MOSES Project Overview

David Tidy - Trelleborg

This project has received funding from the European Union's horizon 2020 research and innovation programme under grant agreement No. 861678.

MOSES Facts

- **Project Title:** AutoMated Vessels and Supply Chain Optimisation for Sustainable Short Sea Shipping
- **Call identifier:** H2020-MG-2.6-2019
- **Topic:** “Moving freight by Water: Sustainable infrastructure and Innovative Vessels”
- **Duration:** 01.07.2020 - 30.06.2023 (36 months)
- **Funding scheme:** RIA – Research and Innovation Action
- **EU contribution:** EUR 8 122 150
- **Coordinated by:** National Technical University of Athens (NTUA), Greece

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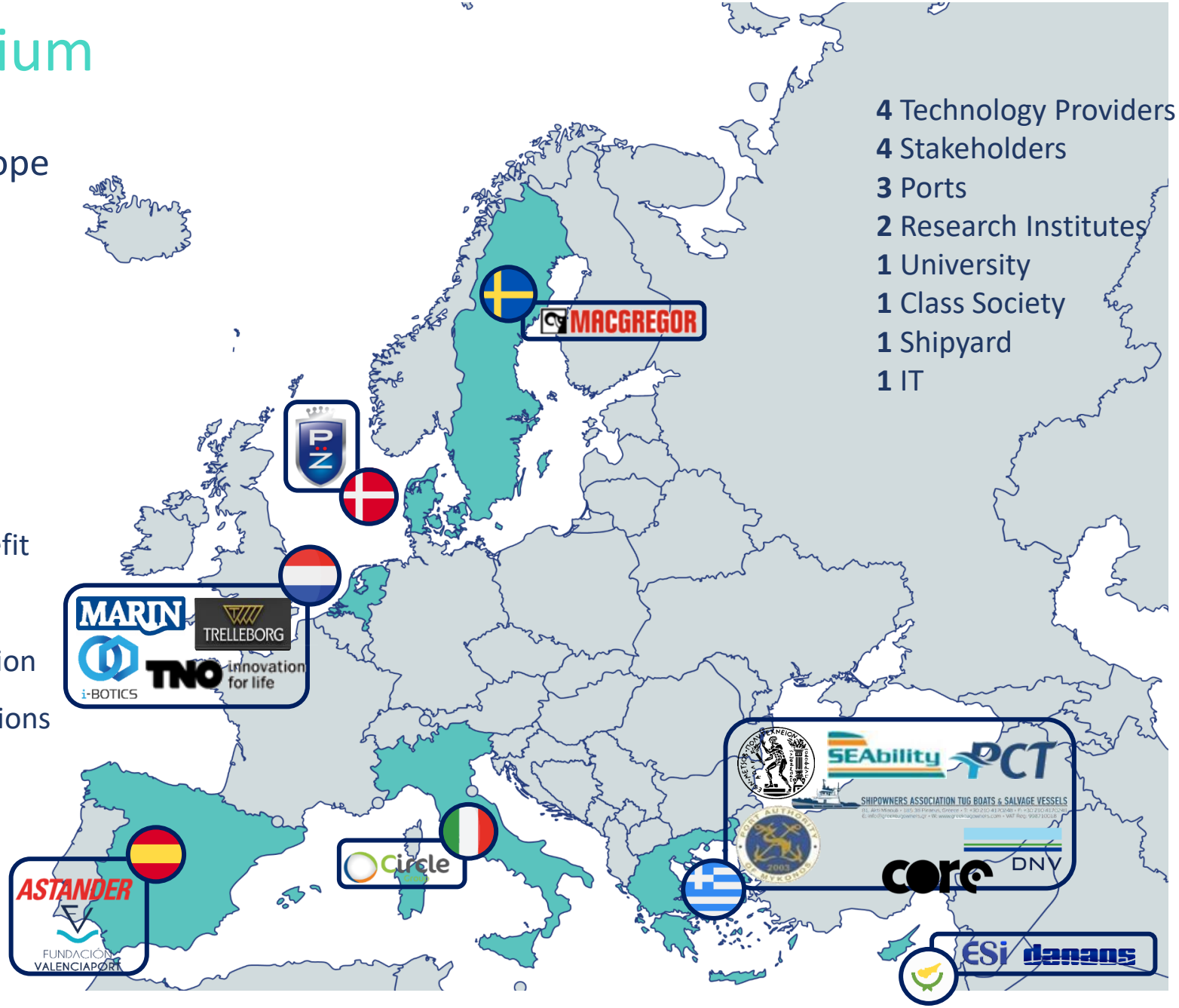
MOSES Consortium

17 Partners across Europe

Expertise in:

- Naval design
- Maritime Logistics
- Risk, Safety, Environmental Assessment
- Sustainability and Cost-benefit Analysis
- Autonomous System operation
- Port Infrastructure & operations
- Business Modelling
- Innovation Management



4 Technology Providers
4 Stakeholders
3 Ports
2 Research Institutes
1 University
1 Class Society
1 Shipyard
1 IT

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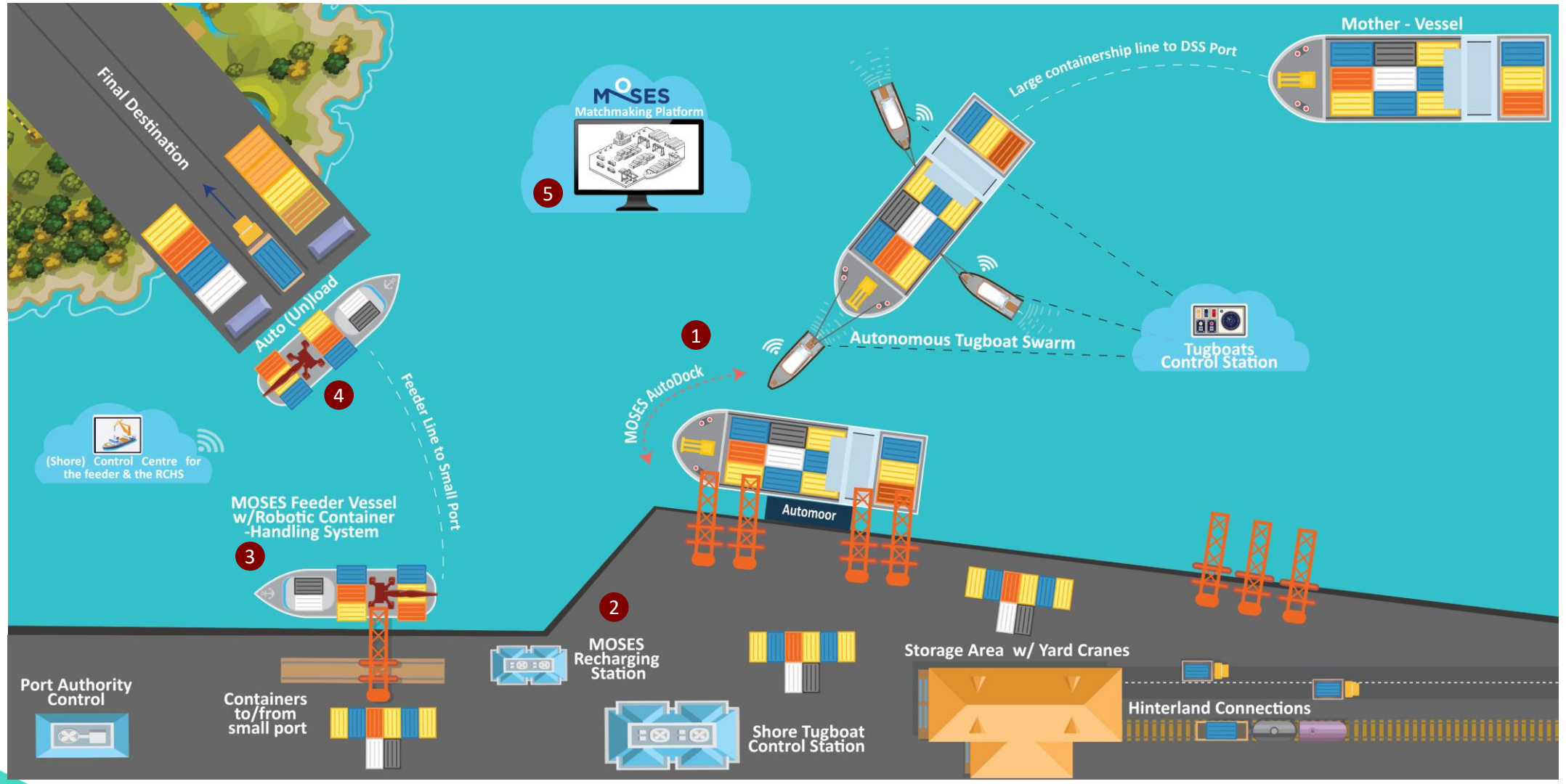
MOSES Concept & Innovations



MOSES Innovations:

1. MOSES AutoDock (MOSES Autonomous tugboats + AutoMoor)
2. MOSES Recharging Station
3. Innovative Feeder Vessel
4. Robotic container-handling system
5. MOSES matchmaking platform

Trelleborg Docking & Mooring

- Global leaders in design and manufacture of Docking & Mooring equipment.
- Over 50 years experience in marine sector.
- Specialize in Quick Release Hooks, Automated Mooring, Met-Ocean & Docking Aid Systems.
- Installation base of 1200+ projects across 90+ countries.
- An ‘End to End’ approach; integrated strategy encompassing entire lifecycle of our products and services.

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AutoMoor

Rope-free mooring system using vacuum technology

Key Customer Benefits

- Faster berthing operations
  - 30s moor / 15s de-moor
- Snapback eliminated, safety improved
- Decreased reliance on tug boats for mooring operations
- Helps to decrease port emissions
- Eliminates the need for infrastructure extensions
- Minimizes passing ship effect
- Operational labour costs reduced

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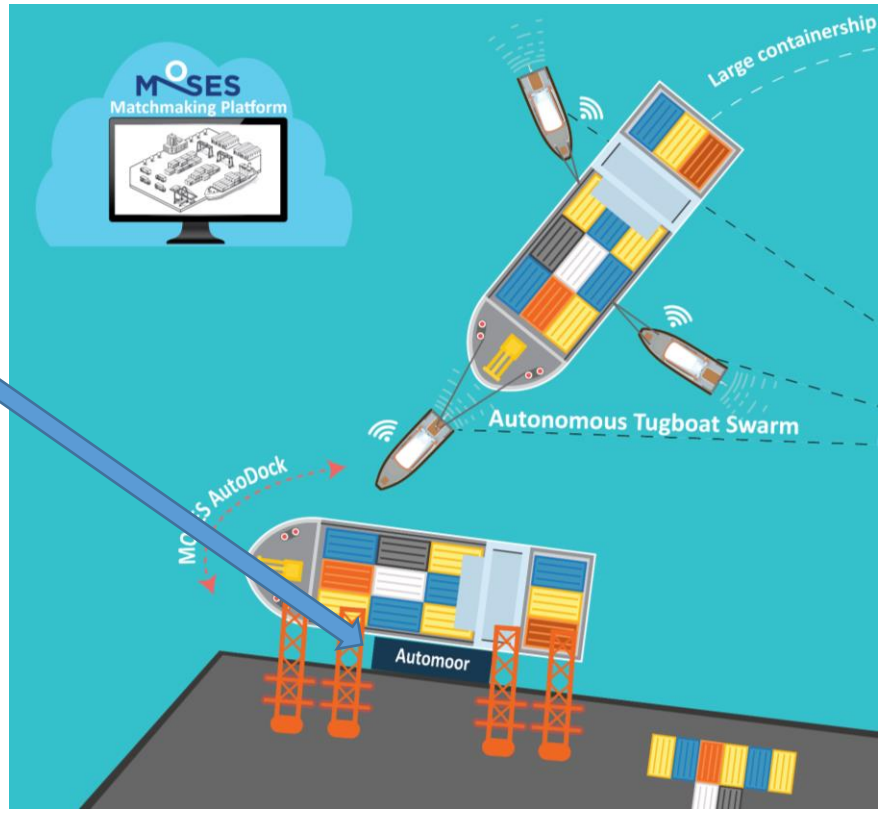
AutoMoor

What's New:

- Small-scale version:
  - Self-contained (all-in-one) design
  - Lower capacity pad (10T)
  - More efficient drive system (lower power consumption)
  - Maintenance access improved
- Integrated with autonomous tug boat swarm
  - Moor/De-Moor without operator input
  - Modbus TCP via WiFi
  - TRL5 situational awareness and control



Pilot 1 Video

Pilot 2 Video

https://www.youtube.com/watch?v=9i7pQolgwxU

Pilot 3 Video

https://www.youtube.com/watch?v=0TD2AShN2e8

Thank you for your attention!

www. moses-h2020.eu

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