

Macro-Regional Innovation Week

*At the crossroads of three European Macro-Regions:
Danube, Adriatic-Ionian and Alpine Regions*



M.Cristina Pedicchio
OGS President





OGS – National Institute of Oceanography and Experimental Geophysics

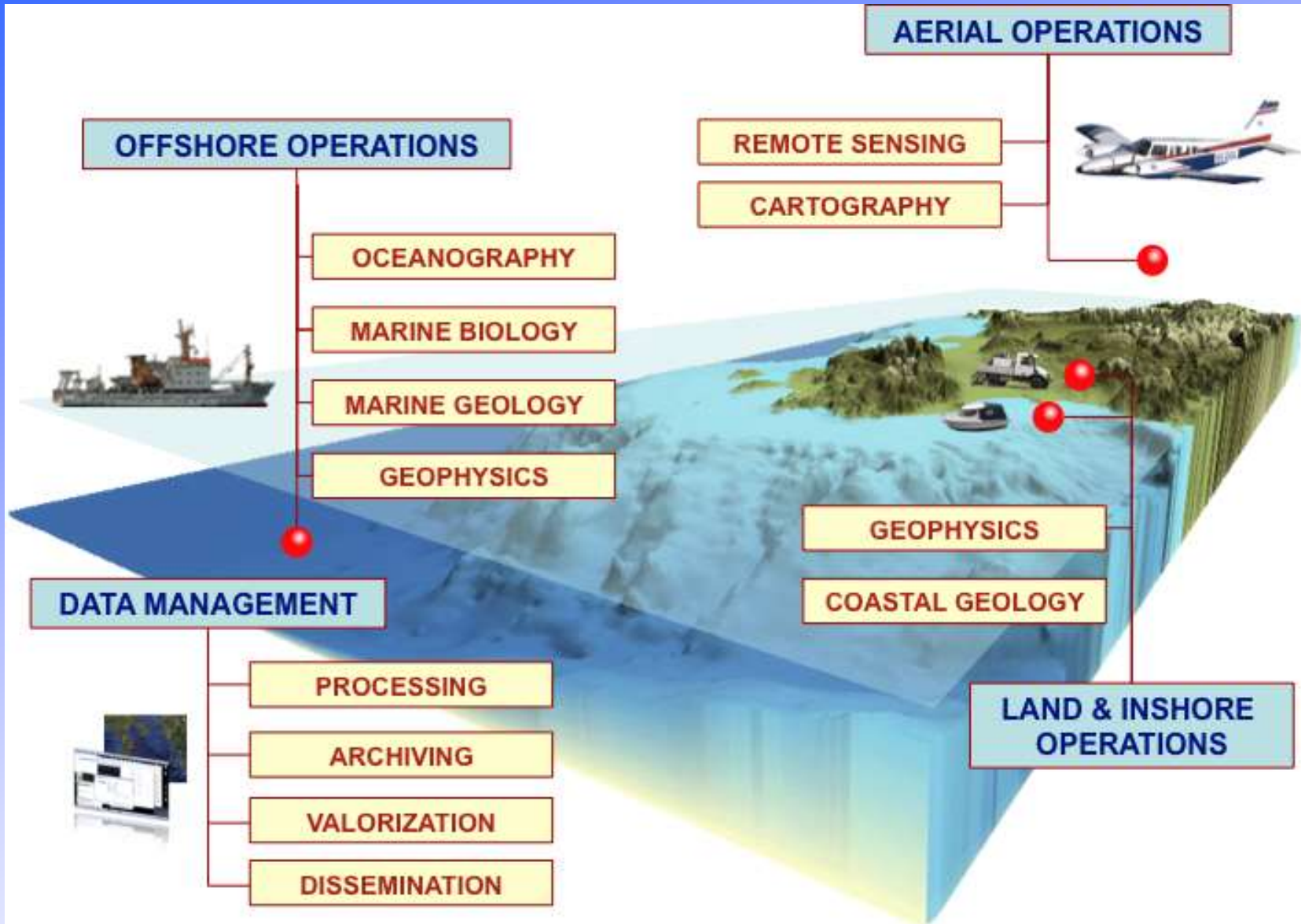
OGS' roots date back to the **School of Astronomy and Navigation** founded in Trieste by empress Maria Theresa of Austria in 1753.



OGS Priority: Research Infrastructures



Opening research infrastructures to industry



Infrastructures - Research Vessel OGS-Explora EUROFLEET



ESFRI Research Infrastructures (European)

✓ Euroargo – Infrastructure for climate change research and operational Oceanography (floats, gliders...) Eric signed in 2014



✓ Eccsel – European Carbon Dioxide Capture and Storage Laboratory



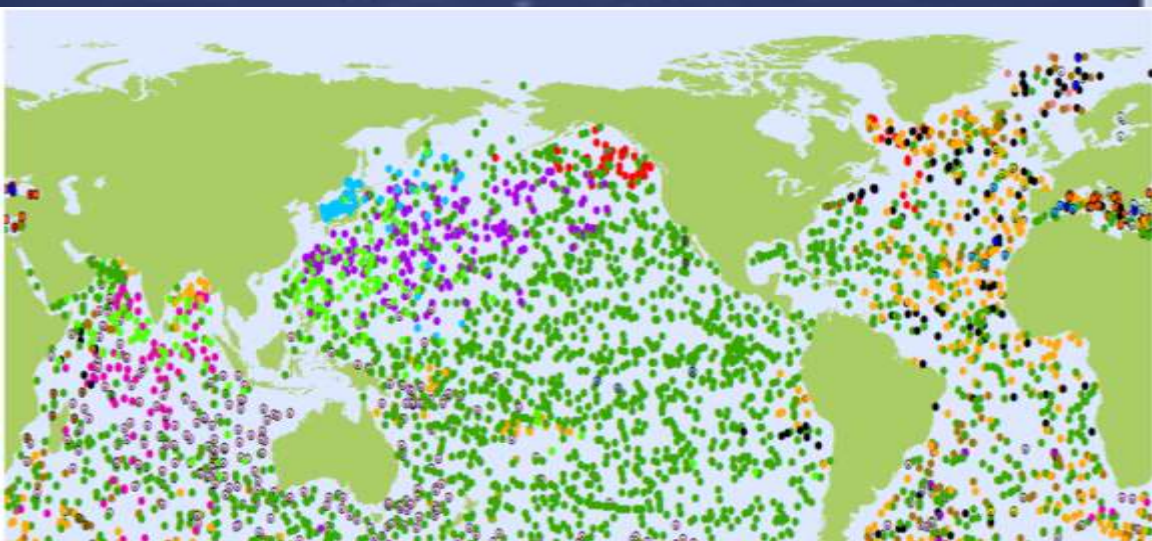
✓ Prace – HPC e-infrastructure



12 Countries
25 organisations
250 People



A new European Research Infrastructure contributing to Argo International Program



ECCSEL Implementation and Operational Phase project consortium

NTNU	Norwegian University of Science and Technology, Norway Sverre Quale, sverre.qualen@ntnu.no Volker Rohling, volker.rohling@ntnu.no
SINTEF ER	SINTEF ENERGÍAS, Norway
SINTEF	STIFTELSEN SINTEF, Norway
SINTEF PR	SINTEF Petroleum Research, Norway
TNO	The Netherlands Organization for Applied Scientific Research, Netherlands
CIJEDEN	Fundación Ciudad de la Energía, Spain
BGS	British Geological Survey, UK
BRGM	Bureau de Recherches Géologiques et Minières, France
OGS	The National Institute of Oceanography and Applied Geophysics, Italy
SOTACARBO	Società Tecnologie Avanzate Carbone SpA, Italy
CERTH	Centre for Research and Technology Hellas, Greece
ETH Z	Swiss Federal Institute of Technology Zürich, Switzerland
PGI-NRI	Polish Geological Institute – National Research Institute, Poland
GIG	Główny Instytut Górnictwa - Central Mining Institute, Poland



Enabling low to zero CO₂ emissions from industry and power generation... to help combating global climate change

Objective is to provide access to a world-class distributed European Research Infrastructure for CCS research, set up around a central hub responsible for the coordinated operation of multiple research facilities operating under a joint hallmark, ECCSEL.

As a response to the global warming challenge, ECCSEL was conceived by ESFRI, the European Strategic Forum for Research Infrastructures, and it was recommended for inclusion in the Work Programme of the European Commission (2008). Supported by the European Commission's FP7 Infrastructures Programme, and coordinated by the Norwegian University of Science and Technology (NTNU), ECCSEL has been planned by a consortium comprising leading European CCS research institutions during the preparatory phases. In 2015 ECCSEL entered its implementation phase and will be supported by EU's Horizon 2020 Programme.

New techniques and concepts are needed to improve the efficacy of CCS as a climate mitigation option. As CCS projects are expected to increase significantly in number and size, it is essential to reduce capital investments and operational costs, and to proof safety and environmental integrity.



OGS -RI and public - private partnership

DIAMAR S.p.a.

MEDEA srl

Fugro Oceansismica S.p.A

GeoTeam S.r.L.

Mediterranean Survey And Service (MSS) S.p.A

EUROTECH

BGR - Bundesanstalt für Geowissenschaften und Rohstoffe, Germania

OMV Aktiengesellschaft (oil end gas), Austria

EXXON (oil and gas), USA

TOTAL (oil and gas), Francia

ALCATEL LUCENT, Francia

NKE, Francia

Metocean, Canada

Webb Teledyne, USA

Kongsberg, Norvegia

Aanderaa, Norvegia

Sea-Bird, USA

Kongsberg-contros, Germania



Research Infrastructures and human capital

- ✓ We need a new approach to train human resources with inter/cross/multi-disciplinary skills
- ✓ skills based on the occupational needs
- ✓ attraction and circulation of talents
- ✓ international mobility
- ✓ more **public-private mobility**

RI as optimal places for international training !!



European Strategy Forum
on Research Infrastructures

ESFRI

The knowledge-based economy is effectively stimulated by strengthening the links between **RIs, higher education and research institutions** with economic players like **industry, services and utilities**.

The internationally competitive environment and the continuous turnover of visitors and users at RIs **create a unique training potential** for young researchers, technicians, managers and advanced technology developers.

Thank you for your attention!



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