

# METRO – INNOVATIVE MARITIME SOLUTIONS

## FIRST B I – ANNUAL NEWSLETTER

NOVEMBER 2019

### PROJECT PROGRESS



METRO project officially started with implementation at a Kick-off meeting held in Trieste (Italy) on 20th February 2019. METRO main result is an improved quality, safety and environmental sustainability of maritime touristic transport in North Adriatic Sea. Partnership within METRO project includes Institutions with diverse expertise: R&D in the field of engineering and maritime studies (University of Trieste, University of Rijeka - Faculty of Engineering

University of Rijeka – Faculty of Maritime Studies), development and engineering of propulsion systems (Wartsila Italia), shipbuilding (Tehnomont Shipyard Pula), coordination and planning of port activities and maritime connections (Trieste Port Authority), territorial and economic development (Istrian Development Agency). Since then, 1 more meeting has been held in Italy – the first periodic project meeting in Trieste, hosted by Wartsila Italia.

### PROJECT AIM

METRO project aims to improve the environmental sustainability in the field of maritime transport, with a specific focus on touristic connections in the North Adriatic area, through a synergic connection among Universities, companies and public bodies in the field of maritime transport and territorial development.

### HIGHLIGHTS OF MAIN ACHIEVEMENTS

The first semester of METRO project was mainly devoted to start-up activities. Lead partner (UNITS) coordinated the overall management of the project and internal communication among the partnership. IDA as a leader of work package – Communication activities involved the partnership in the start-up activities concerning communication actions (display of project poster, display on information about METRO project on partners websites, definition of communication strategy).

## TECHNICAL ISSUES



The technical part – **Report “Identification of research area, referent lines and referent ships”** is made by Faculty of Maritime Studies, University of Rijeka, as a basis for the successful researches planned in nearly all working packages of METRO project. The objectives of this report are to define the term “North Adriatic” as the geographical area which is applicable in achieving the project METRO goals, to determine which existing lines of ro-ro passenger ships (RoPax) will be used as referent lines and to identify the referent RoPax ships operating on these lines. Identification of above mentioned objectives within project scope is the following:

**(1)** area of research for this project is considered the Adriatic Sea north from the latitude 43° 20' N

**(2)** two substantially different existing lines will be used as referent – one is “long range”, Ancona – Split across the Adriatic Sea and second one is “short range”, Croatian public line Brestova – Porozina just few nautical miles

**(3)** Referent conventional Ro-Pax vessels sailing on the line Ancona – Split are the M/V Aurelia (SNAV) and M/V Marko Polo (Jadrolinija)

**(4)** Referent double ended Ro-Pax vessels sailing on the line Brestova – Porozina are M/V Bol and M/V Brestova both owned by Jadrolinija

Relevant partners – UNITS, WIT, TEHNOMONT and RITEH were involved in the definition of Hybrid propulsion units, energy storage and controls related to the development of short- medium- range hybrid vessels. Wartsila carried out an initial development study for future projections of hybrid the applications, as well as research material collection on several case study creation. As well, Wartsila organized a meeting on March 21st at RITEH premises, to coordinate project activities in the work package related to Hybrid vessels study and demonstrators. Selection and preparation of real data analysis tools, compatible with ferry segment, has been started. The goal is to set up the data processing and elaboration tools to be used for the optimization of the two ferry types selected for the study.





## COOPERATION NEEDED?

The challenges addressed by the project are of cross-border nature – the lack of connections between the two shores of the Adriatic, the need to improve “green” and sustainable maritime transport services in environmentally fragile area, so the best approach to cope with them is represented by cross-border cooperation.

A national or local approach would be limited to only one side of the Programme area, thus having a limited scope or impact.

## METRO, INNOVATIVE MARITIME SOLUTIONS TOWARDS MULTIMODAL TRANSPORT

The project addresses various challenges that affect the Programme area, such as the need for more integrated, efficient and sustainable maritime connections between the eligible territories, the necessity to reduce traffic congestion caused by seasonal tourism flows, and the need to tackle the continuous lack of competitiveness of companies in shipbuilding. In this context, METRO project will be able to exploit the opportunities and the expertise available in the Programme area, and will be able to strengthen the potentials represented by “green” shipbuilding and modern technologies as a driving force for the whole maritime sector in the cross-border area.

### METRO'S APPROACH

aims to tackle the cross-border challenges in an innovative way, fostering the development of the maritime sector, acting on two main aspects.

The first one is the enhancement of innovation in shipbuilding, and will be addressed by the development of new traffic modalities based on the use of vessels fuelled by compatible energy sources.

The second aspect is identification and development of new routes and connections in the North Adriatic, with specific reference to environmentally-friendly transport routes.



# 1ST METRO PROJECT BI-ANNUAL MEETING

## 10TH OF JULY 2019, TRIESTE

### (San Dorligo della Valle)



## The Importance of Continuous Cooperation

On 10th of July, Wartsila organized in Trieste (San Dorligo della Valle) the first Project Bi-Annual Meeting of METRO project focused on following specific objectives: developing new traffic modalities based on the use of vessels using compatible energy sources as well as new environment-friendly touristic routes and services in the north Adriatic area. The meeting was attended by all Partners, namely by University of Trieste - UNITS, University of Rijeka, Faculty of Engineering - RITEH, University of Rijeka, Faculty of Maritime Studies - PFRI, Wartsila Italia - WIT, Tehnomont Shipyard Pula - TSP, Trieste Port Authority - TPA and Istrian Development Agency - IDA.

General objective of the first meeting was to collect ideas for completion of Communication strategy document that guides all activities during project implementation period and responsibilities of project partners in next period.

The purpose of dissemination activities is to ensure maximum impact of the project during its life span and sustainable benefits to the stakeholder involved after the project finish.

Key elements of the meeting were the analysis of the project activities achieved so far and needs for the purpose of defining area of operation, routes and ship mission.

During the two dedicated working sessions, partners discussed a set of possibilities for the area of operation, routes, and ship mission. According to the project METRO application the focus of the project will be on two vessel types, both ro-ro passenger ships: conventional and double ended Ro-Pax ships. Furthermore, it was agreed that two substantially different existing lines will be analyzed in depth and used as referent ones for the research and further activities. Of these two lines one should be of "long range" i.e. more challenging and across the Adriatic Sea and one should be of "short range" i.e. only few nautical miles. As well, all partners discussed obligations on project activities further steps.

The partners will meet again in Rijeka (Croatia) in December, hosted by RITEH.

## TEHNOMONT SHIPYARD PULA

### Side launching Gr.111 – 24 m Service vessel



#### MAIN PARTICULARS

Length over all  
23,98 m

Breadth  
11,20 m

Design draft  
3,50 m

Speed  
11 knots

Engine power  
735 kW

Cargo hold  
50 m<sup>3</sup>

On 30th September 2019 Gr.111 – AQUA SERVICE , 24 m Service Vessel constructed by TEHNOMONT Shipyard Pula, for Norwegian company MOEN MARIN AS, Trondheim, was side launched into the sea.

This is the sixth ship in a series of 24 m Service ships built by Tehnomont Shipyard for Norwegian company Moen Marin As.

After launching, the vessel will be equipped with hydraulic equipment for maintenance and operation of fish farms in Norway (cranes, winches, ROV etc.), all operated from the wheelhouse.

The client is satisfied with the quality and work of Tehnomont Shipyard and on 15.09.2019. in Trondheim has been signed new contract for the construction of two (1 + 1) 24 m Service vessel.

Side launching on YouTube link:

<https://www.youtube.com/watch?v=d7YIvrx1w1c&feature=youtu.be>

Source: Tehnomont Shipyard Pula



# MOSES PROJECT ↔ METRO PROJECT

## LINKING PROJECTS AND ACTIVITIES



MOSES project (Maritime and multimodal transport Services based on Ea Sea-way project) was financed within INTERREG Italy-Croatia CBC Programme.

This project aims at improving maritime and multimodal transport services between Italy and Croatia, through the capitalisation of the results of EA SEA-WAY, towards quality and sustainable cross-border connections. Its main objective was to enhance the accessibility and mobility of passengers in the Adriatic area through the development of new cross-border sustainable and integrated transport services and the improvement of related infrastructures.

The project's main outcomes were following:

- 1 Pilot ICT tool for e-booking and e-ticketing solutions;
- 1 Pilot electric car/bike sharing system;
- 1 Pilot bus and bike connections system;
- 1 Pilot action for a maritime fast-line transport service;
- 6 Info-boards for passengers at ports;
- 1 feasibility study to increase sustainable marine transport routes;
- Recovery of operational quay in port of Susak;
- Installation of eaves, benches and information panels in ports of Mali Lošinj and Susak

METRO project is capitalizing the main outcome of MOSES project, especially pilot action for a maritime fast-line transport service for passengers, concerning the improvement and monitoring of multimodality in the Adriatic Area. Pilot action for a maritime fast-line transport service for passengers in MOSES project included directly connection between Trieste to Region of Istria and to Primorje – Gorski Kotar County (Mali Lošinj and Susak). The main goal of this pilot action was extending of the existing summertime line to connect Italy, Slovenia and Croatia because the market offers of maritime lines connecting mentioned countries are not appropriate and not satisfactory. Activated maritime lines service during the summer is fundamental in order to tackle relevant congestion and pollution problems faces these cross border areas during the summer period.

Accordingly, as a continuation of these activities in MOSES project, METRO project will have more focus on developing new traffic “green” modalities based on the use of vessels using energy sources as well as developing new environment-friendly touristic routes and services in the north Adriatic area. That way, partners can help additionally the development of the cross-border cooperation between Croatia and Italy.



**Interreg**  
**Italy - Croatia**  
METRO



EUROPEAN UNION

Facebook Page: @MetroEUproject

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