



CS9



Norway

Aquaculture equipment,
pens, nets



Industry partner: AKVA group



Research partner: Nofima, IVL



Stakeholder: Fish farmers, recycling industry

Challenge

Norway's aquaculture industry is estimated to generate up to **29,000 tonnes of plastic waste each year**. While most of it is **recycled or incinerated** for energy, a small amount ends up in landfills.

This represents a significant **untapped potential for circularity**. By **recycling and reusing** plastic from aquaculture gear, it's possible to **reduce global greenhouse gas emissions significantly**.

The challenge is to reduce the environmental footprint of fish farming by **improving the design and circularity of aquaculture equipment**, such as pens and nets.

Promoting circularity in aquaculture gear is essential for **reducing the reliance on virgin plastics** and accelerating the transition to more sustainable production. This aligns with several **EU policies and regulations**:

- EU Single-Use Plastics Directive
- Ecodesign for Sustainable Products Regulation
- EU Water Framework Directive
- EU Marine Strategy Framework Directive
- EU Common Fisheries Policy (CFP)

Proposed solution

S9: Improved gear design and low emission equipment initiatives

The proposed solution is to:

- **Develop low-emission pens and nets** using recycled materials recovered from discarded aquaculture equipment
- Promote **circular supply chains** to reduce virgin plastic use.
- Generate **LCAs** and **Environmental Product Declarations (EPDs)** for aquaculture equipment.
- **Compare standard vs. optimized equipment** to provide recommendations for farmers and industry stakeholders.
- Support the **commercialization** of circular aquaculture products.



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