

M^oSES



Short Sea Shipping Logistics Matchmaking Platform

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MOSES Platform Overview

MOSES Platform is a digital matchmaking platform that enables the horizontal collaboration among logistics stakeholders, aiming to match demand and supply of cargo volumes.

- Focus on water-based transport modes
- Provision of supply availability
- Increased visibility of available SSS routes and hinterland routes
- Demand management
- Implementation of advanced data analytics
- Cargo consolidation



Source: <https://www.porttechnology.org/>

MOSES Platform objectives and goals

- Clear mapping of B2B processes within the entire supply chain
- Demand maximization and enhancement of SSS route usage
- Modal shift off the road to intermodal rail and waterways
- Cargo flow consolidation
- Changing freight flows handling and increase of partial cargo loads cost-effectiveness
- Optimization of distribution routes and improvement of empty container management



Source: <https://www.maritimegateway.com/>



Source: <https://www.maritime-executive.com/>

MOSES Platform audience and functionalities

Core Stakeholders / Potential Users

- Shipping agents
- Terminal operators
- Warehouse operators
- Freight forwarders
- Shippers
- Trucking companies
- Rail operators

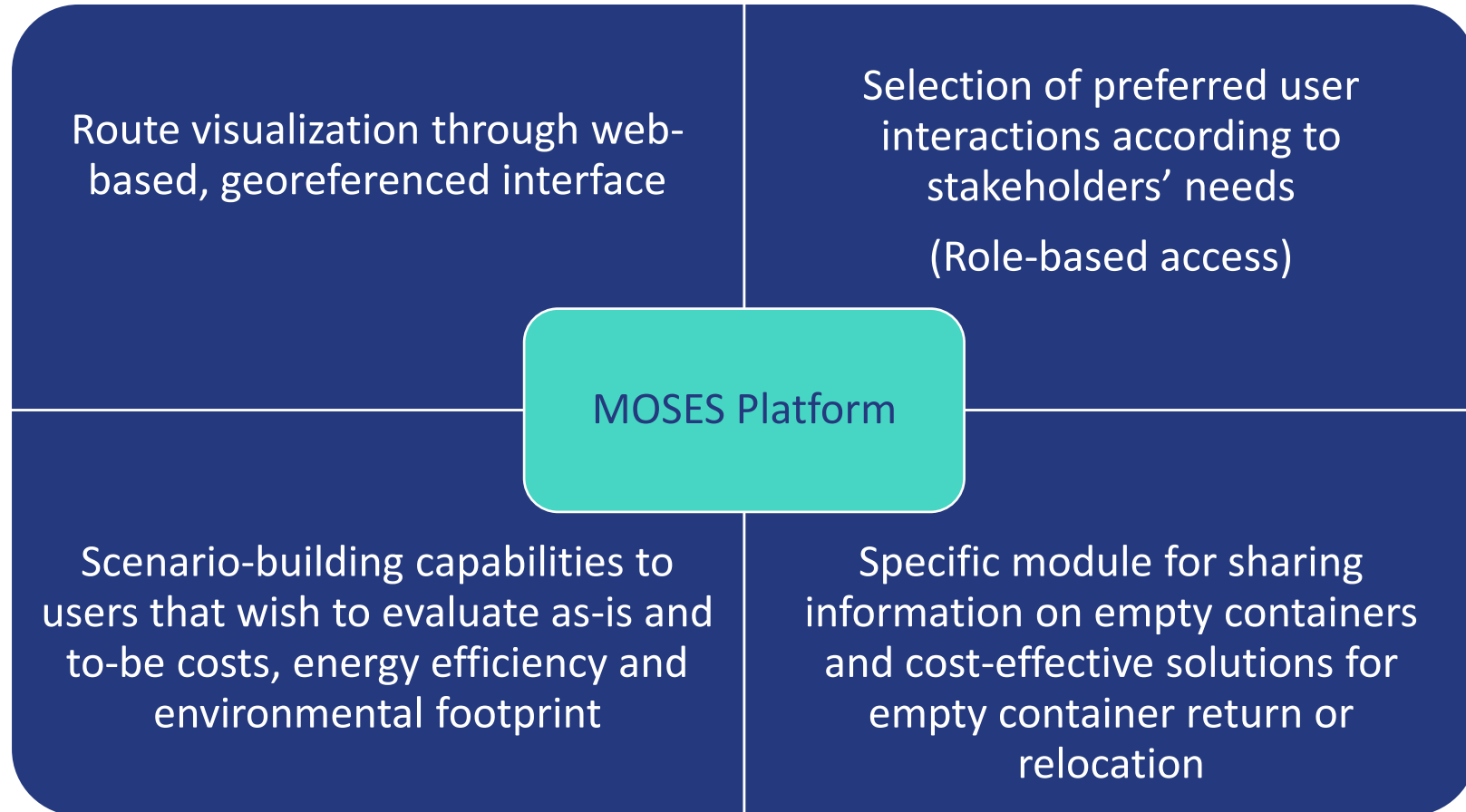
Tasks performed through MOSES Platform

- Ship/rail routes, schedule & capacity publication
- Truck services publication
- Order request
- Information about available transport options
- Information about available matching options
- Order execution & status monitoring
- Communication with other stakeholders



Trans-European Transport Network,
Source: <https://www.shortsea.gr/en/nma/>

MOSES Platform supported features



MOSES Platform adaptability

Developed mainly
for SSS

Ability to be
replicated for inland
waterways



Source: <https://www.inlandnavigation.eu/>

Focused on
container
freight

Easily customizable
for any modular
logistics unit



Source: <https://theloadstar.com/>

MOSES Platform Current State

- Currently covering 74 ports in the Mediterranean and the Black Sea
- Algorithm optimization
 - Business rules introduction to reduce processing time
 - Alternatives for delivering results in batch mode
- Populating database with current route schedules
- Developing of the transport network with a hub-and-spoke architecture
- Developing of the GUI
- Populating the database with historical freight transport data
- Alpha version to be ready end of January 2022

$$C_{(p, t, T)} = N \sum_{i=1}^n e_i \cdot \text{cost} + \sum_{i=2}^n TC_i(e_{i-1}, e_i)$$



MOSES

Thank you for your attention!



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 www.moses-h2020.eu

 MOSES project2020

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 MOSES Project

