

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/

Copernicus and GEO opportunities for Egypt and the region

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What is GEO?











What is GEO?

GEO is a partnership of more than 100 national governments and in excess of 100 Participating Organizations that envisions a future where decisions and actions for the benefit of humankind are informed by coordinated, comprehensive and sustained Earth observations.

GEO is a unique global network connecting government institutions, academic and research institutions, data providers, businesses, engineers, scientists and experts to create innovative solutions to global challenges at a time of exponential data growth, human development and climate change that transcend national and disciplinary boundaries.

Together, the GEO community is creating a Global Earth Observation System of Systems (GEOSS) to better integrate observing systems and share data by connecting existing infrastructures using common standards. There are more than 200 million open data resources in GEOSS from more than 150 national and regional providers such as NASA and ESA; international organizations such as WMO and the commercial sector such as Digital Globe.











GEO Regional Activities

The AfriGEOSS initiative, developed within the GEO framework, will strengthen the link between the current GEO activities with existing capabilities and initiatives in Africa.

This coordination initiative has been recognized essential to enhance Africa's capacity for producing, managing and using Earth observations, thus also enabling the Region's participation in, and contribution to, the Global Earth Observation System of Systems (GEOSS).

AfriGEOSS aims to provide the necessary framework for African countries and organizations as well as international partners to access and leverage on-going local and international bilateral and multilateral EO-based initiatives across Africa, thereby creating synergies and minimizing duplication for the benefit of the continent.









GEO Regional Activities













National GEO Initiatives

South African Group on Earth Observations, http://sageo.org.za/

The objectives of SA-GEO are to promote the use and application of Earth observations in daily activities; promote networking within the South African Earth Observations communities; share scientific and applications knowledge on the uses of earth observations; provide a forum for researchers, academics, public officials, industry, data suppliers, consultants, NGOs and other professionals interested in earth observations to

interact.













National GEO Initiatives

Greek GEO Office, http://www.greekgeo.noa.gr/wp/



GGO, as the focal point of GEO activities in Greece, addresses the need for a permanent coordination mechanism of GEOSS activities at the national level, at the same time building interfaces with GEO and the Greek State. Its main vision is to act as a springboard for the implementation of GEOSS in Greece and promote collaboration within the country but also with neighboring countries with proven capacity in the field.

In this context, GGO aspires to:

- •participate with leading role in national strategic planning towards meeting GEO's regional vision
- •provide reference and optimize efforts for coordinating EO activities and capacities in the region to effectively address national and regional needs
- •maximize synergies amongst key EO partners in Greece, placing special effort in engaging user communities, stakeholders and the industry sector (including SMEs)
- •foster the exploitation of best practices between EO players at the national level
- •identify and trigger exploitation of synergies in terms of funds raising, capacities and cross-discipline research, via community building and networking











GEO OFFICE @ National Level















GEO OFFICE @ Regional Level



GEO-CRADLE

<u>Coordinating and integRating state-of-the-art Earth Observation Activities in</u> the regions of North Africa, Middle East, and Balkans and <u>Developing Links</u> with GEO related initiatives towards GEOSS

The current proposal is addressing the H2020 Work Programme "12. Climate action, environment, resource efficiency and raw materials" and more specifically the call "SC5-18b: Integrating North African, Middle East and Balkan Earth Observation capacities in GEOSS".











GEO OFFICE @ European Level

ERA-PLANET

THE EUROPEAN NETWORK FOR OBSERVING OUR CHANGING PLANET

Call H2020-SC5-2015-one-stage

Sub-call H2020-SC5-2014-2015

Topic

SC5-15-2015: Strengthening the European Research Area in the domain of Earth Observation











What is Copernicus?









COPERNICUS IN BRIEF

- Copernicus, a flagship programme of the European Union:
 - Monitors the Earth, its environment and ecosystems
 - Prepares for crises, security risks and natural or man-made disasters
 - Contributes to the EU's role as a global soft power
- Adopts a full, free and open data policy
- Is a tool for economic development and a driver for the digital economy

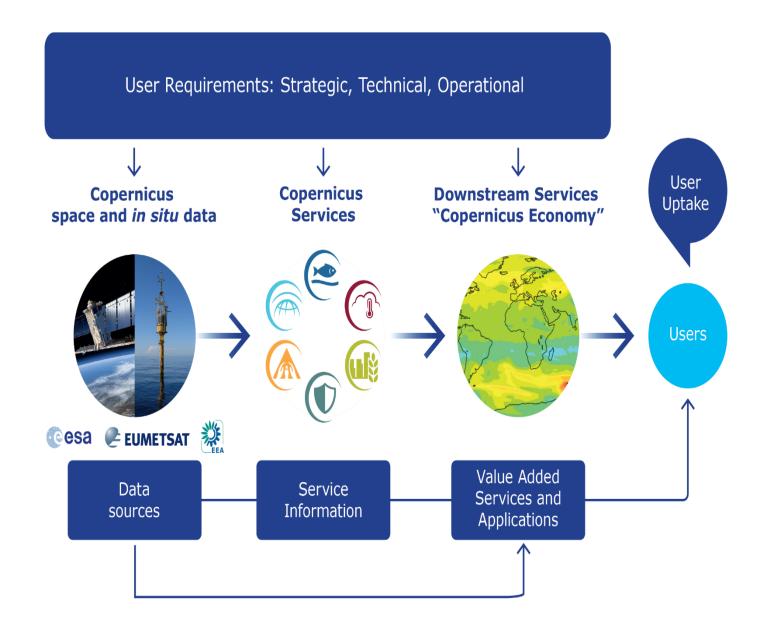








COPERNICUS IS DRIVEN BY THE USERS



COPERNICUS SERVICES

COPERNICUS SERVICES





Access to Services Data and Information

- 6 Thematic Copernicus Services:
- 5 are under Full, free and open access:
 - Land (CLMS)
- - Marine (CMEMS)
 - Atmosphere (CAMS)
 - Climate (C3S) ()



- 1 has restricted access:
 - Security















Copernicus Data Access Overview

- **10** European Data Access points:
 - 4 for Satellite Data
 - 6 for Services Data and Information
- Satellite data =
 - Access to images in NRT
 - Access to archives
- Services Data and Information=
 - Added value products, indicators
 - Models
 - Archives, Near Real Time and Forecasts products











Access to Satellite Data

- 4 data access points:
- 2 managed by ESA:
 - Scientific Data Hub (SCI Hub)
 - Copernicus Space Component Data Access (CSCDA)
- 2 managed by EUMETSAT
 - EUMETCast
 - Copernicus Online Data Access (CODA)











SENTINEL SCIENTIFIC DATA ACCESS

Search & Browse Discover & Visualise

ster Downloa

Compute

Join Up

FULL, FREE AND OPEN















- Sentinel data
- Graphical user interface
- Visualise/ analyse data
- Access info
- Order
- Customise
- Helpdesk
- Select and download
- One-off or by scripts
- Use data
- Integrate
- Merge
- Get trained
- Get inspired
- Meet partners

Where How **Key Figures** https://scihub.copernicus.eu Two kinds of user interfaces: 15,243 355,939 **502 Tbytes Graphic User Interface** users successfully published products registered in 2015 published **Application** sentinel **Programming Interfaces** (API) Two API Options: 1.050 6.900 Each user **Open Data Protocol** Scientific and average number average number 2 concurrent Open Search of products of products downdownloads max and Other Access 500 Mbit/s published per loaded per day day

OTHER DATA ACCESS PUBLIC

National Initiatives- Collaborative Ground Segment

		6
Initiative Name	Initiative Leader	Website and Target User Group
THEIA Land Data Centre	CEA, Cerema, IRSTEA, IRD, CNRS, INRA, IGN, Meteo France, CIRAD, ONERA	 URL: theia-land.fr Scientific communities and public authorities
NOA Hellenic National Sentinel Data Mirror Site	NOA, IAASARS	 URL: sentinels.space.noa.fr Scientific communities, public authorities, private industry players
CATAPULT Satellite Applications and CEDA	UK Space Agency	 URL: sa.catapult.org.uk Scientific communities, public authorities, private industry players
ESA Thematic Exploitation Platforms	ESA	 URL: tep.eo.esa.int All user types
Platform for Exploiting Products from Sentinels (PEPS1)	CNES	 URL: peps.cnes.fr Scientific communities and public authorities













GMES AND AFRICA – MAKING DEVELOPMENT SUSTAINABLE

The objectives of the GMES and Africa support programme are as followed

- General objective: promote a more sustainable management of natural resources by improving decision making process through provision of additional pertinent information.
- 2. Specific objective: "improve African policy-makers' and planners' capacities to design, implement, and monitor national, regional and continental policies and to promote sustainable management of natural resources through the use of EO data and derived information"

The general objectives of the Call for proposal are:

- 1. Maintaining, improving and sustaining local, institutional, human and technical capacities for accessing and using EO data and services for sustainable socio-economic development,
- 2. Contributing to the implementation of the African Space Policy and Strategy, in particular on Earth Observation,
- 3. Providing decision-makers with information and tools needed for the implementation of sustainable socio-economic development at the continental, regional and national levels through their RECs and RICs











GMES AND AFRICA – MAKING DEVELOPMENT SUSTAINABLE

Geographical distribution of the grants

The call for proposals seeks to distribute Grants across the entire continent through Regional Implementation Centres (RICs), which act as regional outlets for the two services. Each RIC will have the responsibility to ensure that all countries in the region can benefit from the activity, unless the service is not relevant to some countries in the region.

The geographic regions are defined below:

- •North Africa (Morocco, Algeria, Tunisia, Libya, Egypt, Mauritania, Sahrawi Republic)
- •West Africa (Senegal, Gambia, Guinea Conakry, Guinea Bissau, Liberia, Sierra Leone, Ivory Coast, Ghana, Togo, Benin, Nigeria, Cabo Verde, Mali, Burkina, Niger).
- •Central Africa (Chad, Central Africa, Cameroon, Gabon, Equatorial Guinea, Congo Brazzaville, Congo RDC, Burundi, Sao Tome & Principe)
- Southern Africa (Angola, Namibia, South Africa, Lesotho, Mozambique, Swaziland, Zambia, Zimbabwe, Botswana, Malawi,)
- East Africa (Sudan, South Sudan, Eritrea, Djibouti, Ethiopia, Uganda, Kenya, Rwanda, Somalia, Tanzania, Madagascar, Mauritius, Seychelles, Comoros)











GMES AND AFRICA – MAKING DEVELOPMENT SUSTAINABLE FINANCIAL ALLOCATION PROVIDED BY THE CONTRACTING AUTHORITY

The GMES & Africa Support Programme has an indicative envelope of €30 million. It is funded by the European Commission through Pan African Programme for €29.5 million distributed as follows:

- •€17.5 million for Grants
- •€6 million for capacity development, outreach and awareness creation, PMU staff salaries, programme management and coordination, etc.
- •€6 million for the technical support, including the technical assistance.

AUC contribution is a total of €0.5 million towards supporting the Programme Coordinator, and other administrative support. The AUC contribution covers also the professional services provided by other AUC staff and departments involved in the GMES & Africa Support Programme implementation.

The overall indicative amount made available under this Call for Proposals is €17,500,000.00. This amount will be issued in two lots:

- •Lot 1 Water and Natural Resources Service
- Lot 2 Marine and Coastal Resources Service











GMES AND AFRICA – MAKING DEVELOPMENT SUSTAINABLE In order to be eligible for a grant, an Applicant must:

- •Be an African institution with at least five years of demonstrated experience in implementing large-scale EO projects spanning in at least three countries **and**
- Have at least a 5-year record in the formulation and/or implementation of Earth Observation activities applied to Water & Natural Resources and/or Marine & Coastal Areas in Africa and
- •Be an institution coordinating and working directly with at least three national institutions from three different countries to deliver on EO projects **and**
- Have a regional (or also continental or global) mandate, e.g. beyond the national boarder of the Applicant **and**
- •Be legally registered locally or regionally (the applicant will have to provide the relevant legal documents) and
- •Be able to demonstrate their experience and capacity to manage activities corresponding in scale and complexity to those for which a grant has been requested **and**
- •Demonstrate stable sources of finance to ensure the continuity of their organisation throughout the implementation of the proposed action **and**
- •Belong to consortia of national institutions and academia as explained under 2.1.2 (2)- composition of partnerships and;
- •Belong to at least one of the following categories: African national or regional organizations, research institutions, universities applying EO in the thematic areas stated in point ii above;







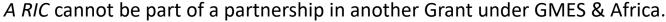




GMES AND AFRICA – MAKING DEVELOPMENT SUSTAINABLE

Composition of partnerships - (consortia)

- •Partnerships must involve <u>at least</u> five African organisations including the Applicant, three national institutions and one academia, all from different countries.
- •There is no upper limit to the number of members in a partnership, provided the partnership is composed in such a way as to allow for the achievement of project objectives in the most efficient manner.
- •Partnerships endorsed by Regional Bodies such as African Union Regional Economic Communities (REC) have an added advantage during the evaluation of the concept notes (see section 2.3).
- •Partnerships from the different African Union Regions (as defined in the priority areas section of this Guidelines) on cross-regional (inter-regional) or/ and continental issues have an added advantage. The RIC is the lead organisation in a partnership and the entity with whom the AUC will sign the Grant.













GMES AND AFRICA – MAKING DEVELOPMENT SUSTAINABLE

DEADLINE FOR SUBMISSION OF PROPOSALS

The deadline for the submission of proposals is **August 21th**, **2017**, as evidenced by the date of dispatch, the postmark or the date and the hour of the disposal slip (17:00 Hours, Addis Ababa time (+3 GMT) at the latest in case of hand-deliveries). Any proposal submitted after this deadline, or in the case of delayed postal delivery, received after the Opening and Administrative check process, will be automatically rejected. For further details on where and how to submit the proposals, please see the Guidelines section 3.2.2.

More info at: https://au.int/web/en/GMESAfrica/2017call











Other EU funding Opportunities



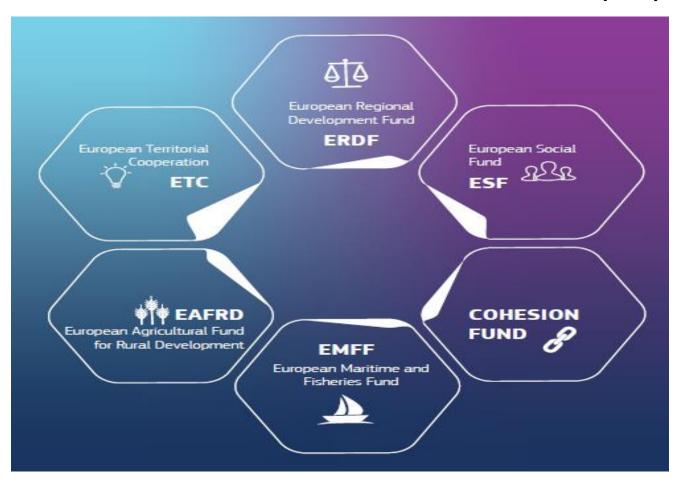








European Structural and Investment Funds (ESIF) 2014-2020



- European Regional Development Fund (ERDF)*
- European Social Fund (ESF)
- 3) Cohesion Fund (CF)
- 4) European Maritime and Fisheries Fund (EMFF)
- 5) European Agricultural Fund for Rural Development (EAFRD)
- * including European Territorial Cooperation (ETC) / INTERREG

https://ec.europa.eu/info/funding-tenders/european-structural-and-investment-funds_en

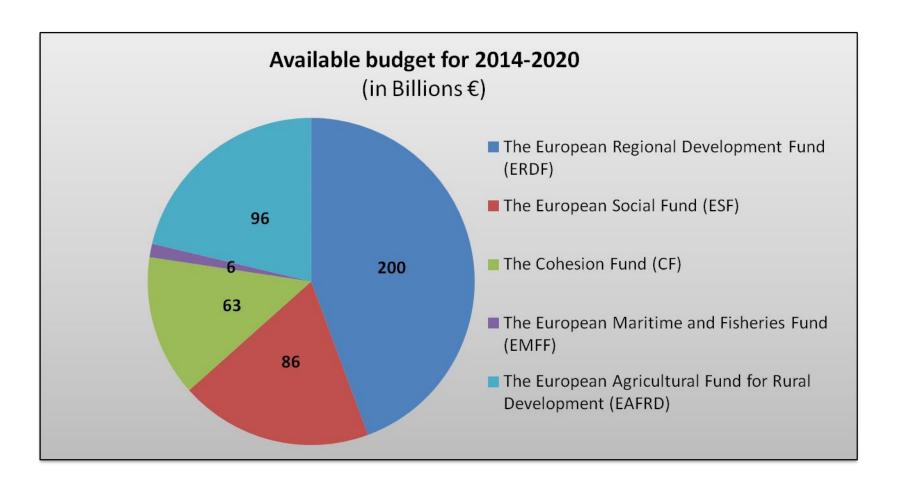








European Structural and Investment Funds (ESIF) 2014-2020





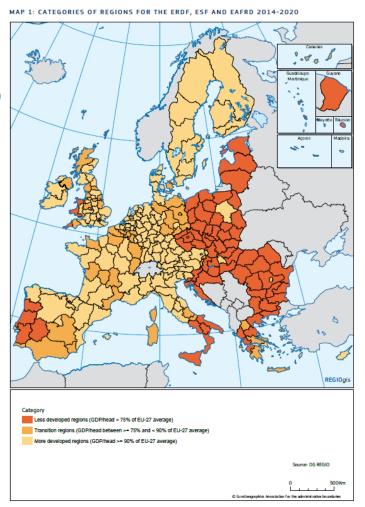


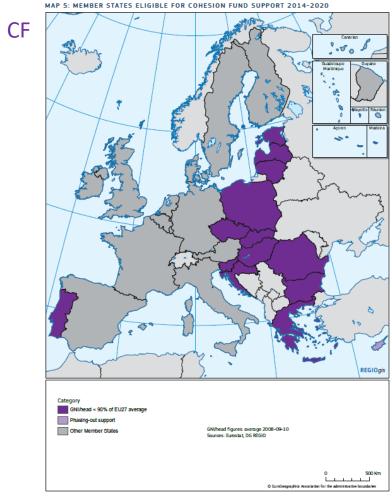




European Structural and Investment Funds (ESIF) 2014-2020

ERDF ESF EAFRD







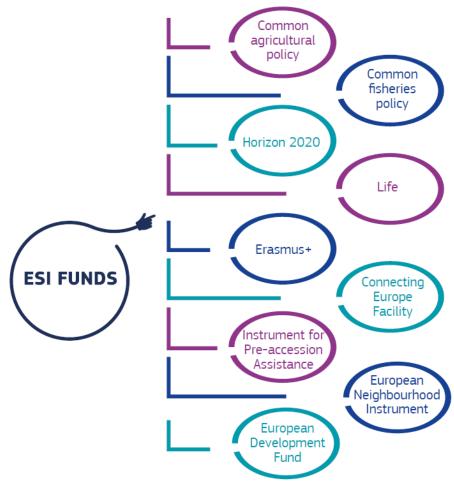






European Structural and Investment Funds (ESIF) 2014-2020

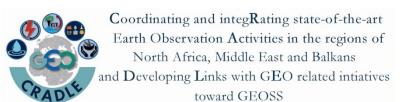
The Common Strategic Framework also sets out practical ways to build synergies between the ESI Funds and other EU policies and instruments:











EU Framework Programme for Research and Innovation (Horizon 2020)

https://ec.europa.eu/programmes/horizon2020/



Highly relevant to

GEO-CRADLE!

Excellent Science

European Research Council

Future and Emerging Technologies Marie Skłodowska-Curie actions

Research Infrastructures, including e-Infrastructures

Industrial Leadership Innovation

H2020 is the

biggest EU

Research

and

programme

ever with

over 7 years

(2014 to

2020),

enhancing

EU

Leadership in Enabling and Industrial Technologies

Nanotechnologies, Advanced Materials, Advanced Manufacturing and Processing, and Biotechnology

Information and Communication Technologies

Space

nearly €80 Access to risk finance billion of Innovation in SMEs

funding **Societal Challenges**

Health, Demographic Change and Wellbeing available

Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy

Secure, Clean and Efficient Energy Smart, Green and Integrated Transport

Climate Action, Environment, Resource Efficiency and Raw Materials Europe in a changing world - Inclusive, innovative and reflective societies

Secure societies – Protecting freedom and security of Europe and its citizens

Spreading Excellence and Widening Participation

international Science with and for Society

research and **Cross-cutting activities (focus areas)**

Third Fast Track to Innovation Pilot

European Institute of Innovation and Technology (EIT) Country

Euratom participation

Smart Cyber-Physical Systems



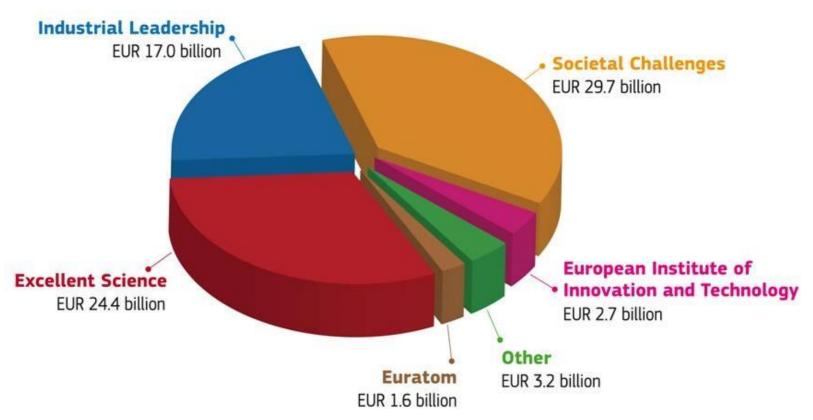






EU Framework Programme for Research and Innovation (Horizon 2020)

HORIZON 2020 BUDGET (EUR 78.6 billion, current prices)











EU Framework Programme for Research and Innovation (Horizon 2020)

The PRIMA initiative

Highly relevant to GEO-CRADLE!

The Commission has agreed on a proposal for a Partnership for Research and Innovation in the Mediterranean Area, PRIMA, which is set to develop much-needed novel solutions for sustainable water management and food production.

Funding for the €400 million partnership will come from the participating countries (currently around €200 million), matched by a €200 million contribution from the EU through its current research framework programme Horizon 2020.

The partnership is scheduled to run for **10 years**, starting in **2018**.

The PRIMA Joint Programme involves 19 countries:

- 11 Member States: Croatia, Cyprus, the Czech Republic, France, Greece, Italy, Luxembourg, Malta, Portugal, Slovenia and Spain;
- 8 third countries: Algeria, Egypt, Israel, Jordan, Lebanon,
 Morocco, Tunisia and Turkey.

Of these, 14 countries (Cyprus, the Czech Republic, Egypt, France, Greece, Israel, Italy, Lebanon, Luxembourg, Malta, Morocco, Portugal, Spain and Tunisia) have agreed to jointly undertake the PRIMA initiative.

The participation of **Germany** is currently under negotiation. As the initiative is evolving over time, more participants are expected to follow, both EU and non-EU countries.

http://ec.europa.eu/research/environment/index.cfm?pg=prima









Instrument for Pre-accession Assistance II (IPA)

The IPA provides assistance to countries directly in line to become members of the European Union (candidate countries: Albania, Montenegro, Serbia, the former Yugoslav Republic of Macedonia, and Turkey), as well as the rest Balkan countries (potential candidates: Bosnia-Herzegovina and Kosovo*).



https://ec.europa.eu/neighbourhood-enlargement/instruments/overview_en









Instrument for Pre-accession Assistance II (IPA)

The IPA is the means by which the EU supports reforms in the 'enlargement countries' with financial and technical help. The IPA funds build up the capacities of the countries throughout the accession process, resulting in progressive, positive developments in the region.

Budget of IPA II for 2014-2020: € 11.7 billion.

Country	<u>2016</u>
Albania	89.7
Bosnia & Herzegovina	42.7
The former Yugoslav Republic of Macedonia	91.6
Kosovo*	88.7
Montenegro	37.4
Serbia	207.9
Turkey	630.7
Multi-country	390.0

Pre-accession assistance is an investment in:

- ✓ Public administration reform
- ✓ Rule of law
- Sustainable economy
- ✓ People
- Agriculture and rural development







Highly relevant to GEO-CRADLE!



European Neighbourhood Instrument (ENI)

The ENI funds the European Neighbourhood Policy (ENP) which covers cooperation with EU's 16 Neighbours.

Russia takes part in Cross-Border Cooperation activities under the ENP and is not a part of the ENP as such.

- * SYRIA: EU
 Cooperation with
 Syria is currently
 suspended due to the
 political situation
- ** PALESTINE: This designation does not entail any recognition of Palestine as a state and is without prejudice to positions on the recognition of Palestine as a state.



http://ec.europa.eu/europeaid/funding/european-neighbourhood-and-partnership-instrument-enpi_en









European Neighbourhood Instrument (ENI)

Budget of ENI for 2014-2020: € 15.4 billion.



ANSA centimetri for the EU Neighbourhood Info Centre - www.enpl-info.eu











Development Cooperation Instrument (DCI)

The DCI covers all the developing countries except the countries eligible for the Pre-Accession Instrument.
There are 3 specific components covered:

Geographic programmes

Thematic programmes

Pan-African Programme **Geographic programmes** support cooperation with around 47 developing countries in Latin America, South Asia and North and South East Asia, Central Asia, **Middle East** and South Africa. They support actions based on the European Consensus for Development and the following areas:

- ✓ Human rights, democracy and good governance
- ✓ **Inclusive and sustainable growth for human development** (e.g. health, education, social protection, sustainable agriculture, food and nutrition security...)
- ✓ Migration and asylum
- ✓ The link between humanitarian relief and development cooperation
- ✓ Resilience and disaster risk reduction
- ✓ Development and security, including conflict prevention.







Highly relevant to

GEO-CRADLE!



Development Cooperation Instrument (DCI)

The DCI covers all the developing countries except the countries eligible for the Pre-Accession Instrument.
There are 3 specific components covered:

Geographic programmes

Thematic programmes

Pan-African Programme **Thematic programmes** benefit all developing countries (including those covered by the ENPI and the EDF). These programmes add value, complementarity and coherence to the geographical programmes. There are 2 categories:

- ✓ 'Global public good and challenges': this programme addresses climate change, environment, energy, human development, food security and migration while ensuring coherence with the poverty reduction objective. No less than 27% of this programme is spent on climate change and environment objectives. At least 25% of the programme is used to support social inclusion and human development.
- ✓ 'Civil society organisations and local authorities': this programme provides greater support to civil society and local authorities to encourage them to play a bigger role in development strategies.

 Highly relevant to









Development Cooperation Instrument (DCI)

The DCI covers all the developing countries except the countries eligible for the Pre-Accession Instrument.
There are 3 specific components covered:

Geographic programmes

Thematic programmes

Pan-African Programme The newly established **Pan-African Programme** supports the strategic partnership between the EU and **Africa**. This programme complements other financing instruments which are used in Africa (in particular ENI and EDF) and supports activities of trans-regional, continental or global nature in and with Africa.





Highly relevant to

GEO-CRADLE!





European Investment Bank funding

http://www.eib.org/projects/priorities/climate-and-environment/index.htm

http://www.eib.org/projects/regions/index.htm

http://www.eib.org/projects/regions/med/index.htm

Relevant to GEO-CRADLE: .

Energy: power generation, transmission and distribution, renewable energies.

Environment: water and sanitation, solid waste disposal and treatment, pollution abatement, irrigation









International Funding Opportunities











International Funding Opportunities

World Bank funding

http://projects.worldbank.org/sector?lang=en
http://projects.worldbank.org/sector?lang=en&page

Relevant to GEO-CRADLE: .

Agriculture, fishing, and forestry Water, sanitation and flood protection Energy and Mining











thank you!





