NewRV



A NEW MULTIDISCIPLINARY RESEARCH VESSEL TO REPLACE THE RV A962 BELGICA

LIEVEN NAUDTS PIERRE DE BLOCK DAVID COX **RBINS-OD NATURE MSO DEFENCE MR SYS-N** MARK ARNALSTEEN Peter Degraer Luc Lams Frank Monteny PATRICK ROOSE Yves Dupont

Belgian Defence



Royal Belgian Institute of Natural Sciences (RBINS) **Operational Directorate Natural Environment (OD Nature)**

REPLACEMENT PROCESS

Council of Ministers agrees with the start of the feasibility study on the replacement or modernization of the RV Belgica 2005

FULL OCEAN RESEARCH VESSEL

71.4 m length, 16.8 m beam, 4.8 m draft

11 kn operational speed (max. 13+ kn)

- Council of Ministers agrees with the feasibility study and with the start of the finance study on the replacement or the modernization of the RV Belgica 2013
- Council of Ministers agrees with the finance study: the build of a new research vessel is the best solution 2014
- Council of Ministers principally agrees with the replacement of the RV Belgica and with the preparation of the public tender and the development of the further collaboration 2016 • between Federal Sciences Policy and Defence for the exploitation of the new research vessel

D E F E N S I E LA DÉFENSE

- Council of Ministers agrees with the launch of the public tender and the replacement of the RV Belgica by providing the necessary budget (54.45 M€ incl. VAT) 2017
- Council of Ministers agrees with the selection of the best offer from Freire Shipyard (& Rolls-Royce) 2017
- Council of Ministers re-agrees with the selection of the best offer from Freire Shipyard (& Rolls-Royce) 2018

SILENT RESEARCH SHIP Diesel-Electric (AC) propulsion (ABC – Rolls-Royce – Indar) (twin screw – 5-blade – fixed pitch) **Research silent Class**

North Sea, Atlantic Ocean, Mediterranean Sea Instrumentation adapted to water depths of 5000 m Ice Class for summer operations in Arctic areas

GREEN SHIP Waste-heat recovery MARPOL TIER III

Energy efficient & Low emission

New Capabilities Dynamic Positioning Class 2 (DP-2) (2 aft thrusters – 2 bow thrusters)

belspo

2 integrated drop keels Hoppe roll stabilization System 12 crew – 28 scientists & marine technicians



Belgian Science Policy Office

Limited influence on environment & Optimal acoustic platform

HEAVY DUTY 3 Cranes (fwd, mid, aft) 2 CTD Winches (stbd) Multifunctional Winch (stbd) Hydrographic Winch (aft/stbd) 2 Trawl Winches Net Drum Winch Split Net Drum Winch Net Sonde Winch 2 Gilson Winches CTD Gantry & LARS (stbd) 2 stbd T-frames Aft A-frame LARS incl. 15 m piston corer 7 m Work Boat

Able to deploy wide range of scientific gear up to 5000 m water depth



(14 single & 13 double cabins) 30 day autonomy & 300 days at sea

Suitable for offshore research, survey & exploration

> MORE SPACE More than 400 m² of lab space Wet Lab 3 Dry Labs Wet and Dry Fish Lab AUMS Lab Aerosol Lab **Diver Store** Seismic Room Scientific Lab **Operational Center** CTD hangar Hangar Crow's Nest Cold & Freeze Rooms Large aft & stbd decks

Adapted to the scientific needs for the coming 30 years

CLASS: DNV-GL № 1A; ICE(1C); SPS; E0; DYNPOS(AUTR); COMF-V(2); COMF-C(2); BWM-T; TMON; Silent-R; NAUT(AW)

FULL ACOUSTIC UNDERWATER INSTRUMENTATION SUITE

Shallow (EM2040) and deep-water (EM304) bathymetric multibeam echosounders (600 m & 8000 m) Parametric subbottom profiler (Topas PS18) (11000 m) Scientific multibeam (ME70) & split-beam wideband echosounder (EK80) (>5000 m) Omnidirectional fish sonar (SU90) (4500 m) Net- and catch monitoring system (PX & FX80) Underwater position-reference system (USBL) (HiPAP 502) (5000 m)

ADAPTED TO EXISTING LARGE EUROPEAN MARINE RESEARCH INFRASTRUCTURE

Autonomous Underway Vehicles (AUVs) Remotely Operated Vehicles (ROVs) Unmanned Aerial Vehicles (UAVs) 3D seismic systems Scientific sediment coring and rock drill devices Storage space of 7 ISO 20' containers

Acoustic Doppler Current Profilers (Ocean Surveyor 75 kHz & Workhorse 600 kHz) (1000 m & 50 m)

Mapping and analyses of full water column (incl. fauna), sea floor and subsurface

<u>TIMELINE</u>

- 2016: Specifications NewRV discussed with 10 ship yards (ESP, FR, NED, UK)
- Sept 2017: Reception of 7 offers (ESP, FR, NED, UK)
- End 2017-start 2018: Agreement on selection (CoM) & signed contract
- 2018-2019: 8-month design phase
- 2018-2019: New convention and business plan (CoM)
- 2019-2020: 20-month build phase
- Autumn 2020: Delivery NewRV

A platform for European cooperation through which Belgian researchers get (free) access to large (and expensive) European marine research infrastructure

NEW POTENTIAL & END USERS

- Complete support of Belgian Marine Science community •
- Ship time exchange with European Research institutes to: Enhance research capacity and study areas based on shared cost
- Strengthening the Belgian role in the Blue economy via its researchers, training centers & maritime industry
 - Financial return by deploying NewRV as an exploration- & test platform, research- & monitoring ship, education- & training platform

For binding information please go to: https://enot.publicprocurement.be/enot-war/preViewNotice.do?noticeId=274774 The information on this poster is non-binding!

NewRV@BELSPO.be

odnature.naturalsciences.be/belgica