

ECORD as part of IODP

IODP: Exploring the Earth under the Sea

Scientific ocean drilling started in the late 1960s with the Deep Sea Drilling Program (DSDP, 1968-1983) followed by the Ocean Drilling Program (ODP, 1983-2003). By providing access to drilling platforms that cover all marine environments, the Integrated Ocean Drilling Program (IODP 2003-2013) has accomplished a major step forward, which since 1st October 2013 has been continued by the **International Ocean Discovery Program (IODP 2013-2023)**.

Scientific drilling and coring is the only direct approach to investigating the archives recorded in deposits beneath the seafloor. Access to ocean-drilling technology through the IODP is therefore essential to our understanding of how the Earth functions. IODP brings together hundreds of scientists from its 26 member countries, USA, Japan, China, South Korea, India, Australia, New Zealand, Brazil and the European Consortium for Ocean Research Drilling (ECORD) - a consortium of 16 European countries, Canada and Israel - to conduct cutting-edge investigations of the Earth beneath the seafloor.

The **IODP's scientific objectives** are to understand the global Earth system and its societal impacts by:

- studying records of past climate changes to better understand the future;
- exploring biodiversity below the seafloor;
- establishing seafloor laboratories for the study of natural hazards in sub-marine systems;
- documenting how tectonic plates move and recycle themselves into Earth's deep mantle.

To achieve these ambitious goals, IODP operates **three types of drilling platforms**:

- A multi-purpose drilling vessel, the *JOIDES Resolution*, is funded and operated by the NSF (USA);
- A riser-drilling-capable vessel, the *Chikyu*, is operated by MEXT and JAMSTEC (Japan) for ultra-deep drilling;
- Mission-specific platforms (MSPs) are contracted on a specific-project basis by ECORD to drill in technically challenging conditions, including high-latitude and shallow-water environments that are inaccessible to the *JOIDES Resolution* and *Chikyu*.



The JOIDES Resolution (photo Fernando Barriga).



The Chikyu (photo K. Michibayashi).



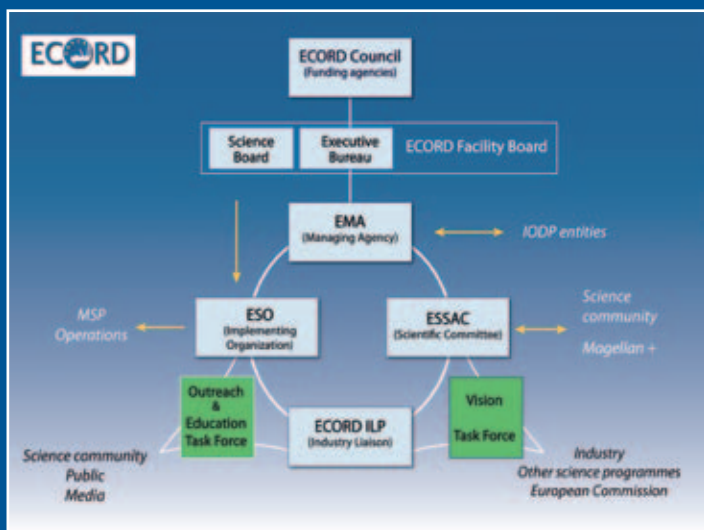
Two icebreakers allow the drillship Vidar Viking to stay on station during the Arctic Coring Expedition (photo M. Jakobsson © ECORD/IODP).

image courtesy of A. Taira

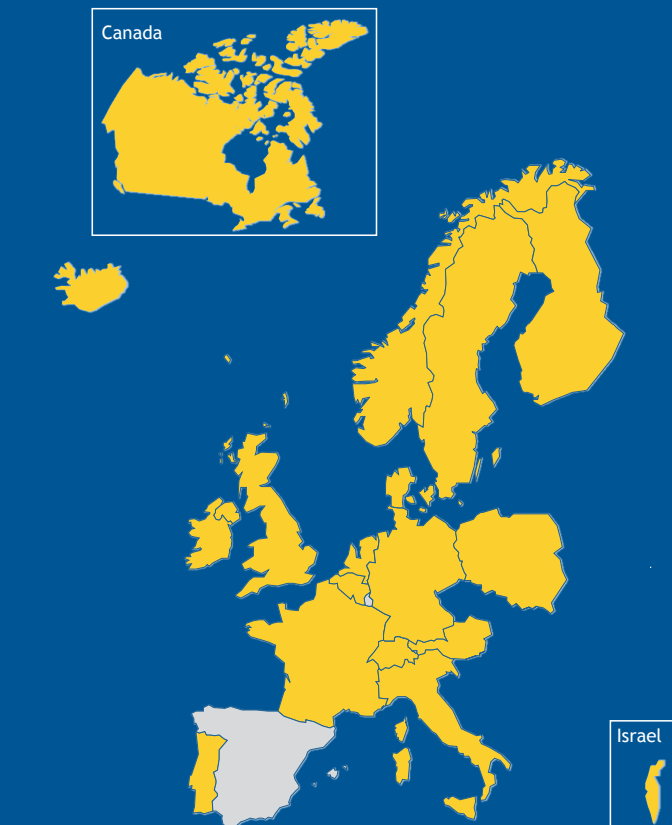
ECORD: European Consortium for Ocean Research Drilling

To become a significant partner of IODP and provide access to mission-specific platforms, 16 European countries, Canada and Israel have united to form a single programme member, the **European Consortium for Ocean Research Drilling (ECORD)**. All ECORD activities are exclusively funded from the national contributions to the consortium.

The challenges of the International Ocean Discovery Program (IODP 2013-2023) have required a new ECORD structure (*below*) to raise ECORD's profile, visibility and efficiency, and better serve the science community in Europe, Canada and Israel.



- The **ECORD Council** is the funding entity of ECORD. Every member country is represented and the Council Chair changes every year.
- The **ECORD Managing Agency (EMA)** is the legal entity of ECORD. Administered by INSU-CNRS (France), EMA represents ECORD in all IODP entities. EMA pools the funds from all of the member countries and sub-contracts the ECORD entities (ESO and ESSAC) and the IODP Bremen Core Repository.
- The **ECORD Science Operator (ESO)** is the operational entity of ECORD. Managed by the British Geological Survey (part of the UK's Natural Environment Research Council (NERC)), ESO undertakes drilling operations and promotes technological developments for mission-specific platform (MSP) expeditions.



- The **ECORD Science Support and Advisory Committee (ESSAC)** is the scientific committee with responsibility for planning and co-ordination of ECORD's scientific contribution to IODP. The host organisation for the ESSAC Office rotates every two years.
- The **ECORD Facility Board** is the key planning and scheduling forum for MSP expeditions.
- The **ECORD Industry Liaison Panel** is the ECORD link between academia and industry.
- The **ECORD Vision Task Force** is the strategic entity of ECORD.
- The **ECORD Outreach and Education Task Force** is the communications entity of ECORD.

As members of IODP, ECORD scientists are able to contribute to the strategic decisions of the programme, submit drilling proposals, participate in all science expeditions and request samples from IODP and the previous ocean-drilling programme (DSDP, ODP and IODP 2003-2013) expeditions.

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ECORD website: <http://www.ecord.org>

IODP website: <http://www.iodp.org>

ECORD database: <http://ecordbase.ecord.org>

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