

THE SEA EMBRACES THE SPACE

- The GSAB - Grimaldi Satellite Assisted Berthing project is underway
- Assisted berthing of ships and, in perspective, totally autonomous driving
- Italy-Norway cooperation and final test at the Port of Antwerp
- Contribution of the Italian Space Agency and the European Space Agency

Naples, 9 September 2022: Within its Navigation Innovation and Support Program (NAVISP) and with the contribution of the Italian Space Agency (ASI), the European Space Agency (ESA) has assigned the Grimaldi Group the GSAB (Grimaldi Satellite Assisted Berthing) project, aimed at developing and validating the first assisted guidance system with satellite technology for docking maneuvers of large PCTC (Pure Car & Truck Carrier) vessels.

The Naples-based Grimaldi Group – one of the largest international shipping groups, with a fleet of around 130 ships owned, 10 newbuilds under construction and 10 in the design phase – will coordinate an international team with Kongsberg, a Norwegian industry leader specialized in the design of signal reception and processing technology, and the Radiolabs Consortium which, in addition to supporting the Grimaldi Group as co-prime contractor, will take care of the design, execution and validation of the system in operating conditions. The operational tests will be carried out on one of the large and modern ro-ro ships part of the Neapolitan shipping group's fleet.

GSAB involves a first 18-month phase for the design of the equipment, its laboratory tests and pre-installation on the selected ship. The second phase, already discussed and agreed with ESA, will start in March 2024: it will involve on-site tests in the Port of Antwerp (Belgium) at Antwerp Euroterminal (a Grimaldi-owned terminal), as well as their analysis and validation, which will allow to plan the further steps necessary for commissioning.

GSAB aims at the development of a system for vessel mooring assisted guidance, using the newest satellite tracking technologies in support of the latest generation automation systems installed on board the ship. For the 1st level of autonomous navigation (at the Port of Antwerp), the technology will not operate automatically but will provide information to the ship's Master to facilitate decision making and mooring.

The shipping group's Managing Director **Emanuele Grimaldi** expressed his satisfaction with this agreement with ESA, which confirms the interest of the Grimaldi Group in new satellite technologies intended to increase the efficiency and safety of ship management systems.

For more information:

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The Grimaldi Group, headquartered in Naples, operates a fleet of over 130 vessels and employs approximately 17,000 people. Wholly owned by the Grimaldi family, it is a multinational logistics Group specialised in the operation of roll-on/roll-off vessels, car carriers and ferries. It comprises seven shipping companies, namely: Grimaldi Deep Sea, operating in the transport of rolling cargo and container on the Atlantic routes and between the Mediterranean and West Africa; Grimaldi Euromed, specialized in the transport of rolling freight in Europe, in the Motorways of the Sea and in the transport of passengers in the Mediterranean with the Grimaldi Lines brand; Atlantic Container Line, which offers transport services for containers and rolling cargo between North America and North Europe; Malta Motorways of the Sea, shipowning company; Minoan Lines, operating in Greek cabotage for the transport of freight and passengers; Finnlines, operating in freight and passengers transport in the North and Baltic Sea; Trasmed GLE, active in the transport of freight and passengers between mainland Spain and the Balearic Islands.

The maritime connections are the core of an advanced logistics chain, which includes port terminals and road transport companies. The over 20 port terminals owned/operated by the Grimaldi Group are located in 12 countries around the world: Italy, Spain, Germany, Sweden, Finland, Denmark, Ireland, Belgium, Egypt, Cameroon, Nigeria, Benin. Most of these terminals are fitted with Pre-Delivery Inspection (PDI) facilities, warehouses and workshops.