

## **REVIEW PANEL CONSENSUS REPORT**

### Successes of EuroMARC:

The Review Panel feels that EuroMARC has been a really good mechanism for achieving cooperative cross-European marine core research on important scientific themes, with a relatively light bureaucratic burden on the investigators. Without the ESF-enabled EuroMARC internationally cooperative research programs, none of the objectives would have been fully achieved via only national programmes.

**Achievement of Original Objectives:** The EuroMARC Collaborative Research Projects (CRPs) teams generally did a fine job focusing on original objectives, or refocusing in an appropriate manner in the 3-4 cases for which there were issues with delivering the requested coring capabilities. Despite those issues, most EuroMARC programmes recovered high-quality cores addressing their original objectives and developed successful synergies. In one case, a CRP team (H2DEEP) refocused their programme very well based on a fortuitous discovery of international significance.

**Training of Young Scientists:** EuroMARC funding has supported many young European researchers (master and PhD students, post-docs and even high school students) in multidisciplinary, inter-European programmes, giving them excellent opportunities to develop international training and networking early in their careers. The panel was also impressed with the excellent gender distribution among the EuroMARC scientific teams.

**Technological Access:** The EuroMARC-enabled cooperative programmes gave the international teams of investigators good access to advanced instrumentation that might not be affordable in each nation. This helped lead to a generally very high standard of EuroMARC scientific methodologies, including development of several new techniques and/or refined calibrations of paleoceanographic proxies.

Networking activities have been carried out among CRPs sharing a number of common topics in their research areas (e.g. CHECREEF and CARBONATE, RETRO and AMOCINT). It should be noted that the simultaneous presence of all the CRPs in

networking activities was realized during international conferences in the framework of specifically dedicated EuroMARC sessions.

Communication of Results: All of the CRP teams have done well at communicating results at scientific conferences. The EuroMARC CRP's generally have good publication records to date, although there is variability that may be partly tied to delays in achieving coring objectives that were not in control of the CRP teams. The more mature EuroMARC programmes are notable for presenting really significant scientific advances in high-impact journal publications (e.g., Nature/Science) and strong public outreach. We look forward to similar dissemination from the other EuroMARC CRPs.

Original Development of EuroMARC: EuroMARC, like most EUROCORES themes, enjoyed strong support within the international scientific community because the theme was developed in a bottom-up fashion based on input from the community. The original EuroMARC review process was good, and helped ensure the importance of the objectives and the capabilities of the CRP teams for the selected CRP's.

European and International Added Value: EuroMARC provided an excellent mechanism for obtaining coring and site surveys necessary to develop strong European IODP proposals. Several CRP teams are already working on follow-on funding to support continuation of their EuroMARC research (e.g. Marie Curie EU-ITN, Integrated Training Network FP7). Cooperation agreement between one CRP (RETRO) and Brazil could be established.

### Shortcomings

1. The 3-year terms of national funding were in some cases too short to fully complete the EuroMARC programmes.
2. There are issues in coordinating national funding timelines based on ESF EuroMARC recommendations.
3. There were issues in scheduling or achieving the requested shiptime/coring capabilities in 4 EuroMARC programmes – issues that were out of the control of the CRP teams.

#1 made it difficult for CRP teams to adjust to #2 and/or #3.

## Recommendations

EuroMARC or a programme like it should be continued for its own scientific merits and as a mechanism for supporting site surveys for strong European-led IODP proposals.

Ideally, the financial arrangement for such a programme could be commingled funding issued directly by ESF.

Ideally, ESF should look for mechanisms to expand the cooperation beyond Europe, e.g., with US and Asian scientists.

Agencies should allow for no-cost extensions of funding for fully achieving original objectives and completion of PhD activities, especially when there are delays out of control of PI's (e.g., ship scheduling decisions). In addition, consistent funding from the Agencies supporting the EuroMARC Programme would have been extremely beneficial to the success of the programme.