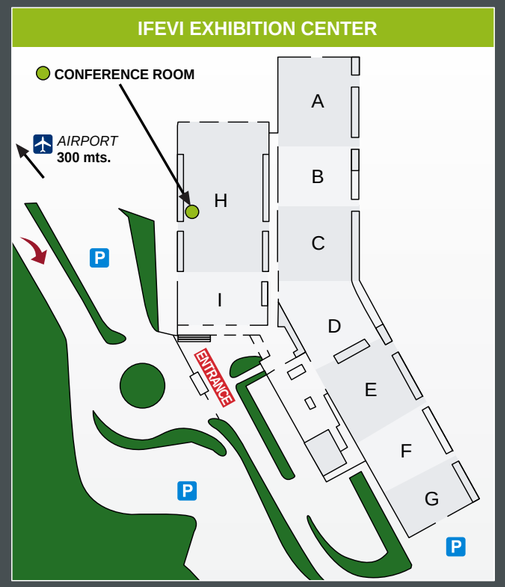
The original aim of e-fishing is to be an international forum on fishing vessels energy efficiency, by opening a series of biannual seminars, in which experts and researchers from different countries could present their latest innovations for the optimisation of the use of energy on board of fishing vessels, and openly discuss these new technological solutions with fishermen, shipyards and the rest of the industry.

The actual and still un-ended energy crisis characterised by long periods of time with fuel price at record levels, together with an international economic crisis that favours a general down trend in fish prices, is having a devastating effect on the strongly oil-dependent catching sector, jeopardising the long term viability of the worldwide fishing fleets, but especially of those in the developed world, where, tight regulations prevent the possibility of compensating those increased costs with additional catches.

This situation however, has stimulated in many countries an unprecedented research activity covering all aspects of the fishing industry and its particularities, of which it can be considered a first result the confirmation of a general absence of an in-deep knowledge of the real working conditions in which fishing occurs, favoured by the internal competitiveness among the owners, that very often works in the wrong direction, by making fishing almost a secret activity.

In a very short time we got papers from 15 different countries, all with a very good technological level, and dealing with a wide range of topics: General design, Hull forms and appendages, Propulsion, Alternate energy sources, Fishing gear and nets, New fishing technologies, etc. It can be appreciated a strong accent on the trawl, that is of course the most affected technology, as well as on the ecologic side, that takes care of the atmosphere and marine environment, and that would also benefit from a better efficiency in the use of the energy.



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We want to thank very much to all the participants for its contribution but, as it is impossible to examine during these few days all the received papers, we have selected a representative group of them, and we hope that this would be enough to shown a good perspective of all the research work that is being developed at international level around the energy efficiency on fishing vessels, and reflect the effort of all the people involved.

Finally, it can be seen that similar initiatives are being developed independently in different places, and that confirms again the opportunity of the organisation of this seminar, in which we can examine together the development of new solutions and systems, that no doubt will ensure a brighter future and the long term viability of the fishing industry.

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FISHING VESSEL ENERGY EFFICIENCY

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FISHING VESSEL ENERGY EFFICIENCY

2nd International Symposium on Fishing Vessel Energy Efficiency

Vigo, Spain, 22nd - 24th of May 2012

Programme

www.e-fishing.eu

Tuesday, 22nd of May

10:15 **Opening Ceremony**

10:45 Presentation of the EUROPEAN COMMISSION'S WEBSITE ON ENERGY EFFICIENCY IN FISHERIES
Dr. Dimitrios Damalas
EUROPEAN COMMISSION (ITALY)

11:15 **Coffee Break**

11:45 An energy audit for increasing fishing efficiency
Dr. Antonello Sala
INSTITUTE OF MARINE SCIENCES (ISMAR) (ITALY)

12:15 Increased energy efficiency of the fishing fleet due to improved hydrodynamic performance
Mr. Alejandro Caldas
VICUS DESARROLLOS TECNOLOGICOS (SPAIN)

12:45 The theoretical method of calculating the emissions of nitrogen oxide forming in exhaust gases of diesel engines of medium-speed vessels
Mr. Andrey Shleenkov
BFFSA, KALININGRAD (RUSSIA)

13:15 **Lunch**

15:00 HydroPêche: results of a three years project carried out to improve energy efficiency of fishing devices
Mr. Grégory Germain
IFREMER (FRANCE)

15:30 Prawn net dag due to material properties - An investigation of the potential for drag reduction
Mr. Cheslav Balash
AUSTRALIAN MARITIME COLLEGE (AUSTRALIA)

16:00 Saving fuel to increase profitability and reduce environmental impact in a U.S. ground fish fishery
Mr. Steve Eayrs
GULF OF MAINE RESEARCH INSTITUTE (USA)

Wednesday, 23rd of May

10:15 Emission reduction in Norwegian fishing fleets: towards LNG?
Ms. Sepideh Jafarzadeh
FACULTY OF ENGINEERING SCIENCE AND TECHNOLOGY, NTNU (NORWAY)

10:45 Analysis of existing refrigeration plants onboard fishing vessels and improvement possibilities
Ms. Valentina Ruiz
VICUS DESARROLLOS TECNOLÓGICOS (SPAIN)

11:15 **Coffee Break**

11:45 Application of Hybrid-Electric Power Supply System in Fishing Vessels
Mr. Carlos Gutiérrez
ENERGYLAB (SPAIN)

12:15 Energy efficiency through bycatch reduction - A radical approach
Mr. Troy Gaston
AUSTRALIAN MARITIME COLLEGE (AUSTRALIA)

12:45 Improvement of trawl efficiency using measurements at sea and numerical simulations
Dr. Daniel Priour
IFREMER (FRANCE)

13:15 **Lunch**

15:00 A new concept to develop innovative, sustainable and energy saving fishing vessels for the Dutch fleet
Mr. Kees Taal
LEI WAGENINGEN UR (HOLLAND)

15:30 Energy saving aspects for fishing operations
Mr. Ludvig Karlsen
FACULTY OF ENGINEERING SCIENCE AND TECHNOLOGY, NTNU (NORWAY)

16:00 Energy audits of fishing vessels: lessons learned and the way forward
Dr. Oihane C. Basurko
AZTI-TECNALIA (SPAIN)

16:30 Best Avialable Technology makes Drastic Cuts in Fuel Expenses in Trawl Fisheries
Mr. Ulrik Jes Hansen
CATCH-FISH (DENMARK)

Thursday, 24th of May

10:15 A BEM method for the hydrodynamic analysis to improve propulsive systems of fishing boats
Dr. Jean-Marc Laurens
ENSTA Bretagne (FRANCE)

10:45 On the opportunity of improving propulsion system efficiency for Italian fishing vessels
Mr. Emilio Notti
INSTITUTE OF MARINE SCIENCES (ISMAR) (ITALY)

11:15 **Coffee Break**

11:45 Innovative energy saving fishing gears in the Dutch fleet
Mr. Bob Van Marlen
WAGENINGEN IMARES (HOLLAND)

12:15 Shymgen system: Optimizing the performance of shaft generator and drive train on fishing vessels
Mr. Manuel Solla
EMENASA (SPAIN)

12:45 Calculation of fishing net shapes by gradient-based optimization methods
Ms. Amelia de la Prada
UNIVERSITY OF A CORUÑA (SPAIN)

13:15 **Lunch and Closing Ceremony**