

Generative AI Canvas / Interdisciplinary Research

Problem

Which research question, societal challenge or domain-specific problem are we tackling? Why does it matter now?

How can we support sustainable coastal tourism while protecting marine biodiversity?

Process

How do we currently approach this challenge, and what does each discipline or stakeholder contribute?

Ecologists contribute survey data and biodiversity expertise. Tourism researchers contribute tourism planning and impact models.

These are often developed separately, so ecological evidence can remain disconnected from tourism planning and have limited influence on decisions.

Collaboration Frictions

What makes it difficult to work together effectively?

- Different disciplinary languages and priorities.
- Ecological and tourism datasets that are difficult to align.
- Policymakers receive fragmented or incomplete evidence.

AI Opportunity

Where could AI help people work across these differences, and what would it need to do?

AI could connect ecological survey data with tourism impact models, explore development scenarios and summarise the trade-offs in policy-relevant language.

Prototype

What small, testable use of AI could we try?

Use one coastal site and a small set of ecological and tourism data.

Test whether AI can generate a few tourism-development scenarios that include ecological safeguards and summarise the trade-offs in plain language. Ecologists and tourism researchers would review the outputs together.

Ethics

What ethical, social or disciplinary issues should shape how we test this?

Scenarios could oversimplify complex systems or give too much weight to assumptions from one discipline.

Domain experts should review the outputs, and community and industry perspectives need to be included before conclusions are drawn.

Alignment

How does this connect with wider priorities, stakeholder needs or public value?

AI could help map the work against relevant regional strategies, funding priorities and wider frameworks such as the Sustainable Development Goals. Likely areas include the maritime economy, sustainable communities, biodiversity protection and balancing environmental and economic priorities.

Success

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

- Ecological and tourism evidence can be brought together more clearly.
- Clearer shared understanding of the trade-offs across disciplines.
- A stronger evidence base for regional decision-making.
- Ecological protection and economic development considered together rather than separately.

Action

What is the next useful step?

Pilot the approach at one coastal site using a limited set of ecological and tourism data. Review the outputs with researchers and relevant stakeholders, then refine the test in response to what they find.

Reflection

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

The test might expose assumptions within each discipline, gaps between the datasets and points where shared scenarios help researchers find common ground.

