



Bundesministerium  
für Bildung  
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# BMBF - Framework and opportunities for joint research and international cooperation

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Ref. 725 “System Earth”

*presented by*

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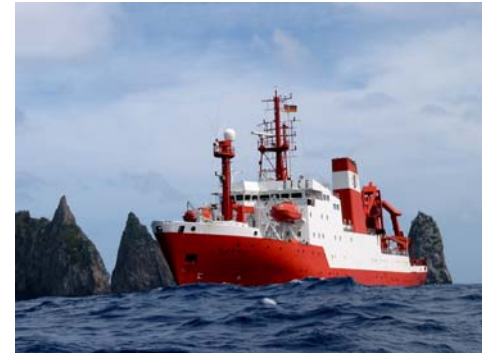
Ideen zünden!



# The Earth System

## Marine Research Programme

- *Marine Climate Research*
- *Marine Environmental Research*
- *Marine Geoscientific Research*
- *Devices and Systems*





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## Polar Research Programme

- *Ocean-ice-atmosphere system and its influence on the global climate*
- *History of the polar regions and oceans*





## **Special Geotechnologies Programme (currently funded by BMBF & DFG)**

- *Continental Margins – Earth's Focal Points of Usage and Hazard Potential*
- *Gas Hydrates in the Geo- and Biosystem (Phase II)*
- *Observation of the System Earth from Space (Phase II)*
- *Investigation, Use and Protection of the Underground*
  - *CO<sub>2</sub>-Storage in Geological Formations*
  - *Technologies for an Underground Survey in Urban Areas*
  - *Innovations in Tunnel Construction*
- *Early Warning and Information Systems in Earth Management*
  
- *Mineral Surfaces – From Atomic Processes to Geotechnology (deadline 11 May 2007)*

## **Further Research Activities**

- *Marine Natural Products Research*
- *Sustainable Marine Aquaculture Technology*
- *Coastal Zone Management*
- *Biodiversity Research*



## Bilateral Cooperation in Science and Technology

### Brasil

- Health Status of Marine Ecosystems
- Impact of Pollutants from Sugar Cane Monoculture on Estuaries and Coastal Waters of NE-E Brazil
- Development of a Strategy for Sustainable Harbour Development



### Indonesia

- Science for the Protection of Indonesian Coastal Marine Ecosystems SPICE
- German-Indonesian Tsunami Early Warning System GITEWS





## Bilateral Cooperation in Science and Technology

### Russia

- GISEB: GIS for Time/Space Modeling in the Baltic Sea
- The Dynamics of Permafrost in the Laptev Sea
- KALMAR: Kurile-Kamchatka and Aleutian Marginal Sea-Island Arc Systems



### China

- Land-Ocean Interactions along Tropical and Subtropical Gradients in Chinese Coastal Waters



### Israel

- Interaction Processes between Ocean-Land-Atmosphere
- Natural Hazards
- Marine Ecosystem Research





## International Activities in the Field of Early Warning / Natural Hazards

- GITEWS
- Tsunami Early Warning and Mitigation System in the North Eastern Atlantic, the Mediterranean and Connected Seas (ICG/NEAMTWS-III) managed by the Intergovernmental Oceanographic Commission (IOC) of UNESCO

### EU-funded Projects with German Participation

- Applied multi Risk Mapping of Natural Hazards for Impact Assessment - ARMONIA
- Integrated Flood Risk Analysis and Management Methodologies - FLOODsite
- **Seismic eArly warning For EuRope - SAFER (German Coordination)**
- Tsunami Risk ANd Strategies For the European Region - TRANSFER
- Integrated observations from near shore sources of tsunamis: towards an early warning system – NEAREST



## The 7th Framework Programme – opportunities within the 1st call

Theme 6 – Environment including climate change (*deadline 2nd May 2007*)

**Sub-activity 6.4.1. Earth and ocean observation systems** and monitoring methods for the environment and sustainable development

- ENV.2007.4.1.2.2. Contributing to the development of a worldwide network of in-situ observatories for seismogenic hazards

**Sub-activity 6.1.3. Natural hazards**

- ENV.2007.1.3.2.1. Frame for better vulnerability assessment

INDICATIVE TOPICS FOR FUTURE YEARS

Earth and ocean observation systems: Sea level observing systems





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