THE PORT OF THE FUTURE
FOR THE FUTURE OF PORTS

COREALIS- Capacity with a positive environmental and societal footprint: Ports in the Future era

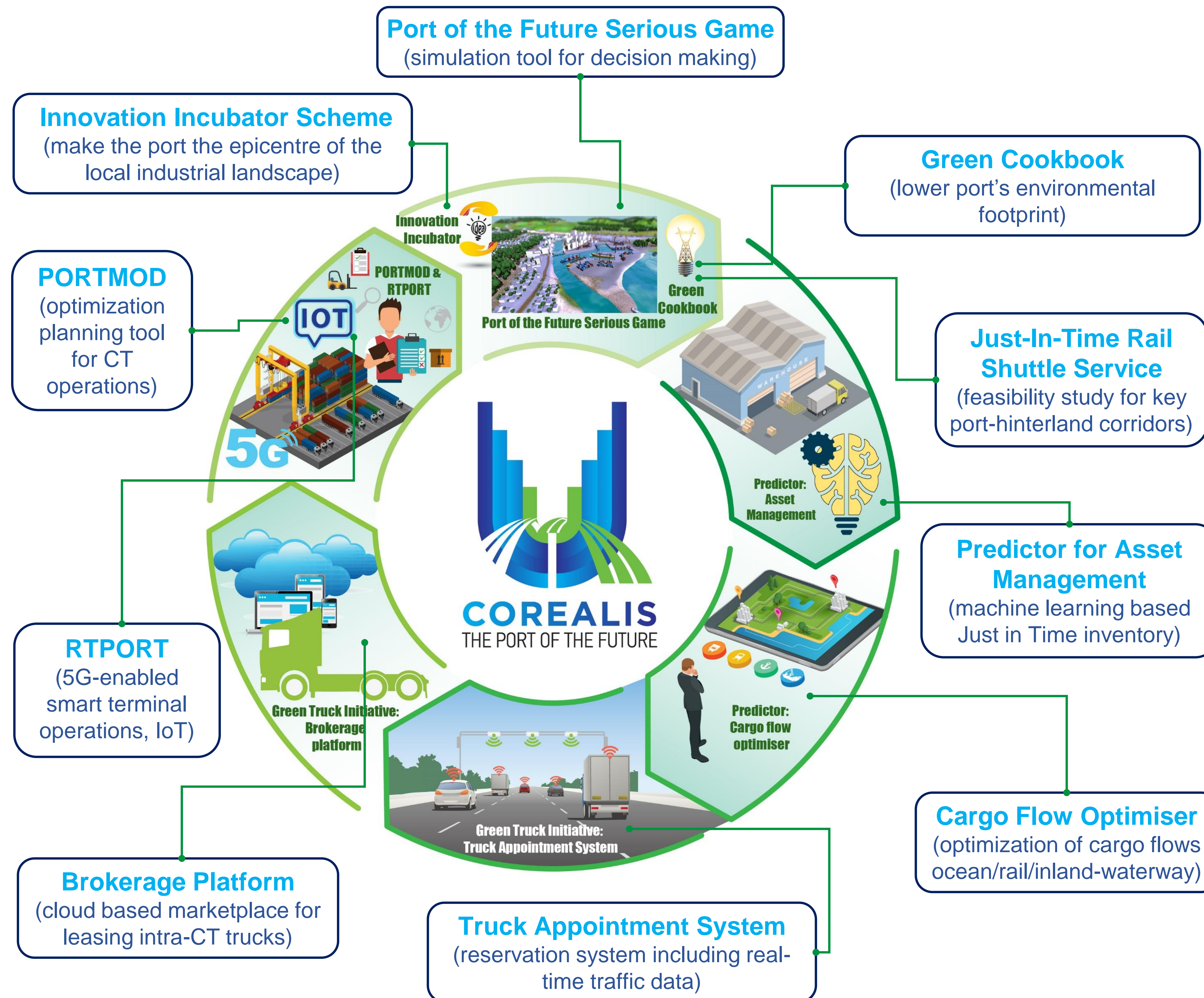www.corealis.eu @corealis_eu @COREALIS_EU YouTube COREALIS EU Project

VISION

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.

OBJECTIVES

- Embrace **circular economy** models in the port strategy and operations.
- Reduce the **ports'** total **environmental footprint.**
- Encourage ports to become an **innovation hub** of the local **industrial & urban** space.
- Optimise **yard capacity** and improve safety without major infrastructural investments.
- Streamline **cargo flows** in favour of green transport modes.
- Improve **port-city stakeholder collaboration** for medium/long-term decision making.

COREALIS INNOVATIONS

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

Innovation Incubator Scheme (make the port the epicentre of the local industrial landscape)

Green Cookbook (lower port's environmental footprint)

PORTMOD (optimization planning tool for CT operations)

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

Predictor for Asset Management (machine learning based Just in Time inventory)

RTPORT (5G-enabled smart terminal operations, IoT)

Cargo Flow Optimiser (optimization of cargo flows ocean/rail/inland-waterway)

Brokerage Platform (cloud based marketplace for leasing intra-CT trucks)

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

Innovation Incubator · PORTMOD & RTPORT · IOT · 5G · Green Cookbook · Port of the Future Serious Game · Predictor: Asset Management · Green Truck Initiative: Brokerage platform · Green Truck Initiative: Truck Appointment System · Predictor: Cargo flow optimiser

COREALIS THE PORT OF THE FUTURE

IMPACT

ENVIRONMENTAL
Significant **reduction of CO_2** port emissions and perceived noise

OPERATIONAL
Improvement of terminal **operations' efficiency**, **reduction in congestion**, waiting and idle times, establishment of **efficient connections** with hinterland transport network (railway & inland waterways).

SOCIETAL
Increased **port-city** stakeholder **collaboration** & improved quality of life for port-city residents.

LIVING LABS

HAMINAKOTKA · ANTWERP · VALENCIA · LIVORNO · PIRAEUS

PROJECT PARTNERS

ETIΣEY ICCS · PCT · SEAbility · ERTICO · SGS WHEN YOU NEED TO BE SURE · dynniq energising mobility · Port of Antwerp · cnit consorzio nazionale interuniversitario per le telecomunicazioni · VTT · mosaicfactor · Deltares Enabling Delta Life · NEC · FUNDACIÓN VALENCIAPORT · ERICSSON · Autorità di Sistema Portuale del Mar Tirreno Settentrionale · MARLO · STEVECO

PROJECT FACTS

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

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