COREALIS FACT SHEET

Project – At a Glance

Name: Capacity with a pOsitive enviRonmEntal and societAL footprInt: portS in the future era - COREALIS

Project ID: 768994

Funded under: H2020-EU.3.4. - SOCIETAL CHALLENGES - Smart, Green And Integrated Transport

Funding scheme: RIA - Research and Innovation action

Duration: From **2018-05-01** to **2021-04-30, ongoing project**

Total cost: EUR 5 150 540

EU contribution: EUR 5 150 540

Topic(s): MG-7-3-2017 - The Port of the future

Call for proposal: H2020-MG-2017-Two-Stages See other projects for this call

Coordinated in: Greece

Description

COREALIS is developing an innovative framework for assisting cargo ports in handling their upcoming and future capacity, traffic, efficiency and environmental challenges. It is benefitting from disruptive technologies, including Internet of Things (IoT), data analytics, next generation traffic management and emerging 5G networks.

COREALIS is implementing beyond state of the art, financially viable innovations for future ports. These will optimise the port land use, requiring minimum infrastructure upgrades, while at the same time respect circular economy principles and improve the urban life quality. The innovations will be implemented and tested in real operating conditions in 5 Living Labs (Piraeus, Valencia, Antwerp, Livorno and Haminakotka ports) and are briefly named below:

- The **COREALIS Green Truck Initiative**, that implements: i) A dynamic Truck Appointment System aiming to coordinate and optimise the arrival of trucks according to the city traffic, terminal and other operations in the port area, so that queues, waiting times and congestion are minimised ii) The Marketplace and chassis brokerage platform allowing online booking of port equipment and services
- The **COREALIS PORTMOD**, aiming to increase operational efficiency, safety for personnel, emission analysis and improved data sharing by modelling and optimizing cargo and data flows within a port
- The **COREALIS RTPORT**, that implements a system for real time control of port operations over a 5G network
- The **COREALIS Predictor**, for a dynamic and optimized port asset management.
- The **COREALIS Cargo Flow Optimizer**, aiming to facilitate the port managers and urban planners in their infrastructure investment planning by optimizing cargo flows across all transport modes
- The **COREALIS Port of the Future Serious Game**, aiming to assess the feasibility and sustainability of the socio-economic and environmental development of a port within the surrounding coastal and urban area.
- The **COREALIS Green Cookbook**, aiming to help ports to lower their environmental footprint, assess their energy profiles and move to cleaner transport modes and cleaner energy sources.
- The **COREALIS Innovation Incubator Scheme**, aiming to make the port the epicentre of the local industrial landscape and support the growth of local entrepreneur SMEs and start-ups.

COREALIS is expected to achieve a significant reduction of both CO_2 port emissions & noise. It will also reduce operational port costs (congestion, waiting and idle times), and establish more efficient connections with the hinterland transport network, improving the modal split to rail and inland waterways.

Consortium

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