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GEO SYMPOSIUM 2023

Flash Talks: Enablers for scaling the impact of the GEO Work Programme

GEO-CRADLE: GEO Capacity Building in North Africa, Middle East, Balkans and Black Sea Region

<http://geocradle.eu>

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Introduction of the GEO-CRADLE Initiative

- **GEO-CRADLE** started as a **CSA Project** funded by H2020 (2016-2018) and it has been upgraded first to a **GEO Community Activity** and then to a **GEO Initiative** (decision taken in the GEO Ministerial 2018, Kyoto).
- The GEO-CRADLE project was about coordination and integration of **state-of-the-art EO activities** in the regions of **North Africa, Middle East and Balkans** (NAMEBA) and development of **links with GEO related initiatives** towards GEOSS.
- GEO-CRADLE implemented **4 Feasibility Studies / Pilots**: 1) Adaptation to Climate Change; 2) Improved Food Security – Water Extremes Management; 3) Access to Raw Materials; 4) Access to Energy, created a **Regional Data Hub** facilitating access, search and share of EO data, established a **Regional Networking Platform** promoting the engagement and cooperation of regional EO stakeholders, developed and implemented an **EO Maturity Indicators Methodology**, and produced a **Roadmap for the future implementation of GEOSS and Copernicus** in the Balkans, Middle East and North Africa regions.
- The Initiative continues and extends the work of GEO-CRADLE along the following dimensions: 1) **Geographic** (Black Sea); 2) **Thematic** (disaster management and water resources management); and 3) **Operational Maturity** (operationalisation of services to the engaged users towards Copernicus uptake).
- Following the 34 months of the project activities, its **value** was further demonstrated as well as its **contribution to the achievement of GEO and EuroGEO goals in the region** through the follow-up and new field activities up to date (e.g. **e-shape Pilots** and **EO Maturity Indicators**, **1st EIC Horizon Prize on Early Warning for Epidemics**, **EXCELSIOR H2020 Teaming Phase 2 Project**).



The stakeholders / end-users benefitting from the Initiative



- **e-shape Pilot 3.1:** Power transmission operators and Distributors (**Greece**), Environmental and Energy Ministries (**Egypt**), large and small scale solar PV parks and concentrated solar plants, Policy Makers, Industry (**Morocco, Tunisia, Cyprus, India**).
- **e-shape Pilot 6.4:** Interamerican SA, GAIA EPICHEIREIN GR, Farmers Cooperatives for Cotton in Orchomenos and for Tomato in Thessaly "THESTO", CORTEVA Agriscience seeds and pesticides company (**Greece**).
- **e-shape Pilot 6.2:** Civil Protection Agencies, hydro-meteorological predictions agencies, disaster risk reduction institutions (Italy).
- **e-shape Pilot 6.3:** Urban planners and managers, Policy Makers, Industry and engineering companies, Insurance companies, Civil protection authorities, Urban citizens, EU Entities, Member States (Spain).
- **e-shape Pilot 6.1:** VAACs, aviation industry at large (Italy).
- **Early Warning System for Mosquito Borne Diseases (EYWA) & e-shape Pilot 2.4 (on-boarded):** All relevant communities that are involved in the control of Vector Borne Diseases: Public health authorities, mosquito control companies, citizens, scientists, researchers (**Greece, France, Italy, Germany, Serbia, Ivory Coast, Ghana, Thailand**).
- **EXCELSIOR H2020 Teaming Phase 2 Project:** More than 95 organizations from academia, industry, government and society both from international and national level, including 19 Governmental Departments of the Republic of **Cyprus**, with focus on **Balkans, Middle East and North Africa** regions.



e-shape

EuroGEOSS Showcases: Applications Powered by Europe



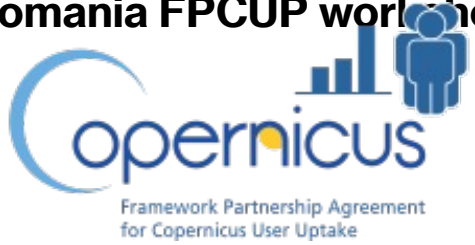
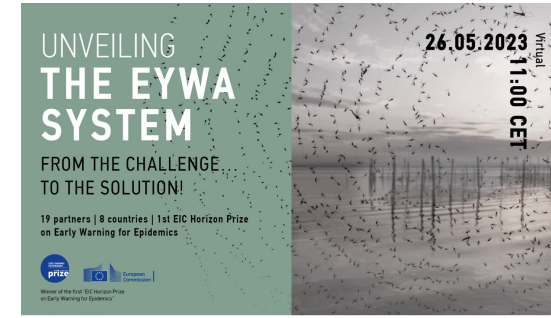
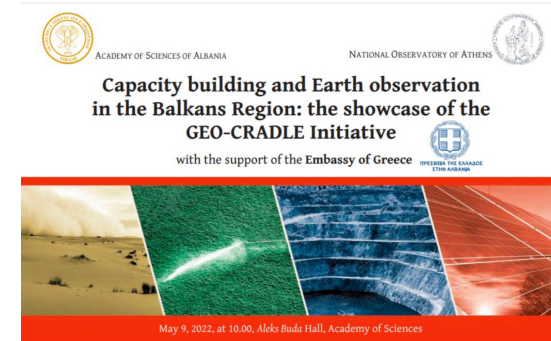
EYWA
Early Warning System
for Mosquito Borne Diseases



The expected impact & concrete outcomes of the Initiative



- **Regional Coordination and Liaison** with Copernicus, EuroGEO, AfriGEO, ESA, GEO, UN-SPIDER, CEOS Working Group on Disaster Risk Reduction.
- **Capacity Building Actions:** Organisation of dedicated workshops (e.g. with the support of the Framework Partnership Agreement on Copernicus User Uptake).
- **Operationalisation of Pilots:** Upscale and exploitation of pilots services promoted through key initiatives and projects (e.g. e-shape, Excelsior).
- **Impact Maximisation:** communication, dissemination and EO maturity assessment.
- **Recent actions:** **Albania workshops** in May 2022 in the Academy of Sciences with the support of the Greek Embassy and in the Gjirokaster University with the support of the Gjirokaster Consulate, **Greece FPCUP workshops** in June 2022 and December 2022, **COSPAR Scientific Assembly** in Greece in July 2022, **Copernicus online event** in November 2022, **EYWA workshop** in May 2023.
- **Upcoming actions:** **Egypt FPCUP workshop** in July 2023, **EuroGEO Workshop** in October 2023, **Evros floods FPCUP workshop** in December 2023 (Greece, Bulgaria, Turkey), **Greece FPCUP workshops** in July 2023 and February 2024, **Georgia FPCUP workshop** in March 2024, **Romania FPCUP workshop** in July 2024, **IEEE IGARSS in Greece** in September 2024.





Evaluation, reflection, and lessons learned

- ✓ The **impact** of the GEO-CRADLE Initiative is remarkable and well appreciated in the North Africa, Middle East and Balkans region and beyond.
- ✓ The original GEO-CRADLE project **pilots** have increased their TRL in the framework of the Initiative, and at the same time new pilots have been successfully implemented in more domains and countries mainly thanks to the e-shape and EXCELSIOR projects and the 1st EIC Horizon Prize on Early Warning for Epidemics.
- ✓ The GEO-CRADLE **EO maturity assessment** has been updated and further applied in more countries during the e-shape project.
- ✓ A series of **capacity building actions** have been implemented in the region mainly thanks to the FPCUP.
- ✓ However, **sustainable funding** is critical in order to secure well-designed and systematic capacity building instead of ad hoc efforts.
- ✓ A better **liaison with EuroGEO and AfriGEO** could be achieved with the support of the GEO Secretariat.
- ✓ **New fields of activities and synergies** could be explored in cooperation with the private sector.
- ✓ Better products and services could be developed following **co-design** with the end users (according to the e-shape co-design methodology).

Opportunities for up-scaling or out-scaling (optional)



Relevant calls for funding, such as:

- ❖ **Horizon Europe 2023-2024**
- ❖ **Interreg 2021-2027 EU programme / European Regional Development Fund**
- ❖ **European Space Agency tenders**
- ❖ **Erasmus+ EU programme for education, training, youth and sport**

Thank you!



#GEOSymposium

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