



COREALIS Antwerp Demo/Training Webinar

Project Overview

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COREALIS Facts & Figures



- ✓ Topic: “**The Port of the future**”
- ✓ Duration: 01.05.2018 - 30.04.2021 (**36** months)
- ✓ Coordinator: Institute of Computers and Communication Systems
- ✓ **17** partners from **9** European and associated countries
- ✓ 4 Research Institutes, 5 Ports, 4 Industry partners, 3 SMEs, 1 ITS Association
- ✓ Living Labs in **Five European Port-Cities** including 3 out of the top-5 in Europe





COREALIS Living Labs



Antwerp Port, Belgium



Piraeus Port, Greece



Valencia Port, Spain



Livorno Port, Italy



Haminakotka Port, Finland





COREALIS vision-main goals

COREALIS proposes a **strategic, innovative framework**, supported by **disruptive technologies**, including Internet of Things (IoT), data analytics, next generation traffic management and emerging 5G networks, so that cargo ports can face current and future challenges regarding:

-  **Optimization of port operations**
-  **Reduction of environmental footprint**
-  **Increase of efficiency & reduction of traffic within and around ports**
-  **Sustainability of the socioeconomic development of the port and its surrounding area**



COREALIS Innovations



Port of the Future Serious Game
(simulation tool for decision making)

RTPORT

(a Model-Driven Real-Time control module supporting 5G smart terminal operations)

Brokerage Platform

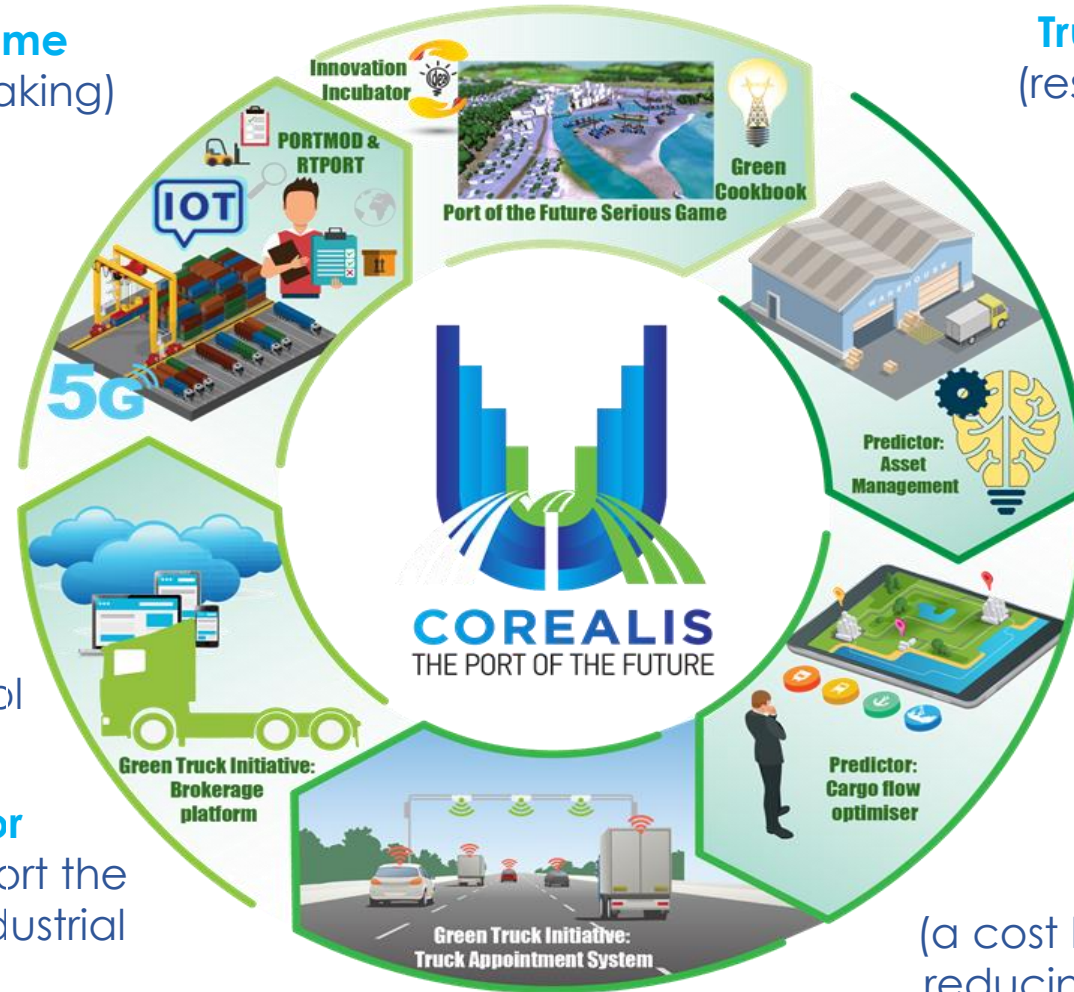
(Cloud based marketplace for leasing and exchanging intra-port assets)

PORTMOD

(an optimization modelling tool for CT operations)

Innovation Incubator

(a scheme making the port the epicenter of the local industrial landscape)



Truck Appointment System
(reservation system including real-time traffic data)

Just-In-Time Rail Shuttle Service
(feasibility study for key port-hinterland corridors)

Cargo Flow Optimiser
(an optimization tool for ocean/rail/inland waterway cargo flows)

Predictor for Asset Management
(an optimization, machine learning tool for efficient use of port assets)

Green Cookbook
(a cost benefit analysis and roadmap for reducing port's environmental footprint)






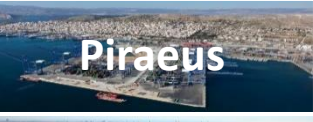



Matrix of COREALIS Demos & Innovations



Hinterland connectivity

Intra-Terminal operations

Decision making/ Innovation

	TAS	Brokerage platform	JIT Rail Shuttle Service	Cargo Flow Optimiser	Predictor / Asset Mgmt	PORTMOD	RTPORT	Energy assessment & Green cookbook	PoF Serious Game	Innovation Incubator
 Valencia	X		X							X
 Piraeus					X			X	X	
 Livorno						X	X		X	
 Antwerp		X		X						
 Haminakotka	X					X			X	





COREALIS at a glance



<https://www.youtube.com/watch?v=ljt8n0ec0o8>



WHEN YOU NEED TO BE SURE





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[COREALIS EU Project](https://www.youtube.com/COREALIS_EU_Project)



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THANK YOU FOR YOUR ATTENTION



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