

DiscardLess

- Strategies for the gradual elimination of discards in European fisheries



From technical research to applications in the world of fisheries

DiscardLess will help provide the knowledge, tools and technologies as well as the involvement of the stakeholders to achieve the gradual elimination of discarding. These will be integrated into Discard Mitigation Strategies (DMS) proposing cost-effective solutions at all stages of the seafood supply chain. The first focus is on preventing the unwanted catches from ever being caught. This will promote changes in gear using existing and innovative selectivity technology, and changes in fishing tactics based on fishers' and scientists' knowledge. The second focus is on making best use of the unavoidable unwanted catch. We will detail technical and marketing innovations from the deck, through the supply chain to the final market, including monitoring, traceability and valorization components.

DiscardLess will evaluate the impacts of discarding on the marine environment, on the economy, and across the wider society. We will evaluate these impacts before, during and after the implementation of the landing obligation, allowing comparison between intentions and outcomes.

Eliminating discards is as much a societal challenge as a fishery management one, so we will also evaluate stakeholders' perception of discards.

DiscardLess will describe the changes in management and the associated governance structures needed to cement the process. We will propose approaches to managing discards in a range of case study fisheries across Europe, encompassing differences in specific discarding issues. All these innovations will be combined in integrated Internet based interactive programs (DMS toolbox) that will help fishers to evaluate the present and future situation and to take a more qualified decision of how to adjust to the new regime. Also, we will disseminate the outcome of the project and maximize knowledge transfer across Europe through an educational environment, teaching the next generation, as well as more conventional routes.



Balancing existing knowledge with innovation

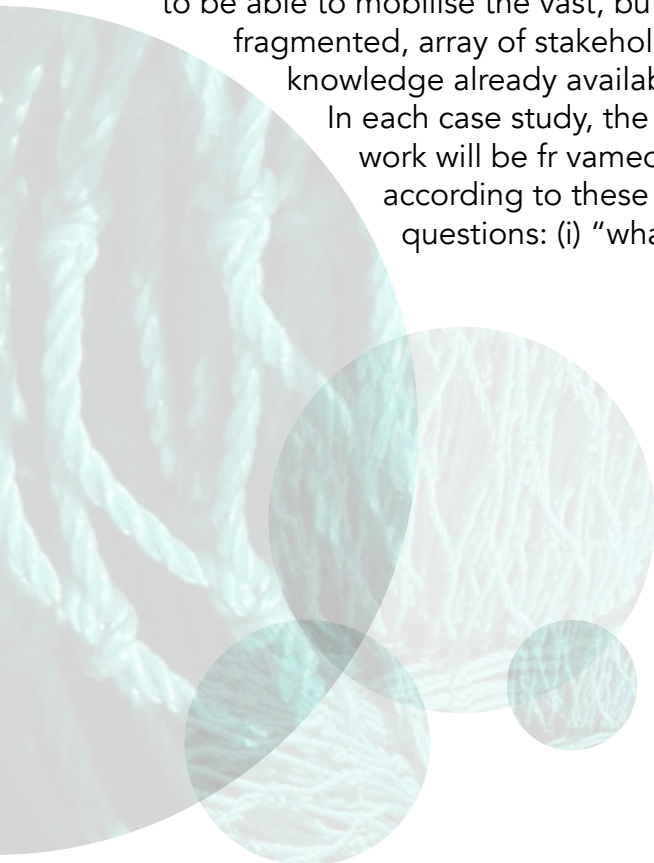
The *DiscardLess* partners have extensive experience and knowledge about discards issues, and recognise the overall complexity of the problem. However, the members consider that a range of relatively simple actions used in conjunction can help mitigate discarding, and can help motivate stakeholders towards reducing discards without jeopardising the ecological, social and economic sustainability of the fisheries.

The basic design will be to systematically combine technical and scientific knowledge with users' knowledge using participatory approaches at all scales. The ambition is to be able to mobilise the vast, but fragmented, array of stakeholders' knowledge already available.

In each case study, the work will be framed according to these key questions: (i) "what do

we scientists and fishers know about the links between fishing and discarding?" (ii) "what do we not know?" and (iii) "what do we want to attempt together?"

We seek simple but comprehensive answers to these complex questions.



The DiscardLess research project

DiscardLess is designed to take on the simultaneous challenges and opportunities of studying and implementing a radical new management approach. Placing *DiscardLess* in its policy context will bring it to the forefront of documenting the history of a fundamental paradigm shift in European fisheries management. Significant progress beyond the state-of-the-art will be achieved in all WPs, while it is recognized that the science base on discarding will continue to expand rapidly.

WP1 will advance our understanding of the impact of the landing obligation on key fish stocks and marine ecosystems. We will review the existing knowledge on current discarding practices, available quantitative discard data, and their use in the current fish stock evaluation and management for all the case studies fisheries.

WP2 will play a central role in filling knowledge gaps and monitoring actual changes in economic profitability and in stakeholders' attitudes and perceptions. Since incentives to discard usually do not coincide with society's management goals, analyses are needed both on the socio-economic as well on the business economic level.

WP3 will review the best programmes to assess the most successful and to identify best practices. Providing fishers with an economic model in to which they can enter their own specific details/data will permit them to assess both the selective and economic impact of using more selective gears.

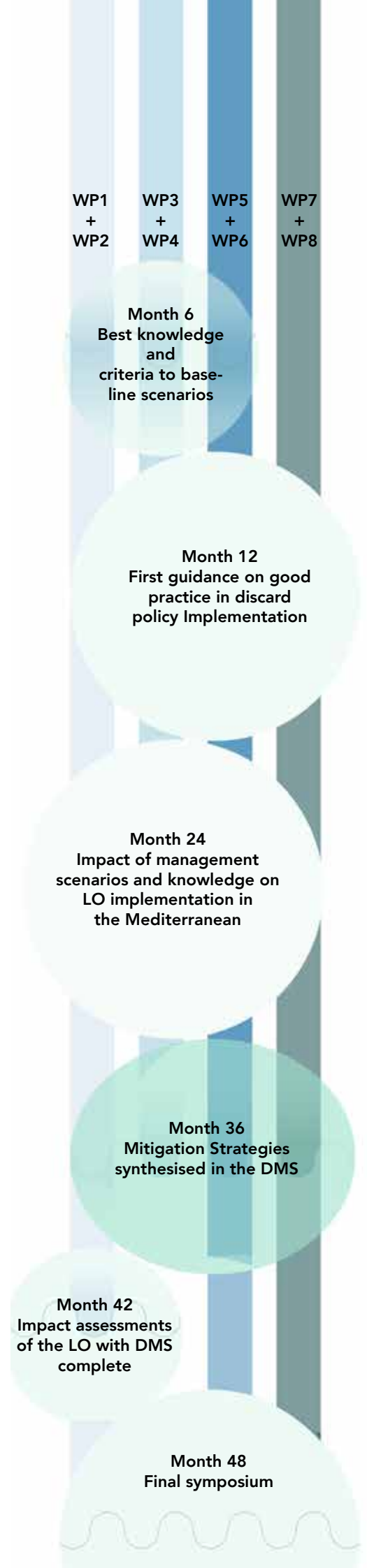
WP4 will formalise fishers' knowledge into the understanding and modelling of where and when to fish, and make best use of most recent tools and models for the fine-scale mapping of individual behaviour to fully understanding the changes created by the landing obligation.

WP5 will identify the most relevant options for on-board handling and storing, taking into account different vessel types and sizes, gears, species, geographical areas. Solutions for on-board handling including sorting, bleeding, cleaning, chilling, pre-processing, storing will be suggested, including where applicable the transfer of useful technology and knowledge between sectors, facilitated by the involvement of fishers and technology providers.

WP6 will investigate the logistics and processing requirements for unloading, classification, pre-treatment and storage at port. An important innovative tool in DiscardLess will be the development of an automatic system for the quantification and classification of catches landed in bulk, including bycatch.

WP7 will provide and integrate knowledge relevant for successful discard governance in Europe. Documentary and interview based research on the background and objectives of the landing obligation will establish an improved basis for progressing towards these objectives.

WP8 aims to be an effective vector of knowledge transfer, allowing maximal diffusion of scientific results into concrete information that can be bought in by the fishing and seafood industries. The DMS toolbox and our other media products including an educational film will provide a concrete and lively platform for gathering and visualising the knowledge to be exchanged.



The DiscardLess Consortium

 DTU Aqua National Institute of Aquatic Resources	_____	DTU Aqua (Coordinator), Denmark
		IFREMER, France
		Instituto Español de Oceanografía Palma, Spain
		University of Bergen, Norway
		Strathclyde University, UK
		IFRO-University of Copenhagen, Denmark
		Université de Bretagne Occidentale, France
		Seafish Industry Authority, UK
		Marine Scotland Science, UK
		UN Food and Agriculture Organisation, Intergov.
		Simrad Spain SLU, Spain
		Hampiðjan hf, Iceland
		SafetyNet Technologies LTD, UK
		Marine Institute, Ireland
		NAYS, Greece
		Pôle AQUIMER, France
		IMAR-University of Azores, Portugal
		CEFAS, UK
		Matís Ltd. - Icelandic Food and Biotech, Iceland
		MAREL, Iceland
		ShipCon, Poland
		TRACE Wildlife Forensics Network Ltd, UK
		AZTI-Tecnalia, Spain
		BARNA, Spain
		NUSCIENCE, Belgium
		University of Tromsø, Norway
		FishFix, Belgium
		Agrocampus Ovest, France
		Alphafilm & Communication, Denmark
		Marine Institute of Memorial University, Canada
		Irish Observer Network Limited

Project Coordination

Technical University Denmark (DTU)
National Institute of Aquatic Resources
Section for Ecosystem based Marine Management
Coordinator: Dr. Clara Ulrich
E-mail: clu@aqua.dtu.dk
Telephone: + 45 2115 7486 / + 45 3588 3300

DiscardLess is funded by the European Community's
Horizon 2020 Framework Programme (2014-2020), call number H2020-SFS-2014-2
under grant agreement no 633680.

