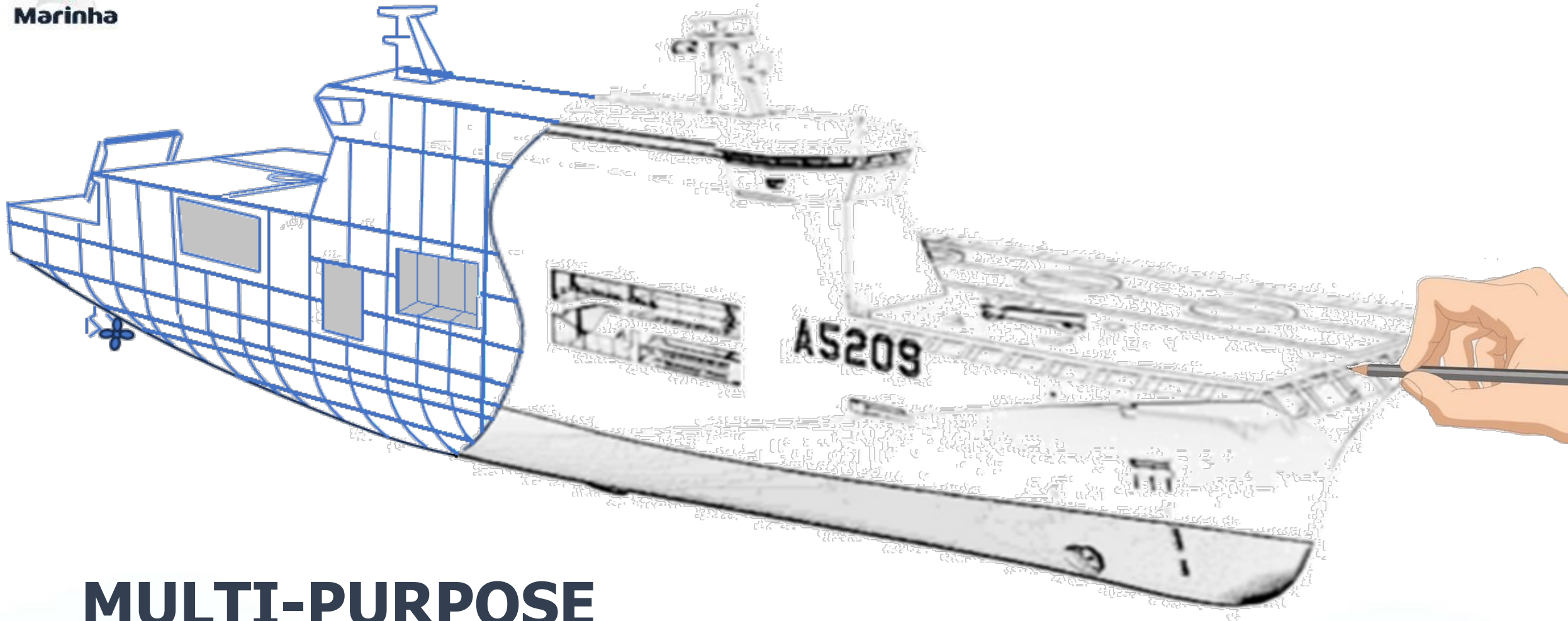


MULTI-PURPOSE SUPPORT SHIP

Commander Lourenço da Piedade, Portuguese Navy,
15th May 2024





MULTI-PURPOSE SUPPORT SHIP

Missions and basic Characteristics

1

Documentation and Design

2

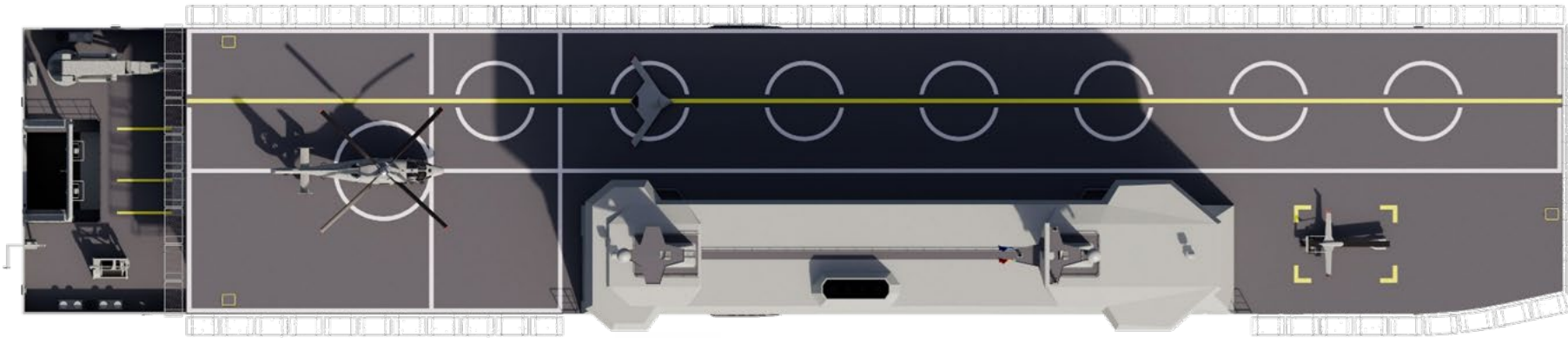
The Ship and Functionalities

3

Capabilities and external links

4





SCIENTIFICS



Collection, processing and transmission of data about the Portuguese Sea

Scientific operations, seabed prospecting

Support for economic, scientific and cultural development



SECURITY

Co-operation with civil security authorities

Disaster relief

Search and rescue at sea



DEFENCE

Sovereignty Missions in the Portuguese Sea

Surveillance, inspections and supervision in the Portuguese Sea

Evacuation of nationals from dangerous areas



Dimensions

Displacement : 7000 ton
LOA : 107 m
Lpp : 100 m
Beam : 20 m
Draft : 5,5 m



Environment



Engines : TIER III
Propulsion : Electric/Battery
Bilge Water: Separate
Black Water : Sewage
Waste : Treated



Personnel

Crew : 48 pax
Scientists : 42 pax
UXV op. : 42 pax
Temporary : more 100 pax
Emergency : more 200 pax




Operational

Availability : 250 days
Op. Area : 60° Lat N/S(No ICE)
Endurance : 45 days
Max. Speed : 15,5 kts
Cruising Speed : 10 kts




EMA → IOA and POA
preparation Group



**Concept of Operations
(IOA 604)**


**Operational objectives, expressed
in missions and tasks**



**User Requirements
Document
(POA 10)**

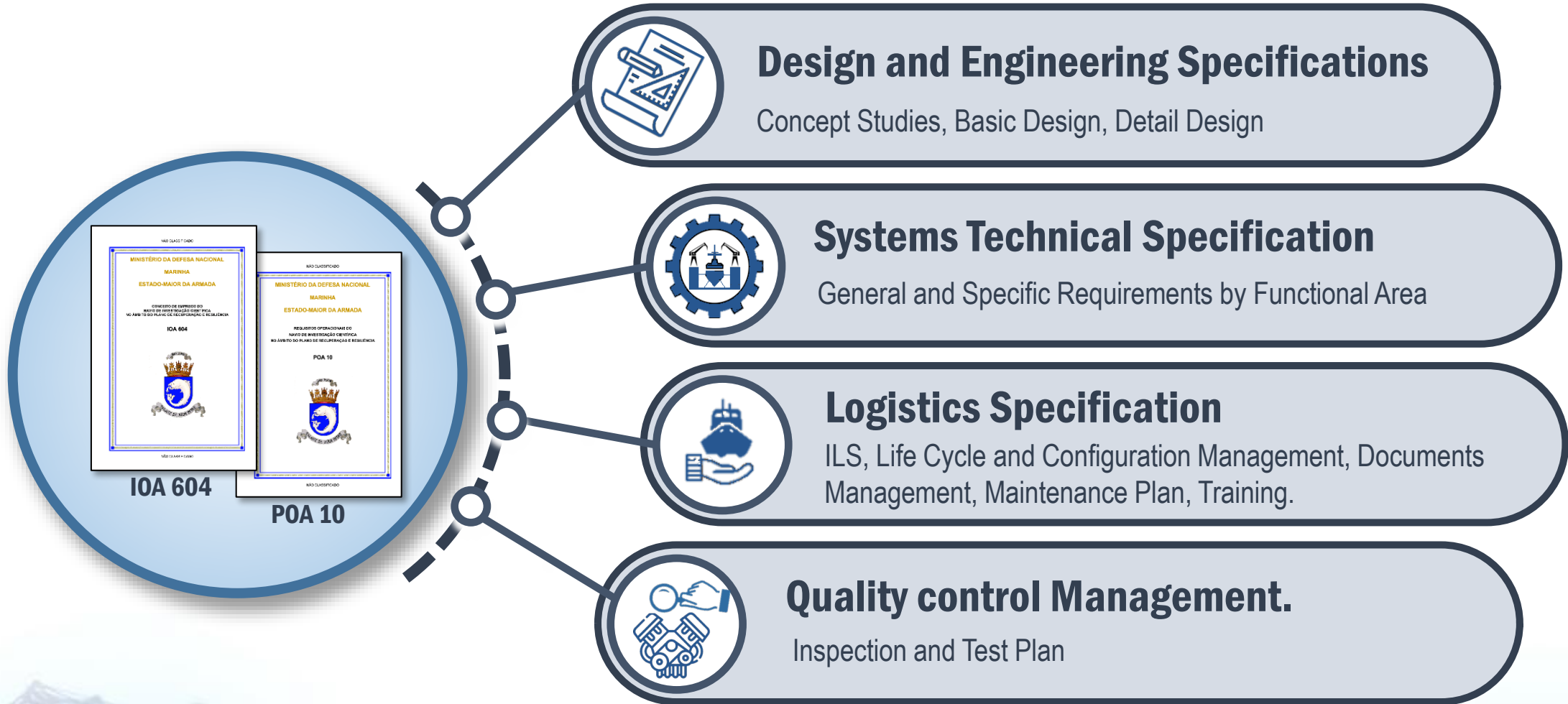
**Capabilities and performance requirements
to fulfil the operational missions.**

GP – PN / PRR

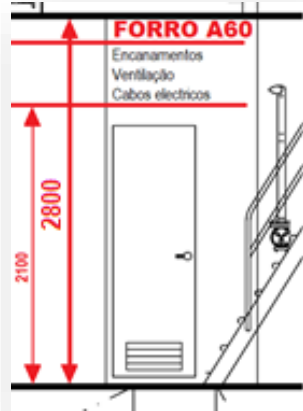


**Tender - System
Requirement
Document**

**Systems specifications to ensure the
defined user requirements and operational
performance.**

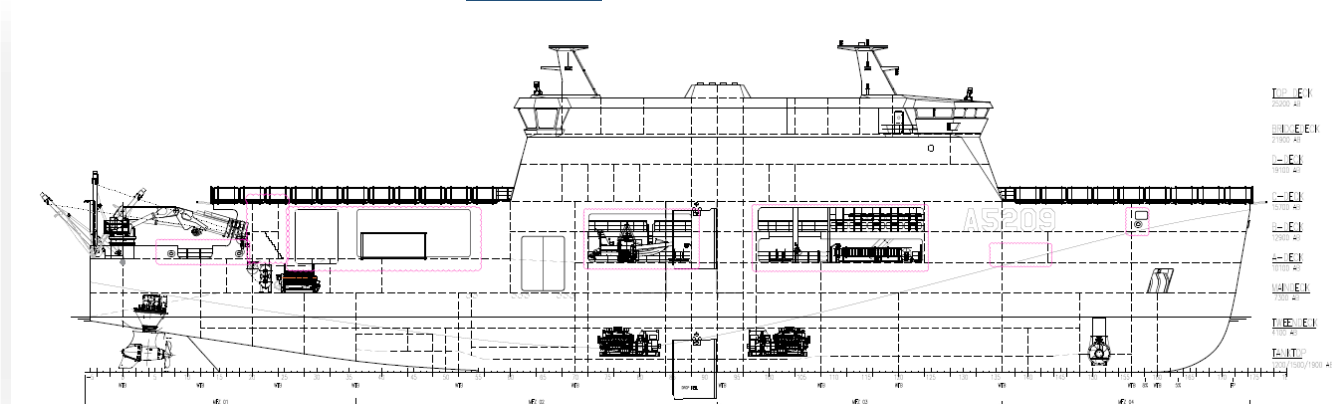


Decks

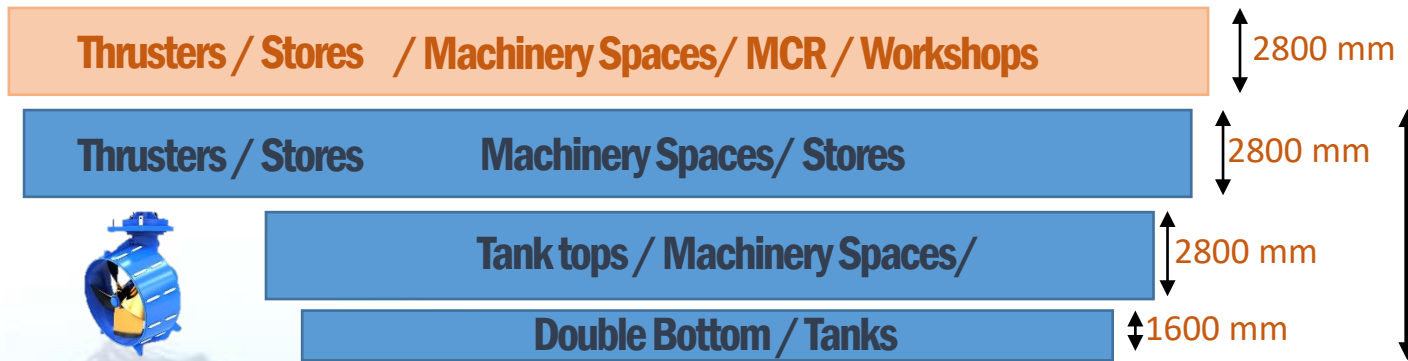


Deck Height

- Deck Height = **2800 mm**
- A60 insulation (Fire integrity) = **100 a 150 mm**
- Reserved space for Piping, = **500 mm**
- Ventilation and Cabling
- Passage height = **2000 a 2100 mm**



Main deck and bellow



Draft = 5,5 m

Machinery Spaces:

- Azimuth Thrusters Room/ Generators Room/
- Bow Thrusters/ RO Water Maker/
- Compressors/ Sewage/ Hydraulics

Tanks:

- FAME or HVO/ Urea/ Fresh Water/ Oil /
- Ballast/ Sludge/ Sewage/ Oily waters .



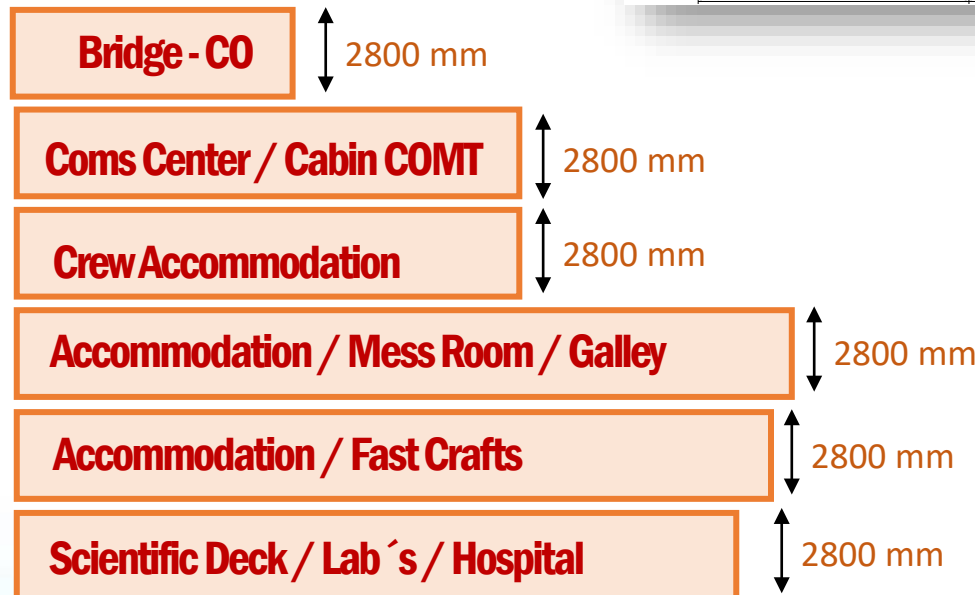
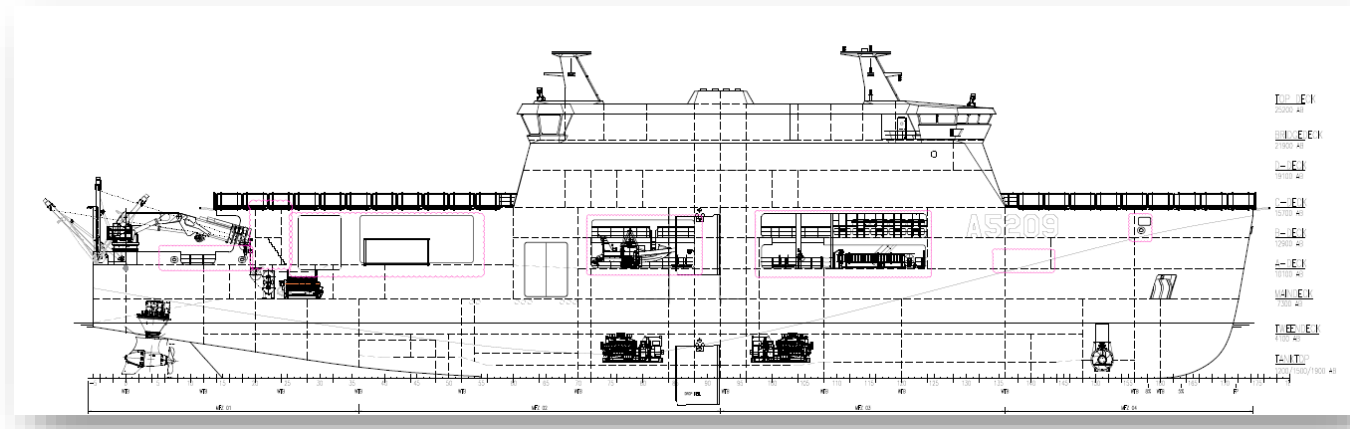
Bridge



Field of view = 360°

Bridge integration with
Operation Centre

Decks



Working Area

Under Flight Deck Floor :

Galley / Refrigerators / Stores / Accommodation /
Dining room / Living rooms.

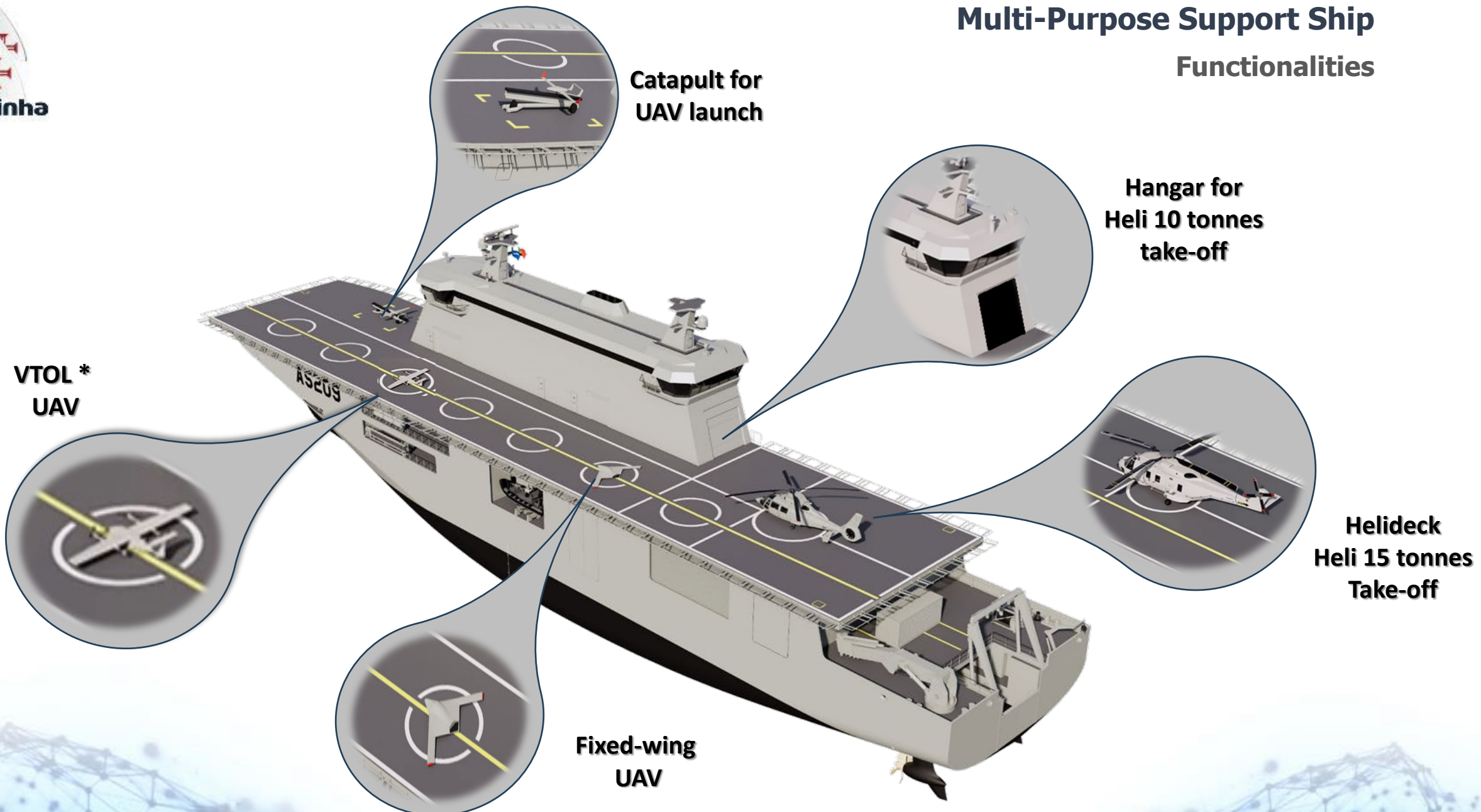
Scientific Deck :

Auditorium / Meeting Room / Lab's

Hospital / Corridor width 1,5 m / Drop Keel
Moonpool

Multi-Purpose Support Ship

Functionalities

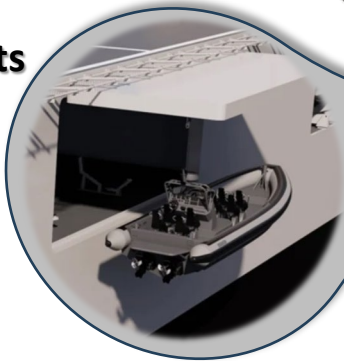


* Vertical take-off and Landing

Multi-Purpose Support Ship

Functionalities

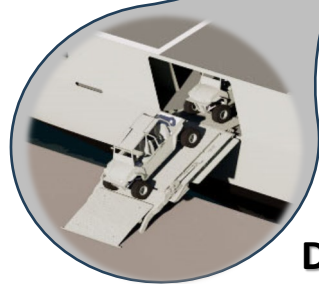
**Organic
RHIB 7 mts**



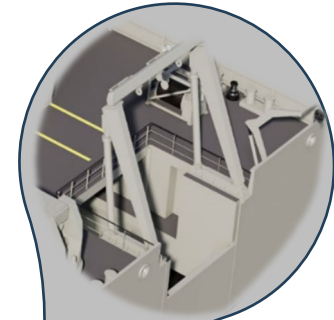
**Operation with
Scientific ROV
LUSO**



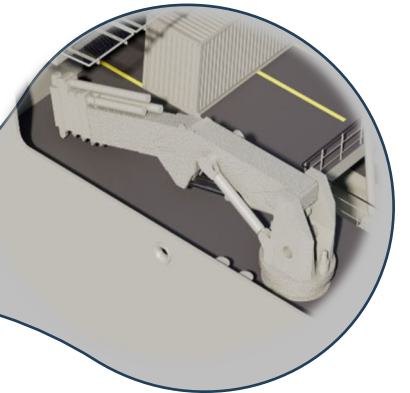
**RO-RO
Door & Ramp**



**A-Frame
30 Ton**



Crane 30t @14 m



Multi-Purpose Support Ship

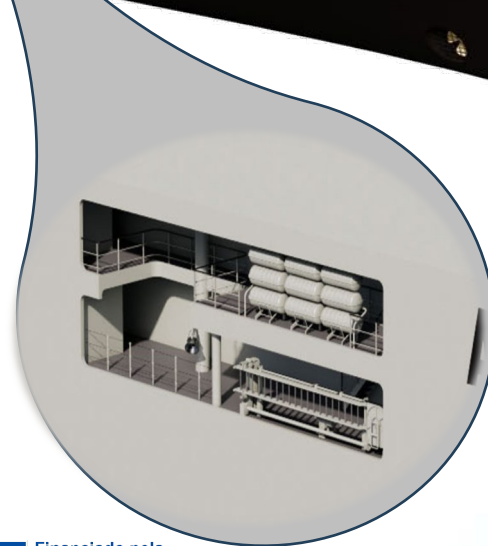
Functionalities



**Landing craft
10 mts**



**Operating
With CTD**



**RAS - Station
Replenishment
at sea**

Multi-Purpose Support Ship Functionalities



Multifunctional Hangar



UAV Hangar

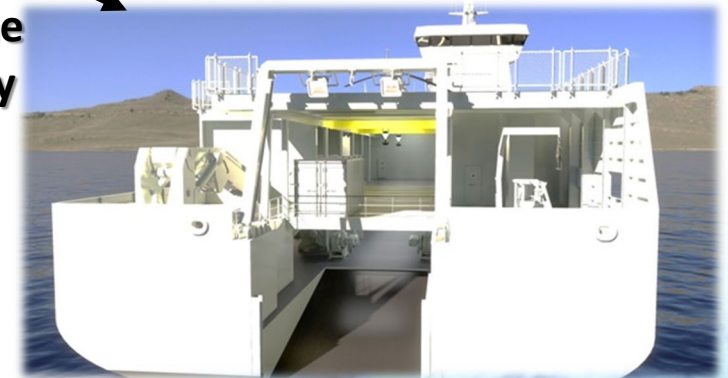


Personnel and material Lift



Scientific Winch

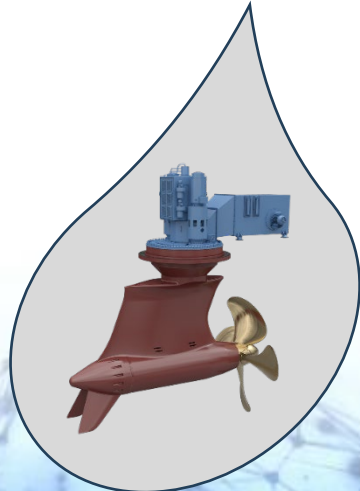
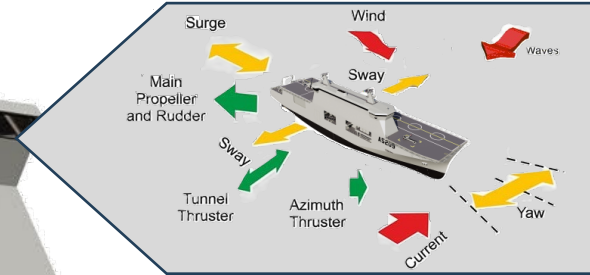
A-Frame Slipway



Multi-Purpose Support Ship

Functionalities

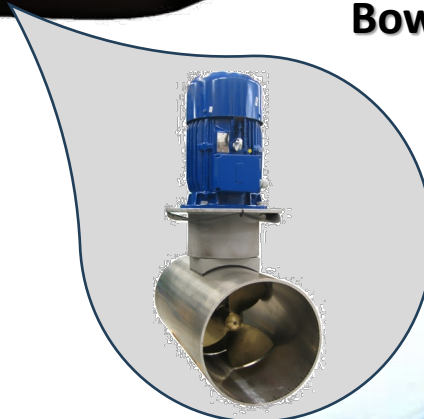
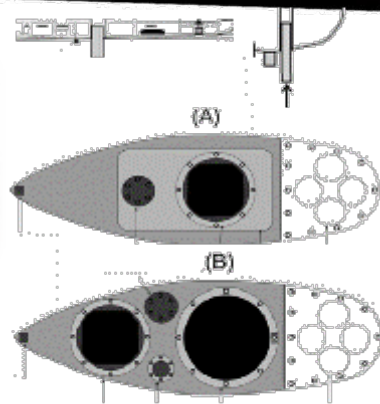
Dynamic Positioning DP 1



Azimuthal thrusters



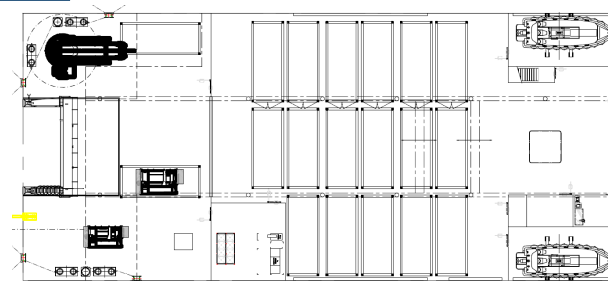
Drop Keel for Scientific Equipment deployment



Bow thruster

Ship's capabilities and capacity to embark material onboard

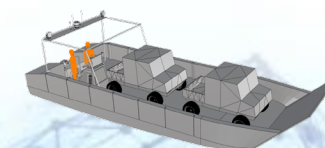
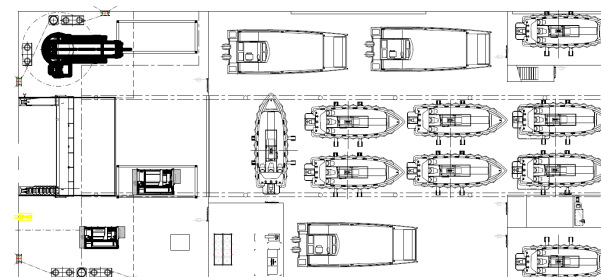
Loading up to 18 TEU
(20-foot containers)



Or
Embarking up to 18
Vehicles
(ambulances)



Or
Boarding up to
10 more
Boats/Landing craft / RIB's





Marinha

Ship's capabilities and capacity to Medical Support

Multi-Purpose Support Ship

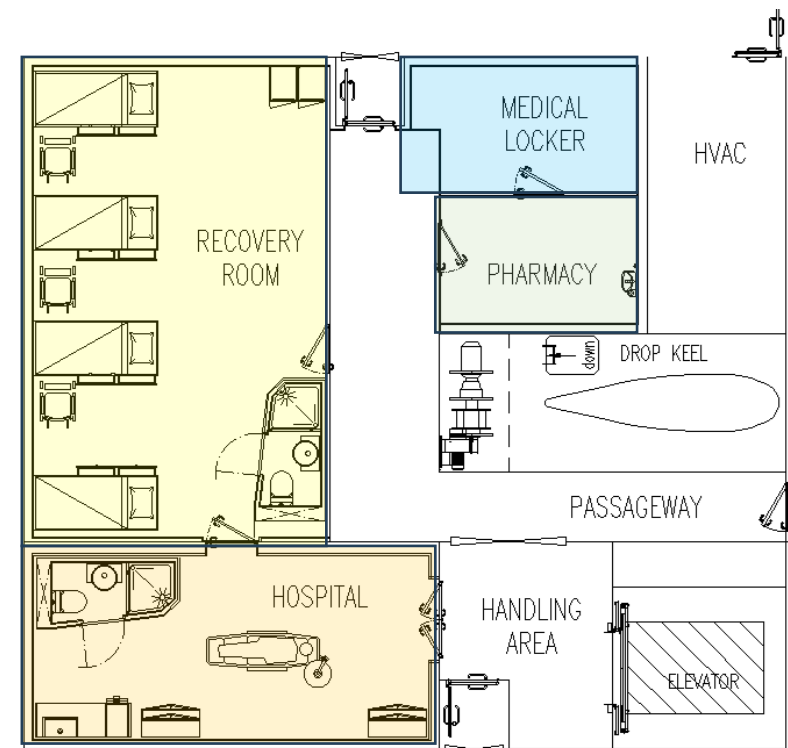
Capabilities



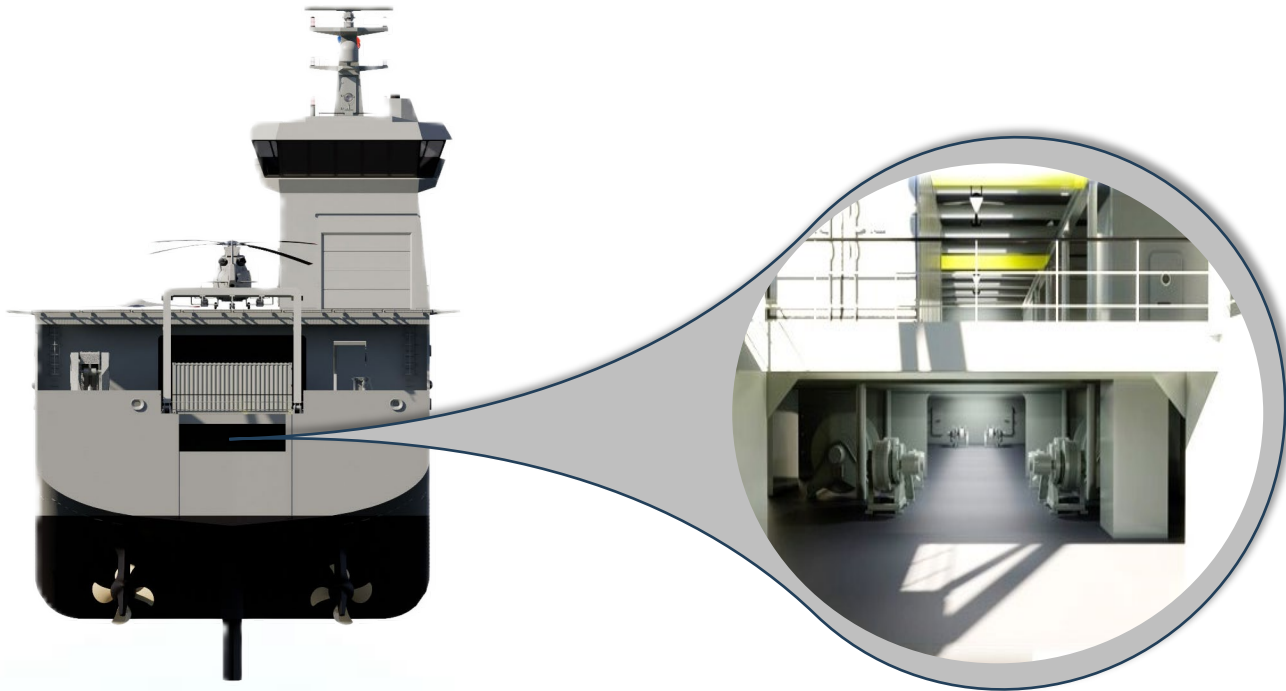
Hospital and recovery room



PHARMACY



Ship's capabilities and capacity to embark personnel

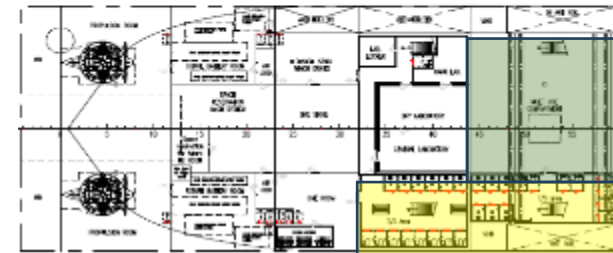
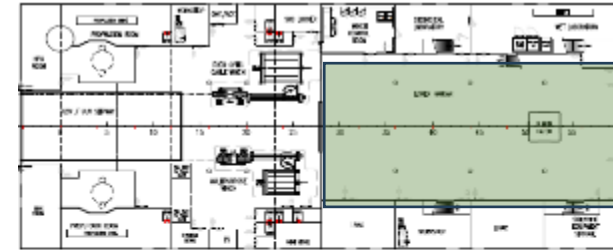


In emergency, capacity to embark more
200 people in the Multi-mission Hangar

Boarding up to 42
Scientists/Researchers/UAV
Operators in cabins

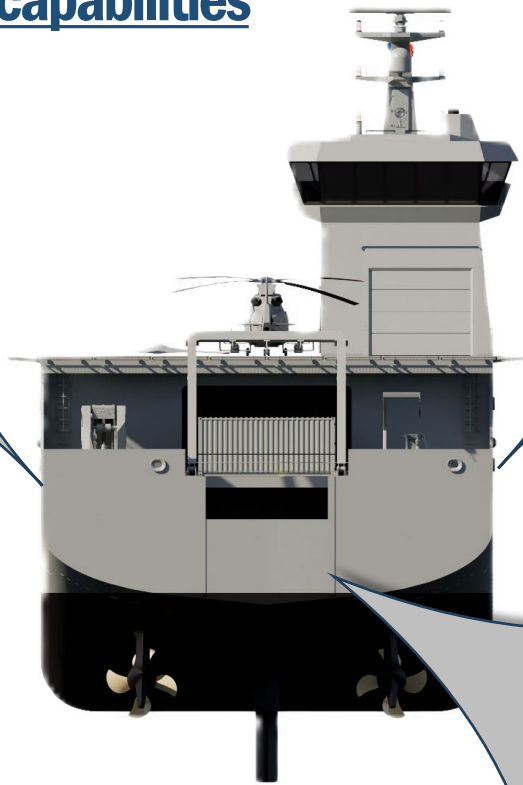


Boarding Capacity
More 100 extra people



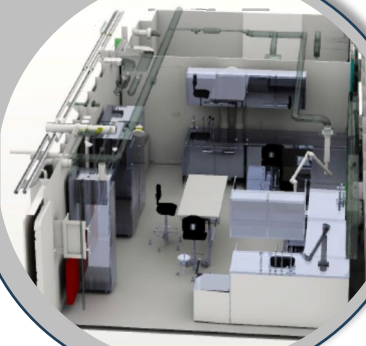


Scientific capabilities



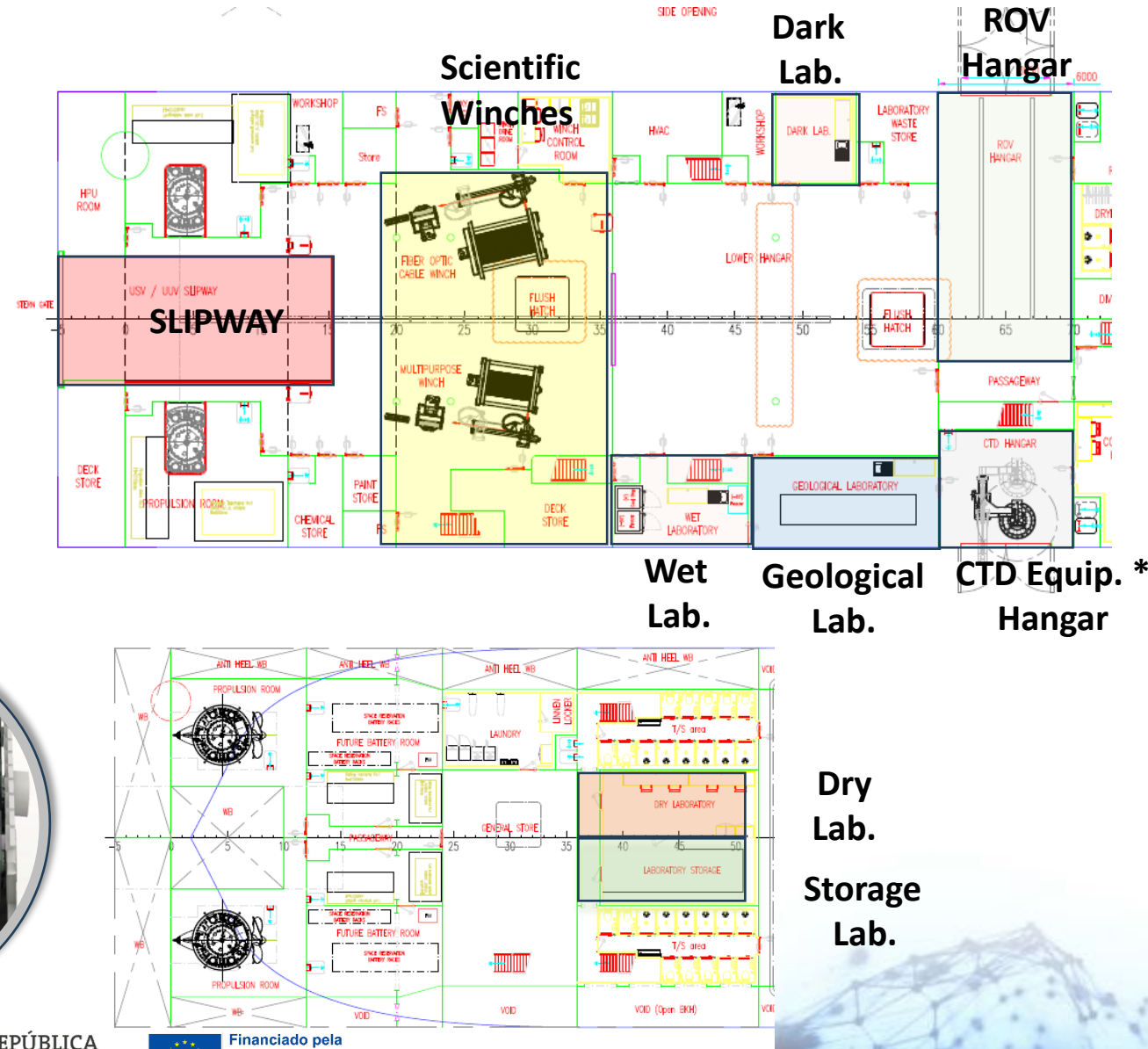
ROV Luso

CTD Equipment *



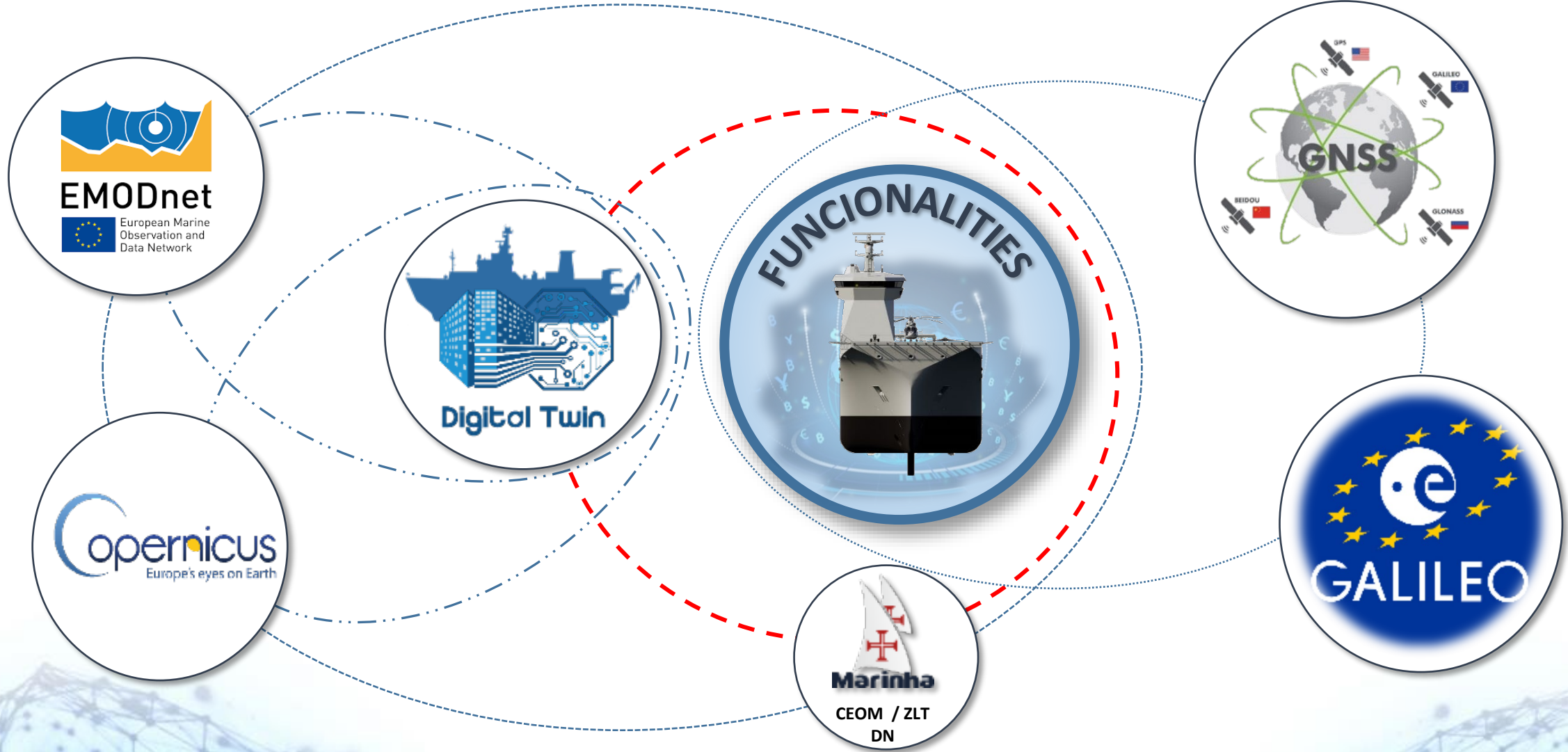
Multi-Purpose Support Ship

Capabilities



* Conductivity, Temperature and Depth





Multi-Purpose Support Ship Undergoing Multidomain Operations



MULTI-PURPOSE SUPPORT SHIP

Commander Lourenço da Piedade, Portuguese Navy
15th May 2024

