



COREALIS Webinar

## Port of Valencia Living Lab

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## Port of Valencia:

- First Port in the Mediterranean (Container Cargo)
  - 5.1M TEU
  - 73M Tons
- More than 400.000 passengers
- More than **5,000 Trucks** calling daily at the Port Gates
- Rail share 7%**
- Port Hub: **50% I/E** and **50% transshipment**

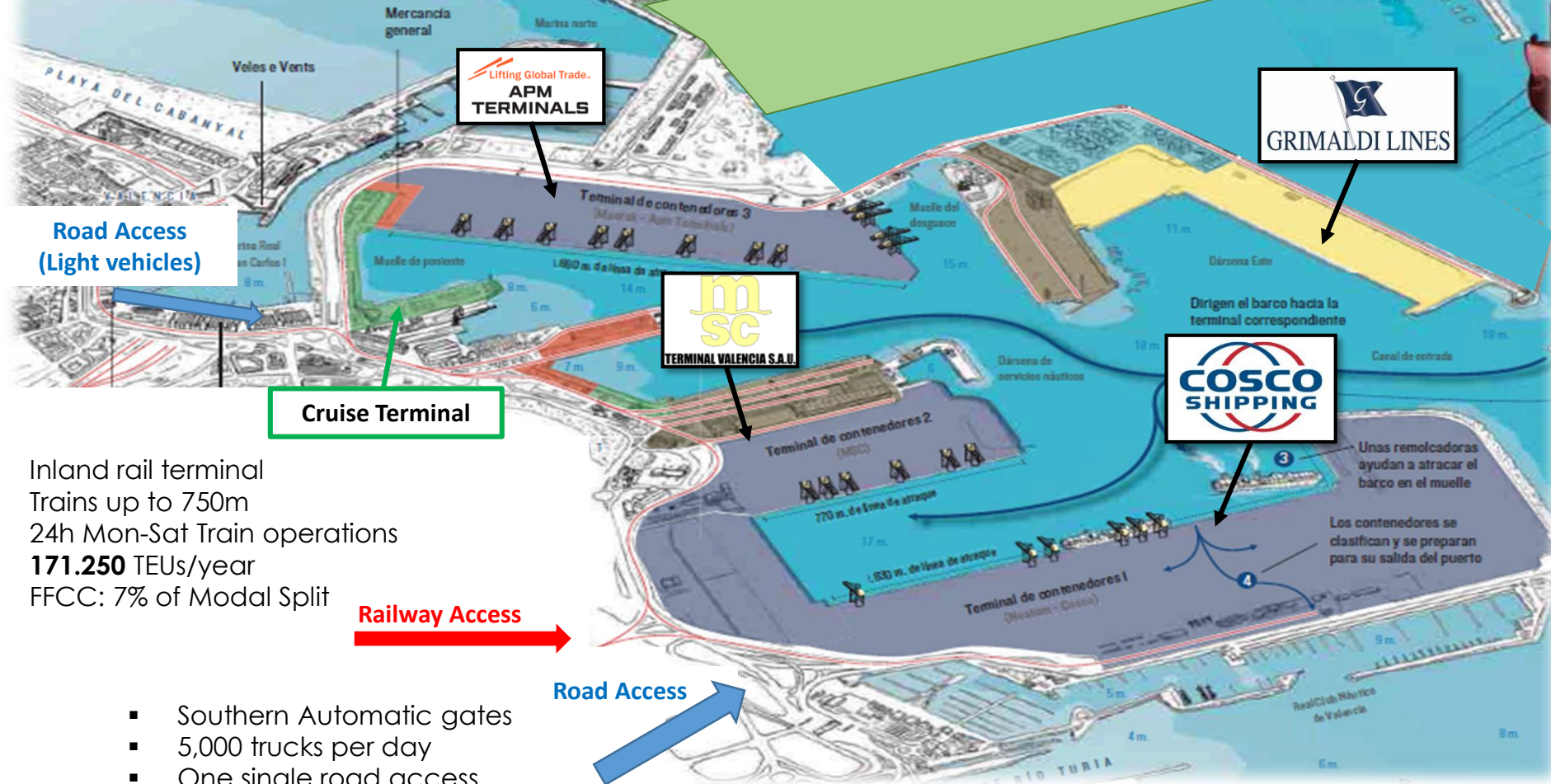


### EMPLEO GENERADO POR VALENCIAPORT



- CLAVE
- Terminal de pasajeros
  - Terminal de automóviles y carga rodada
  - Terminal de contenedores
  - Graneles sólidos
  - Mercancía general
  - Ampliación
  - Recomida de los contenedores
  - Vías de tren

### CÓMO ACCEDEN LOS BARCOS A LAS TERMINALES DE CONTENEDORES



- Inland rail terminal
- Trains up to 750m
- 24h Mon-Sat Train operations
- 171.250** TEUs/year
- FFCC: 7% of Modal Split

Railway Access

Road Access

- Southern Automatic gates
- 5,000 trucks per day
- One single road access



# Scenarios in the LL of Valencia

## Scenario 1:

### Advanced TAS (VPF, SGS & NEC)

#### ✓ Sub-scenario 1.1

Booking System for Container Terminals in which they define and manage the different slots based on their preferences

#### ✓ Sub-scenario 1.2

Booking System for Port Community Agents in which they select the different slots to perform the delivery and pick-up operations

## Scenario 2:

### JIT Rail Shuttle Service (VPF)

**Feasibility study** to minimize the container movements in the terminal and optimize the loading/unloading operations the train that covers:

- Design of the **physical solution**
- Design of the operational solution (**service characteristics**)
- **Information flows** and exchange
- **Business models**

## Scenario 3:

### Innovation Incubator (Hackathon Organization) (VPF, & PoA)

**Organization of a X-day event** (still to be defined) where students, professionals, start-ups & scale-ups tackle challenges within the maritime and logistics sector.

In the hackathon event, everybody is welcome to **co-create** the concept of port of the future, **facing** the main **challenges of the port community of the port of Valencia**.

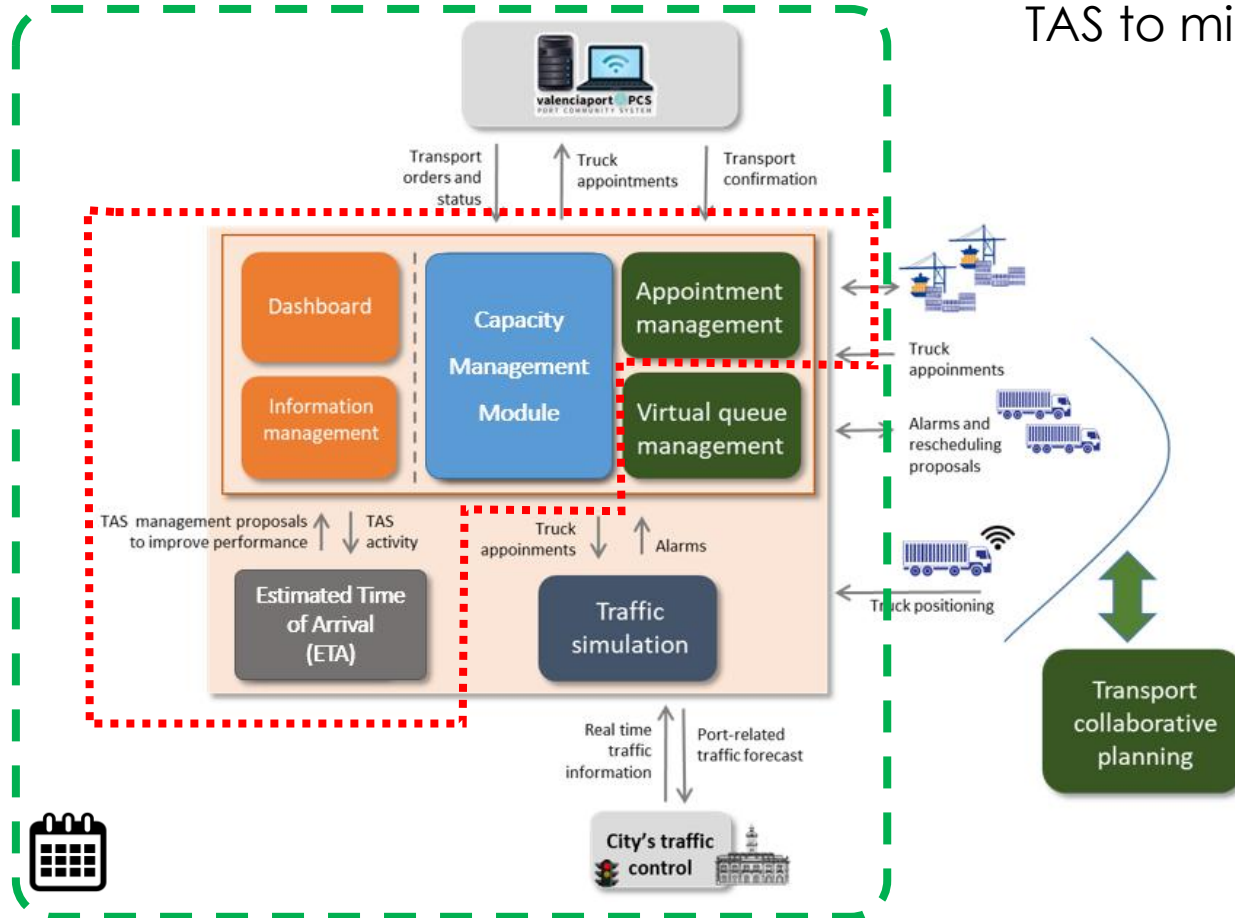


# COREALIS Advanced transport mgmt & TAS



## Truck Appointment System:

**Objective:** demonstrating advantages of an innovative TAS to minimize road transport impacts



### TAS in two steps:

1. Simple TAS:
  - Appointment Management
  - Capacity Management
  - Dashboards
  - Simple ETA based on static position
2. Advanced TAS: (possible functionalities)
  - Full Integration with the PCS
  - Pre-Booking
  - Virtual queue
  - Accurate ETA
  - Integration with external sources





## Just In Time (JIT) Rail Shuttle Feasibility Study

**Objective:** Elaborate a feasibility Study of an innovative JIT rail shuttle for key port-hinterland corridors (Specific study for one corridor) to **increase the modal split** of the railway for inland transport



- **Design of the physical and operational solution:**  
Service characteristics
- **Information system requirements**
- **Definition of the business model**



## COREALIS Innovation Incubator: Hackathon Organization

**Objective:** Foster the **collaboration** among the port-logistics cluster and SMEs/start-ups by establishing new networks and partnership agreements to promote innovation, further digitalization and sustainability in the port-city environment.



### Hackathon

**Organization of a X-day event** (still to be defined) where students, professionals, start-ups & scale-ups tackle challenges within the maritime and logistics sector.

- Proposals for innovative solutions relevant to the port needs
- Digitalization of port operations and processes
- New agreements between Start-ups and the port community



# Contribution of the LL to the COREALIS goals



## COREALIS objectives

**O1. Embrace circular economy models** in its port strategy and operations.

**O2. Reduce the port's total environmental footprint** associated with intermodal connections and the surrounding urban environment for three major transport modes, road/truck, rail and inland waterways.

**O3. Improve operational efficiency, optimise yard capacity** and streamline **cargo flows** without additional infrastructural investments.

**O4. Enable the port to take informed medium-term and long-term strategic decisions** and become an **innovation hub of the local urban space**.



**Advanced TAS  
JIT Rail Shuttle**



**JIT Rail Shuttle**



**Innovation Incubator  
(Hackathon)**





# Conclusions

## Next steps:

### 1 Advanced TAS:

- Develop the first phase of the TAS and check it with the port community.
- Discuss the set of additional functionalities for the second phase with the main actors involved.

### 2 JIT Rail Shuttle:

- Finish the feasibility study and set a roadmap for the implementation of the service

### 3 Innovation Incubator (Hackathon):

- Set the challenges to be faced by the “hackers”.
- Select the main participants: experts, coaches, etc.





-  [www.corealis.eu](http://www.corealis.eu)
-  [corealis\\_eu](https://twitter.com/corealis_eu)
-  [COREALIS EU Project](https://www.youtube.com/COREALIS_EU_Project)
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# THANK YOU FOR YOUR ATTENTION



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