CIM
Centro de Investigación Mariña
Universidade Vigo

Near shore marine research with low emission medium size vessels

Daniel Rey

Director Marine Research Centre (CIM) University of Vigo

1. Role of small to medium-sized plug-in hybrid vessels

2. R/V CIM UVIGO:
   a succesful partnership
   capabilities Significance

3. R/V CIM UVIGO
   Implicatios for a Marine Research Center

1. Role of small to medium-sized plug-in hybrid vessels

Environmental Sustainability	Reduced emissions of greenhouse gas emissions & carbon footprint More accurate & less intrusive research in near-shore ecosystems
Operational Efficiency	cost-Effectiveness energy Efficiency
Technological Integration	same advanced Sensors and Equipment same data collection and real-time análisis
Accessibility and Versatility	Near-Shore Researchº Multidisciplinary Use
Support Decade of Ocean Science	

2. The R/V CIM-UVIGO

2021	CIM applies for national funding to construct a 20 m hybrid propulsion vessel coastal oceanographic research low operational costs and high environmental respect. acquisition of high-quality data for multidisciplinary and competitive research
2022	Public tender won by Rodman Polyships
2023	Construction Sea tests, special permits
2024	Fiting of hydaulic sytems Application for equipment

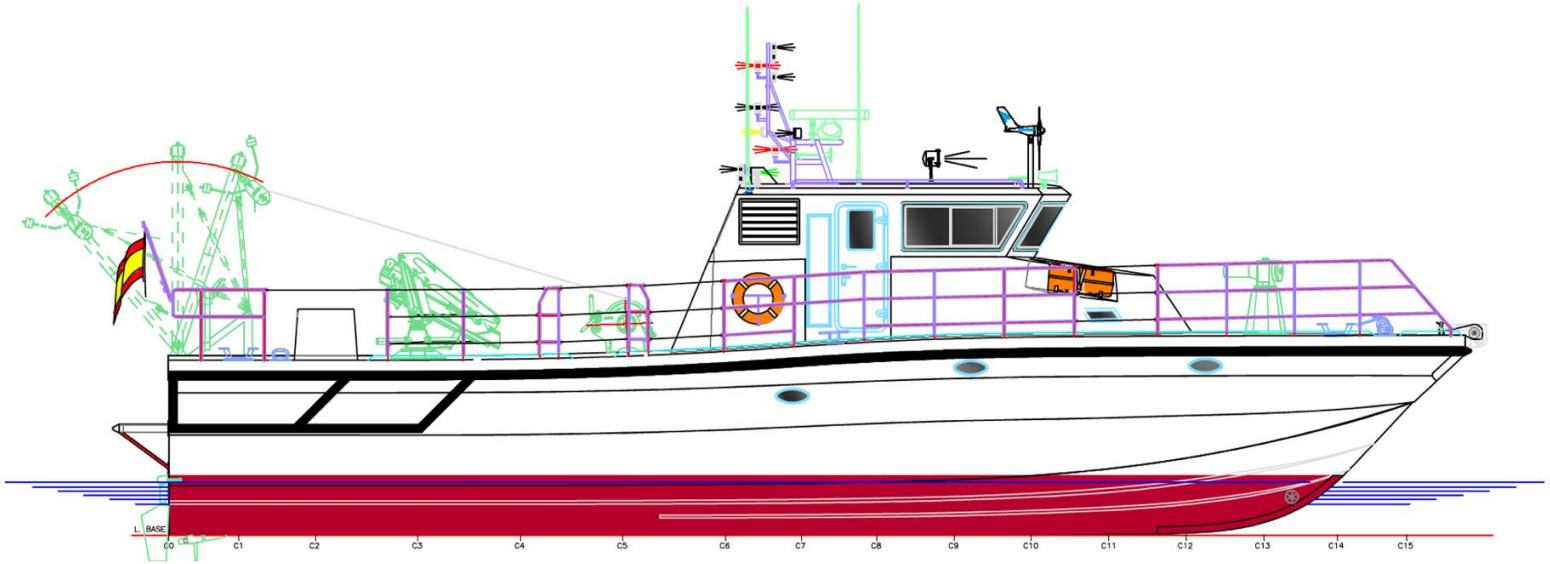
2. The R/V CIM-UVIGO

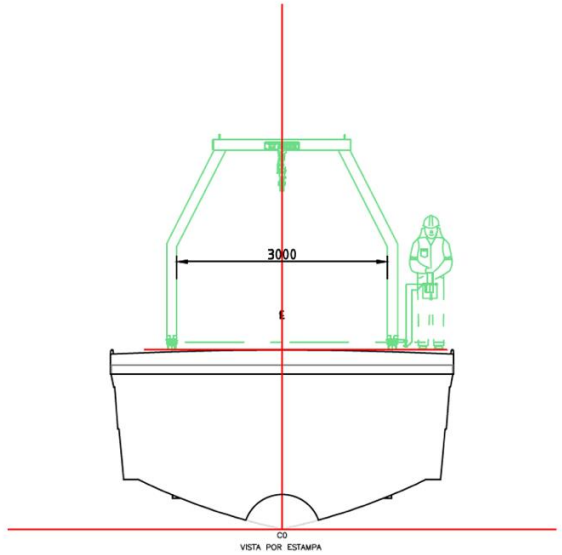
First in Spain	First professional vessel built in Spain with plug-in hybrid propulsión solar panels with polycrystalline cells and two wind turbines
Budget	€ 1.5 million funded by the State Research Agency Next Generation funds
Dimensions	19.5 meters in length 5.4 meters in beam
Shipyard	Rodman Polyships Moaña
Purpose	Strengthens Vigo and Galicia's position in coastal oceanographic research, address critical social challenges climate change, fishing, biodiversity, risk management

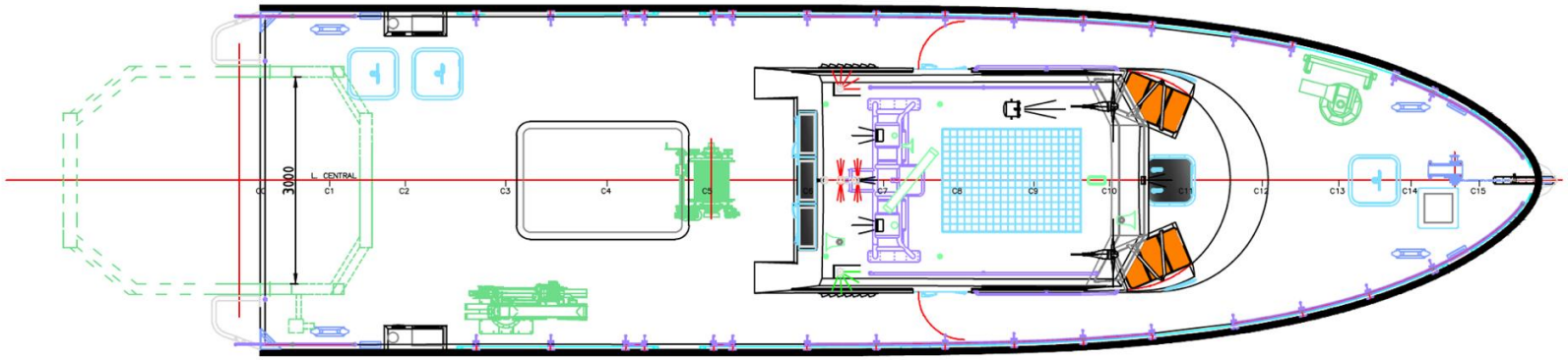
2. The R/V CIM-UVIGO

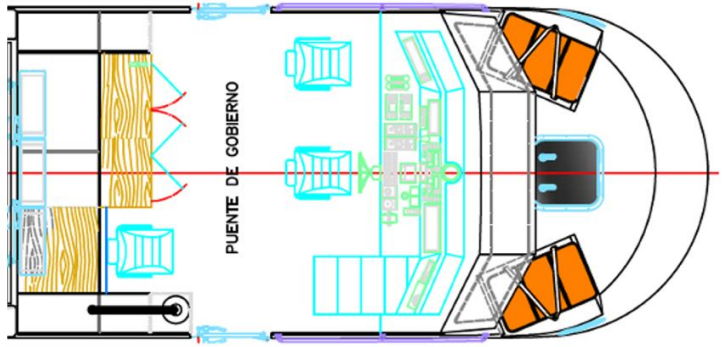
Deck	side crane, aft gantry & winch deployment of heavy equipment like rosettes, corers, nets
Materials	hull and deck of fiberglass-reinforced polyester wooden working deck
Below Deck	Accommodation area, laboratory, tanks, and engine room
Crew	12
Living Area	cabin with 4 bunk beds full bathroom Laboratory, dining area with kitchen

2. The R/V CIM-UVIGO

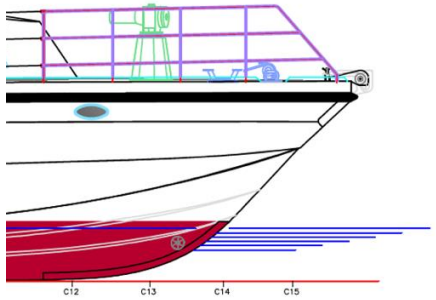


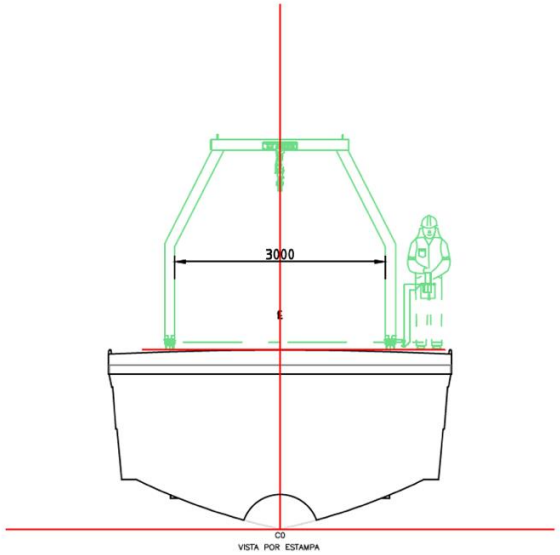


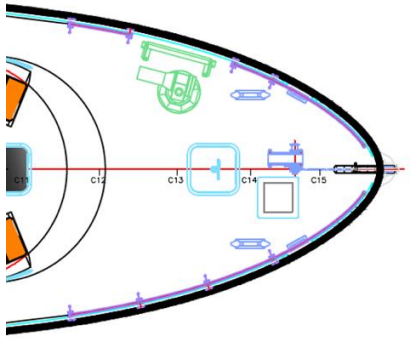


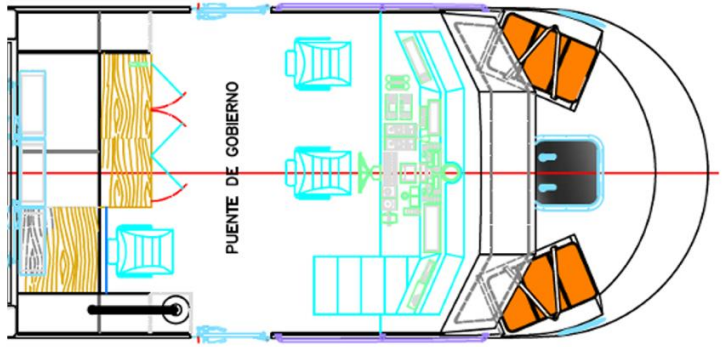


Description	Measurement
Total Length	19.50 meters
Hull Length	18.50 meters
Total Beam	5.10 meters
Height to Main Deck (side)	2.50 meters
Maximum Loaded Draft	0.72 meters
Fuel Capacity	2 x 2,400 liters
Fresh Water Capacity	500 liters
Crew	12persons
Propulsion Power	BAUDOUIN 6M26-3 (559 kW) 810 HP @ 2100 rpm
Gearbox	TK700 (2.591:1)
Propulsion System	Shaft Line
Electric Power TRANSFLUID	23 kW @ 288V - 810 rpm / max power 40 kW
Generator Power	28 kW
Max Speed @ 100% MCR	15 knots
Cruising Speed	12 knots
Range @ 15 knots	615 (41 hours)
Range @ 12 knots	840 (70 hours)
Range @ 11 knots	935 (85 hours)

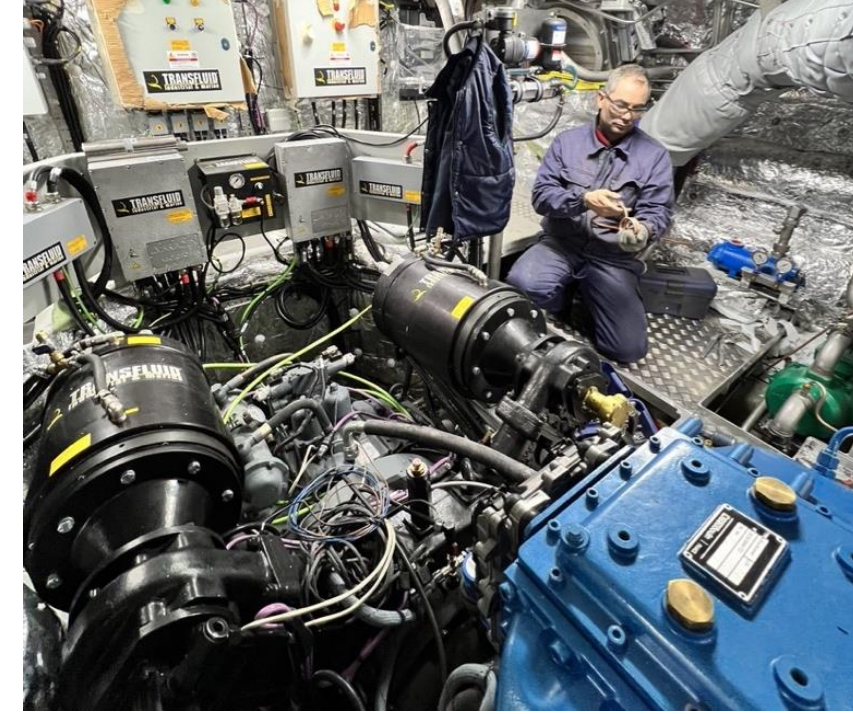









26th
ERVO
cim
CIM UVIGO


TRANSFLUID

3. Implicatios for the Marine Research Center (CIM-Uvigo)

Sust & Environ Stewardship	Alignment with Environmental Goals: Leadership in Green Technology:
Cutting-edge R&D	Enhanced Research Capabilities: Interdisciplinary Research Support:.
Operational Efficiency & Cost Management	Economic Viability Energy Management
Strategic Partnerships & Collaborations	Industry Collaboration International Projects and Funding
Educational & Training Opportunities	Student Engagement and Training Public Awareness and Outreach
Support Decade Of Ocean Science	Contributing to Global Goals address critical social challenges climate change, fishing, biodiversity, risk management

CIM
Centro de Investigación Mariña
Universidade Vigo

The End

thanks for your attention!

CIM Centro de Investigación Mariña Universidade Vigo

CAMPUS DO MAR

XUNTA DE GALICIA

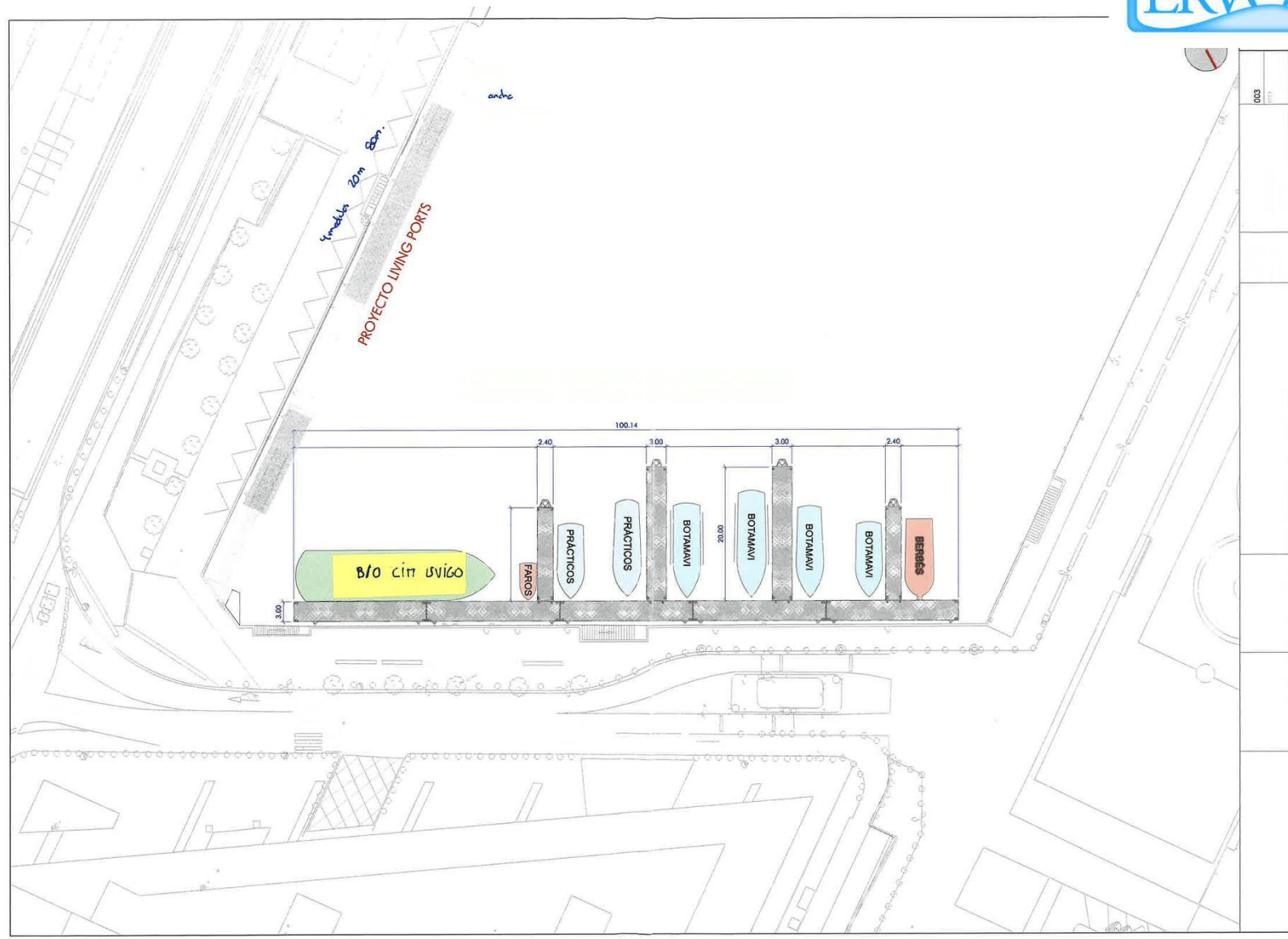
CENTROS gusR

Cofinanciado por la Unión Europea

Fondos Europeos

O Centro de Investigación Mariña incorpora os estándares do selo HRS4R
e apoia os Obxectivos de Desenvolvemento Sostible e a Década dos Océanos

HR EXCELLENCE IN RESEARCH


PROYECTO LIVING PORTS
100.14
2.40
3.00
3.00
2.40
20.00
3.00
B/O CIM UVIGO
FAROS
PRÁCTICOS
PRÁCTICOS
BOTAMAVI
BOTAMAVI
BOTAMAVI
BOTAMAVI
BERBÉS

SCIENTISTS meetARTISTS

FECYT

Puerto de Vigo
Autoridad Portuaria de Vigo

CAMPUS DO MAR

Fondos Europeos

Cofinanciado por la Unión Europea

XUNTA DE GALICIA

CENTROS gusR