



European Regional Development Fund

# INTESA

## Improving Maritime Transport Efficiency and Safety in the Adriatic

PARTNERS

12

PROJECT DURATION

01/2019 > 06/2022

TOTAL BUDGET

€ 2.896.480,00



## THE PROJECT

INTESA project establishes a network among the National Maritime Administrations of Italy and Croatia and the main Port Authorities of the Adriatic Sea (Venice, Trieste, Ravenna, Ancona, Bari, Rijeka, Ploče and Split) with the scope of harmonising and optimising the procedures of the complete maritime transport process in order to make port and maritime transport system more efficient and safe.

## OBJECTIVES

### TO STRENGTHEN MARITIME SAFETY AND SECURITY

through the creation of a cross border framework of monitoring and data-sharing authoritative and harmonised system.

### TO DEVELOP RELIABLE AND RESILIENT TRANSPORT NETWORK AND INTERMODAL CONNECTIONS WITH THE HINTERLAND

integrating the port node with rail and road transport modes, reducing procedural constraints and bureaucratic burden (especially in port operations).

### TO DEVELOP A COMPETITIVE ADRIATIC PORT SYSTEM

through the harmonisation of the systems for the exchange of information between ship and onshore competent Authorities.

## ITALIAN PARTNERS

- NORTH ADRIATIC SEA PORT AUTHORITY
- ITALIAN MINISTRY OF SUSTAINABLE INFRASTRUCTURES AND MOBILITY - COAST GUARD HEADQUARTERS
- RAM – LOGISTICA INFRASTRUTTURE E TRASPORTI SPA
- PORT NETWORK AUTHORITY OF THE EASTERN ADRIATIC SEA
- CENTRAL NORTHERN ADRIATIC SEA PORT AUTHORITY
- CENTRAL ADRIATIC PORTS AUTHORITY
- SOUTHERN ADRIATIC SEA PORT AUTHORITY

## CROATIAN PARTNERS

- RIJEKA PORT AUTHORITY
- PLOČE PORT AUTHORITY
- SPLIT PORT AUTHORITY
- CROATIAN MINISTRY OF THE SEA, TRANSPORT AND INFRASTRUCTURE
- METEOROLOGICAL AND HYDROLOGICAL SERVICE OF CROATIA

## STRATEGIC ADDED VALUE

**INTESA is a great opportunity for Italian and Croatian Authorities to jointly define common guidelines in order to share operational services, monitoring & communication assets** and their own

expertise to implement and test Transnational IT System for maritime safety in the Adriatic, such as integrated ICT software tools aimed to manage and broadcast (in Machine2Machine-M2M mode) the **recognized AIS Application-Specific Messages (ASMs) on Maritime Safety Informations**, provided by their respective national AIS networks, in compliance with international technical standards.

**INTESA project is labelled as EUSAIR relevant for PILLAR 2: CONNECTING THE REGION**, with reference to the development of maritime safety and security and a competitive regional intermodal port system, underlying the strategic added value at cross-border level between Italy and Croatia and at a wider scale.



## NORTH ADRIATIC SEA PORT AUTHORITY

Through the implementation of **navigation aids based on geo-localisation, high precision cartography and real time AIS data sharing** the nautical accessibility and safety of the area is improved:

- Technical equipment selection and purchase of **3 sets of high-precision antennas** and tablets combining the most **advanced Pilot portable Units** available on the market (PPU), with dedicated training for the pilots;
- **Ultra detailed cartography:** both “static” and “dynamic” versions with aerial photographs and aero photogrammetry of the port areas, together with the creation of a **topographical database** based on aerial photographs and digital relief models at a scale of 1:2,000, in close cooperation with water Management Authority of the Venice Lagoon and Veneto Region.



## ITALIAN MINISTRY OF SUSTAINABLE INFRASTRUCTURES AND MOBILITY - COAST GUARD HEADQUARTERS

Through the integration of new **Transnational IT system for maritime safety** in the Adriatic, ICT solutions will be implemented in order to manage and broadcast selected AIS Application-Specific Messages in the **Adriatic Port Community System** enabling:

- the transmission of the **local Maritime Safety Information** to the vessels entering or leaving the ports;
- **vessel traffic monitoring operators** to manage the shore-based stations belonging to the AIS national networks, in order to exchange the dynamic maritime safety information;
- **Electronic and smart monitoring of the harbour:** exact positioning of the ships waiting to moor at the port and management of particular weather conditions;
- **Integration with the Vessel Traffic Service (VTS),** reducing verbal communications, enhancing reliable information exchange and reducing operators' workload: call sign or MMSI, date and time of communication, docking point and ship position.



## RAM - LOGISTICA INFRASTRUTTURE E TRASPORTI SPA

The **INTESA Cross Border Action Plan** on deep-sea, seaside and land side ports' logistics optimization of data management systems (i.e. transport and traffic information, customs clearance and up-to date safety) is based on the analysis of the state of the art of the identified IT processes in the Ports involved in the project along with their benchmarking, in order to define the **main issues and challenges also in consideration of the identification of possible solutions.** Then, following the analysis of the results of the project pilot actions and their lessons learned, “General Recommendations” are elaborated.



## PORT NETWORK AUTHORITY OF THE EASTERN ADRIATIC SEA

Through the integration of **new IT modules** in the Port Community System several processes are digitalised and smoothed:

- **Electronic and smart monitoring of the natural harbour:** exact positioning of the ships waiting to moor at the port and management of particular weather conditions;
- **Management of anchor duties:** status of payment, automatic management of income request and calculation of the amount;
- **Electronic management of customs late corrections:** standardisation of customs declarations concerning goods data and motivations of the corrections;
- **Integration with the Vessel Traffic Service (VTS):** call sign or MMSI, date and time of communication, docking point and ship position.



## CENTRAL NORTHERN ADRIATIC SEA PORT AUTHORITY

The pilot carried out by the **Port of Ravenna** aims at improving the **nautical accessibility and nautical safety** through the implementation of navigation aids based on geolocation, high precision cartography and real time AIS data sharing.

More specifically the Pilot Action includes the following activities:

- Purchase of **PPU (Portable Pilot Unit) devices** (channel pilot);
- Integration of **real time meteorological data** from 9 stations installed along the canal;
- Improvement of **Port Monitoring System**;
- Update of bathymetry using **aquatic drones**.



## CENTRAL ADRIATIC PORTS AUTHORITY

Through the upgrading of IT systems of the main actors in the field of safety of navigation, the nautical accessibility and safety of the area are improved:

- **Upgrade of technical equipment of the Pilots** of the Port of Ancona to improve the navigation in restricted waters and heavy fog conditions: purchase of 3 portable pilot units and updating of software and electronic nautical charts;
- **Naval simulator upgrade** for the training of students and professionals: navigation in bad weather conditions, piloting of last generation of ships, updated cartography of the ports of Ancona, Ortona and Pesaro;
- **Upgrading of IT equipment** of the Port of Ancona Harbour Master for search and rescue activities.



## SOUTHERN ADRIATIC SEA PORT AUTHORITY

The pilot action of the **Southern Adriatic Sea Port Authority** is based on the directives of the **Higher Institute for Protection and Environmental Research (ISPRA)** and consists in the purchase and installation of five tide gauges equipped with software in the multiport system of **Bari, Brindisi, Manfredonia, Barletta** and **Monopoli**, and the subsequent connection and integration with the current **GAIA Community Port System** or **Vega system** (one of the most developed in Italy), with the aim of supporting interoperability with regional, national and global logistics systems.



## RIJEKA PORT AUTHORITY

The Pilot action implemented in Rijeka Port aims at improving, extending and upgrading the **VHF** (Very High Frequency), **AIS** (Automatic Identification System) and **VTS** (Vessel Traffic Services) systems for data capturing and exchange to better manage the port operations, specifically through:

- **Installation of additional base stations** with the required capabilities in order to enable VHF, AIS and VTS systems coverage in currently 'uncovered' areas;
- Coverage of Rijeka basin with a **thermal imaging system** for monitoring small boats that are not required to have AIS.





## PLOČE PORT AUTHORITY

Ploče Port Authority Pilot Action aims at **upgrading and developing systems for a better port control and management**, with focus on ship arrival/departure procedures. The final objective is to solve bottlenecks in transport and services regarding multimodality in the Adriatic-Ionian area.

Within the Pilot Action the **Port Community System** is involved in a data feed exchange regarding the **integration with AIS Base Stations and Traffic Image Application** for the Vessel Traffic Services Centre and Search and Rescue (SAR) and Maritime Rescue Sub Center (MRSC) operations of Port of Ploče Authority, to ensure that all relevant information and data captured has a consequent positive impact on solving bottlenecks in port area.



## MINISTRY OF THE SEA, TRANSPORT AND INFRASTRUCTURE

Ministry of the Sea, Transport and Infrastructure upgraded its **Maritime National Single Window (HR MNSW) in order to secure and provide administrative data exchange - available in electronic format - with local port IT systems via web services.**

HR MNSW, operative from 2013, was developed in compliance with Reporting Formalities Directive 2010/65/EU and Regulation on European Maritime Single Window. The upgrade of HR MNSW was done taking into account the results of the Feasibility study "Harmonization and orchestration of data exchange between NSW and local Port IT systems", with **technical-technological analysis** of national navigation safety systems and local equipment and **guidelines for the exchange and distribution of maritime safety information (MSI)**. Interconnection of the systems (i.e. Port Community Systems) will facilitate the **information exchange** on cargo, ship waste and ship berthing thus reducing ship waiting time in ports thanks to faster administrative clearances; **will facilitate workflow** of the Ports; will involve cargo and waste terminal concessionaries in the reporting process and realise electronic exchange of special request forms in port as well as all other reporting formalities.



## SPLIT PORT AUTHORITY

Through the implementation of navigation aids and the consequent improvement of safe sailing, mooring and anchoring of ships in different weather conditions, the Port of Split aims at **harmonizing and optimizing the procedures of the complete maritime transport** process in order to make port and maritime transport systems more efficient and safe.

- **Selection and purchase of technical equipment for measuring weather conditions:** buoys with sensors with the purpose of measuring changes in the air and sea and the different weather conditions to enable the ship safe sailing, mooring and anchoring, with the final aim of protecting the environment of the port basin;
- **Educational workshops for port users:** new legal guidelines (rule-book) for port's order in various weather and air-pollution conditions.



## METEOROLOGICAL AND HYDROLOGICAL SERVICE OF CROATIA

The Pilot Action implemented at Meteorological and Hydrological service of Croatia (DHMZ) is based on the integration of marine meteorological messages and warnings at Croatian information system (CIMIS) and includes:

- Participation at feasibility study "**Recognition and selection of the ASMs for the Adriatic area and technical specification**", providing the DHMZ products to CIMIS.
- **IALA AISAtON Msg. 8** (meteorological and hydrographical data) has been implemented at Croatia met-ocean mooring buoys network, operated by DHMZ. Data will be visible to ships and also at Croatian AIS receivers network operated by Ministry of the Sea, Transport and Infrastructure. AISAtON Msg. 8 is the new standard for met-ocean buoys operating by Croatian services and institutes.
- **DHMZ met-ocean mooring buoys and coastal meteorological stations data** will be transferred to VTS at ASCII and/or binary format that fit into the list of the parameters from at Msg. 8.
- **Modernization of IT communication hub** for the link between DHMZ and Ministry of the Sea, Transport and Infrastructure.





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### LEADING PARTNER



**NORTH ADRIATIC SEA PORT AUTHORITY** (Ports of Venice and Chioggia - NASPA)  
Strategic Planning and Development Dept - Project Research and Development Unit  
adspmas.progettieuroppei@port.venice.it  
Santa Marta Edificio 13, 30123 Venice, Italy  
www.port.venice.it

### PROJECT PARTNERS

