

Romanian National Institute of Marine Geology and Geoecology GeoEcoMar

Current initiatives to support Blue Growth in the Black Sea

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Increasing Coastal safety – Marine Geohazard - CBC Ro - Bg

Natl. Centres for Early Warning & Monitoring of Marine Natural Hazards – with Joint coordination

Ro - GeoEcoMar - Constanta Branch
Bg – Varna, IO-BAS



Constanta coordination centre



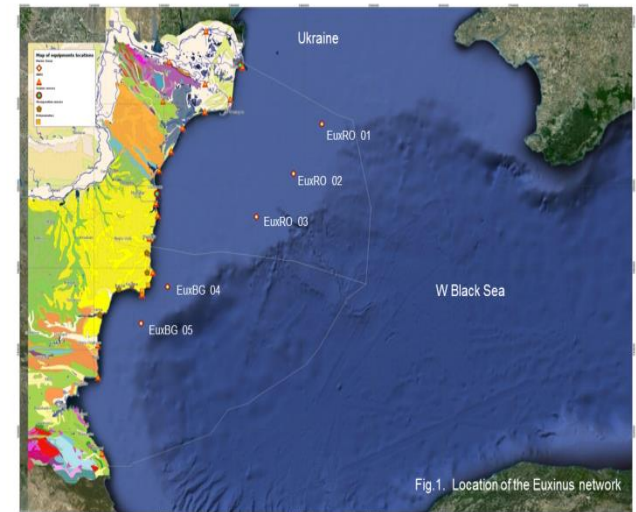
Coastal gauge - Mangalia



GNSS GeoPontica network



Automatic marine gauges

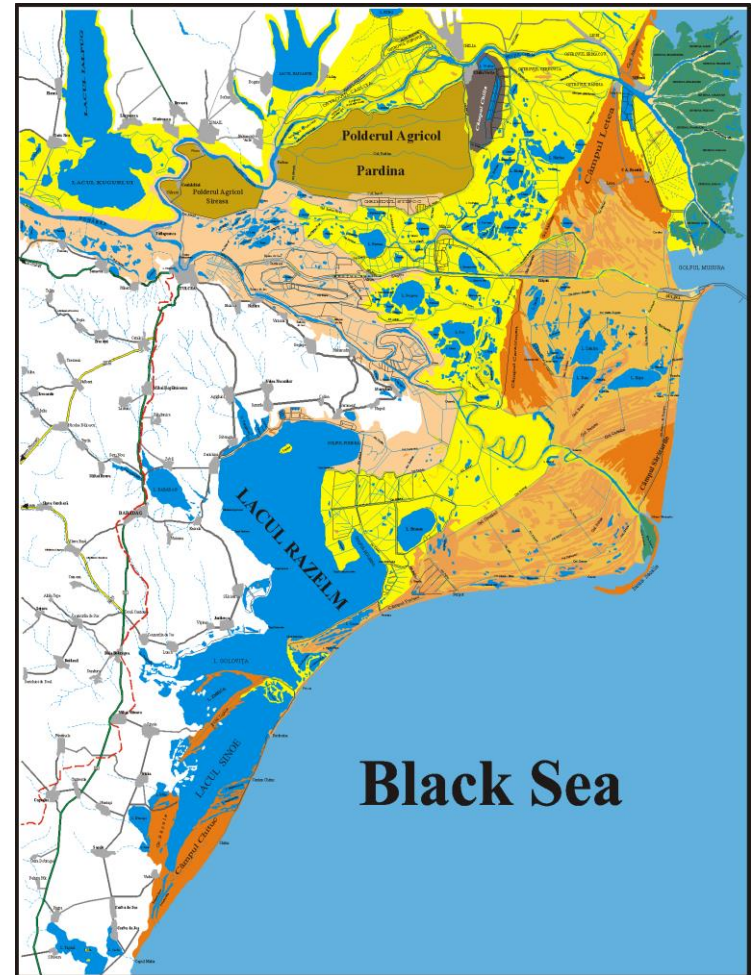


EUXINUS network

Involving stakeholders to manage multiple pressures at the coastal zone interface

FP7 ARCH

- Roadmap for sustainable lagoon management in the context of climate change and human interventions
- Razelm Sinoe Lagoon System – case study
- With local stakeholders = plans for environmental restoration that would increase productivity of bio resources



New directions for coastal tourism – submarine adventure diving

- CBC Romania Bulgaria HERAS



Connecting the Danube River to the Black Sea – FP 7 DANCERS

"DANube macroregion: Capacity building and Excellence in River Systems (basin, delta and sea)" Grant agreement no: 603805, GeoEcoMar coordination, 15 partners from 12 EU countries

Main goal: to develop new instruments and tools to enhance environmental research and promote innovation in Danube Region, including the Danube Delta and the Black Sea.

Final deliverables – to better connect the Danube with the Black Sea:

- Strategic Research and Innovation Agenda
- Concept for a new Distributed Research Infrastructure
- Integrated education programme

Philosophy – permanent connections with stakeholders: administrations, authorities and business communities to identify needs and critical requests

Improving knowledge- based services for integrated river-sea management

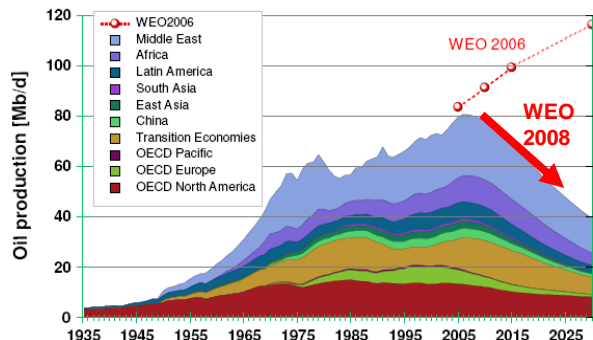
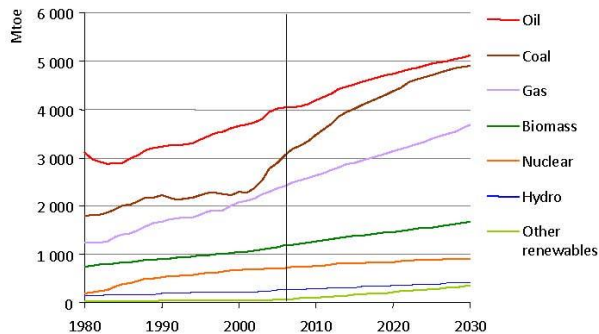
DANUBIUS-RI

- Distributed Research Infrastructure dealing with the Integrated Management of River-Sea Systems
- Proposal to ESFRI Roadmap for pan-European Research Infrastructures (European Strategy Forum for Research Infrastructures)
- Lead by Romania, Hub in the Danube Delta
- 8 Supersites and 4 Nodes
- Official Support (till now) from: Bulgaria, Czech Republic, Germany, Greece, Ireland, Italy, Moldova, Netherlands, Spain, UK
- Participating institutions from 18 European countries
- Support Scientific Research with major social and economic impact, cradle for many business opportunities

Opening and securing sustainable energy resources from the deep sea

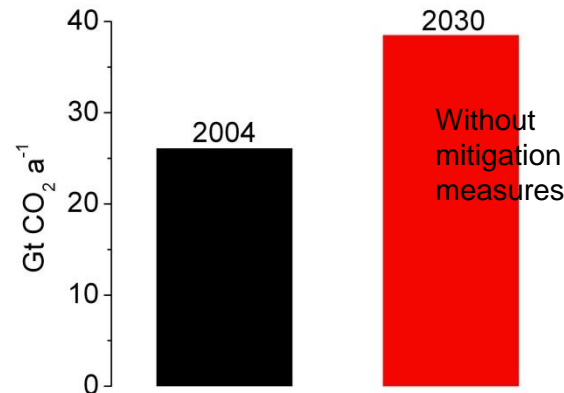
Unconventional CH₄ resources - for Methane from Gashydrates

Global oil production
Peak Oil has been reached



Energy Watch Group (2007), Interview with Birol (WEO) in IP (April 2008)

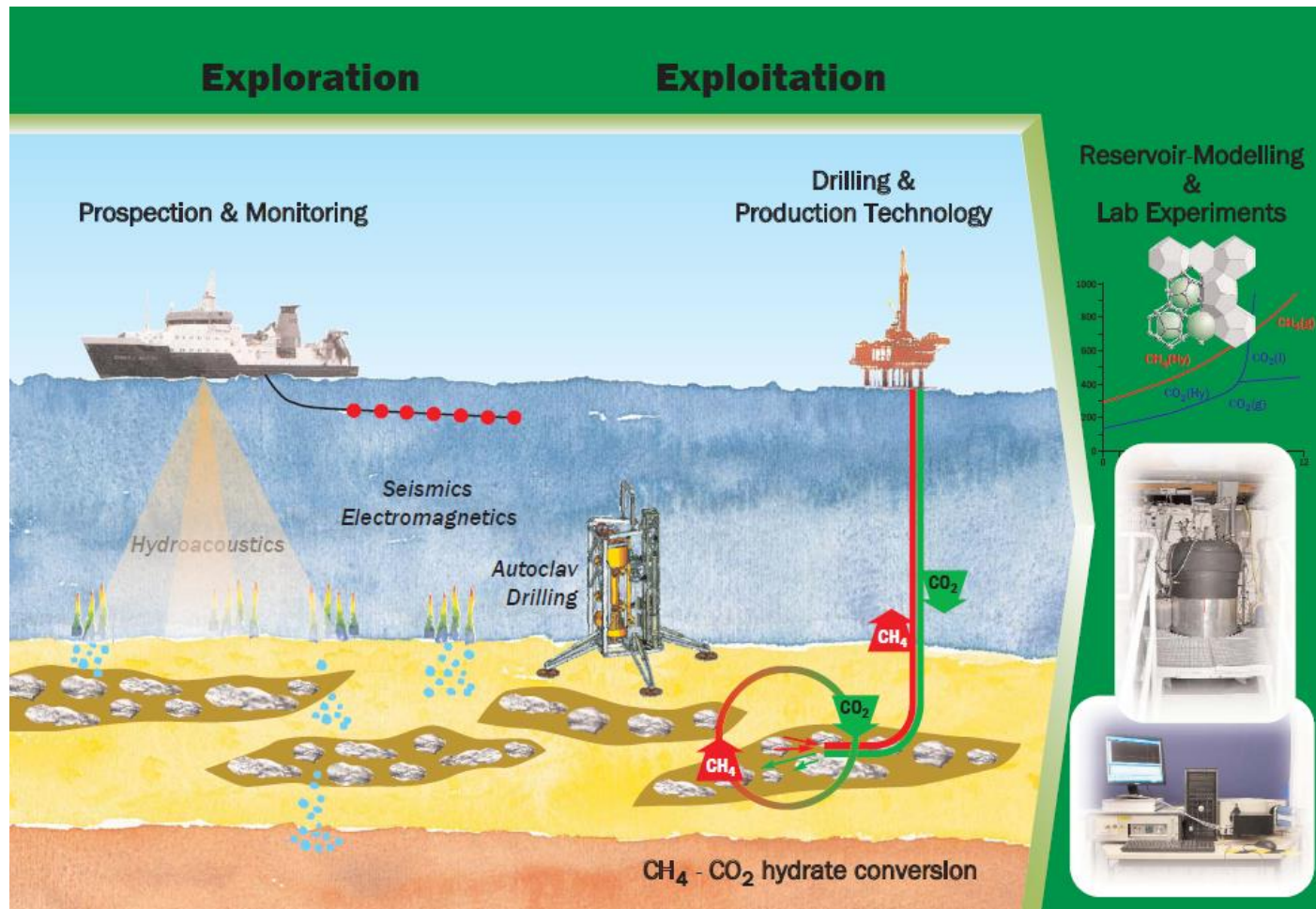
Energy-related global annual CO₂-emissions



IPCC (2007): Climate Change - Mitigation

Gas driven power plants reduce CO₂ by 50%

Black Sea Gas Hydrates the European unconventional CHs



Credits: GEOMAR, Kiel

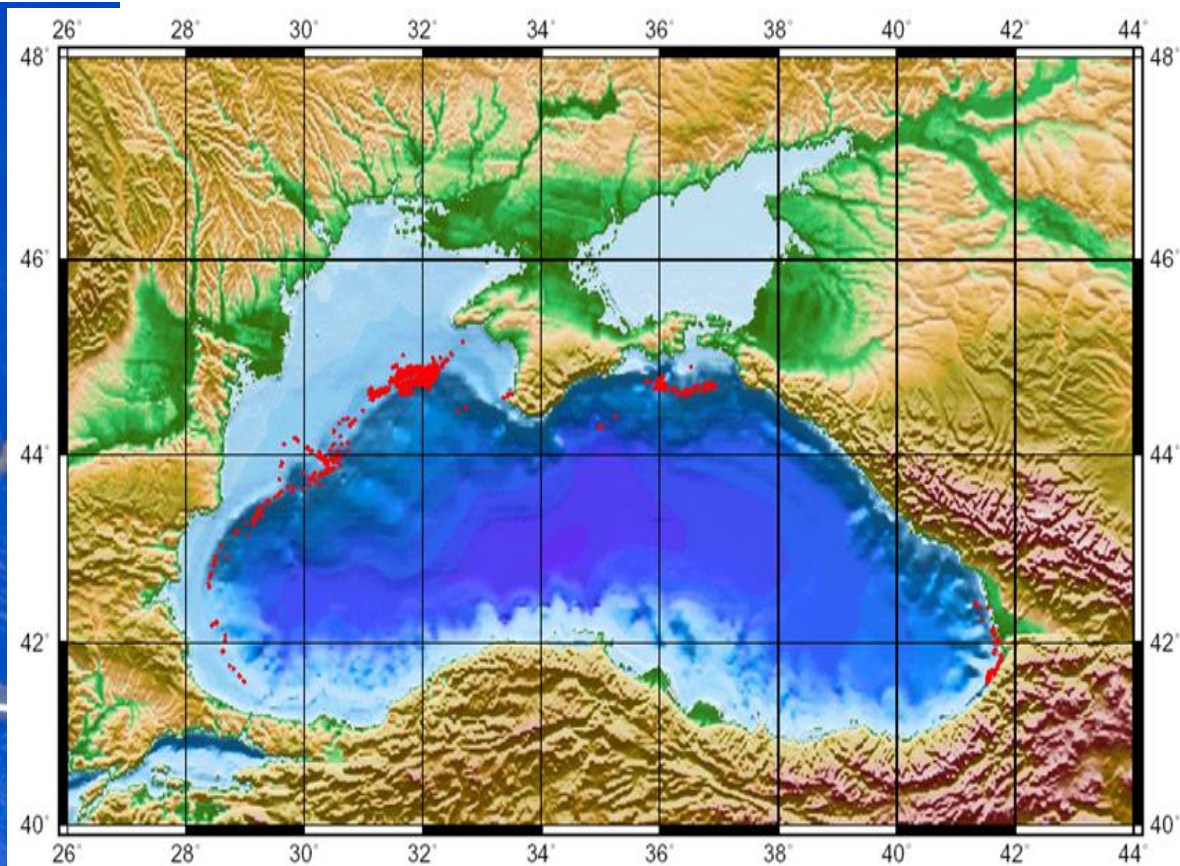
Submarine deposits with gas hydrates

Gas hydrate sample



Foto: Volker Diekamp, MARUM, Bremen

Gas hydrates distribution in the Black Sea basin



Source: UHMI, Sevastopol