



Coordinating and integrating state-of-the-art
Earth Observation Activities in the regions of
North Africa, Middle East and Balkans
and Developing Links with GEO related initiatives
toward GEOSS

GEO-CRADLE:

Fostering regional cooperation
and roadmap for GEO and
Copernicus implementation in
North Africa, Middle East and
Balkans

*Funded under H2020 - Climate action,
environment, resource efficiency and raw
materials*

*ACTIVITY: Developing Comprehensive and
Sustained Global Environmental
Observation and Information Systems*

*CALL IDENTIFIER: H2020 SC5-18b-2015
Integrating North African, Middle East and
Balkan Earth Observation capacities in
GEOSS*

Project GA number: 690133

Total Budget: 2,910,800.00 €



<http://geocradle.eu/>

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Project Coordinator
Research Director NOA





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GEO-CRADLE

... is a unique EU funded Coordination Action running at regional level;
... is looking at the territories of North Africa, Middle East and Balkans;

It seeks to identify common needs, create synergies, and integrate capacities;

Fosters the regional cooperation and integration of monitoring capabilities and networks, as well as scientific skills;

Define and communicate goals that are clear and beneficial from societal and market wise point of view, and also realistic and in line with the domestic priorities and user needs;

Proposes/sets up large scale regional initiatives based on the Earth Observation (space based and in-situ) for capacity building and also addressing societal priorities in the thematic areas of the project such as Adaptation to Climate Change, Access to Raw Materials, better exploitation of the renewable Energy resources, and Food Security.

Objectives

- ✓ Promote the uptake of EO services and data in response to regional needs.
- ✓ Support the effective integration of existing Earth Observation Capacities in the region.
- ✓ Facilitate the engagement of the complete ecosystem of EO stakeholders in the region.
- ✓ Enhance the participation in and contribution to the implementation of GEOSS and Copernicus in North Africa, Middle East and the Balkans.



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Thematic Areas

linked with the UN SDGs



Adaptation to Climate Change (ACC)



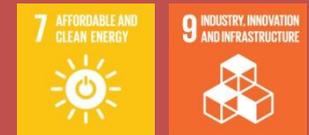
Improved Food Security – Water Extremes Management (IFS-WEM)



Access to Raw Materials (ARM)



Access to Energy (SENSE)





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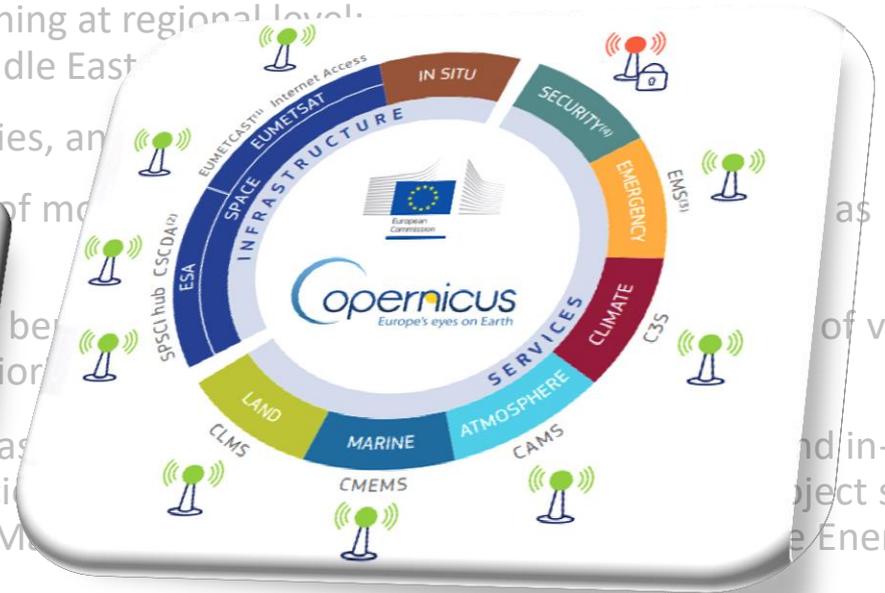
GEO-CRADLE

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Foster scientific of modern
 Defining better
 and

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Objectives

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- ✓ **Support** the effective integration of existing Earth Observation Capacities in the region.
- ✓ **Facilitate** the engagement of the complete ecosystem of EO stakeholders in the region.
- ✓ **Enhance** the participation in and contribution to the implementation of **GEOSS** and **Copernicus** in **North Africa, Middle East** and the **Balkans**.





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25 Partners, 3 Continents, 1 Team

► **GEO-CRADLE** brings together a highly-complementary team combining a strong background in GEO-related coordination activities with proven excellence in the field of Earth Observation:

- Leading research institutes and universities
- Highly-esteemed international associations
- Service Providers with strong regional presence



**NATIONAL
OBSERVATORY OF
ATHENS
Coordinator**





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The Project Pillars



To join the network follow the link to create your profile:

<http://cpdev.crowdpolicy.com/geo-cradle-stakeholders/>



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To join & search the network follow the link

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GEO-CRADLE Networking Platform
Database of GEO-CRADLE stakeholders

HOME PROFILES USER MANUAL

Location Organisation Name Thematic Area

Roadmap Terrain Satellite Zoom In Zoom Out

GEO-CRADLE Networking Platform
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Search by Keywords

If you wish to use more filters for your search, please visit the Search Page.



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Regional Data Hub – Connection with GEOSS & Regional Portals



search

Home Groups Geocradle Stakeholders Database



About

The Regional Data Hub (RDH) will soon provide access to both region-related datasets, portals and services developed by a regional network of raw data providers, intermediate users/service providers, end-users from Industry, Academic and Public Sector from the Region of Interest and also datasets and services directly fed from the GEOSS-portal. Moreover, being the centralised gateway for regional data providers to contribute easily and timely their products to GEOSS, the Regional Data Hub is designed to become the focal node in the region in the context of GEOSS and Copernicus implementation. The RDH will facilitate access to downloadable files of Space-borne data from real-time EO satellite missions acquisitions, data from Airborne campaigns performed in the region, In-situ data, and Models such as Atmospheric and Climate.

search

Trial mode

beta mode



Data



Innovation



Involvement



Growth



Climate Change



Raw Materials



Food And Security



Energy

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Υπουργείο Περιβάλλοντος και Κλιματικής Αλλαγής



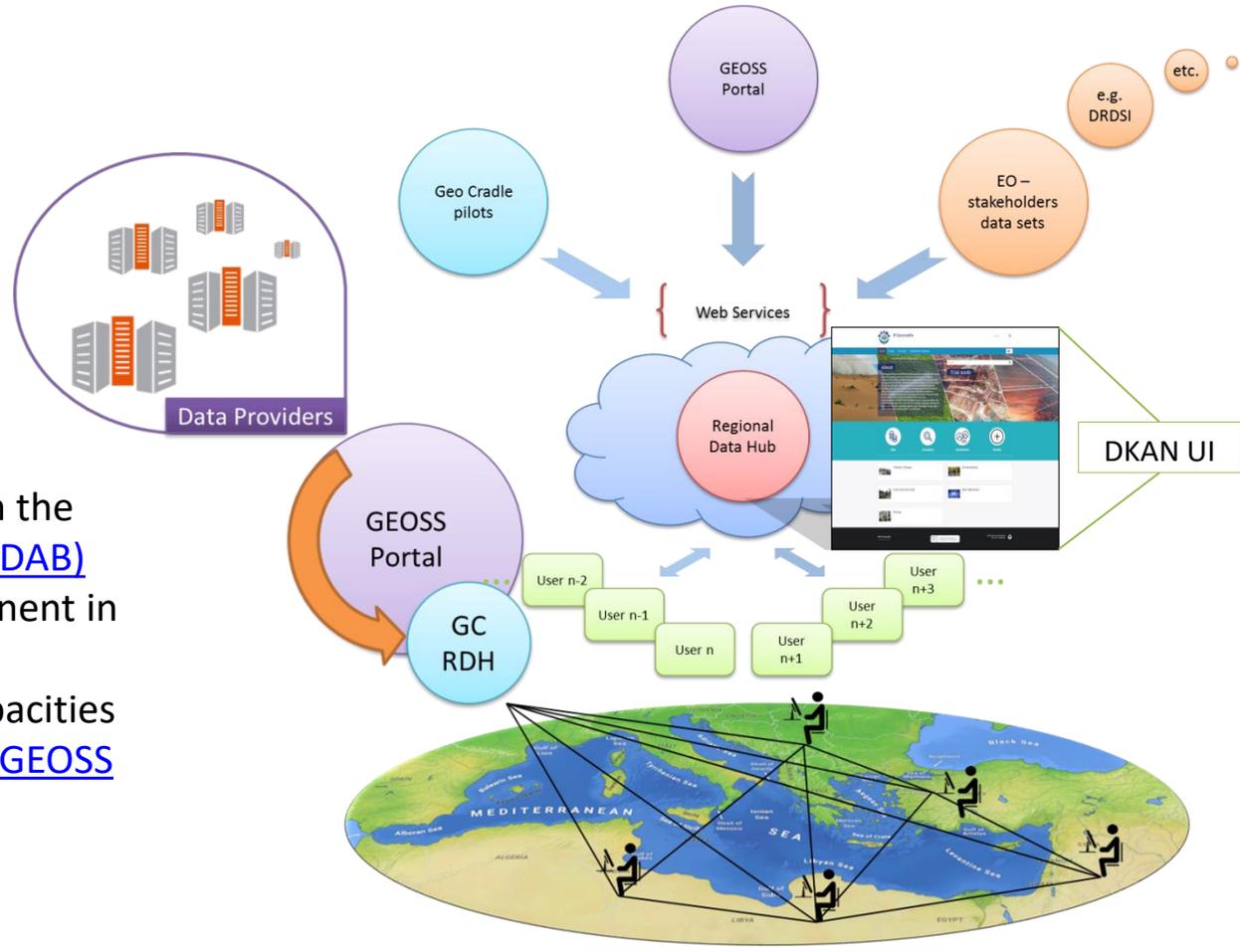


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Regional Data Hub – Connection with GEOSS & Regional Portals

Connection with GEOSS & Regional Portals

- The GEO CRADLE Regional Data Hub (GC-RDH) is going to provide its users with a transparent discovery and access mechanism of the [GEOSS portal](#)'s resources, and other regional portals!
- This mechanism will heavily rely on the [GEO Discovery and Access Broker \(DAB\) APIs](#) which is a middleware component in charge of interconnecting the heterogeneous and distributed capacities contributing to GEOSS; part of the [GEOSS Common Infrastructure \(GCI\)](#) since November 2011.





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Utilizing the GEO DAB APIs for easy access and discovery of regional EO data



Home Groups Geocradle Stakeholder Database Datasets Log in Register

Home / Groups

Groups



Global Earth Observation System of Systems (GEOSS)

A central part of GEO's Mission is to build the Global Earth Observation System of Systems (GEOSS).

25318292 datasets



PILOT 1: Adaptation to Climate Change (ACC)

The RoI has been recognised by the Intergovernmental Panel on Climate Change as one of the most sensitive and vulnerable to climate change regions

0 datasets



PILOT 2: Improved Food Security - Water Extremes Management (IFS)

Food security depends on many aspects such as water abundance and extremes (flooding and drought), vegetation stresses, yield monitoring, soil qual

0 datasets



PILOT 3: Access to Raw Materials (ARM)

For the first time, GEO-CRADLE will make available in the RoI the roadmap for long-term monitoring, mapping, and management of mineral deposits, al

0 datasets



PILOT 4: Access to Energy (SENSE)

GEO-CRADLE will lead a coordinated effort to support and improve the regional EO infrastructures through the Solar Energy Nowcasting System (SENSE)

0 datasets



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Utilizing the GEO DAB APIs for easy access and discovery of regional EO data



The screenshot displays the GEO DAB interface with the following elements:

- Navigation Bar:** Home, Groups, Geocradle, Stakeholder Database, Datasets, Login, Register.
- Breadcrumbs:** Home / climate / Dataset
- Filters:**
 - Content Types:** Dataset (selected)
 - Tags:** NECLIME (160), Neogene Climate Evolution in Eurasia (160), ERA-CLIM (89), European Reanalysis of Global Climate Observations (89), Mediterranean Sea Acidification in a Changing Climate (68), MedSea (68), Abrupt Climate Changes and Environmental Responses (50), ACER (50), Climate - Biogeochemistry Interactions in the Tropical Ocean (50), SFB754 (50)
 - Format:** text/tab-separated-values (487), application/zip (35), text/html (15), application/pdf (1), PRN (1)
 - Publisher:** (dropdown menu)
- Search Results:** 8426 results. Search term: climate. Sort by: Date changed. Order: Descending. Apply button.
- Result 1:** Mediterranean Sea Acidification in a changing climate. Description: Increases of atmospheric CO2 and associated decreases in seawater pH and carbonate ion concentration this century and beyond are likely to have wide impacts on marine ecosystems including those of the Mediterranean Sea.
- Result 2:** PO-SPACC - Portuguese small pelagic fish and climate change programme: a comparative retrospective analysis. Description: Fluctuations in small pelagic fish recruitment in the North-eastern Atlantic upwelling ecosystem have been observed, namely decreasing trends in the last decades. Sardine, horse mackerel and anchovy are...
- Result 3:** Burkina Faso, Mali, Niger and Senegal: Agricultural Potential in Relation to Soils and Climate. Description: This map shows the potential for agricultural development in different areas of Burkina Faso, Mali, Niger and Senegal based on the soils and climate of these areas.
- Result 4:** Climate Change Adaptation & Coastal Cities of North Africa Reports. Description: These reports are parts of the deliverables produced by the "Climate Change Adaptation & Coastal Cities of North Africa Project".
- Result 5:** Calcareous plankton response to orbital and millennial-scale climate changes from ODP Leg 161-975. Description: The paleoenvironmental conditions through MIS 15-9 at the Mediterranean Ocean Drilling Program (ODP) Site 975 were interpreted by high resolution study of calcareous plankton assemblages compared with available d18O and d13C records and high resol...
- Result 6:** Paleo-climate reconstruction on sediment core M72/5_628-1 (25-GC-1), Black Sea. Description: The Marine Isotope Stage (MIS) 3 stands out due to its abrupt changes from cold and dry stadials to warm and humid interstadials, the so-called Dansgaard-Oeschger cycles that also affected temperature and rainfall in the Black Sea region.



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License

License not specified

Other Access

The information on this page (the dataset metadata) is also available in these formats.

[JSON](#) [RDF](#)

via the [DKAN API](#)

Social

[Twitter](#)

[LinkedIn](#)

[Reddit](#)

[Google+](#)

[Facebook](#)

Mediterranean acidification under the influence of climate change as well as associated economic impacts.

Projections will be based on new observations of chemical conditions as well as new observational and experimental data on the responses of key organisms and ecosystems to acidification, which will be fed into existing ocean models that have been improved to account for the Mediterranean's fine-scale features. These scientific advances will allow us to provide the best advice to policymakers who must develop regional strategies for adaptation and mitigation.

Data and Resources

Dataset Info

i These fields are compatible with [DCAT](#), an RDF vocabulary designed to facilitate interoperability between data catalogs published on the Web.

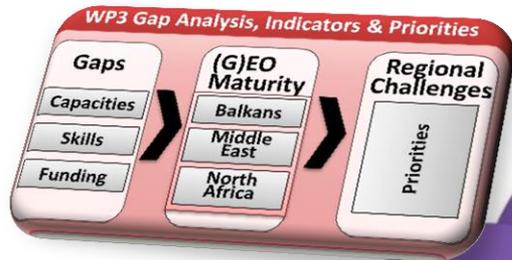
Field	Value
Publisher	Global Earth Observation System of Systems (GEOSS)
Modified Date	2012-03-02
Release Date	2012-03-02
Identifier	C1214598306-SCIOPS
Spatial / Geographical Coverage Area	POLYGON ((-8 28, 36 28, 36 46, -8 46, -8 28))
Temporal Coverage	Tuesday, February 1, 2011 - 02:00 to Saturday, February 1, 2014 - 01:59





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The Project Pillars



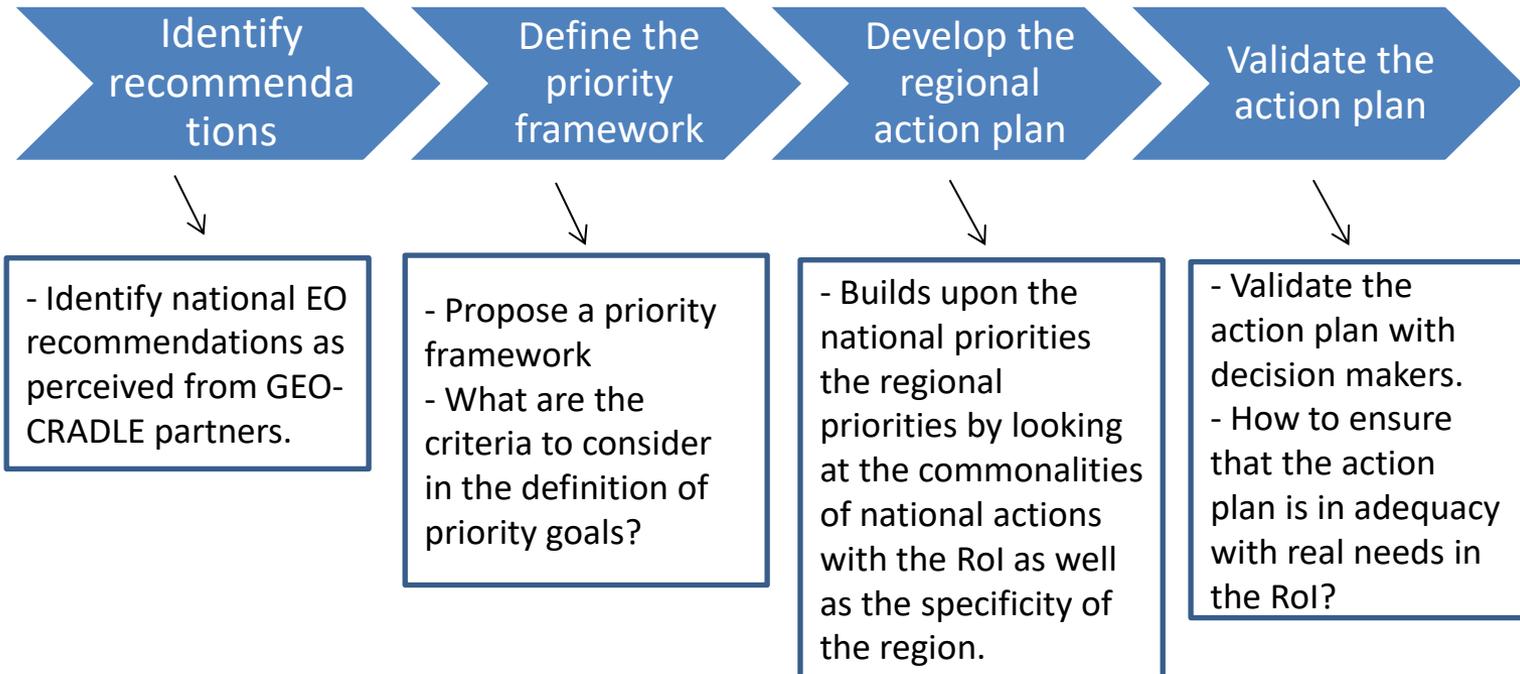
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The Regional Priorities

Priority Definition Workflow

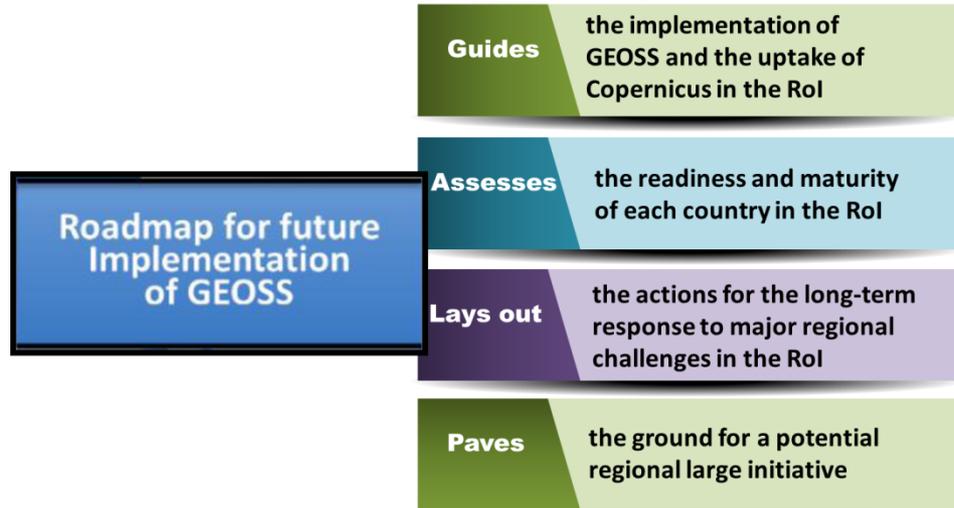




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The GEO-CRADLE Contribution

1. **Submit to the EC a roadmap** with funding priorities in relation to capacity building, filling in gaps (networks, infrastructures, data sharing, skills), training, education, service provision, and business uptake at regional level



2. **Engage the countries and regional stakeholders** in the data sharing process, the use of open standards, and facilitate the access of the local actors to existing portals, web servers, data repositories, and satellite image archives through big infrastructures such as GEOSS, the European Data Portal, Copernicus data/service portals, and any existing regional Data Hubs (e.g. GEO-CRADLE RDH)



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The GEO-CRADLE Contribution

3. **Generate and sustain a network stakeholders** to ensure visibility, and sharing of knowhow, excellence, and skills between the local actors and their counterparts worldwide
4. **Deliver a prototype methodology and a detailed assessment** on the nations' (market and science) maturity in relation to EO. Compare the regional capacity/state-of-the-art with the ones of developed countries in space, and find the complementary roles where they exist
5. **Support the EO market uptake and internationalisation** by,
 - ❖ Understanding the local market, and capacities
 - ❖ Mapping existing policies in sectors that may need support from EO
 - ❖ Facilitating access to open data
 - ❖ Mapping the local competitive landscape
 - ❖ Engaging the end-user community
 - ❖ Facilitating partnering with international interlocutors (companies, researchers, industries)
 - ❖ Building trust / Overcoming cultural and linguistic issues
6. **Advance the role of the countries in GEO, and Copernicus** by,
 - ❖ Setting up local GEO offices, Copernicus Relay Offices, and/or nominating official GEO representations at various levels
 - ❖ Strengthening the EO industrial/research dimension by using Copernicus & GEO as key drivers
 - ❖ Helping the stakeholders understand how they can benefit from and contribute to GEOSS



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GEO-CRADLE website in english



Pilot Activities

Follow our pilot activities in four thematic areas:



Survey & Networking Platform

Take part in our



DataHub

Access, search and share Earth Observation Data for the three regions.



Funding Opportunities

Explore the available funding opportunities and the benefit of



<http://geocradle.eu/>





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GEO-CRADLE website in arabic



بحث



العربية

الأخبار والتعليقات

الأنباء

المصنف

التوعية

التقنيات الإلكترونية

التشغلات

قريب العمل

حول المرصد الأرضي



مشروع المهد الأرضي "جيوكرادل"

تنسيق ودمج أنشطة رصد الأرض



الدراسة الاستقصائية

المشاركة في الاستطلاع للمسنر
لدينا في فترات المراقبة الإقريقية
لأرض



أنشطة تجريبية

اتبع أنشطتنا التجريبية في أربعة
مجالات موضوعية هي: التكيف
مع تغير المناخ، تحسين الأمن
الغذائي وإدارة المياه وتحسين
فرص الحصول على المواد الخام
والطاقة.



منصة الشبكات

كن جزءا من مجتمع المرصد
الأرضي GEO-CRADLE
والتفاعل مع أصحاب المصلحة
في بلاد البلقان وشمال أفريقيا
والشرق الأوسط



مخزن البيانات

الوصول والبحث وتبادل بيانات
رصد الأرض للمناطق الثلاث.



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GEO-CRADLE website in serbian

O projektu GEO-CRADLE Tim Aktivnosti Regionalni Kapaciteti Promotivne aktivnosti Resursi Alatke Vesti & događaji Српски језик

Projekat GEO-CRADLE

Koordinacija i integracija aktivnosti osmatranja Zemlje

- Upitnik**
Pridružite se našem tekućem istraživanju regionalnih kapaciteta za osmatranje Zemlje
- Pilot aktivnosti**
Pratite naše pilot aktivnosti u okviru žatiri tematske oblasti
- Platforma za umrežavanje**
Postanite deo
- Baza podataka**
Pristup, pretraživanje i deljenje podataka o osmatranjima Zemlje u



<http://geocradle.eu/>





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thank you!

