

HCMR'S NEW RESEARCH VESSEL

THE GREEK RESEARCH COMMUNITY IS SETTING SAIL FOR THE PROCUREMENT OF A NEW OCEANOGRAPHIC VESSEL FOR THE HELLENIC CENTRE FOR MARINE RESEARCH (HCMR), WHICH WILL REPLACE R/V AEGAEO, THE GLORIOUS MARINE RESEARCH VESSEL



The Hellenic Centre for Marine Research (HCMR), a public research body under the General Secretariat for Research & Technology, Ministry of Development & Investment, officially commenced the procedure for the detailed design and construction of a new, ocean-going, multi-purpose research vessel. Funding for the procurement of the new vessel has been provided by the Hellenic State through a loan from the European Investment Bank which amounts to 55.18M€. The contract was signed in July 2020 by Prof. C. Staikouras, Minister of Finance, Dr. C. Dimas, Vice Minister of Research & Technology and Mr. C. Kargakos, loan officer at the European Investment Bank. According to the agreed time plan, the commissioning of the new vessel is expected in five years from now (end 2025).

R/V AEGAEO, the marine research vessel currently in use, was built in 1985 and refitted in 1997. After 35 years in service and hundreds of research cruises in the Mediterranean, the Black and the Red Sea, she will continue to serve the Greek and international marine research community until she is replaced by the new vessel.

The new research vessel will support the goals of the national research strategy and the research priorities defined by the European Commission, aiming to improve knowledge on the marine environment, contribute to marine spatial planning and focus on the study of and response to climate change, the Blue Growth strategy, the ocean / blue energy and the sustainable exploitation of the seabed.

The major thematic research axes prioritized by HCMR to serve the purposes of the above strategies are the following:

- (i) Marine ecosystem & fishery research
- (ii) Marine ecosystem health and environmental status
- (iii) Ocean observatories and forecasting systems
- (iv) Coastal processes, integrated coastal zone management
- (v) Long-term dynamics and kinematics of the Earth's crust and marine geohazards.

The new –green & quiet– vessel is foreseen to serve as a versatile platform for marine research, with advanced operational capabilities and state-of-the-art research equipment, which will boost hydrographic, biological, chemical, geological and geophysical research as well as fishery research in the open ocean and in depths of up to 6,000 m. She will operate in the Mediterranean, the Black and the Red Sea, and probably beyond those, in the Indian and the Atlantic Ocean. The preliminary design of the scientific layout and the technical characteristics of the vessel have been drawn by the Hellenic Centre for Marine Research in close collaboration with the School of Naval Architecture of the National Technical University of Athens. She will be roughly 70 m long and 15-16 m wide and will be fitted with five decks above the tank top, Dynamic Position DP-2, single and double cabins to accommodate up to 50 people (roughly 20 crew, 30 researchers) onboard, more than 200 m² of scientific laboratories, ample open deck space, oceanographic winches, cranes and A-frames for deployment and recovery of scientific devices.



INTERNATIONAL COLLABORATIONS

According to Dr. Karageorgis, president of HCMR, the new marine research vessel will allow the detailed mapping of the Greek seas and the promotion of research related to climate change and its effects, while it will also provide opportunities for new international collaborations with research centres, universities and companies. «As part of the Blue Strategy, promoted by the European Union, we will examine the possibility of harnessing marine energy, by tapping into wave energy and creating wind farms, always looking to achieve a sustainable exploitation of marine resources. Meanwhile, the country's position in the Mediterranean basin is also strengthened, while we will also have the opportunity to participate in operations in the Atlantic and the Indian Ocean.»

It is worth noting that the decision to build a new oceanographic vessel comes at a time when no new oceanographic observation vessels are being launched internationally. «Right now, with few exceptions, countries around the world are simply upgrading their old vessels. The world's oceanographic fleet is growing old. Against the trend, our program will add a new vessel to the fleet.» says the Director of the Institute of Oceanography.

THE IMPORTANCE OF RESEARCH INSTRUMENTS

Oceanography requires cutting-edge technology and extremely expensive research instruments. Although R/V AEGAEO, the marine research vessel of HCMR currently in service, features technologically advanced instruments, according to the Centre's officials, there were times when a research project was not successfully completed, due to the lack of the right equipment. These shortcomings are expected to be overcome with the procurement of the new oceanographic vessel. The new vessel will carry an advanced remotely controlled submarine vehicle (ROV), which will be able to carry out research «dives» in great depths. It will also feature state-of-the-art systems capable of providing valuable information on the morphology of the seabed and more cutting-edge technology. The subjects of study will include the biodiversity and health of marine ecosystems, which are currently threatened by pollution, climate change and uncontrolled economic activity.