# EuroGEOSS Request 2018

Fields marked with * are mandatory.

## Request for Expressions of Intent to scale-up and showcase EuroGEOSS Pilot Applications

EuroGEOSS is a regional initiative launched in October 2017 by the European countries, the European Commission and organizations participating to the Group on Earth Observations (GEO). From 2018 onwards, the EuroGEOSS initiative plans to launch periodic Requests for Expressions of Intent. All organizations located in European GEO member countries which are involved in developing, promoting or deploying innovative EO derived solutions are invited to come forward with voluntary Expressions of Intents for networking with other stakeholders along the value chain and scaling-up their activities within a timeframe of maximum three years.

**This EuroGEOSS Request provides the online form to submit your Expression of Intent to the EuroGEOSS initiative. Submissions are accepted until 30 June 2018.**

**Why to submit an Expression of Intent?**

- To share good practice, benchmark experiences and scale them up across different local contexts and across the EU;
- To network including with users and other stakeholders not yet involved in European Research and innovation EO activities;
- To get high visibility and recognition - including in GEO and Copernicus events - and take part in a more strategic dissemination at European and international level under the EuroGEOSS flag;
- To benefit from EuroGEOSS as a regional gateway to GEO;
- To link with important EO projects and programmes in Europe including Copernicus, Horizon 2020 and its follow-up programme after 2020;
- To benefit from and contribute to a reinforced European EO marketplace;
- To get regularly informed on funding opportunities;

- To participate in a European-wide, lasting partnership where shared competences, resources and skills are combined.

The Expressions of Intent should build upon the combination of existing funded developments. They must address the EuroGEOSS scoping priorities and selection criteria annexed to the text of the EuroGEOSS Request 2018.

All Expressions of Intent submitted online to the EuroGEOSS Request 2018 will be analyzed by the EuroGEOSS Coordination Group.

Action Groups will be established for each of those application areas where critical mass and market potential is identified from the submitted Expressions of Intents. Being selected for an Action Group is the prime mechanism to get your activity labelled as a EuroGEOSS activity. Each Action Groups shall facilitate upscaling of a specific EO applications characterized by a Technology Readiness Levels (TRLs) equal or above 5.

The Action Groups are not subject to a contractual basis. They represent ad hoc voluntary partnerships aiming at advancing the EuroGEOSS innovation agenda on a best effort basis and for a period of maximum three years.

For more information on this survey - including the EuroGEOSS selection criteria - see the *"Request 2018 for Expressions of Intent"* and the related *Frequently Asked Questions (FAQ)* available from the EuroGEOSS web site. You can also send your eventual questions to RTD-EUROGEOSS@ec.europa.eu.

***Disclaimer***
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***Data protection related to this survey****: personal data protection will be ensured (please click here for further information).*
***Specific Privacy Statement****: is available here.*

DEADLINE FOR SUBMISSIONS: 3**0 June 2018**
FEEDBACK BY EMAIL TO CONTRIBUTORS: **end August 2018**
LAUNCH OF SELECTED ACTION GROUPS: **mid September 2018**

# 1 PARTNERSHIP SUPPORTING THE EXPRESSION OF INTENT

## 1.1 LEAD ORGANISATION

* Lead organisation name
*100 character(s) maximum*

National Observatory of Athens – Inst. for Astronomy Astrophysics Space Applications and Remote Sens

* Lead organisation address (Address, city, country)

*100 character(s) maximum*

Vas. Pavlou & I. Metaxa, 15236 Penteli, Greece

* Lead organisation URL/website

*100 character(s) maximum*

www.noa.gr
www.astro.noa.gr

Lead organisation profile in relation to GEO and/or Copernicus

If applicable, please describe briefly the links between your organisation and the GEO initiative and/or the Copernicus programme.

*1000 character(s) maximum*

IAASARS/NOA is coordinating GEO-CRADLE (http://geocradle.eu/), upgraded to a GEO Work Programme Community Activity. It coordinates and integrates state-of-the-art EO capacities in North Africa, Middle East, and Balkans in support to the implementation of GEOSS and Copernicus in the regions. GEO-CRADLE addresses priorities in relation to Climate, Food Security, Raw Materials, and Energy, sustains a Networking Platform with >300 stakeholders and operates a Regional Data Hub fully interoperable with the GEOSS portal. IAASARS/NOA operates several DataHubs, federated with the Integrated Ground Segment of Copernicus namely the Hellenic Mirror Site (https://sentinels.space.noa.gr/), the IntHub, the CollHub, the DIASHub, and the TmpHub, providing Sentinel data to the global EO stakeholder community. IAASARS /NOA supports the EMS and EFFIS components of Copernicus CS, and hosts the Greek GEO Office (www. greekgeo.noa.gr/), the focal point of Greece in GEO to coordinate relevant activities.

* Contact person (Name and firstname)

*50 character(s) maximum*

Dr. Charalampos (Haris) Kontoes

* Contact person e-mail

kontoes@noa.gr

## 1.2 OTHER ORGANISATIONS

Name of other organisations (Please include the name and country of the other organisations separated by comma.)

*1000 character(s) maximum*

Institute of Geology and Mineral Exploration (IGME)

Types of organisations (Please select all types of organisations participating in your coalition)

- [ ] International organisation
- [ ] Public authority
- [x] Research

- [ ] Business
- [x] Non-governmental organisation
- [ ] Interest group
- [ ] Other (please specify below)

Are you looking for additional, specific expertise along the value chain?

- ( ) Yes
- (•) No

## 2 YOUR EXPRESSION OF INTENT

* Descriptive title

*200 character(s) maximum*

NextGEOSS - Enhanced landslide risk assessment framework

Acronym (optional)

*20 character(s) maximum*

* Abstract/executive summary (including the overall description of the intended EuroGEOSS pilot application)

*2000 character(s) maximum*

National Observatory of Athens, through BEYOND Center of Excellence, has developed a generic landslide risk assessment model that it has been used within the scope of many studies and projects (e.g. Copernicus EMS contract with JRC).
Based on this knowledge and the vast experience in processing radar data (e.g. ERS-1/2, ENVISAT, TerraSAR-X, Sentinel-1 etc.), NOA, within the scope of NextGEOSS, is developing an enhanced landslide model (e.g. Weights of Evidence) based on Earth Observation and historical in-situ observations in specific AoIs (areas of interest). All this knowledge is coupled with expert knowledge (Geologists) from the Institute of Geology and Mineral Exploration (IGME).
IGME is the actual end user of this pilot and in addition they are supporting the pilot outputs (e.g. susceptibility index map) by the interpretation and assessment of the results (e.g. index map versus the weighting factor).
The pilot outputs are listed below:

- Susceptibility index map & weighting factors
- Landslide inventory
- Updated Landslide inventory based on time series of Sentinel-1 data
- Visualize of the results

The pilot is being developed and integrated in NextGEOSS.

**EXPECTED INNOVATION OUTCOMES**

(to tick one or several options from the form)

* What main EuroGEOSS innovation outcomes?

- [x] Real life, user-driven demonstrated EO applications
- [x] Reviews of user-related experience and questions
- [ ] Catalogues of good practices available in different languages
- [ ] Strategies for scaling-up new services including critical success factors
- [ ] Guidelines for business models, evidences on return on investment
- [ ] Innovative procurements of interoperable innovative solutions
- [ ] Innovation deals in the field of service solutions
- [ ] Reference site with high potential for replication in Europe
- [ ] Inter-regional cooperation
- [ ] Cooperation with H2020 projects
- [ ] Awareness raising campaigns
- [ ] Emerging themes of novel interest for European research & innovation.
- [ ] Education and training modules, including for trainers
- [ ] Other (please specify below)

**EuroGEOSS POLICY PRIORITIES ADDRESSED BY YOUR INTENT** (to tick relevant options from the form)

* **EuroGEOSS priorities**

- [ ] SDG2: Zero hunger
- [ ] SDG 3: Good health and well-being
- [ ] SDG 6: Clean water and sanitation
- [ ] SDG 7: Affordable and clean energy
- [ ] SDG 9: Industry innovation and infrastructure
- [x] SDG 11: Sustainable cities and communities
- [ ] SDG 14: Life below water / SDG 15: Life on land
- [x] SDG 13: Climate action - Paris agreement
- [ ] SDG 13: climate action Paris agreement
- [ ] Sendaï Framework
- [ ] EU policies

* **Link to GEO SBAs**

- [ ] Food sustainability and sustainable agriculture
- [ ] Public health surveillance
- [ ] Water resources management
- [ ] Energy and mineral resource management
- [x] Infrastructure and transport management
- [ ] Sustainable urban development
- [ ] Biodiversity and ecosystem sustainability
- [ ] Crosscutting: climate change and impact
- [x] Disaster resilience

Is your Intent supporting directly the implementation of a specific EU policy?

- ( ) Yes
- (•) No

**EO application domains**

- [ ] EO for sustainable agriculture
- [ ] EO for public health surveillance
- [ ] EO for sustainable water management
- [ ] EO for renewable energies and energy efficiency
- [ ] EO tracking human settlement
- [ ] EO for resilient cities
- [ ] EO for nature conservation
- [ ] EO for climate services
- [x] EO for disaster risk reduction

* End user dimension (Who are the end users? How are they involved? How consolidated are the user needs?)

*1500 character(s) maximum*

As described above, the main end-user of the pilot is the IGME that they have provided vital information and expertise on interpreting the results and thus redefine the landslide model. Further to this other possible users might be other EGS (The Geological Surveys of Europe) members that might be of their interest to apply such pilot to other areas that are prompt to landslide events.

* Market potential (Please document the level of already established market/uptake potential?)

*1000 character(s) maximum*

The main users of this pilot are the geological institutes (EGS members) along with civil protection authorities of countries, thus the market potential is mainly focus on the willingness of those organizations to finance such service.
Additional as market potential can be seen the processing of Sentinel-1 time series of radar data, that can be of interest from many organizations coming either from the private or from public sector.

* Targeted Technology Readiness Level (TRL) (What level of service demonstration/validation have you achieved /do you aim to achieve?)

*1000 character(s) maximum*

The TRL level is between 5-6

* Description of planned upscaling activities (e.g. wider user base, extended service quality with additional data sources, transnational
deployment in Europe, closer-to-market activity, service replication/incubation, other upscaling activity?)

*1500 character(s) maximum*

In NextGEOSS this pilot will be extended (upscaling) to as much as possible Greek sites of the interest of the end-user, and based on the interest of other organization a market study will be created to define the upscaling strategy for this pilot.

* Link to GEO and GEOSS (How do you intend to take advantage of GEOSS data/GEO activities?)

*800 character(s) maximum*

The pilot will leverage on the capabilities of NextGEOSS, the European GEOSS data hub, to be able to scale up activities and reach wider markets.

* Leveraging Copernicus (How about exploiting existing data/services/platforms/resources from the Copernicus programme?)

*1000 character(s) maximum*

During NextGEOSS this pilot will be integrated in one of the Copernicus DIAS currently being developed.

Duration(starting from September 2018)

- ( ) One-year duration
- (•) Two-year duration
- ( ) Three-year duration

* Funding resources (Reference to existing/upcoming funding resources or projects supporting your Expression of Intent)

*50 character(s) maximum*

H2020 project NextGEOSS

Comments (optional)

*1000 character(s) maximum*

## 3 ABOUT THE EuroGEOSS REQUEST 2018

* How did you learn about this EuroGEOSS Request?

*300 character(s) maximum*

It was a request by the project Coordinator of NextGEOSS H2020 project

Suggestions in view of future EuroGEOSS Requests (optional).
We would like to give you the opportunity to comment on this survey.
This will be taken into account for subsequent EuroGEOSS Requests after 2018.

*1000 character(s) maximum*

THANK YOU FOR YOUR COOPERATION.

### Background Documents

EuroGEOSS Request 2018 for Expressions of Intent.pdf

EuroGEOSS concept paper.pdf

FAQ

SpecificPrivacyStatement_-_EuroGEOSS_2018.pdf

### Contact

RTD-EUROGEOSS@ec.europa.eu