

European Regional Development Fund - Instrument for Pre-Accession II Fund



**NEWSLETTER #1** 

February 2019

Promotion of green maritime technologies and new materials to enhance sustainable shipbuilding in Adriatic Ionian Region



Innovative and smart region: Support the development of a regional innovation system for the Adriatic-Ionian area

### Overview of NEORION project:



The maritime industry has always been a key economic sector in Adriatic Ionian Region, providing thousands of high skilled jobs and opportunities for SMEs and larger enterprises such as shipyards.

NEORION aims at establishing a transnational Cluster in the Adriatic-Ionian on Green Shipbuilding that will accelerate both the cooperation of key actors & innovation in the industry. NEORION is expected to reinforce the traditional shipbuilding sector through coordinated efforts that will facilitate the exploitation of innovative technologies and technology transfer between new complementary markets such as new materials & specialized vessels.

### Past Neorion events







Three project meetings were held, the kick off meeting in Greece - Piraeus Port from 26-27 of March 2018, the Steering and Scientific Committee meetings in Zagreb - Croatia in 12 and 13 July 2018, and the Scientific Committee Working Group Evaluation Meeting at Technology park Ljubljana - Slovenia 19 and 20 November 2018.

#### Next events



The next project meeting will take place in **Bologna**, **Italy in June 2019**, the project partners already looking forward to visiting the University of Bologna.

# International Best Practices in Green Shipbuilding Technologies and applications, Prof. Dr. Nikitas Nikitakos

The objective of the green shipbuilding concept is to minimize the harmful emissions during design, manufacturing, service and laying up, in order to reduce the pollution to air, water and soil, save resources and improve economic and social benefits. The main concepts associated with this notion are the "green ship" and the "green shipyard".

The green ship concept mainly depends on green design. Ships should be designed to enable them give the minimal effect on the environment during manufacturing and service.

The keys to green design are 3R:

- Reduce the consumption of materials/energy and the pollution to environment in ship manufacturing & service.
- Recycle the parts and accessories in ship maintenance.
- Reuse the majority of materials after ship laying up.

Green shipyard on the other hand, shall ensure the high efficiency of materials and energy in shipbuilding, reduce the harmful emissions and smoothen the process of integrated hull construction, outfitting and painting.

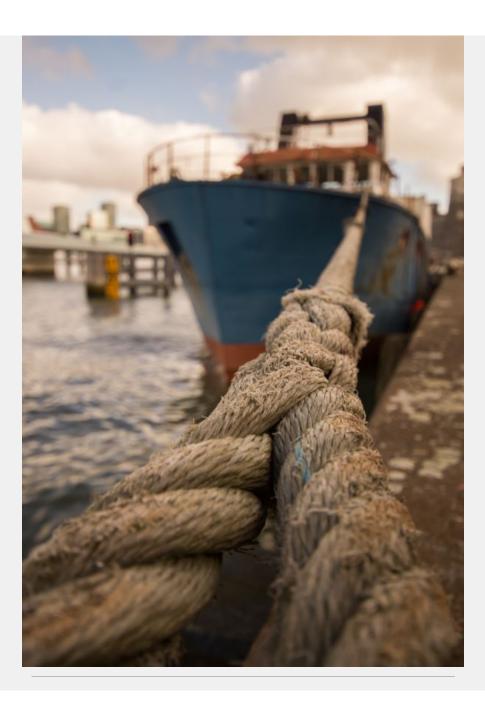
- The call for cost reductions through improved fuel efficiency of ships great costs reductions can be achieved, given that all new ships are expected to follow a trend towards higher fuel efficiency, partly driven by the increasing fuel prices but also by regulatory measures.
- The market potential for increased environmental awareness and growing interest in Corporate Social Responsibility, as it is believed that the green image of cargo owners affects their market position in a positive way
- The market potential from the regulatory trend towards NOx abatement
- The global market potential for SOx abatement technologies
- The regulatory drive towards CO2 abatement initiatives
- Ballast water and sediment treatment, in compliance with the Convention for the Control and Management of Ships' Ballast Water
- Offshore renewable energy, in the sense that this activity requires a number of ships for constructing and operating the planned parks, including installation vessels, cable layers, support vessels (maintenance, crew accommodation and crew transfer), and repair vessels, as well as the manufacturing of foundations (jackets), platforms and other components.
- Development of Arctic shipping routes, where specialized vessels are also required.

A brief overview of several related technologies and applications will be presented in the next issue of the Neorion newsletter.

Dr. Nikitas Nikitakos is a Professor in the Dept. of Shipping Trade and Transport, University of the Aegean

### Future steps

The partnership is working towards the launching of the NEORION platform, which will serve as an online interaction point for major actors of the shipbuilding industry. Technology Based Opportunities for businesses in the industry will be available through the platform soon!



## Neorion partners



















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