



# ATENA

FUTURE TECHNOLOGY

## SCHEMA PROGETTO

### Titolo:

SMART PUSHER-BARGE CONCEPT FOR FLEXIBLE SHORT SEA SHIPPING

### Acronimo:

FLEXSHIP

### Ente Finanziatore:

EU - European Commission

### Call:

2019 Call: H2020-MG-2018-2019-2020 (Mobility for Growth)

### Coordinatore:

Teknologian tutkimuskeskus VTT Oy (Finlandia)

### Partner:

ABB OY (Finlandia), ATENA SCARL, INESC TEC - INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES, TECNOLOGIA E CIENCIA (Portogallo), DANAOS SHIPPING COMPANY LIMITED (Cipro), COMPASS INGENIERIA Y SISTEMAS SA (Spagna), HHLA INTERNATIONAL GMBH (Germania), CHALMERS TEKNISKA HOEGSKOLA AB (Svezia), RINA CONSULTING SPA

### Durata prevista:

Data inizio:

Data Fine:

### Budget:

	Totale	Atena	Parthenope
Budget Progetto	10.000.000		
Agevolazione			

### Stato:

Non Finanziato

### Obiettivi:

Cargo and passengers travelling in the EU are clogging up the road and rail networks, creating bottlenecks, with high CO2

emission, local air quality deterioration and noise. In Europe, shipping accounts for 37% of intra-EU trade. Container cargo

trucks are a common sight in European TEN-T motorways and in 2016, the share of container transport in total road transport performance in the EU was estimated at 6 %. The volume of short sea shipping (SSS) container transport in EU in



2010 was 24,069 thousand TEUs. The waiting time has been dominating the utilization rate of container feeders. New

challenges are caused by growing ocean-going containerships. It takes more time to load and unload them.

Innovations to

improve flexibility are needed to decrease the time spent in port and thus make SSS a competitive option to land cargo.

Potential for freight growth is obvious.

FLEXSHIP project aims at increasing the economic performance of short sea shipping and furthermore move freight from land to sea within Europe by implementing a smart, modular pusher-barge concept for flexible short sea container shipping, powered by green energy sources.

Smart. Pusher-barge can be operated onboard or remote, equipped with systems of various levels of autonomy.

Modular. A pusher can operate with several barge sizes, visiting large and small ports around European coastline, as well as work at port with different barges.

Flexible. The concept enables use of various amount of pusher and barges, which utilization rate is maximized with novel fleet management systems.

Green. Electrification of ships is considered a top-most important means to achieve zero local emissions. The concept has a fully electric power plant, powered by batteries and fuel cells.

Economic. Cost-competence is achieved by optimised integration to other logistics modes.

The key word is flexibility – it will ensure the cost effectiveness and make short sea shipping a competitive option in container transport.