

Summary report of the 1st meeting of the international Scientific Advisory Board (SAB)

Meeting of the French Oceanographic Fleet (FOF) held at 18.-19. December 2018 in Paris

The SAB acknowledges the comprehensive overview presentation on the “**Organization of the French Oceanographic Fleet – (FOF)**” which is from 1st of January 2018 managed and operated by Ifremer. The **SAB is positive** about this re-organisation with the aim to be **beneficial** for the entire French marine scientific community, relevant stake-holders and policy-makers in terms of **harmonization and higher transparency** of ship-time applications, a **more efficient utilization** and **increased international visibility** of the French marine infrastructures. We recognise that the FOFs partnership of science, funding and technology accelerates the impact of its research.

- We recommend that the Fleet’s research excellence is comprehensively documented (including, but not limited to: annual number of peer reviewed publications, PhD theses, students trained in ocean observations, grey literature reports, impact, etc.).

The SAB reviewed the proposed **composition of the three evaluation committees** (CNFH, CNFC, local). We approve the proposed members, and we acknowledge the efforts that have been spent to come to the achieved gender balance of members, as well as the gender balance in presidentship. Some French participants of the SAB knew several of the nominated members and expressed their satisfaction with them because they are experienced, open minded and enthusiastic persons.

- We recommend that the **proposed candidates receive the mandate** to act as evaluators for incoming ship-time applications and that all members are reminded **before any evaluation process** that the **Terms of Reference** have to be followed.

The SAB recognizes the **need for matching funding for large research infrastructure operation with funding of related scientific projects**. This is an issue present throughout the international marine research community. But as far as the SAB can see it **this matching process is absent in France**.

- We recommend that **the matching of funding for research vessels usage and scientific projects is discussed among the respective French authorities** in order to find an appropriate solution.

The **Fleet renewal plan** for the coastal and semi-offshore segment, which was presented during the SAB meeting, **seems consistent with the directions given by the MESRI in 2017** following the work of the COSS. We **approve the plan for the renewal of the fleet**, in particular the new coastal and semi off shore vessel and the schedule for that implementation. However, it will be a **challenge to launch three**

new research vessels (coastal/regional in 2028, global in 2030, and coastal in 2032) during a relatively short period of time. **These tasks need a serious planning and supervision.**

As **ocean observation** continues to become a **more multiplatform approach**, the SAB recommends that the **use of autonomous instruments in complementing vessels** should be taken into account in the planning process. The planned **new vessels** of the FOF **need to be flexible and adaptable.**

The SAB understands the decision that the **first two new research vessels will have diesel-electric propulsion systems** with state-of-the-art exhaust after treatment, but it is **recommended** that technical improvements in **innovative energy supply** (e.g. improved battery and /or fuel cell technology) should be taken into account **for future vessel construction.**

According to the information provided, the **proposed renewal plan meets the specifications defined by the fleet steering committee in July 2018**, both in terms of capacity and ability to adapt to changes in scientific research in the years to come.

The SAB members were informed that the Ministry of Higher Education, Research and Innovation (MESRI) recently decided **not to continue with the operation of the manned submersible “Nautile”** after 2020. Instead, a **second 6000 m depth rated ROV should complement the existing “Victor 6000”** ROV which will have a modernization phase in 2020-21. This **political decision** (decommissioning of “Nautile”) is **not fully supported** by the French deep-sea research community. At this relatively early stage of the planning for a second ROV some preliminary suggestions on the overall design were made by some of the SAB members including suggestions for improvements in “Victor 6000”.

The presentation of the results of Phase 0 in the planning process of a second deep-sea ROV has shown that **recent and coming technological advances** may **significantly support the construction of a next generation ROV** with more scientific payload, new capabilities and scientific applications.

The SAB **recommends that the engineering team** of the new ROV **keeps close contact with the scientific users** in terms of (i) their **future scientific objectives** and (ii) **instrumentation and functionality** of the ROV to ensure that there is a **smooth transition** from manned to remotely operated deep-sea intervention and a **high acceptance** of this new underwater vehicle within the user community.