

NewRV



A NEW MULTIDISCIPLINARY RESEARCH VESSEL TO REPLACE THE RV A962 BELGICA

LIEVEN NAUDTS PIERRE DE BLOCK DAVID COX
 MARK ARNALSTEEN RBINS-OD NATURE MSO DEFENCE MR Sys-N
 PATRICK ROOSE PETER DEGRAER LUC LAMS YVES DUPONT FRANK MONTENY



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



Belgian Defence



Belgian Science Policy Office

REPLACEMENT PROCESS

- 2005 Council of Ministers agrees with the start of the feasibility study on the replacement or modernization of the RV Belgica
- 2013 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
- 2014 Council of Ministers agrees with the finance study: the build of a new research vessel is the best solution
- 2016 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 between Federal Sciences Policy and Defence for the exploitation of the new research vessel
- 2017 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)
- 2018 Council of Ministers re-agrees with the selection of the best offer from Freire Shipyard (& Rolls-Royce)



SILENT RESEARCH SHIP
 Diesel-Electric (AC) propulsion
 (ABC – Rolls-Royce – Indar)
 (twin screw – 5-blade – fixed pitch)
 Research silent Class
 –
 Limited influence on environment &
 Optimal acoustic platform

FULL OCEAN RESEARCH VESSEL
 69 m length, 16 m beam, 4.8 m draft
 11 kn operational speed (max. 13+ kn)
 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)
 2 integrated drop keels
 Hoppe roll stabilization System
 12 crew – 28 scientists & marine technicians
 (4 single & 18 double cabins)
 30 day autonomy & 300 days at sea
 –
 Suitable for offshore research, survey &
 exploration

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 Gantries
 Aft Gantry
 Gilson Gantry
 LARS incl. 15 m piston corer
 7 m Work Boat
 –
 Able to deploy wide range of
 scientific gear up to 5000 m
 water depth



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)
 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

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

TIMELINE

- 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: 8-month design phase
- 2018: New convention and business plan (CoM)
- 2018-2020: 20-month build phase
- **Autumn 2020: Delivery NewRV**

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

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