

MARINE ENVIRONMENTAL TECHNOLOGY LAST FRONTIER



Mobile Seabed Drilling rig (MeBo) operates directly on the seafloor. It is deployed from standard research vessels and retrieves up to 50 m cores.

Pressure-conserving coring system (DAPC) for recovery of gas hydrates or microbial samples; temperature conservation and controlled degassing is possible.



Advanced technology is essential for a more complete understanding of the role of the oceans in the Earth System. Fleets of remotely operated vehicles (ROVs) or autonomous vehicles (AUVs) are envisioned.

For Europe to be able to responsibly manage its marine resources, to understand climate change, and to assess potential hazards the pursuit of fundamental knowledge must continue. Modern deep-sea technology is expensive, therefore cooperation among European institutions is critical for the development, coordination and deployment of advanced marine technology.

OUR EYES AND HANDS IN THE DARK

The continental shelf, covered by water, comprises about one third of the total area of Europe. Today, less is known about the bottom of the ocean than about the far side of the moon; this situation must change.

RESEARCH NEEDS

- ▶ to improve tools for long-term monitoring of ocean health
- ▶ to network existing infrastructure like coastal buoy systems
- ▶ to improve distribution and availability of real-time collected data
- ▶ to enhance the integration of technological activities

