Student Sustainable Entrepreneurship in Action:
UNIC Methodology and Innovation Gaps in Groix, France as a part of the Interreg FREIIA project

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Abstract

FREIIA, Facilitating Resilience Embracing Islands Innovation, is a INTERREG project financed by the European Union running from 1. October 2022 until 31. December 2025. The project consists of 14 partners from 6 countries, Netherlands, Denmark, Sweden, Germany, France and Norway.

The aim of this project is to help 6 island communities in the European Union to create competences, capabilities & structures that support the public sector in becoming successful in the green transition, through the involvement of community, young entrepreneurs and students.

Østfold University College is responsible for Work Package 4 (WP4), which focuses on fostering student entrepreneurship. The main objective of WP4 is to integrate entrepreneurship students into the strategic governance of island innovation, strengthening their role in green transitions. When referring to the FREIIA project in this paper, it refers to WP4 of the FREIIA project.

This paper outlines the process of identifying innovation gaps on the Groix Islands in France, utilizing students from the participating universities alongside local stakeholders. The subsequent phase will focus on addressing these gaps by developing new solutions through innovative approaches such as design thinking.

Figure 1, Students exploring Île de 'Groix

Groix

Île de 'Groix is an island off the coast of Brittany, France, in the Atlantic Ocean. It is located approximately 5 km from the mainland town of Lorient and covers an area of around 15 km^2. The island is known for its unique geological formations, including the rare, red-colored sand of Plage des Sables Rouges, as well as its rich maritime history.

In 2023, Groix had a permanent population of around 2,200 residents, but this number increases significantly during the summer months due to seasonal tourism. The island's economy is primarily based on summer tourism, fishing, and small-scale agriculture. Historically, Groix was known for its tuna fishing industry, which played a crucial role in its cultural and economic development.

Tourists are drawn to Groix for its untouched natural landscapes, scenic coastal trails, and opportunities for outdoor activities such as cycling, hiking, and sailing. The island also has a protected nature reserve that supports a rich variety of wildlife and plant species, making it a popular destination for nature enthusiasts. Groix is accessible by ferry from Lorient, a journey that takes approximately 45 minutes. Cars are allowed on the island, but many visitors choose to explore it on foot or by bicycle to fully experience its natural beauty.

Figure 2, Île de 'Groix

In recent years, discussions around sustainable tourism and environmental conservation have become increasingly important for the island community. Local authorities and residents are working together to find a balance between economic growth and the preservation of Groix's unique natural and cultural heritage.

Introduction

Groix Island, a small but historically rich community off the coast of Brittany, France, stands at a crossroads. Known for its striking coastal landscapes, rare geological formations, and deep maritime heritage, the island has long relied on tourism and fishing as economic pillars. However, like many island communities, Groix faces a set of complex challenges that threaten its long-term sustainability. These include economic dependence on seasonal visitors, a shifting demographic landscape, and the need for sustainable resource management in the face of environmental change.

As part of the FREIIA project, we have undertaken an in-depth exploration of Groix's innovation landscape, working alongside local stakeholders and students to identify gaps and opportunities for sustainable growth. By engaging with the community, we seek to understand the mechanisms that drive resilience on the island, how people, businesses, and policymakers navigate the delicate balance between economic vitality and environmental responsibility.

Unlike urban centers where economic diversification and infrastructure expansion are more straightforward, Groix's insular nature presents unique constraints. The island must develop solutions that are not only effective but also contextually viable. This requires a deep understanding of local governance, community needs, and available resources.

Method & Process

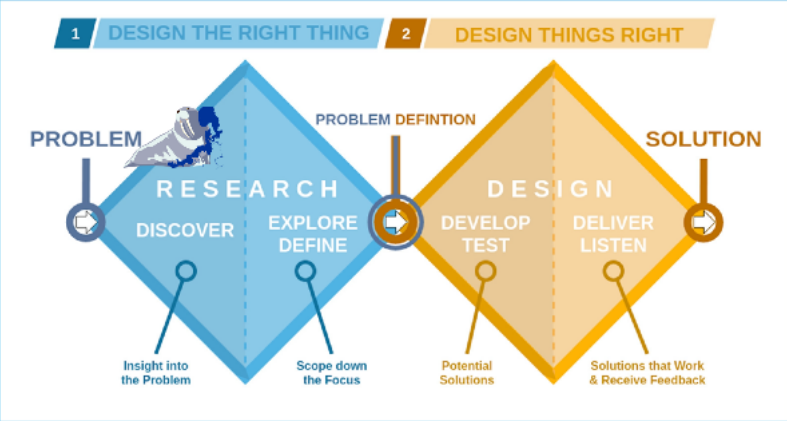

Figure 3, Double Diamond framework

The research process on Groix followed a structured approach based on the Double Diamond model, ensuring a comprehensive exploration of the island's development potential before moving toward solution design (The Double Diamond Model, 2024). At the core of this process was the UNIC method, a structured framework developed to assess the gap between a community's current state and its desired future (Hein, L, 1988).

The first phase focused on qualitative interviews with key stakeholders, including local business owners, municipal representatives, and community members. The interviews followed the UNIC methodology, which emphasizes "development ability at center", helping to identify critical factors influencing the island's capacity for sustainable growth. Using a structured interview guide, the research team gathered insights into the island's strengths, challenges in innovation and development, past initiatives, and opportunities for improving collaboration both within the island and with external regions.

Figure 5, Students visiting a local journalist

These structured interviews provided a foundation for understanding the island's social, enviormental, and economic landscape, as well as its potential for development. Stakeholders shared experiences about previous efforts to promote innovation and discussed strategies for strengthening the community's ability to drive sustainable growth.

After the interviews were conducted, the collected data was transcribed and analyzed. To improve efficiency and ensure a thorough examination of the findings, Artificial Intelligence (AI) tools were applied to identify patterns, recurring themes, and underlying challenges in the responses. However, AI analysis alone was not sufficient. To ensure alignment between the data-driven insights and real-world

observations, the students who conducted the interviews participated in a Problem-Framing Session, where they reviewed and refined the AI-generated findings based on their direct experiences in the field.

By integrating the UNIC method for structured interviews, AI-assisted analysis, and human validation, this approach provided a robust and participatory framework for identifying targeted interventions to support sustainable development on Groix. The combination of structured methodology and technological tools allowed for a balanced process, ensuring both efficiency and qualitative depth in the research findings.

Results & discussion

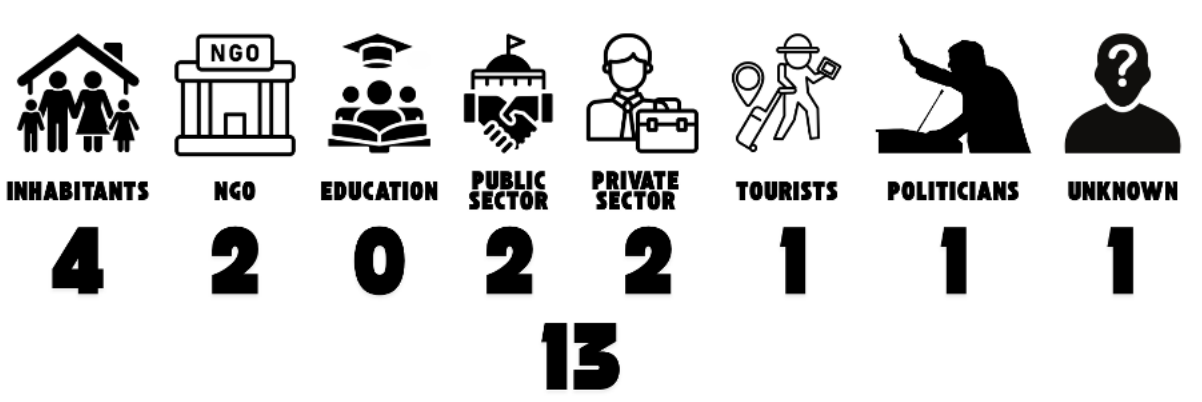

Figure 6, Participating stakeholders devided into categories

The initial phase of the FREIIA project on Groix has given us a clearer picture of the challenges and opportunities facing the island community. Through interviews with key stakeholders, we gathered valuable insights into the main issues affecting development on the island. The analysis of these conversations pointed to recurring concerns around housing, infrastructure, tourism, local governance, and economic investment.

Housing remains one of the biggest challenges. Rising prices and limited availability make it difficult for young families and workers to settle on the island, leading to an aging population and workforce shortages. Many stakeholders also highlighted the lack of proper infrastructure, especially housing for seasonal workers and essential services like healthcare and education. These gaps make it harder for the community to support a stable, year-round population and sustain local businesses.

Tourism is both a strength and a challenge. While it plays a crucial role in the local economy, seasonal peaks put pressure on infrastructure and essential services. Business owners explained how difficult it is to operate outside the tourist season, emphasizing the need for more diverse economic opportunities. Residents also expressed concerns about how overcrowding during peak months affects their daily lives and the island's long-term environmental sustainability.

Municipal support was another key topic. Many stakeholders felt that the local government lacks the resources to implement long-term development plans. There were calls for stronger collaboration between local authorities and external organizations to secure funding and drive sustainable initiatives forward.

Economic barriers also came up frequently in the discussions. Business owners and community representatives described difficulties in obtaining financial support for new projects. Without investment, local innovation is limited, and the island remains heavily dependent on tourism as its main source of income.

To ensure the accuracy of our findings, we used AI-assisted analysis to identify patterns in the interview responses.

Group	Source (Interview)	Excerpt from Interview	Innovation Gap / Challenge
Inhabitants	Interview 5, 7, 13	"It's difficult to get young families to stay on the island long-term." "Housing prices keep rising, making it impossible for young people to settle here."	Lack of affordable housing, decline in permanent residents
NGOs	Interview 10	"We are trying to create new associations that focus on housing and sustainability."	Initiatives to support housing and sustainable development
Public Sector	Interview 6, 9	"The municipality tries to buy land for social housing, but the demand is too high."	Limited municipal resources for housing solutions
Private Sector	Interview 4, 11	"During the summer, we don't have enough housing for workers. Everything is booked for tourists."	High seasonal rent prices, lack of worker accommodations
Politicians	N/A	-	-
Tourists	Interview 3, 8	"In the summer, the roads are full, and the island feels overcrowded."	Traffic congestion and overcrowding in peak season
Others/Unknown	Interview 12	"The island is expensive, and investors don't see enough return to develop new projects."	Economic barriers for investment and infrastructure development

Figure 7, Problem statements rooted in citations from the transcripst

However, recognizing that technology alone cannot capture the full picture, we conducted a student-led validation session. The students who carried out the interviews reviewed and refined the AI-generated insights to ensure they truly reflected the experiences and concerns of the local community. Through this process, additional themes emerged, including concerns about school accessibility, water shortages, infrastructure limitations, and the handling of waste during peak tourist seasons.
Some stakeholders emphasized the importance of year-round services that accumulate funds during the summer months. Others highlighted challenges in hiring seasonal workers due to the high cost of living and rental prices. Finally, discussions also touched on how different groups on the island perceive and experience collaboration among themselves.

These findings provide a strong foundation for the next phase of the project. Moving forward, we will use the collected data and refined problem statements as the basis for V2, the upcoming workshop phase, where stakeholders will collaboratively develop solutions to address these challenges. Strengthening housing policies, improving infrastructure, diversifying economic opportunities, and creating better support systems for local governance, will be key focus areas in making Groix a more resilient and sustainable community.

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The Double Diamond Model: In Pursuit of Simplicity and Flexibility | Request PDF. (2024). I ResearchGate. https://doi.org/10.1007/978-3-030-79879-6_2