Jean Monnet Symposium "The future of the European Port Policy"

Sustainable development of intelligent ports for strengthening European logistics

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Contents

Growth vs. negative impacts on port cities

Ports are essential for the EU economy as a global player and for the internal market. They are a main catalyst for regional development, their optimisation and inclusion in the territory is fundamental to ensure that efficient operations will not affect negatively the surrounding urban areas
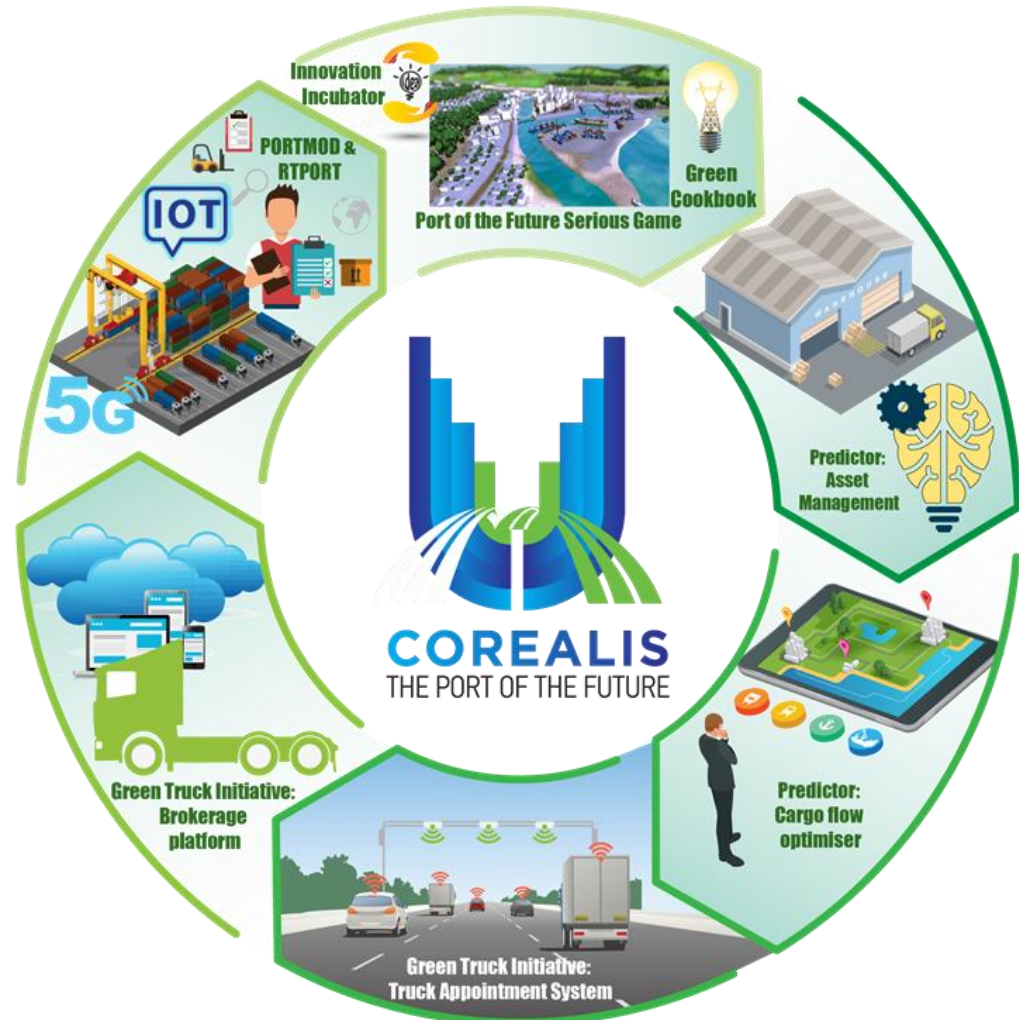
A holistic view on sustainable development

- port/Urban planning
- freight transport (inside/outside the ports)
- energy

Sustainable dimensions
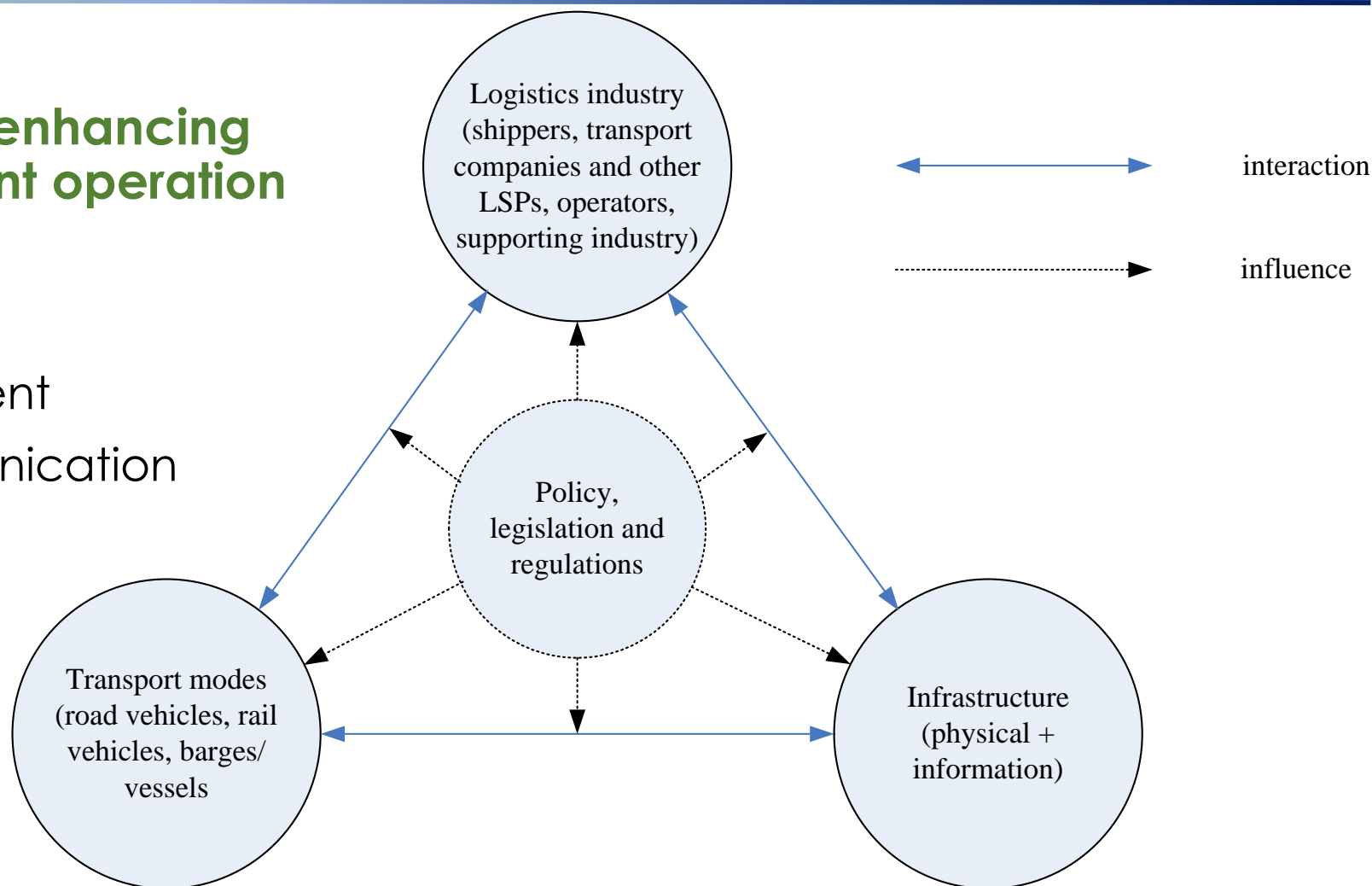
economic, environmental, social

Digital infrastructure for enhancing connectivity and efficient operation

- data flow and analytics
- IoT
- future traffic management
- next generation communication technologies
- remote sensing

Analysing/modelling energy consumption and efficiency of ports, through metering/collecting data

- exploring novel and cost-effective solutions for reducing energy consumption of the terminals, and for improving energy efficiency in the whole network of the port and the connected port city

- investigating the option of (large-scale) use of renewable energy for the ports, incl. costs, benefits, technical challenges and solutions

- developing a comprehensive energy assessment framework for the ports, and a guideline for decision makers of the ports, for identifying and selecting green, efficient and cost-effective solutions, which benefit both the ports the society as a whole (incl. port-cities)
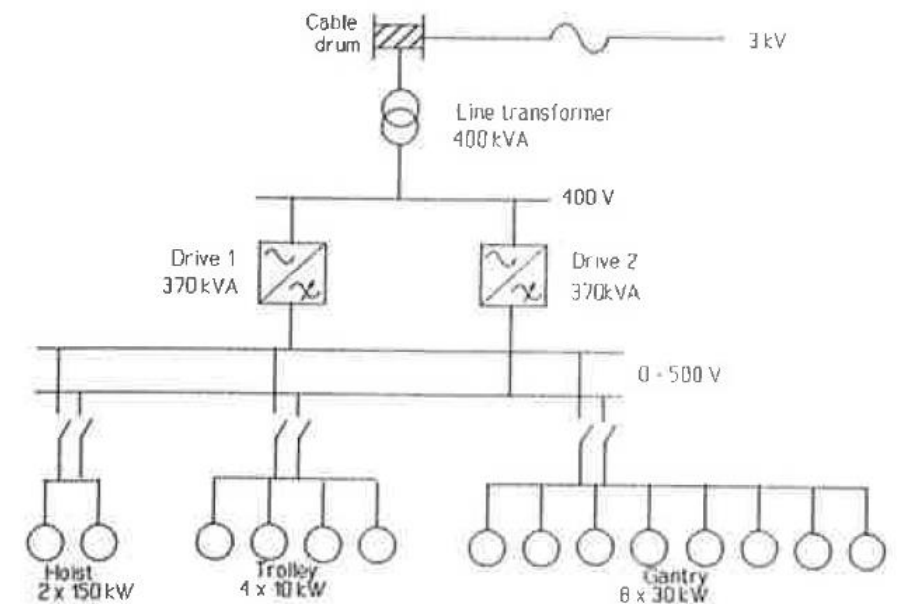
Typical electrical configuration of a Gantry Crane [De Breucker, 2018]

- a concept that takes a holistic view of (freight) transport, including and integrating all available modes, new logistics and transport concepts, facilitating infrastructures, (ICT) technologies, services, new policies, and governance

- basic idea: the use of alternative transport modes in a flexible way, depending on temporary circumstances as well as product and supply chain characteristics
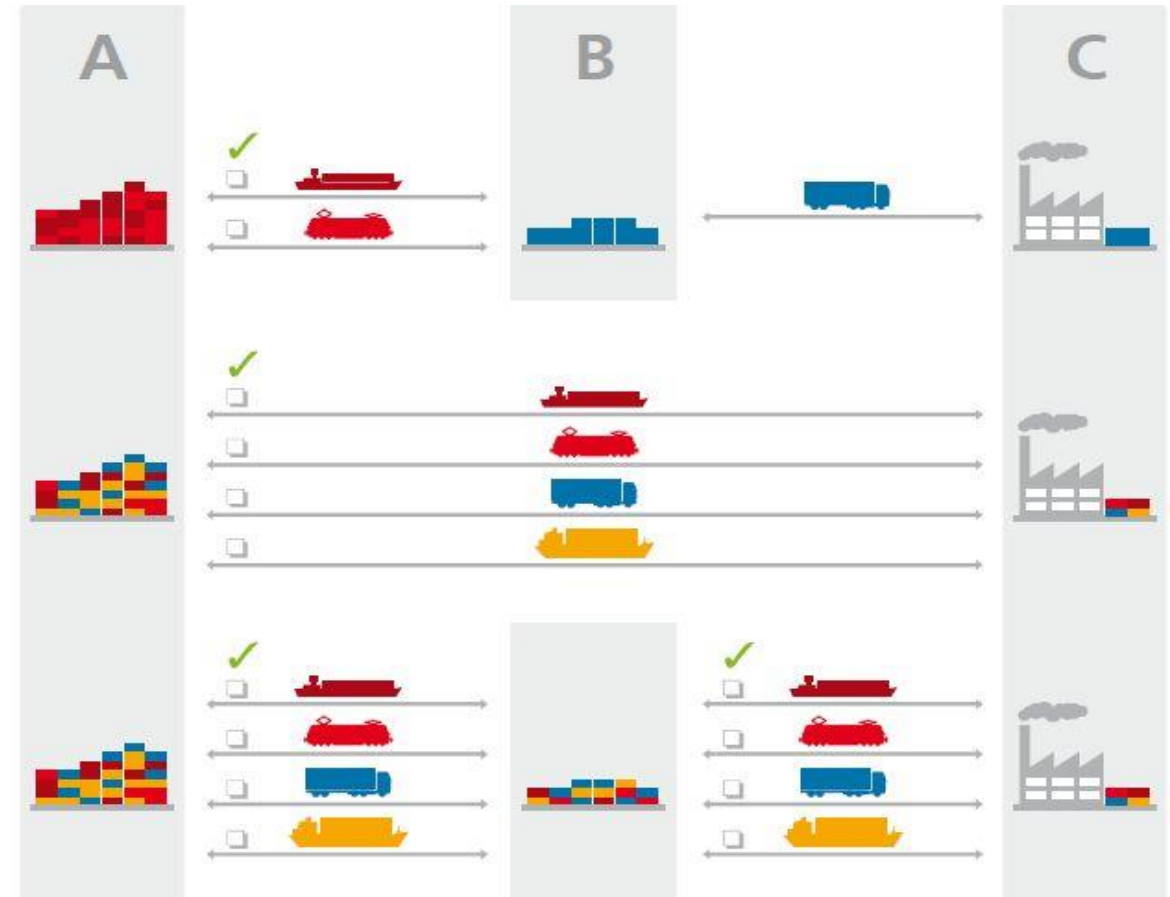

Intermodal

From A to B by inland shipping or rail and from B to C - 'the last mile' - by truck.

Co-modal

In A, the shipper has the choice between inland shipping, rail, feeder and road.

Synchromodal

Optimally flexible and sustainable system: a choice of different modes of transport in A, but also in B and, in the case of return cargo, in C.

- a holistic view: planning – transport – energy*

- further R&D

  o embracing circular economy models in port strategy and operations

  o reducing environmental footprint associated with intermodal connections and the surrounding urban environment

  o improving operational efficiency, optimise yard capacity and streamline cargo flows without additional infrastructure investments

  o enabling the port to take informed medium-term and long-term strategic decisions and become an innovation hub of the local urban space
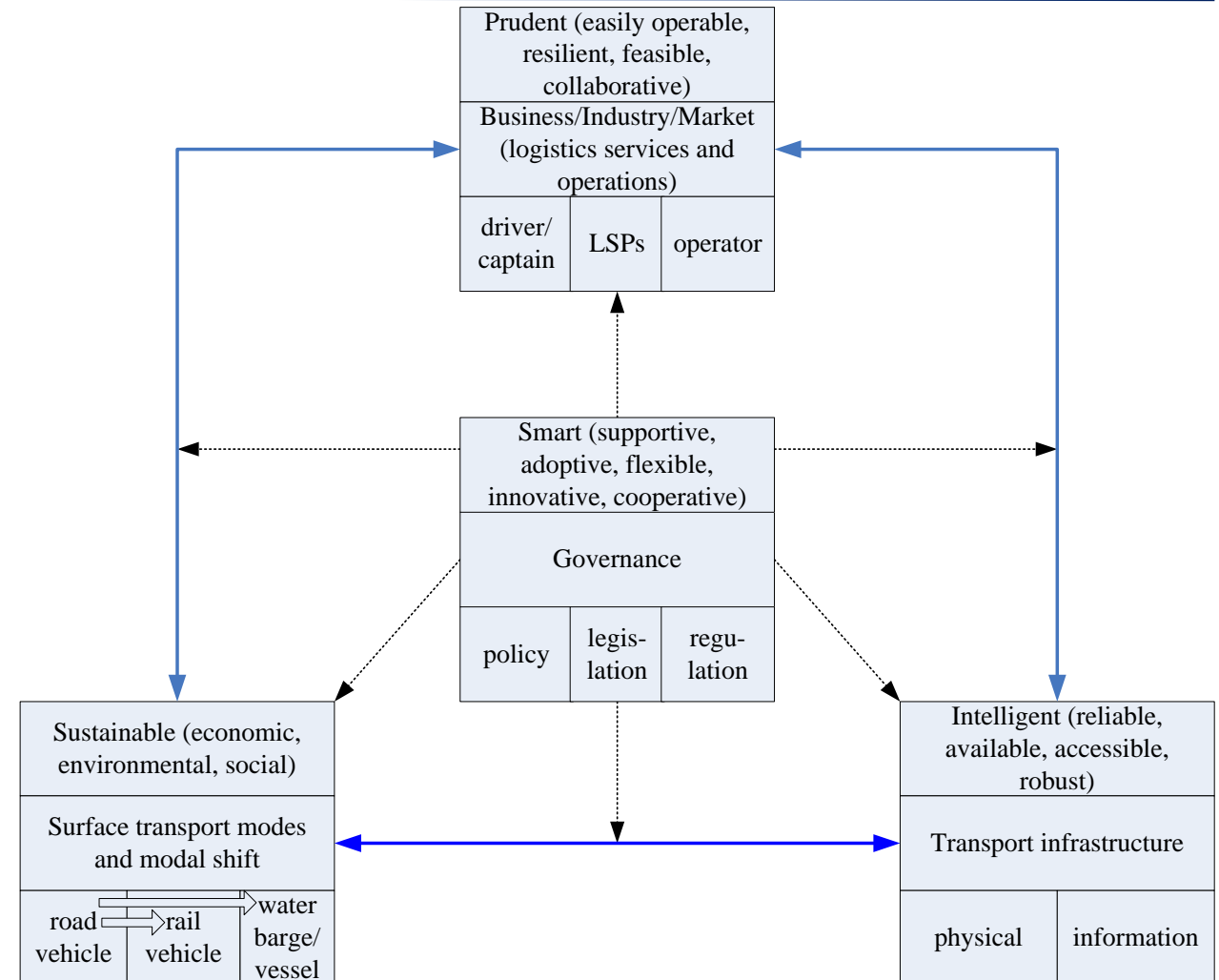
- Project acronym: COREALIS
- Project full title: Capacity with a pOsitive enviRonmEntal and societAL footprInt: portS in the future era
- Funding scheme: RIA
- H2020 Pillar: Societal Challenges
- Topic: The Port of the future
- Topic identifier: MG-7-3-2017
- Project Budget > € 5 mil.

- Project Coordinator: ICCS
- Other Consortium Partners

THANK YOU FOR YOUR ATTENTION

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