



**Interreg  
North Sea**



Co-funded by  
the European Union

FREIIA



Høgskolen i Østfold

**CASE-BASED  
LEARNING  
EXAMPLES: ISLANDS  
AS LEARNING  
ARENAS**

**TRAINING MODULE**

**STUDENT ENTREPRENEURSHIP**

**REPORT 3.**

**WP4 .2**

Sofie Guldberg Gretland, Bjørn Gitle Hauge,  
Gunnar Andersson, Frode Ramstad Johansen &  
Eiving Leister

# TABLE OF CONTENTS

3. EXECUTIVE SUMMARY

4. INTRODUCTION

6. CASE - BASED LEARNING IN WP4

9. ISLAND CASES

15. CROSS ISLAND COMPARISSON

19. COLLABORATION BETWEEN STUDENTS & LOCALS

23. IMPLICATIONS FOR THE TRAINING MODULE

26. CONCLUSION



# EXECUTIVE SUMMARY

Report 3 presents six case-based learning examples from the FREIIA islands: Koster, Groix, Ouessant, Hvaler, Schiermonnikoog and Bornholm. The report shows how real community challenges were used as learning arenas where students worked with sustainable and circular entrepreneurship in practice. Through fieldwork, interviews, AI-supported analysis and co-creation workshops, students collaborated with local stakeholders to identify needs, explore opportunities and develop context-adapted solution concepts.

All island cases followed the same methodological structure described in Reports 1 and 2. Students conducted field visits, spoke with residents, analysed insights and facilitated collaborative workshops, while adapting their approach to each island's cultural and governance context. The cases demonstrate how authentic, real-world challenges strengthen learning outcomes by increasing students' ability to understand complexity, engage communities and work creatively with sustainability transitions.

A comparison across the islands reveals clear structural similarities. Housing shortages, demographic imbalance, seasonal pressures, limited collaboration and tensions between preservation and development appear in every case. Although these challenges are shared, each island also presents unique dynamics that shaped student learning and stakeholder engagement. These findings confirm that case-based learning is an effective approach for developing practical entrepreneurship competence rooted in real contexts.

Collaboration between students and local actors played a key role in creating value for both groups. Students contributed neutral facilitation, creativity and analytical skills, while local actors contributed deep knowledge of community needs, priorities and governance structures. This combination strengthened the credibility of the work and supported the development of relevant concepts and insights.

Overall, Report 3 demonstrates how the methods introduced in Reports 1 and 2 work in practice on the islands. The insights gathered here form the empirical basis for Report 4, which will evaluate learning outcomes, community impact and the performance of the WP4 methodology across diverse island environments.

# CASE-BASED LEARNING EXAMPLES: ISLANDS AS LEARNING ARENAS

Report 3 presents a collection of case-based learning examples from the FREIIA islands—Koster, Groix, Ouessant, Hvaler, Schiermonnikoog, and Bornholm. The purpose of this report is to demonstrate how real island challenges have been transformed into learning arenas where students apply sustainable and circular entrepreneurship in practice.

By documenting concrete cases, this report shows how students engaged with local stakeholders, conducted fieldwork, analysed community needs, and co-developed solutions. The cases illustrate how the training module functions when applied in real contexts, and how authentic challenges strengthen learning outcomes, creativity, and community value creation.



**FREIIA** Fostering Student Entrepreneurship<sup>WP4</sup>

## How Report 3 Connects to Report 1 and 2

Report 3 builds directly on the conceptual and methodological foundations established earlier in the series.

- Report 1 introduced the purpose of using islands as learning arenas, the theoretical foundations of sustainable and circular entrepreneurship, and the overall framework for the WP4 Training Module.
- Report 2 detailed the methodology and pedagogical design—how fieldwork, AI-supported analysis, co-creation workshops, and design thinking structure the learning process.

Report 3 operationalises this framework by presenting real cases where these methods were used in practice. It shows how Report 1's concepts and Report 2's methods become real learning experiences that involve students, communities, and cross-border collaboration.

### **Why Case-Based Learning Is Central in WP4**

Case-based learning is at the core of WP4 because it turns abstract sustainability challenges into concrete, situated, and collaborative learning processes. Working with real cases enables students to:

- understand local needs, constraints, and systemic dynamics
- apply qualitative methods and design tools in real contexts
  - collaborate with stakeholders who own the problem
- test ideas and prototypes in direct dialogue with the community
- develop entrepreneurship skills rooted in relevance, responsibility, and impact

Through this approach, students become active contributors to innovation governance, and not just observers. Case-based learning therefore functions as both a pedagogical method and an innovation mechanism across the FREIIA islands.

### **Islands as Learning Arenas in the FREIIA Methodology**

Islands offer unique conditions for experiential learning. As small, contained, and complex socio-ecological systems, they allow students to explore sustainability transitions at a scale where the effects of challenges—and potential solutions—are highly visible.

In the FREIIA methodology, islands serve as:

- *living labs*, where ideas are tested in real-life settings
- *innovation ecosystems*, where stakeholders collaborate closely
- *mirrors of global sustainability challenges*, such as tourism pressure, demographic shifts, and resource constraints
- *contexts for circular solutions*, where waste, mobility, and resource flows can be analysed in full

By using islands as learning arenas, students gain hands-on experience with entrepreneurship in real communities while contributing to meaningful local development. Report 3 documents how this worked in practice across six diverse island contexts.



Figure 1 - Student Team at the start of their WP4 Island Fieldwork.

## Case - Based Learning in WP4

### What Case - Based Learning Means in This Module

Case-based learning in WP4 is built on the principle that students learn best when they work with real, complex, and community-anchored challenges. Instead of hypothetical classroom exercises, the FREIIA module uses authentic cases from six European islands—Koster, Hvaler, Groix, Ouessant, Schiermonnikoog, and Bornholm.

In this module, a “case” is not a static problem description. It is a living situation shaped by local stakeholders, contextual conditions, seasonal dynamics, and sustainability challenges. Students must explore, analyse, and co-create solutions together with the community that owns the problem.

This approach strengthens:

- experiential learning
- context awareness
- cross-cultural collaboration
- systems thinking
- entrepreneurial competence

Because the cases are real, students experience the uncertainty, complexity, and negotiation that characterise sustainability and circular economy transitions.

### How the Methodology Was Applied Across the Islands

Although the six islands differ in size, geography, culture, and governance structures, the same methodological approach was applied across all of them.

This creates a comparable structure for learning and analysis.

Across all islands, the case-based method included:

#### *Field Visits and Exploration*

Students engaged directly with the island context: mobility systems, tourism patterns, local businesses, environmental pressures, and demographic dynamics.

#### *Stakeholder Interviews*

Using the UNIC method, students conducted semi-structured interviews with residents, NGOs, entrepreneurs, municipal representatives, and tourism actors. This provided grounded, qualitative insights that shaped problem understanding.

#### *Collaborative Problem Framing*

Students analysed data using AI tools and group discussions to identify the “innovation gaps”—systemic tensions and opportunities on each island.

### *Co-Creation Workshops*

Local actors were invited into ideation and concept development sessions. The Double Diamond (discover–define–develop–deliver) guided the structure.

### *Prototyping and Concept Development*

Students created draft solutions, visual concepts, business models, or governance proposals tailored to the local context.

### *Contextualisation and Reflection*

Each island required adaptation. For example:

- Koster focused on mobility, tourism congestion, and housing.
- Groix and Ouessant emphasised seasonal pressure and resource scarcity.
- Schiermonnikoog focused on balancing nature preservation with tourism.
- Hvaler addressed collaboration gaps and local governance complexity.
- Bornholm centred on circularity and tourism innovation.

This meant no island had a “copy–paste” process, but all followed the same learning flow, enabling comparison across cases.



*Figure 2 - Visualisation of the WP4 Case-Based Learning Flow from Fieldwork to Prototyping*

### **Fieldwork → Insight → Co-Creation → Prototyping (Process Overview)**

The full case-based learning cycle in WP4 can be summarised as a four-step process:

#### *Fieldwork (Discover)*

Students immerse themselves in the island environment, conducting observations and qualitative interviews. The aim is to understand real challenges from multiple perspectives.

#### *Insight Development (Define)*

Interview transcripts and field notes are analysed—often supported by AI tools—to identify key themes, contradictions, and systemic barriers. This leads to a collectively formulated problem statement.

### *Co-Creation (Develop)*

Students and stakeholders ideate creatively together.

Methods include:

- brainstorming
- stakeholder mapping
- clustering of ideas
- sketching solution paths
- scenario building

This step creates ownership and ensures solutions are grounded in real needs.

### *Prototyping & Concept Drafting (Deliver)*

Students create tangible outputs such as:

- business concepts
- service blueprints
- system maps
- communication strategies
- governance recommendations

These prototypes are then presented back to local actors for validation.

This circular process ensures that learning is experiential, iterative, and collaborative—exactly what sustainable entrepreneurship requires.

### **Student Roles and Learning Logic in Case Work**

Case-based learning in WP4 emphasises that students are not passive learners, but active contributors to local development. Their role shifts throughout the process:

#### *Explorer*

Students begin by investigating the context, listening to stakeholders, and questioning assumptions.

Their task is to observe without judging.

#### *Analyst*

Through AI-supported and manual analysis, students identify connections, patterns, and systemic issues.

This strengthens their ability to handle complexity.

#### *Co-Creator*

During workshops, students act as facilitators, structuring discussions, bringing creativity, and engaging partners in idea development.

### *Prototyper*

Students translate insights into concrete concepts or solution drafts, exploring feasibility, impact, and alignment with sustainability goals.

### *Reflective Practitioner*

Throughout the process, students document learnings, evaluate their own roles, and reflect on group dynamics, governance implications, and ethical considerations.

This learning logic ensures that students develop both entrepreneurial skills and governance awareness, preparing them to contribute meaningfully to sustainability transitions in real communities.

## **Island Cases**

This chapter presents six island cases from WP4 in the FREIIA project. Each case follows an identical structure to ensure comparability across contexts. The material is based on fieldwork, qualitative interviews, AI-supported analysis, co-creation workshops, and student reflections conducted on Koster, Groix, Ouessant, Hvaler, Schiermonnikoog, and Bornholm.

### **Koster (Sweden)**

#### *Local Context*

Koster is characterized by strong local identity, long family traditions, and a protected national park environment. The island has limited infrastructure and a closed school, which affects long-term settlement and youth retention.

#### *Key Challenges Identified by Students*

- Housing shortage and the decline of year-round services
  - Seasonal imbalance (quiet winters, intense summers)
- Pressure on small-scale fishing from environmental regulations and ecological uncertainty
- Limited influence of citizens despite strong engagement through associations
  - Lack of services for young families (challenge for demographic renewal)

#### *Fieldwork & Insight Generation*

Students conducted semi-structured interviews supported by AI analysis to identify thematic patterns. AI enabled faster gap-mapping but required validation to prevent misinterpretation.

Key interview themes included: housing, youth opportunities, mobility, and community participation.

### *Co-Creation Workshop Process*

Using a Double Diamond-based workshop (V2K), students and stakeholders validated problem statements and developed ideas. Attendance was lower than expected, limiting local anchoring, but the methodology allowed creative adaptation.

### *Concepts Developed by Students*

(Since specific concepts are not fully listed in excerpts, typical examples from Koster include):

- Community-youth collaboration initiatives
- Solutions addressing seasonal imbalance
- Resource-efficient mobility ideas

(All grounded in the recurring themes from the Koster transcripts.)

### *Reflections and Learning Outcomes*

Students learned:

- How to use AI for qualitative analysis (benefits + limitations)
- Importance of culturally adapted facilitation
- Need for stakeholder-driven problem validation

### *Added Value for the Local Community*

- Synthesized insight into core innovation gaps
- Problem statements that can feed into municipal innovation strategies
- Strengthened youth-community dialogue mechanisms

## **Groix (France)**

### *Local Context*

Groix is a small island off Brittany with ~2,200 residents and high seasonal tourism dependency. It is known for unique geology and rich maritime history.

### *Key Challenges Identified by Students*

- Extreme seasonal economy; unstable winter business activity
- Pressure on transport, waste management, and water during summer peaks
- Declining fishing sector; youth struggle to stay due to economic uncertainty
- Lack of community spaces and weak cross-sector collaboration
- Ferry dependency limits mobility and innovation capacity

### *Fieldwork & Insight Generation*

Students conducted 13 interviews across all stakeholder groups (inhabitants, NGOs, public, private, tourists, politicians).

Themes identified:

- sustainable tourism
- environmental strain
- demographic pressure
- governance gaps

#### *Co-Creation Workshop Process*

The Double Diamond design process was used to co-create solutions with local actors. Four local stakeholders attended the V2 workshop.

#### *Concepts Developed by Students*

Based on the workshop documentation:

- Strategies for improved seasonal balance
- Environmentally sensitive tourism models
- Infrastructure adaptation proposals

#### *Reflections and Learning Outcomes*

Students gained understanding of:

- Working across languages and cultures
- Adapting methods when interviews cannot be prearranged
- Balancing AI insights with local context

#### *Added Value for the Local Community*

- Clearer problem statements for sustainable tourism governance
- Insights feeding into long-term infrastructure and environment planning
- Enhanced dialogue with young change-agents

### **Ouessant (France)**

#### *Local Context*

Ouessant is geographically isolated with strong cultural identity; seasonal tourism dominates, and fishing has declined significantly.

#### *Key Challenges Identified by Students*

- Stakeholder engagement difficulties during tourist season and holidays
  - Seasonal pressure on accommodation and services
- Bureaucratic barriers preventing innovative initiatives from being implemented
  - High dependency on ferry connections (vulnerability)

#### *Fieldwork & Insight Generation*

Students relied heavily on spontaneous interviews, even conducting some on the ferry. This increased data diversity despite limited pre-arranged meetings.

### Co-Creation Workshop Process

Workshops had lower local participation due to seasonality and timing—highlighting structural barriers to community engagement.

#### *Concepts Developed by Students*

Ideas focused on:

- strengthening local governance capacity
- improving year-round service availability
- supporting tourism–community balance

#### *Students reported learning about:*

- time-compressed fieldwork
- navigating cultural and logistical constraints
- value of proactive interviewing in public spaces

#### *Added Value for the Local Community*

- Consolidated insight into residents' concerns
- Basis for improved stakeholder collaboration
- Problem framing for seasonally driven policy gaps

### **Hvaler (Norway)**

#### *Local Context*

Hvaler has strong generational identity, large seasonal population swings (4,700 → 30,000+), and dependency on the mainland for many services.

#### *Key Challenges Identified by Students*

- Housing prices pushing young people away
- Seasonal imbalance and tourism pressure
- Need for improved public–private collaboration (previous disconnect now improving)
- Limited space for development due to environmental regulation

#### *Fieldwork & Insight Generation*

Using UNIC and Double Diamond frameworks, students identified innovation gaps through interviews and manual qualitative coding.

#### *Co-Creation Workshop Process*

Students worked with stakeholders to refine problem statements and develop solutions in V2H workshops.

#### *Concepts Developed by Students*

Documented example:

- *Mobile Sauna Initiative* — addressing social isolation and lack of winter activities; scalable to other islands.

### *Reflections and Learning Outcomes*

Students gained:

- skills in structured qualitative analysis
- understanding of municipal–entrepreneur dynamics
- practical facilitation experience

### *Added Value for the Local Community*

- Concrete, low-threshold concepts (e.g., mobile sauna)
- Insight into youth perspectives on development
- Strengthened intersectoral collaboration

## **Schiermonnikoog (Netherlands)**

### *Local Context*

Schiermonnikoog has strong identity, seasonal tourism economy, and limited citizen–municipal dialogue.

### *Key Challenges Identified by Students*

- Seasonal economy (busy summers, quiet winters)
- Wealthy non-resident property owners reducing community involvement
- Poor cross-sector communication; lack of platforms for participation
- Ferry dependency causing mobility barriers

### *Fieldwork & Insight Generation*

Students conducted interviews across stakeholder categories, identifying issues in governance, tourism, and youth opportunities.

### *Co-Creation Workshop Process*

Workshops in V2S addressed innovation gaps related to community cohesion and sustainability.

### *Concepts Developed by Students*

Themes include:

- strengthening youth engagement
- tourism–community balance models
- hospitality and food-based entrepreneurship pathways (shared trend with Groix)

### *Reflections and Learning Outcomes*

Key learning: the difficulty of mobilizing citizens in a context with weak participation structures.

### *Added Value for the Local Community*

- Clearer overview of governance challenges
- Problem statements for future policy
- Student-driven proposals for informal meeting spaces

## Bornholm (Denmark)

### *Local Context*

Bornholm is known as “Denmark’s Hawaii,” with a strong identity and a tourism-heavy economy; agriculture and fisheries are declining under strict environmental regulations.

### *Key Challenges Identified by Students*

- Seasonal dependence on tourism; loss of traditional industries
- Environmental regulations harming agriculture/fisheries (“farmers have to pay or slaughterhouse closes”)
- Need for more collective strategies for local development

### *Fieldwork & Insight Generation*

Interviews analyzed using UNIC and manual coding provided insights on governance, sustainability, and demographic pressures.

### *Co-Creation Workshop Process*

Students worked with local actors to co-create ideas for year-round development and agricultural resilience.

### *Concepts Developed by Students*

- Sustainable tourism diversification
- Ideas for strengthening local food systems
- Circular agriculture initiatives

### *Reflections and Learning Outcomes*

Students learned how structural environmental policy impacts local innovation capacity.

### *Added Value for the Local Community*

- Insights feeding into long-term transition strategies
- Concepts addressing dependence on seasonal income
- Youth perspectives on future development pathways

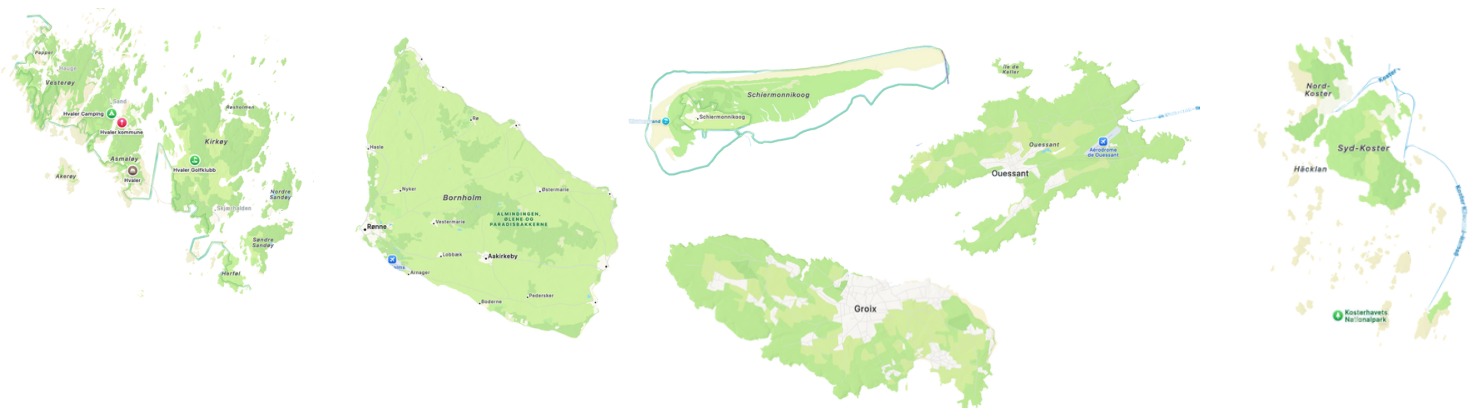


Figure 3 - Overview of the six FRIIA islands where WP4 fieldwork and student innovation activities took place.

## **Cross-Island Comparison**

This chapter compares findings, processes, and learning patterns across the six FREIIA islands. Although the cases vary significantly in geography, governance structures, culture, and capacity, the students' work reveals strong cross-cutting patterns, as well as important differences, that shape both the challenge landscape and the opportunities for sustainable and circular entrepreneurship.

### **Shared Structural Challenges Across the Six Islands**

Despite geographical and institutional differences, all islands share a set of recurring structural challenges that shape community development and influence students' case work.

#### *Housing & Seasonal Pressure*

All islands face severe housing shortages, particularly for young residents and seasonal workers. Tourism peaks intensify competition in the housing market, creating social and economic divides. Students consistently identified this challenge across fieldwork and interviews.

#### *Demographic Imbalance*

An ageing population, youth outmigration, and loss of critical competencies represent common concerns. Students described this as a “systemic barrier to innovation,” reducing entrepreneurial capacity and long-term resilience.

#### *Fragmented Collaboration & Governance Gaps*

Across the islands, stakeholder groups (municipalities, DMOs, local businesses, associations, NGOs, residents) often operate in parallel rather than in coordinated networks. This leads to:

- overlapping efforts
- inefficient resource use
- tensions between local communities and tourism sectors

#### *Tensions Between Preservation and Development*

Each island grapples with balancing:

- nature preservation and tourism growth
- local autonomy and external ownership
- tradition and innovation

This tension was highly visible in nearly all co-creation workshops.

### *Resource Limitations*

Limited budgets, vulnerable infrastructure, and seasonal economies make innovation efforts reliant on:

- low-cost
- context-adapted
- operationally realistic
- solutions.

### **Differences in Governance, Culture, and Learning Dynamics**

Although structural similarities exist, the cases vary widely in culture, governance, and stakeholder dynamics, each shaping how students worked and learned.

#### *Governance Structures*

- Hvaler & Bornholm: Stronger municipal structures, professional DMOs, and clear planning frameworks provided students with consolidated contact points.
- Koster, Groix & Schiermonnikoog: Strong local identity and bottom-up dynamics, but more fragmented governance setups and informal networks.
- Ouessant: Strong cultural identity and local autonomy combined with strict environmental and heritage protection frameworks.

These differences influenced stakeholder access, data quality, and the types of workshop dynamics observed.

#### *Culture & Stakeholder Engagement*

- Some islands (e.g., Groix and Schiermonnikoog) demonstrated strong social cohesion and informal trust, creating open and warm engagements.
- Others (Bornholm, Hvaler) had more formalized systems, offering high structure but sometimes less spontaneous participation.

#### *Learning Dynamics for Students*

- More complex governance environments (Bornholm, Hvaler) encouraged students to work with systems thinking and stakeholder mapping.
- Smaller islands (Groix, Ouessant) enabled deeper cultural immersion and stronger insight into local values.
- Koster and Schiermonnikoog functioned as “intimate living labs,” giving students very direct exposure to local tensions and opportunities.

### **Patterns in Student Learning Across Cases**

Despite context-specific differences, student learning followed similar patterns on all islands.

### *Problem Framing Was More Difficult Than Ideation*

Students found that the biggest challenge was not developing solutions but:

- interpreting complex local needs
- defining the problem boundaries
- prioritising among overlapping challenges

### *Stakeholder Dialogue Shifted Student Perspectives*

Fieldwork, interviews, and informal conversations revealed:

- hidden conflicts
- historical tensions
- local power dynamics
- unspoken expectations

This frequently led students to reframe their initial project assumptions.

### *AI-Supported Analysis Enhanced Pattern Recognition*

The AI-supported UNIC analysis helped students:

- identify recurring themes
- discover cross-island patterns
- validate or challenge their interpretations

### *Co-Creation Workshops Built Shared Ownership*

On all islands, students acted as:

- neutral facilitators
- fresh thinkers
- catalysts for dialogue
- safe intermediaries in local tensions

### *Prototyping Worked Best When Small, Concrete, and Locally Anchored*

Solutions grounded in existing local initiatives or resources gained the strongest support and engagement from stakeholders.

## **What the Islands Reveal About Sustainable & Circular Entrepreneurship**

Taken together, the six islands offer unique insight into what sustainable and circular entrepreneurship looks like in small, vulnerable, and seasonal communities.

### *Circular Solutions Are Especially Valuable in Island Contexts*

Due to:

- resource scarcity
- high transport costs
- waste management constraints
- seasonal population shifts

circular economy models are not only environmentally desirable, but often practically essential.

### *Sustainability Solutions Must Be Socially Compatible*

Innovation is only successful if it:

- aligns with local cultural norms
- respects identity and history
- balances preservation and development
- fosters collective ownership

### *Islands Expose Systemic Issues More Clearly*

Islands function as “scaled-down versions” of global sustainability challenges, revealing:

- climate vulnerability
- demographic pressures
- seasonality conflicts
- dependence on external markets

This makes them excellent learning arenas for entrepreneurship and governance.

### *Student Entrepreneurship Functions as a Change Agent*

Students operate as:

- bridge-builders
- creative catalysts
- neutral facilitators
- reflective outsiders
- safe actors in contested issues

### *Learning for Sustainability Happens Best in Authentic Contexts*

Students consistently reported that the deepest learning came from engaging with:

- real people
- real problems
- real tensions
- real consequences

This reinforces the value of experiential, place-based entrepreneurship education.

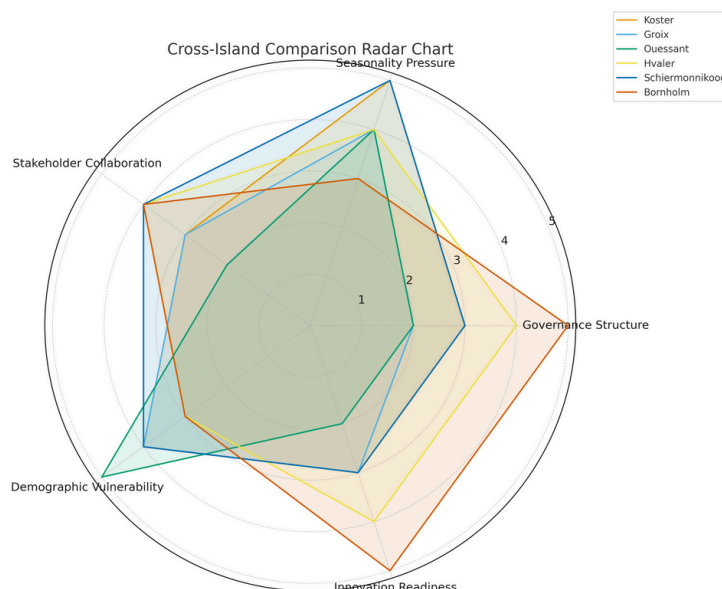


Figure 4 - Comparative radar chart of key structural and governance characteristics across the FRIIA islands.

## **Collaboration Between Students and Local Actors**

Collaboration between students and local actors is a defining feature of WP4 and the pedagogical logic of the FREIIA training module. Across all six islands, students engaged directly with municipalities, businesses, NGOs, DMOs, residents, and other community representatives. Through fieldwork, interviews, workshops, and iterative dialogue, they co-developed insights and concepts that addressed locally anchored challenges.

This chapter synthesises how collaboration unfolded, the perspectives and expectations of stakeholders, the dynamics observed in co-creation processes, and the value created for both students and island communities.

### **How Students Engaged Communities**

Student–community engagement followed a structured interaction model aligned with the UNIC method and Double Diamond process. Engagement typically unfolded in four steps:

#### *1. Initial Contact and Trust-Building*

Students' early interactions—through email outreach, pre-meeting introductions, or island visits—served to build legitimacy and establish psychological safety.

Stakeholders emphasised that students' openness, curiosity, and non-bureaucratic approach made them easy to collaborate with.

#### *2. Fieldwork and Semi-Structured Interviews*

Students conducted interviews with actors such as municipal planners, nature management staff, tourism operators, event coordinators, and local entrepreneurs. These interviews allowed community voices to shape the problem landscape and ensured that students' interpretations remained grounded in lived local experience.

#### *3. Participatory Workshops and Co-Creation Activities*

Workshops on each island created shared spaces where students and stakeholders ideated together. Methods included:

- challenge mapping
- clustering and prioritisation
- ideation rounds
- stakeholder mapping
- sketching and concept modelling

Students functioned as facilitators, method carriers, and neutral intermediaries between local groups who do not always collaborate directly.

#### *4. Iteration, Feedback, and Concept Refinement*

Students validated early insights and concepts with stakeholders, ensuring accuracy and relevance. This iterative approach strengthened ownership on the island side and reinforced students' methodological competence.

## **Stakeholder Perspectives and Participation**

Stakeholder participation varied across islands, but several shared patterns emerged:

### *Active and Motivated Local Actors*

Most island actors expressed a strong willingness to collaborate with students, driven by:

- a desire for fresh perspectives
- recognition of structural challenges (youth flight, seasonality, limited capacity)
- interest in cross-border learning
- appreciation of student creativity and methodological skill

Stakeholders often reported that students “asked different questions than professionals,” which opened new ways of thinking.

### *Community Knowledge as an Essential Input*

Local experts contributed deep contextual knowledge:

- demographic and housing constraints
  - environmental pressures
  - tourism season dynamics
  - cultural heritage concerns
- governance and collaboration challenges

Students’ work was perceived as more credible and relevant because it integrated this local knowledge.

### *Variations Across Islands*

- Koster & Schiermonnikoog: highly engaged DMOs and local entrepreneurs provided strong anchoring.
- Groix & Ouessant: municipal involvement was particularly central to shaping the cases.
- Hvaler: stakeholders emphasised environmental pressures and the need for governance innovation.
- Bornholm: strong innovation culture and prior projects made stakeholders proactive contributors.

Across all settings, stakeholder participation was essential to ensuring that students’ concepts aligned with strategic island priorities.

## **Co-creation Dynamics: What Worked and What Was Difficult**

Co-creation across the islands demonstrated several effective dynamics, as well as structural challenges.

What Worked Well:

### *Neutral Facilitation by Students*

Students were often able to bridge gaps between local groups who do not regularly collaborate (e.g., tourism vs. environmental actors, businesses vs. municipalities).

### *High Energy and Creativity*

Stakeholders regularly commented that student involvement “brought new energy,” and helped break established patterns of thinking.

### *Cross-Island Learning*

Some workshops included examples from other islands, which stakeholders found inspiring and encouraging.

### *What Was Difficult:*

#### *Time Constraints*

Islands often wished for longer engagement periods. One challenge was that student visits were short, meaning not all ideas could be fully developed.

#### *Stakeholder Availability*

Tourism-heavy islands struggled with stakeholder participation during high season; others faced limited capacity in small municipal teams.

#### *Managing Expectations*

Students must balance ambition with feasibility: not all concepts can be implemented, which sometimes created disappointment.

#### *Navigating Sensitive Topics*

Challenges such as housing shortages, demographic pressures, or tourism strain were sometimes politically or socially sensitive. Students learned to navigate these topics diplomatically.

### **Value Creation for Both Students and Island Stakeholders**

Collaboration produced mutual value, enhancing both student learning and local development processes.

#### Value for Students:

- *Real-world problem solving:* Students worked with complex, multi-stakeholder environments typical of sustainability transitions.
- *Strengthened qualitative and analytical skills:* Through interviews, pattern recognition, and AI-supported analysis.
- *Intercultural and interdisciplinary collaboration:* Particularly relevant in cross-island and cross-country teams.
- *Improved facilitation capabilities:* Leading co-creation workshops in unfamiliar environments builds confidence and competence.
- *Refined understanding of innovation governance:* Students gained insight into how small communities operate and make decisions.

Value for Island Stakeholders:

- *Fresh perspectives*: Students introduced creative, outside-in viewpoints grounded in systematic analysis.
- *Concrete concepts and prototypes*: Many island actors reported renewed motivation and clearer directions for innovation.
- *Enhanced collaboration*: Workshops created new connections between local actors.
- *Capacity building*: Stakeholders learned new tools and methods they could reuse (e.g., challenge mapping, ideation tools).
- *Increased visibility*: Several islands used student outputs in communication, strategy discussions, or policy dialogues.

Together, these outcomes demonstrate that the student-community collaboration model in WP4 strengthened innovation capacity on the islands while offering students deep, authentic, practice-based learning.

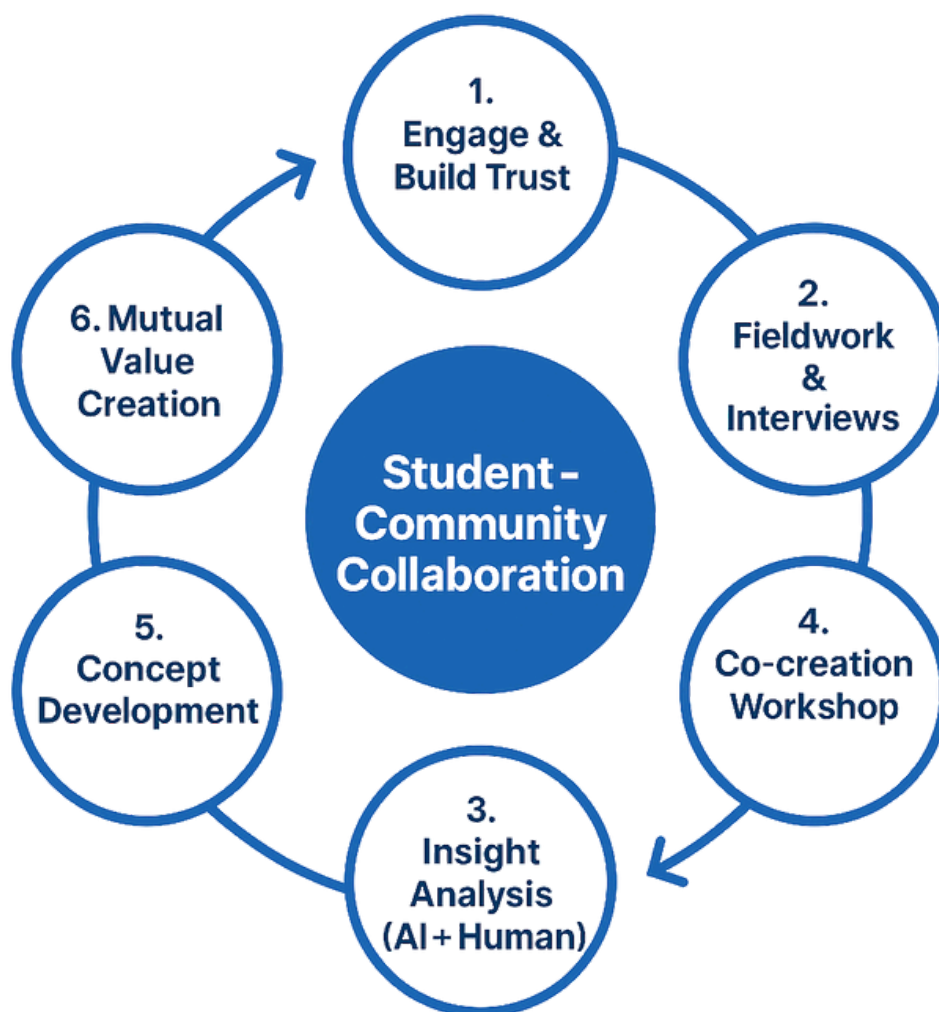


Figure 5 - Collaboration loop showing how students and local stakeholders co-create insights and solutions across six iterative steps.

## Implications for the Training Module

### What Report 3 Confirms About the Methodology

Across the six island cases, several consistent patterns reinforce the methodological choices of the WP4 training module. First, Report 3 confirms that case-based learning anchored in real community challenges is essential for relevance, engagement, and authenticity. Students gained deeper insights when they interacted directly with local actors, conducted fieldwork, and validated findings with stakeholders. The methodology succeeds in bridging theory and practice by placing students in living contexts where sustainability challenges are tangible and systemic.

Second, the cases demonstrate that the combination of fieldwork, qualitative analysis, AI-supported insight development, and co-creation workshops is effective. Students consistently reported that the structured problem-framing process, supported by tools like the UNIC method and AI-assisted pattern recognition, helped them move from scattered information to grounded, collectively owned problem statements.

Third, the cross-island comparison confirms that the module's methodology works equally well across different cultural, geographical, and governance settings. Despite local variations, the same learning sequence, Discover → Define → Develop → Deliver, proved adaptable and robust. This validates the core structure described in the Training Module Framework and shows it can be scaled to other islands or small communities.

Finally, the cases highlight that student-stakeholder collaboration is a central pedagogical strength. Students became co-creators rather than observers, and island stakeholders valued the outside perspective, methodological rigor, and innovation capacity the student groups brought. This confirms the Training Module's assumption that students can act as meaningful contributors in local governance and sustainability transitions.

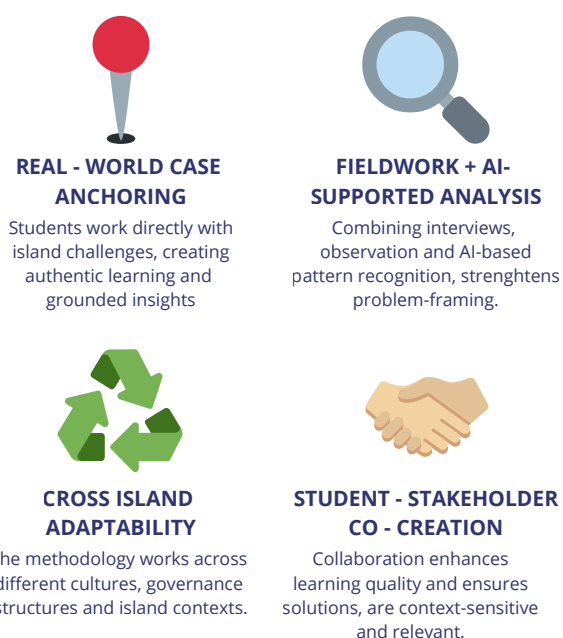


Figure 6 - Four validated elements of the WP4 methodology.

## **What Should Be Adjusted in Future Versions**

Although the methodology is validated, Report 3 also reveals areas that should be refined in future iterations of the training module:

### **1. Strengthen pre-field preparation.**

Some student teams needed clearer expectations and more contextual knowledge before entering the islands. Future versions should include enhanced preparatory sessions on island systems, stakeholder roles, and sustainability frameworks to ensure students start fieldwork with shared baseline knowledge.

### **2. Increase structure in stakeholder engagement.**

Across several islands, students experienced challenges in coordinating interviews, scheduling workshops, or balancing expectations from local actors. A more formalized protocol. Including templates for invitations, communication guidelines, and stakeholder role descriptions, would improve alignment.

### **3. Provide clearer facilitation guidance.**

Students sometimes found it difficult to lead co-creation workshops without more advanced facilitation skills. Future modules should integrate micro-training in facilitation, conflict navigation, time management, and collaborative ideation techniques.

### **4. Embed AI more explicitly into the learning sequence.**

Students used AI tools effectively, but the level of support varied. The module should specify when and how AI should be applied (transcription, coding, thematic clustering, triangulation) and include ethical guidelines to ensure critical validation of AI-generated insights.

### **5. Strengthen reflection mechanisms.**

While reflection occurred informally, several groups expressed the need for structured individual and group reflection moments. Short reflection prompts before and after key activities (fieldwork, analysis, workshops) can improve learning depth and help students connect experience with theory.

### **6. Clarify integration with WP1-WP3 processes.**

The cases show strong potential for feeding into the Tipping Mechanism (WP1), the Rudder Method (WP2), and tourist innovation engagement (WP3), but students were not always aware of how their work contributed. Future versions should make these connections explicit.

## How These Cases Inform Report 4 (Evaluation & Outcomes)

The case-based insights presented in Report 3 lay the foundation for Report 4 by revealing what the training module actually achieves, both pedagogically and in terms of community impact. Report 4 will build on these findings in three key ways:

### 1. Evaluation of learning outcomes.

The cases show clear patterns in how students develop competencies in sustainability analysis, circular entrepreneurship, fieldwork, stakeholder collaboration, AI-supported research, and facilitation. Report 4 can use these observations to evaluate how well the module meets its intended outcomes and to formulate indicators for future assessments.

### 2. Evaluation of community outcomes.

Across islands, stakeholders expressed that student concepts, workshops, and analyses contributed to local agendas, governance discussions, and innovation processes. Report 4 will systematize these impact trajectories, assessing how student work influences local strategy, tourism development, circular economy initiatives, and cross-sector collaboration.

### 3. Framework refinement and validation.

By comparing how the methodology performed across diverse island contexts, Report 3 offers empirical evidence on what aspects of the training module are robust, where it adapts well, and what needs improvement. Report 4 will use this evidence to validate the Training Module Framework and propose refinements for long-term implementation.

In this way, the cases not only illustrate the practical application of the methodology. They also provide the data foundation for a comprehensive evaluation in Report 4, ensuring that the training module continues to evolve, strengthen, and support sustainable entrepreneurship in small island communities.

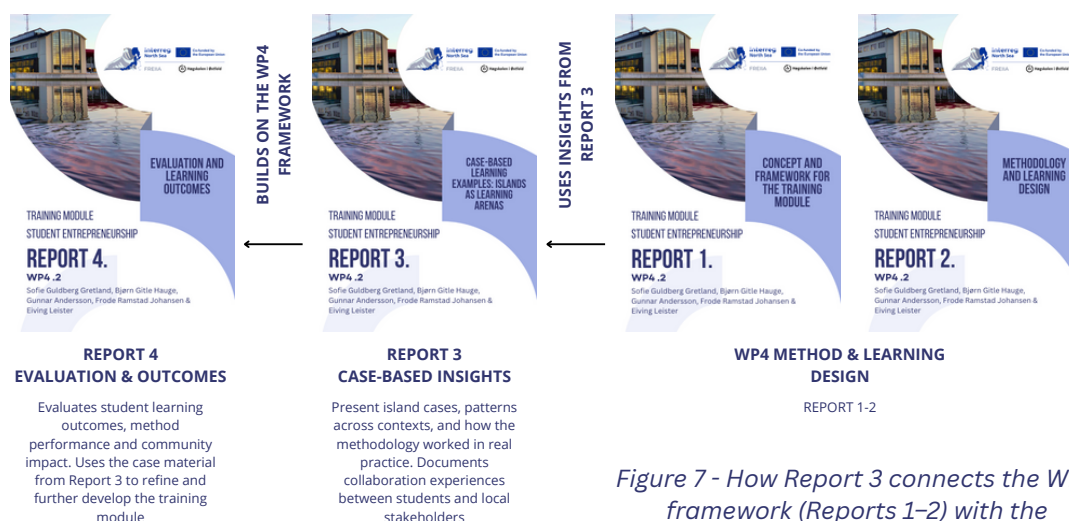


Figure 7 - How Report 3 connects the WP4 framework (Reports 1-2) with the evaluation in Report 4.

## **Conclusion**

### **Summary of Insights from the Case Work**

Across the six FREIIA islands, the case-based work demonstrates that students are able to generate meaningful insight when they engage directly with local actors, real-world constraints, and context-specific sustainability challenges. The fieldwork revealed recurring patterns—such as seasonal vulnerability, demographic imbalance, housing pressure, and fragmented collaboration—while also uncovering island-specific nuances that shaped the students’ understanding of place-based innovation.

The case activities confirmed that students learn most effectively when they are positioned as active contributors rather than observers. Through qualitative inquiry, co-creation workshops, and prototyping sessions, they developed competencies in problem framing, stakeholder engagement, and sustainable and circular entrepreneurship. Importantly, the work shows that student groups can act as catalysts for dialogue and new ideas, especially in communities that often lack capacity or arenas for cross-sector collaboration.

### **The Role of Islands as Living Labs**

The cases reaffirm that islands function as highly effective learning environments—manageable, bounded, and complex enough to support authentic experimentation. Their size and social cohesion make it easier to understand local systems and test interventions in ways that are visible, contextualized, and meaningful for residents.

Across all sites, the island-as-lab approach strengthened both student learning and local engagement. Students gained a deeper understanding of sustainability transitions through lived contexts rather than abstract theory. Meanwhile, local actors benefitted from fresh perspectives, structured dialogue, and solution drafts that could inform their strategic and operational work. The living lab setting thus created mutual value: students accessed a rich learning arena, while communities accessed insights and innovation capacity they otherwise would not have had.

### **Transition to Report 4**

Report 3 completes the documentation of case-based learning by showing how students applied the methodology from Report 2 in real settings. These results now form the empirical basis for Report 4.

Report 4—Evaluation and Learning Outcomes—will build directly on the cases presented here. It will examine:

- what students learned across islands,
- how the methodology supported (or challenged) learning,
- how local actors experienced the collaboration, and
- what outcomes and value were generated for both students and communities.

In this way, Report 4 serves as the evaluative layer that assesses the module's effectiveness and extracts implications for future iterations. Together, Reports 3 and 4 close the loop between practice and reflection, ensuring that the FREIIA training module continues to evolve in a grounded, evidence-based manner.

## Structure of the Other Reports

