance.
- Technical content simplified without losing accuracy.
- More useful two-way discussion between researchers and communities.

// Action

What is the next useful step?

Trial the approach with one project. Test the materials with community partners, refine them in response to feedback and decide whether the approach is useful enough to repeat elsewhere.

// Reflection

After testing, what did we learn about the research or the way we work?

The test might reveal where researchers assume too much prior knowledge, where nuance is lost and which formats make discussion easier.