

Paper Number: 1536

European Consortium for Ocean Research Drilling (ECORD) in the International Ocean Discovery Program (IODP) : new opportunities in scientific drilling

Camoin, G.¹ and Hallmann, N.¹

¹ ECORD Managing Agency, CEREGE, Aix-en-Provence, France

The European Consortium for Ocean Research Drilling (ECORD) co-ordinates the contribution of 16 European countries plus Canada and Israel to the International Ocean Discovery Program (IODP). More than 80% of the ECORD annual budget, which is currently of about USD 18M, concern IODP expedition operational costs. The contributions to the ECORD budget are unevenly distributed between the member countries, from USD 5.6 M to USD 30,000. On the basis of their contributions, each ECORD member country receives a quota to participate in all IODP expeditions. In contrast, the participation of ECORD member countries to the ECORD educational programme is not based on financial contributions.

ECORD funds and implements mission-specific platform (MSP) operations for IODP as an independent platform provider. The development of the MSP concept allowed the ocean research community to work in technically challenging conditions where the US drillship *JOIDES Resolution* and the Japanese drilling vessel *Chikyu* are unable to operate (e.g. high latitudes and shallow-water environments) and has therefore added a new dimension to ocean drilling.

A five year, i.e. 2015-2018, operational plan for mission-specific platform expeditions has been recently defined (http://www.ecord.org/pdf/ECORD-Headlines_6.pdf) and will be achieved by balancing the numbers of low, medium, and high-cost expeditions; in addition, external co-funding and in-kind contributions will be added whenever possible to provide additional funding to support MSP expeditions. It reflects :

- ECORD's aim to deliver one MSP expedition per year on average for IODP.

- The diversity of science themes (geomicrobiology, tectono-magmatic processes, effects of large impacts on Earth's environment, paleoceanography, climate and ice histories) that are addressed by MSP expeditions in the new IODP.
- The efficiency of the MSP concept to implement drilling expeditions in a wide range of environmental and climatic conditions.
- ECORD's operational flexibility demonstrated by the use of various drilling systems (drill ships, drill platforms, seabed drills). In future, MSPs might include additional systems (e.g. specifically outfitted polar vessels, jack-up rigs, long-piston coring, anchored barges, etc.) as determined by scientific priorities and operational efficiency.

ECORD makes financial contributions to the US National Science Foundation (NSF) and the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) for support and access to the multipurpose drillship *JOIDES Resolution* and the riser-drilling-capable drilling vessel *Chikyu*, respectively.

A major responsibility of ECORD is to promote a wide array of educational activities that foster :

- the development of drilling proposals (MagellanPlus Workshop Series Programme in collaboration with the International Continental Scientific Drilling Program) ;
- the education and training of future generations of scientists (ECORD Summer Schools, ECORD Scholarships, ECORD Research Grants and ECORD Distinguished Lecturer Programme) ;
- the education of teachers (ECORD School of Rock).

