The **DEGREE** Project

Development of fishing Gears with Reduced Effects on the Environment

Sixth Framework Programme
Priority 8.1
Policy-oriented research (SSP)

SSP8-CT-2004-022576

The project aims at developing new gears and fishing techniques that have a lower impact on benthic habitats, and quantifying the potential reduction of the physical impact as well as the positve effects on benthic comm.-unities.

The economic effects on fishermen of adopting these new gears are also being studied, and it is important to note that the work is being carried out in close co-operation with the fishing industry.
The project will consist of six work packages, as follows:

Project structure

WP 1 Management and co-ordination
WP 2 Modelling and quantification of benthic impact
WP 3 Otter trawl modifications
WP 4 Beam trawl and Dredge modifications
WP 5 Economics
WP 6 Dissemination and implementation

Techniques and methods:

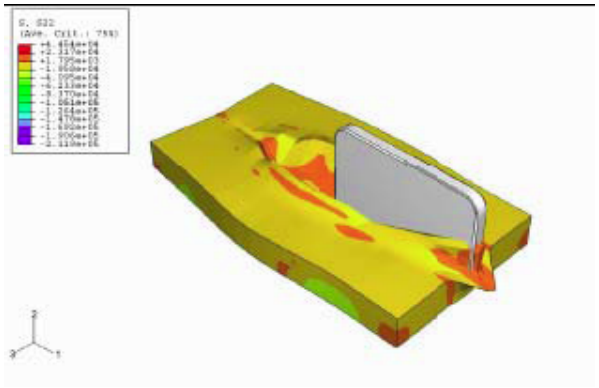
Numerical modelling of the interaction of trawl components with the sea-bed

Measurements on gear component models in the laboratory (validation)

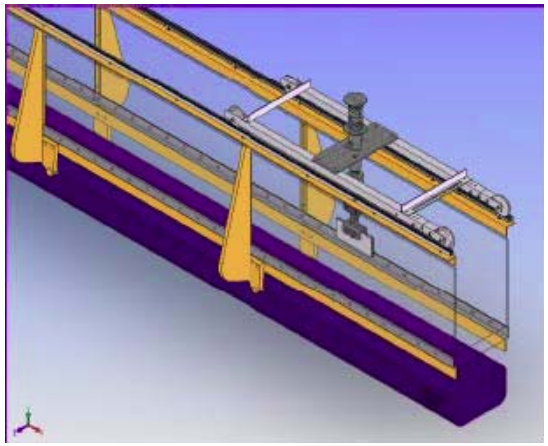
Measurements on gear components during full-scale sea trials

Comparative fishing trials with modified gears

Adaptations of the MAFCONS-model of ecological disturbance



Finite element model of an otterboard sliding through sediment



Experimental set-up to test models on sediments

Gear modifications under study:

Low impact otterboard in ottertrawls

Low impact groundrope in ottertrawls (Sheering plates)

Rolling ‘clump’ in twin-trawls

Benthic release panels (+T90 codend) in beam trawl

Pulse stimulation to replace tickler chains in beam trawls

Low impact oyster dredge

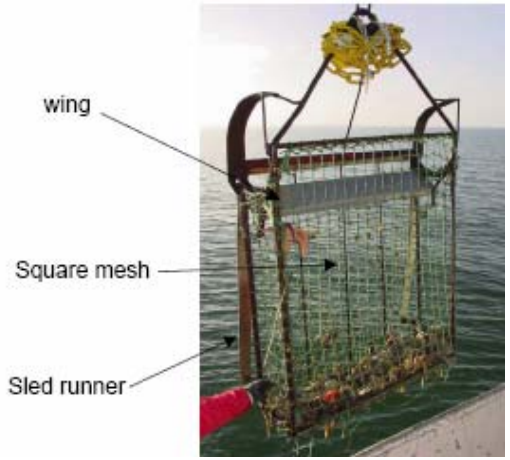
Low impact beam trawls with T90 codend in the Adriatic Sea

Replacement of beam trawls by trammel nets

Rolling ‘clump’

T90 codend

ROV to take samples of sediment under tow



Prototype low impact oyster dredge

‘Sheering plates’ groundrope

Pulse beam trawl

Main contractors and Sub-contractors:

1	IMARES	NL	1b	LEI	NL
2	CEFAS	UK	5a	MORGÈRE	F
3	FRS	UK	5b	CEDEM	F
5	IFREMER	F	9a	MFMA	DK
6	IMR-NO	NO	9b	SINTEF	DK
7	BIM	IE			
8	ILVO	B			
9	DIFRES	DK			
10	UNIABDN	UK			
11	UOP-CEMARE	UK			
12	CNR-ISMAR	I			
13	UNILIV	UK			

Coordinator: Bob van Marlen
IMARES (RIVO), IJmuiden, Netherlands
bob.vanmarlen@wur.nl

Website:

http://www.rivo.dlo.nl/degree

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