



Northern Periphery and
Arctic Programme
2014 - 2020



EUROPEAN UNION
Investing in your future
European Regional Development Fund



1 October 2015 – 30 September 2018

www.circularocean.eu

Inspiring Communities to realise the
hidden **economic opportunities** of
discarded **fishing nets** and ropes in the
Northern Periphery & Arctic region

OBJECTIVES

Circular Ocean is a three year research project funded by the ERDF Interreg VB Northern Periphery and Arctic (NPA) Programme. Its objectives include:

**Showcase:**

Create a regional showcase for circular economy innovation

**Connect:**

Connect remote communities to a wider network to expand green business opportunities

**Support System:**

Provide a sustainable and responsible green business support system to assist remote and rural coastal regions to develop green economies

**Exchanges:**

Facilitate the transfer of green enterprise best practice and knowledge exchange across the NPA region

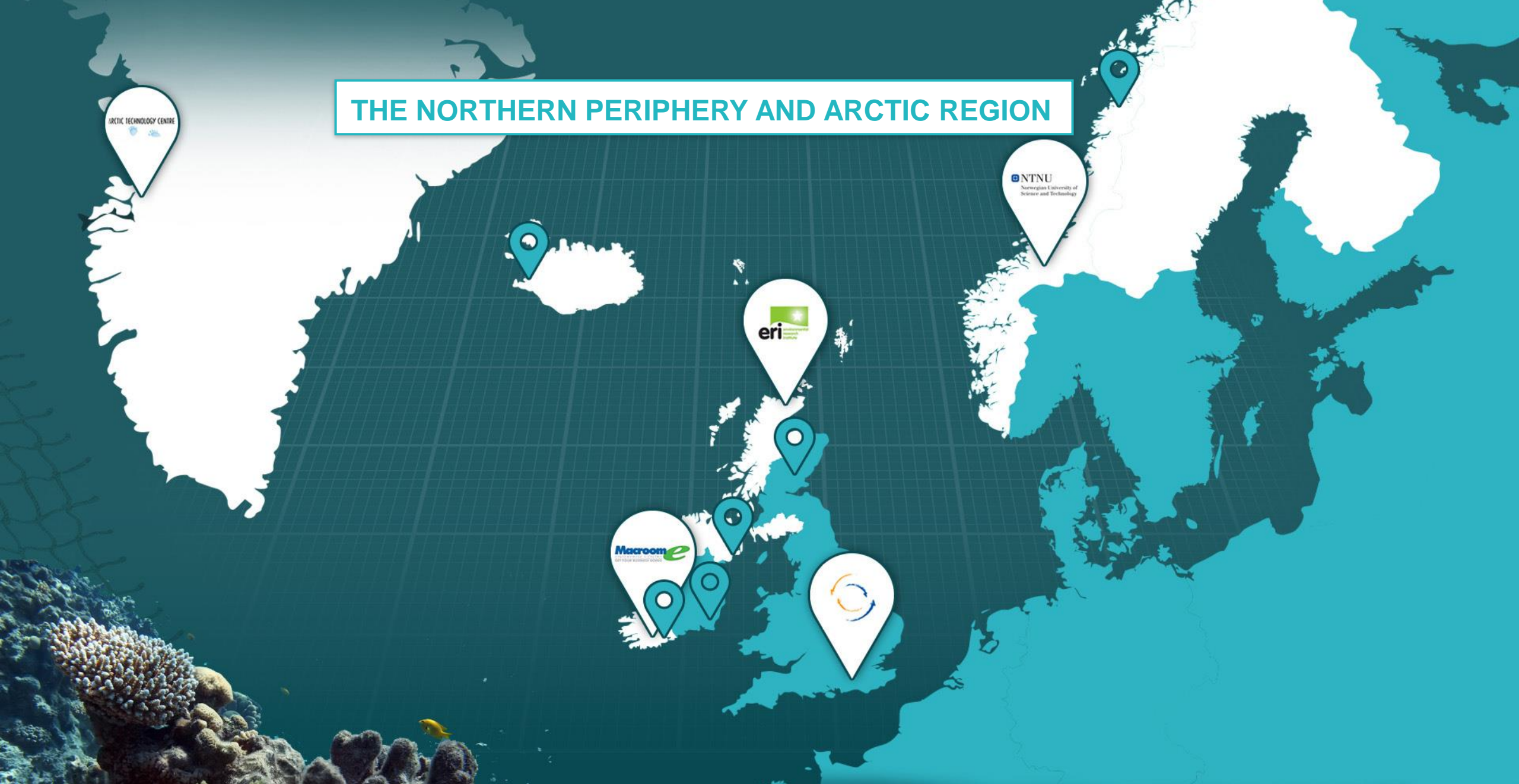
**Environment:**

Enhance the environment for green businesses and entrepreneurs through blue growth related opportunities

**Solutions:**

Develop sustainable region-specific and novel solutions using resources of the NPA area

THE NORTHERN PERIPHERY AND ARCTIC REGION



ARCTIC TECHNOLOGY CENTRE



eri



Macroom



NTNU
Norwegian University of
Science and Technology



PARTNERS



ARCTIC TECHNOLOGY CENTRE



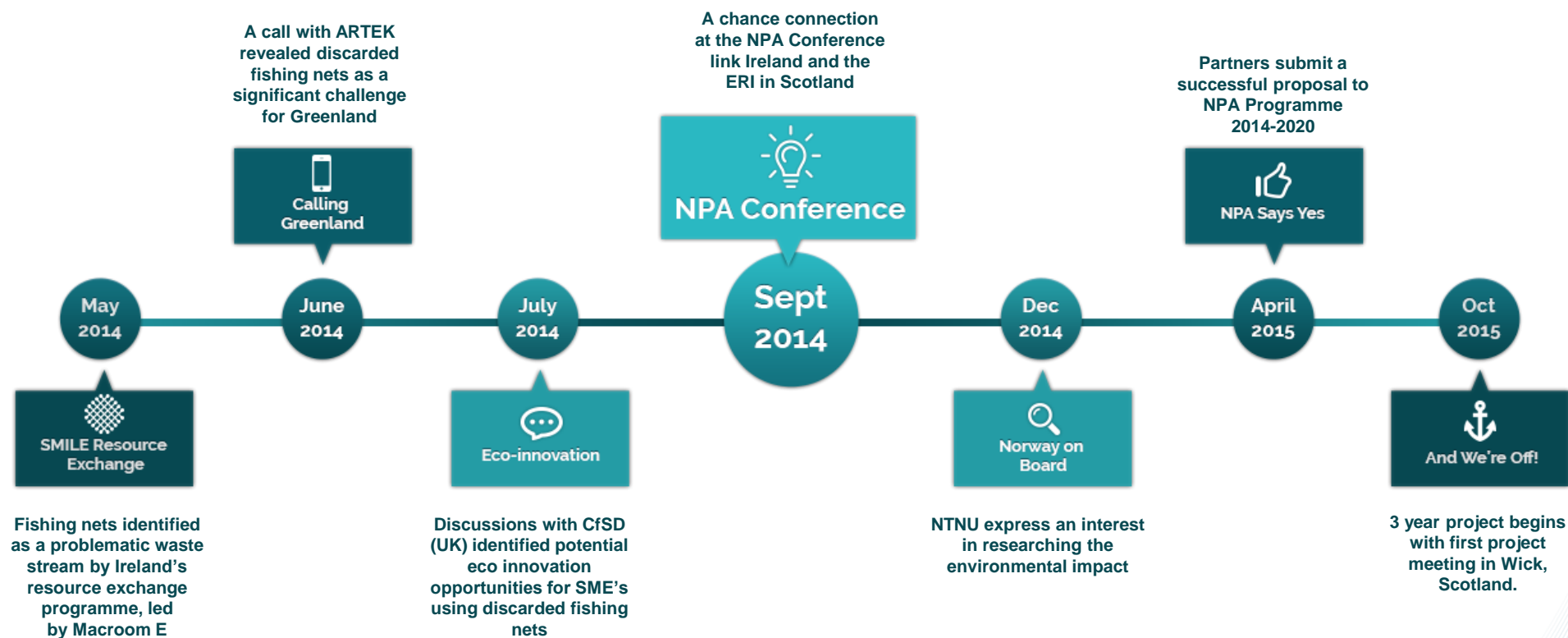
NIFHA



marinescotland



THE STORY SO FAR



ENVIRONMENTAL IMPACT

The total economic damage of marine plastic waste is estimated at almost €12 billion per year, including environmental, commercial and clean-up costs

Up to 12.7 million tons of marine plastic waste enters the oceans each year due to poor waste management practices

Over 33 000 nets are estimated to be lost in selected European fisheries annually due to bad weather conditions, gear conflict and ocean currents

By 2025 there could be 155 million tonnes of plastic in the ocean, representing one tonne of plastic for every three tonnes of fish

Experts believe that entanglement by fishing-related gear is the most harmful type of litter to seabirds, turtles and marine mammals

Long term effects on marine life include impacts on marine ecosystems that ultimately leads to loss of biodiversity

Plastic material absorbs persistent organic pollutant from its ambient environment, which if ingested by marine organisms, may enter the food web

Approximately 640,000 tonnes of fishing gear are lost globally each year

REGIONAL CHALLENGES



**PERIPHERAL
LOCATION**



**INCREASE IN SEA
TRAFFIC**



**NEGATIVE IMPACT
ON TOURISM**

**LIMITED BUSINESS
OPPORTUNITIES**



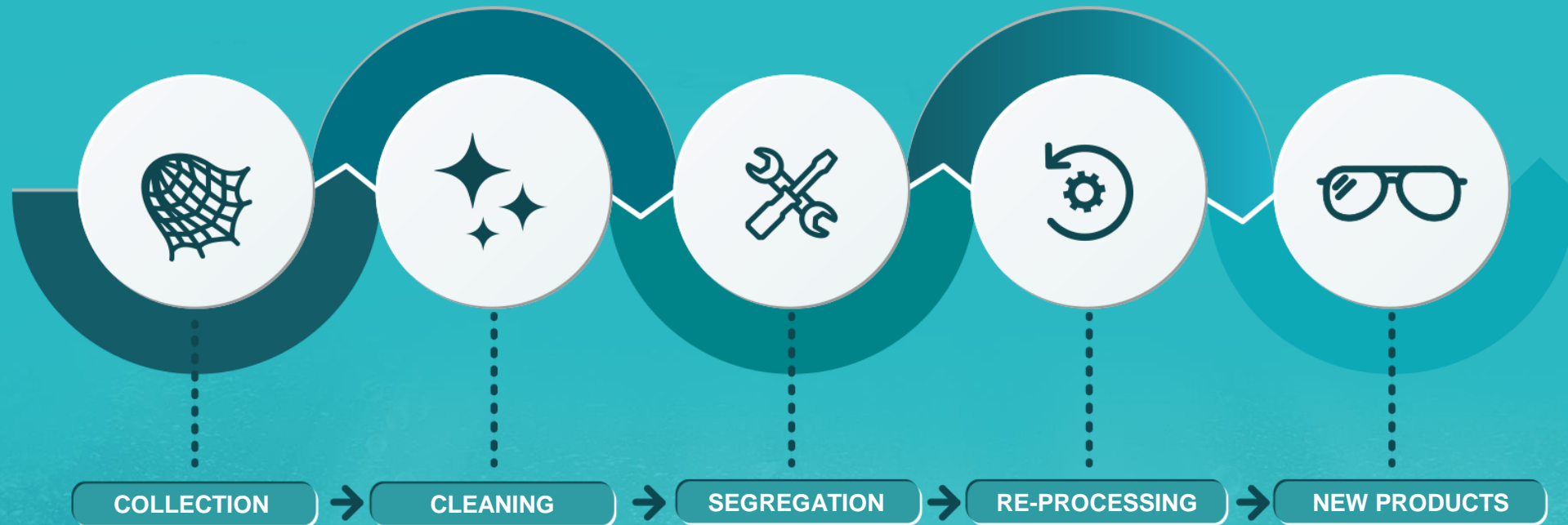
**LOW POPULATION
DENSITY**




**MANAGING WASTE
MATERIALS**










OPPORTUNITIES



Project Management

-  Establish project management procedures
-  Project administration and governance
-  Organise, manage and facilitate partner meetings
-  Project Quality Assurance






Communications

-  Brand Development
-  Raise awareness of challenges / potential economic opportunity
-  Increase Acceptance
-  Influence Stakeholders
-  Dissemination to our target audience
-  Avoid Duplication of efforts
-  Behavioural Change – Longer Term







Green Enterprise and Business Engagement

-  Feasibility Study
-  Facilitating Eco-innovation
-  Encouraging Eco-innovation
-  Eco-innovation network development
-  Eco-innovation toolkit development
-  Eco-innovation capacity development

Reusing Waste Fishing nets in the construction sector

-  Overview of different types of fishing nets with in the NPA region
-  Methodology for material testing and evaluation of properties
-  Idea generation of possible application opportunities
-  Development of new e.g. construction materials with fishing nets
-  Pilot scale testing of developed materials

Environmental Impact, Policy and Recommendations

-  Assessing environmental impact of marine waste (ALDFG)
-  Material flow analysis
-  Policy and institutional barrier assessment
-  Eco-product evaluation and impact assessment
 - ☐ Life cycle assessment
 - ☐ Social life cycle assessment
 - ☐ Life cycle costing
-  Identify best practice for fishnet resource management
-  Multi-criteria decision analysis

**Green Economy Business Suite**

- A guide for communities, businesses, entrepreneurs, and residents within the Northern Periphery and Arctic region.

**Handbooks**

- Focused on fishing net reuse options and innovative eco-design companies
- Marine litter environmental impact and life cycle handbook

**Examples of Pilots**

- Examples of pilot work undertaken using fishing nets and ropes within remote regions

**Open source eco-innovation hub**

- For recycling and repurposing marine litter allowing the exchange of ideas and techniques

**Eco-innovation toolkit**

- Publications to support partners and end-users on circular economy innovation (related to discarded fishing nets)

**Eco-innovation training and guidance**

- Range of training and guidance sessions provided to SMEs

**Reports**

- On the environmental impact of discarded fishing nets
- On policy and institutional barrier reports

**Feasibility and cost/ benefit analysis**

- Of fishing net collection for export and recycling

**Guide**

- To supportive policy and regional frameworks regarding innovation within local regional and national levels

www.circularocean.eu

info@circularocean.eu



SOCIAL MEDIA



/CircularOcean



@CircularOcean



circularocean



Circular Ocean