

## Participation of HRS to the event "Blue entrepreneurship in maritime and islands" in the framework of European Maritime Day 2016 in Chios (18/5/2016)

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The event was organized by the Department of Shipping, Trade and Transport of the University of the Aegean in Homeric Cultural Centre of Chios. Dr. Nikos Themelis, responsible of the Research and Development Dept. of the Hellenic Register of Shipping, participated in the event by presenting the topic "LNG-COMSHIP: examining the use of LNG as a fuel in ships". The event aimed to strengthen the relationship of research and business development through respective paradigms from the industry and presentation of business plans by senior students.

Dr. Nikos Themelis presented key results of the research project LNG-COMSHIP, which focused mainly on the study of the conversion of the propulsion installation of an open type passenger ferry, so Liquefied Natural Gas (LNG) can be used as fuel. The aim of the project was to address all the technical, economic and environmental aspects. Specifically, the presented studies were related with the technical assessment of the storage and supply system of the fuel as well as issues concerning the stability of the ship and the strength of the platform where the portable the LNG storage tank is located. The technical requirements and specifications of the safety systems were also examined and a risk assessment study was carried out. Moreover alternative methods for LNG bunkering were identified, while assessments of the economical cost of the conversion and the environmental benefits arising from the significant reduction of air emissions were respectively performed.

During the presentation possible ways to cover potential future LNG needs of a coastal navigation network in the Aegean were discussed. This could be achieved by creating small scale terminals in selected islands, which will be supplied by a feeder ship originating from the import LNG terminal. Furthermore, at a broader level, the possible use of LNG for energy production in islands was examined, assuming the proper modification of the existing power plants and estimating the required LNG storage tanks.

Dr. Nikos Themelis emphasized that from this participation, HRS has obtained significant experience and knowledge, setting the basis for the development of class procedures and rules related with the approval of conversions in order to use LNG as fuel. Moreover, by initiating the necessary synergies, the shipbuilding industry could be significantly benefited, while maritime and industry activities in islands could be also developed. The event was successful as there was a productive dialogue between academia and shipping industry, highlighting the important role of research activities in designing and preparing innovative business projects.

The research project LNG-COMSHIP is implemented under the Bilateral R&T Cooperation between Greece and China 2012-2014, under the National Action "Bilateral, Multilateral and Regional R&T Cooperation" of the General Secretary of Research and Technology. The partners of the project from the Greek side were the Hellenic Register of Shipping S.A. (HRS) and the Department of Naval Architecture of Technological Educational Institute of Athens (TEI-A).