



MarineGuardian: Strengthening sustainable fisheries and protecting marine ecosystems

MarineGuardian is a Horizon Europe Mission Ocean funded project focusing on the Atlantic and Arctic sea basin and running from June 2025 to May 2029.

The project will, through a holistic approach, provide impact-driven solutions to reduce fisheries' environmental impacts on marine species and habitats.

Project key results:

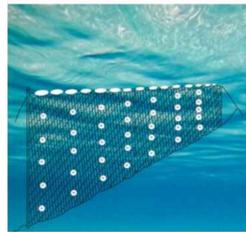
- **By-catch Shield:** Technologies to reduce interactions between fishing gears and sensitive species
- **Catch Select:** Gear modifications and technologies to reduce bycatch
- **Eco Gear:** Gear modifications to reduce the environmental footprint of fishing activities
- **Catch Advisor:** Smart system providing real-time decision to optimize fishing operations/strategies
- **AI Decide:** Real-time AI-based selectivity concepts to identify and avoid unwanted catches
- **Eco Guide:** Decision support tools to help reduce the impact of fisheries on vulnerable species and areas
- **Ocean Wisdom:** Education materials for sustainable fisheries
- **MarineGuardian online manual:** Portfolio of fact sheets on technical solutions that can contribute to more sustainable fisheries
- **Action plan & roadmap for sustainable fisheries** to replicate and scale-up project solutions for sustainable fishing practices



Acoustic deterrent device in beach seine fisheries- CCMAR



AI-based acoustic monitoring tool for seine and trawls - Zunibal



PearlNet: Modified net to increase visibility for echolocating cetaceans - MFRI



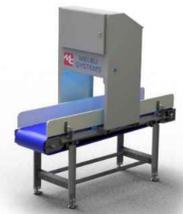
Smarttrawl: In water sorting device to catch or release animals - HWU



AI - based decision support system to optimise fishing operation - Catchwise



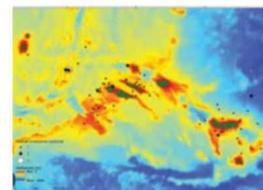
Serious Game for sustainable fisheries - SINTEF



CatchScanner: AI based machine for real time after haul reporting of catch - Melbu System



Displace: decision support tool to evaluate the socio-economic impact of fisheries in MPA designs - DTU



Shinny app displaying the areas with highest bycatch probability at various temporal scales - AZTI



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