Interreg North Sea

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FREIIA

Høgskolen i Østfold

INTER - ISLAND

PRODUCT AND BRAND DEVELOPMENT

VIRTUAL REALITY COMMUNITY HEALTH NETWORK

WP4.5, ØSTFOLD UNIVERSITY COLLEGE

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INTER-ISLANDS PRODUCT AND BRAND DEVELOPMENT

The Inter-Island Product and Brand Proposals presented in this report have been developed within the framework of the FREIIA project (Facilitating Resilience Embracing Islands Innovation Approaches), part of the EU Interreg North Sea Region Programme. The initiative aims to strengthen the innovation capacity and long-term resilience of small European island communities by connecting research-based understanding with the everyday realities, knowledge, and aspirations of local people.

Each proposal is rooted in fieldwork and dialogue, offering a grounded response to real challenges identified by island residents themselves. The work addresses shared concerns such as seasonal economic dependence, youth outmigration, limited housing opportunities, and the need for sustainable value creation that respects local identity and community life. Guided by design thinking and co-creation principles, the proposals combine analysis, creativity, and collaboration to generate practical, transferable solutions that emerge from, and belong to the communities they serve.

A defining strength of these proposals is their inter-island character. Instead of treating each island as an isolated case, they build on shared experiences, common challenges, and complementary strengths within the FREIIA network. This collaboration enables the exchange of ideas, models, and practices between islands such as Hvaler (Norway), Schiermonnikoog (Netherlands), Bornholm (Denmark), Koster (Sweden), Groix, and Ouessant (France). Together, these islands form a living laboratory for sustainable innovation, a space where local insight and experimentation contribute to regional learning and collective growth.

Taken together, the proposals illustrate how locally grounded innovation can advance broader European goals of resilience, inclusion, and circular transition. Each follows a shared framework outlining the target group, identified challenges and opportunities, proposed solutions, implementation needs, and expected impacts. Collectively, they embody FREIIA's core ambition: to empower islands to learn from one another, to innovate with and for their communities, and to show that genuine sustainability begins with cooperation, creativity, and care for place and people.

Among these inter-island proposals, Virtual Reality Community Health Network focuses on improving access to healthcare and social connection across the islands. The concept introduces a shared digital health platform using virtual reality technology, enabling residents to meet doctors, participate in wellness activities, and connect with others from their own homes. By combining digital inclusion with community care, the initiative reduces isolation, strengthens mental health, and positions the FREIIA islands as leaders in sustainable, technology-driven well-being.

INTER ISLAND PRODUCT/BRAND: VIRTUAL REALITY COMMUNITY HEALTH NETWORK

INTER ISLAND - PRODUCT AND BRAND DEVELOPMENT 8.0

ISLAND & IDEA TITLE

HVALER, KOSTER, GROIX, SCHEIRMONNIKOOG, BORNHOLM, OUESSANT

VIRTUAL REALITY COMMUNITY HEALTH NETWORK

TARGET GROUP

ELDERLY RESIDENTS, YOUTH, AND PEOPLE WITH REDUCED MOBILITY WHO NEED ACCESSIBLE MEDICAL AND SOCIAL SUPPORT.

PROBLEM AND OPPORTUNITY

GEOGRAPHIC ISOLATION LIMITS ACCESS TO HEALTHCARE AND INCREASES LONELINESS. A VR NETWORK CAN CONNECT RESIDENTS WITH DOCTORS, COMMUNITIES, AND MENTAL HEALTH SUPPORT REMOTELY.

SOLUTION

ESTABLISH A VR-BASED TELEHEALTH AND COMMUNITY NETWORK PROVIDING VIRTUAL CONSULTATIONS, WELLNESS CLASSES, AND SOCIAL ACTIVITIES ACROSS FREIIA ISLANDS.

WHAT ALREADY EXISTS?

TELEHEALTH AND BROADBAND INFRASTRUCTURE EXIST ON MOST ISLANDS; VR PILOTS ALREADY TESTED IN THE NETHERLANDS AND RURAL FRANCE.

WHAT IS NEEDED?

AFFORDABLE VR DEVICES, TAILORED HEALTH SOFTWARE, STRONG HEALTHCARE PARTNERSHIPS, AND DIGITAL TRAINING PROGRAMS FOR USERS.

WHO IMPLEMENTS IT?

KOSTER: DISTRIKSSKÖTERSKA KOSTER
BORNHOLM: BORNHOLMS HOSPITAL
HVALER: HVALER HELSEHUS
GROIX: PÔLE SANTÉ DE GROIX
OUESSANT: INFIRMERIE D'OUESSANT
SCHIERMONNIKOOG: HUISARTSENPRAKTIJK SCHIERMONNIKOOG

WHEN IS IT FEASIBLE?

PARTNERSHIP AND HARDWARE SETUP WITHIN 6–9 MONTHS; FULL IMPLEMENTATION POSSIBLE WITHIN 18 MONTHS.

EXPECTED IMPACTS

IMPROVED HEALTHCARE ACCESS, REDUCED ISOLATION, BETTER MENTAL WELL-BEING, AND ENHANCED INNOVATION REPUTATION FOR ISLANDS.

RISK FACTORS AND MITIGATION STRATEGIES

LOW DIGITAL LITERACY → PROVIDE SIMPLE DEVICES AND HANDS-ON USER TRAINING.
DATA PRIVACY AND SECURITY CONCERNS → USE ENCRYPTED, GDPR-COMPLIANT HEALTH PLATFORMS AND CLEAR DATA PROTOCOLS.
CONNECTIVITY LIMITATIONS → INCLUDE BROADBAND IMPROVEMENTS AND TECHNICAL SUPPORT IN PROJECT FUNDING.

POSSIBLE FUNDING OR BUSINESS MODEL

EU DIGITAL HEALTH GRANTS, PARTNERSHIPS WITH HOSPITALS OR INSURERS, AND GOVERNMENT SUBSIDIES FOR VR HARDWARE.

SUGGESTED NEXT STEPS

CONDUCT RESIDENT SURVEY, SECURE PARTNERSHIPS, LAUNCH PILOT CONSULTATIONS, EVALUATE OUTCOMES, AND SCALE NETWORK TO MORE ISLANDS.

Islands: Hvaler, Koster, Groix & Schiermonnikoog
Title: **Virtual Reality Community Health Network**

1. **Target group**

The initiative targets island residents who experience limited access to healthcare and social services, with particular emphasis on elderly citizens, young people, and individuals with reduced mobility. These groups often face isolation and barriers to medical support due to geographic distance from healthcare infrastructure.

2. **Problem and opportunity**

Island communities often suffer from restricted access to specialized medical care and preventive health services. This creates health disparities compared to mainland populations and contributes to feelings of isolation, particularly among older residents.

The opportunity lies in applying emerging virtual reality (VR) technology to bridge these gaps. By using immersive virtual environments for telehealth and social engagement, islands can ensure equal access to care, enhance well-being, and reduce the social isolation that frequently affects small and remote communities.

3. **Your solution**

The Virtual Reality Community Health Network proposes the creation of an integrated VR-based telehealth and social engagement platform connecting residents across FREIIA islands. Through this network, residents can attend virtual consultations with medical professionals, participate in group wellness activities, and maintain contact with both healthcare providers and peers.

The system combines VR headsets or mobile-based applications with AI-powered health tracking via wearable devices. These tools enable early intervention, continuous monitoring, and personalized health support while fostering a stronger sense of community and inclusion.
This approach positions the islands as pioneers in digital health innovation and supports the FREIIA vision of resilience through technology and connectivity.

4. **What already exists?**

Several VR-based healthcare pilots are already in operation, particularly in the Netherlands and rural France, following the expansion of telehealth after the COVID-19 pandemic. Most islands have functioning telemedicine infrastructure and broadband connections, providing a solid foundation for integrating VR components into existing systems.

5. **What is needed?**

To ensure successful implementation, affordable VR hardware (headsets or mobile-compatible solutions) must be distributed to participating residents. A customized software platform tailored to healthcare and community needs should be developed in collaboration with technology providers. Partnerships with hospitals, clinics, and digital health specialists are essential, as are training programs to improve digital literacy among residents and staff.

6. **Who implements it?**

The program should be implemented through cooperation between municipal health departments, regional hospitals, and VR technology partners (such as Meta, HTC, or local VR startups). Community organizations will play an essential role in outreach, training, and ongoing user support.

7. **When is it feasible?**

Partnership development and hardware procurement can begin within six to nine months, with pilot testing following shortly thereafter. A fully functional health network could be operational within approximately 18 months, depending on the scale and number of participating islands.

8. **Expected impacts**

The project is expected to improve healthcare access by enabling residents to consult specialists without traveling long distances. It will also enhance mental health and social inclusion through virtual participation in community events and support groups.
Beyond health outcomes, the initiative will strengthen the islands' reputation for innovation, increase their attractiveness for young families and digital professionals, and contribute to sustainable, future-oriented island living.

9. **Risk factors and mitigation**

Key risks include limited technological literacy among some residents, potential data security concerns, and unstable internet connections on smaller islands. These can be mitigated through user-friendly device design, hands-on training programs, and the use of encrypted, GDPR-compliant systems to protect sensitive health data. Additionally, broadband infrastructure improvements should be integrated into the project's initial funding plan.

10. **Possible funding or business model**

Funding opportunities include EU digital health and rural innovation grants, partnerships with health insurers or hospitals, and governmental subsidies for equipment distribution. Long-term sustainability may be achieved through optional subscription-based models for advanced services or by integrating the VR system into existing municipal healthcare budgets.

11. **Suggested next steps**

The next phase involves conducting a resident survey to assess health needs and interest in VR technology. Following this, partnerships should be established with VR providers and healthcare institutions. A pilot phase can then distribute a limited number of headsets or mobile apps to test teleconsultations and virtual community sessions. After evaluating the pilot results, the program can be scaled to additional islands within the FREIIA network.

STAKEHOLDER MAP

KOSTER

Local Government	Strömstad Kommun
Health Provider	Distriktssköterska Koster
Health Provider	Vårdcentral Stömstad
Technology Providers	Telia
Academic Partners	Chalmers University of Technology

BORNHOLM

Local Government	Bornholms Regionskommune
Health Provider	Bornholms Hospital
Technology Providers	TDC Net
Academic Partners	University of College Copenhagen (Campus Bornholm)
Academic Partners	Danmarks Tekniske Universitet

HVALER

Local Government	Hvaler kommune
Health Provider	Hvaler Helsehus
Technology Providers	Telenor
Academic Partners	Høgskolen i Østfold

GROIX

Local Government	Commune de Groix
Health Provider	Pôle Santé de Groix
Technology Providers	Orange
Academic Partners	Université de Bretagne-Sud

OUESSANT

Local Government	Commune d'Ouessant
Health Provider	Infirmerie d'Ouessant
Technology Providers	Télécom Bretagne
Academic Partners	Université de Brest

SCHIERMONNIKOOG

Local Government	Gemeente Schiermonnikoog
Health Provider	Huisartsenpraktijk Schiermonnikoog
Technology Providers	Voorbeeld: KPN
Academic Partners	University of Groningen

ROLE DEFINITIONS

- **Local Government** - Provides public infrastructure; secures municipal funding; and approves the new health service model.

- **Health Providers** - Integrates the VR system into local health services; provides staff training; and conducts virtual consultations.

- **Technology Providers** - Supplies and maintains the VR hardware/software and network infrastructure; ensures technical support and data security.

- **Academic Partners** - Provides research expertise on digital health implementation; assists in evaluating the program's effectiveness and social impact.