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Stimulating Innovation for Global Monitoring of Agriculture and its Impact on the Environment in support of GEOGLAM (SIGMA)

Fact Sheet

Project Information

SIGMA

Grant agreement ID: 603719

Project closed

Start date
1 November 2013

End date
31 July 2017



Funded under
Specific Programme "Cooperation": Environment
(including Climate Change)

Total cost
€ 11 201 214,85

EU contribution
€ 8 750 133,00

Coordinated by
VLAAMSE INSTELLING VOOR
TECHNOLOGISCH ONDERZOEK
N.V.
 Belgium

This project is featured in...



Objective

By 2050, global agricultural productivity will need to increase with at least 70%. In order to guarantee food production for future generations, agricultural production will need to be based on sustainable land management practises. At present, earth observation based (global) crop monitoring systems focus mostly on short-term agricultural forecasts, thereby neglecting longer term environmental effects. However, it is well known that unsustainable cultivation practises may lead to a degradation of the (broader) environment resulting in lower agricultural productivity. As such, agricultural monitoring systems need to be complemented with methods to also assess environmental impacts of change in crop land and shifting cultivation practises. It is thereby important that this is addressed at the global level. SIGMA presents a global partnership of expert institutes in agricultural monitoring, with a strong involvement in GEO and the Global Agricultural Geo-Monitoring (GEO-GLAM) initiative. SIGMA aims to develop innovative methods, based upon the integration of in-situ and earth observation data, to enable the prediction of the impact of crop production on ecosystems and natural resources. The proposed project will address methods to: i. enable sharing and integration of satellite and in situ observations according to GEOSS Data CORE principles; ii. assess the impact of cropland areas and crop land change on other ecosystems; iii. understand and assess shifts in cultivation practises and cropping systems to evaluate impacts on biodiversity and the environment. Furthermore, dedicated capacity building activities are planned to increase national and international capacity to enable sustainable management of agriculture. Lastly, a strong coordinating mechanism will be put in place, through the project partners, between SIGMA and the G20 Global Agricultural Geo-Monitoring Initiative (GEOGLAM), in order to assure transparency and alignment of the SIGMA activities.

Fields of science (EuroSciVoc) 

[engineering and technology](#) > [environmental engineering](#) > [natural resources management](#) > **[land management](#)**

[engineering and technology](#) > [mechanical engineering](#) > [vehicle engineering](#) > [aerospace engineering](#) > **[satellite technology](#)**

[social sciences](#) > [economics and business](#) > [economics](#) > [production economics](#) > **[productivity](#)**

[natural sciences](#) > [biological sciences](#) > [ecology](#) > **[ecosystems](#)**

[agricultural sciences](#) > [agriculture, forestry, and fisheries](#) > **[agriculture](#)**



Programme(s)

[FP7-ENVIRONMENT - Specific Programme "Cooperation": Environment \(including Climate Change\)](#)

Topic(s)

[ENV.2013.6.2-6 - Improved monitoring of the impact of cultivation on the environment using global Earth Observations](#)

Call for proposal

FP7-ENV-2013-two-stage
[See other projects for this call](#)

Funding Scheme

[CP - Collaborative project \(generic\)](#)

Coordinator



VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.

EU contribution

€ 1 549 387,25

Total cost

No data

Address

BOERETANG 200

2400 Mol

 **Belgium** 

Region

Vlaams Gewest > Prov. Antwerpen > Arr. Turnhout

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Participants (21)



STICHTING WAGENINGEN RESEARCH

 Netherlands

EU contribution

€ 786 917,00

Address

DROEVENDAALSESTEEG 4

6708 PB Wageningen 

Region

Oost-Nederland > Gelderland > Veluwe

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



UNIVERSITE CATHOLIQUE DE LOUVAIN

 Belgium
EU contribution
€ 628 263,00

Address
PLACE DE L UNIVERSITE 1
1348 Louvain La Neuve 

Region
Région wallonne > Prov. Brabant Wallon > Arr. Nivelles

Activity type
Higher or Secondary Education Establishments

Links
[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost
No data



CENTRE DE COOPERATION INTERNATIONALE EN RECHERCHE AGRONOMIQUE POUR LEDEVELOPPEMENT - C.I.R.A.D. EPIC

 France
EU contribution
€ 637 281,00

Address
RUE SCHEFFER 42
75016 Paris 

Region
Ile-de-France > Ile-de-France > Paris

Activity type
Research Organisations

Links
[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost
No data



UNIVERSITEIT TWENTE

 Netherlands

EU contribution

€ 407 818,00

Address

DRIENERLOLAAN 5

7522 NB Enschede 

Region

Oost-Nederland > Overijssel > Twente

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



INTERNATIONALES INSTITUT FUER ANGEWANDTE SYSTEMANALYSE

 Austria

EU contribution

€ 796 605,75

Address

Schlossplatz 1

2361 Laxenburg 

Region

Ostösterreich > Niederösterreich > Wiener Umland/Südteil

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

 Italy

EU contribution

€ 631 354,00

Address

VIALE DELLE TERME DI CARACALLA
00153 Roma 

Region

Centro (IT) > Lazio > Roma

Activity type

Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



SPACE RESEARCH INSTITUTE OF RUSSIAN ACADEMY OF SCIENCES

 Russia

EU contribution

€ 420 373,00

Address

PROFSOYUZNAYA 84/32
117997 MOSKVA 

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



SPACE RESEARCH INSTITUTE OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE AND THE NATIONAL SPACE AGENCY OF UKRAINE

 Ukraine

EU contribution

€ 200 789,00

Address

**GLUSHKOV PROSPEKT 40 BUILD 4 1
03680 Kyiv** 

Activity type

Other

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION

 Belgium

EU contribution

€ 296 674,00

Address

**Rue de la Loi 200
1049 Bruxelles / Brussel** 

Region

Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest > Région de Bruxelles-Capitale/ Brussels Hoofdstedelijk Gewest > Arr. de Bruxelles-Capitale/Arr. Brussel-Hoofdstad

Activity type

Research Organisations

Links

[Contact the organisation](#) [Website](#)
[Participation in EU R&I programmes](#)
[HORIZON collaboration network](#)

Total cost
No data



NATIONAL SATELLITE METEOROLOGICAL CENTER

China
EU contribution
€ 142 620,00

Address
**ZHONGGUANCUN SOUTH AVENUE 46
100081 BEIJING**

Activity type
Research Organisations

Links
[Contact the organisation](#) [Website](#)
[Participation in EU R&I programmes](#)
[HORIZON collaboration network](#)

Total cost
No data



DEIMOS IMAGING SLU

Spain
EU contribution
€ 190 989,00

Address
**PQ TECNOLOGICO DE BOECILLO EDIFICIO GALILEO MODULO 101 BAJO
47151 BOECILLO VALLADOLID**

Region
Centro (ES) > Castilla y León > Valladolid
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) [Website](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Total cost

No data



SARMAP SA

Switzerland

EU contribution

€ 299 842,00

Address

CASCINE DI BARICO 10
6989 Purasca

Region

Schweiz/Suisse/Svizzera > Ticino > Ticino

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) [Website](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Total cost

No data



EFTAS FERNERKUNDUNG TECHNOLOGIETRANSFER GMBH

Germany

EU contribution

€ 150 004,00

Address

OSTSTRASSE 2-18
48145 Munster

Region

Nordrhein-Westfalen > Münster > Münster, Kreisfreie Stadt

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

- Contact the organisation Website
- Participation in EU R&I programmes
- HORIZON collaboration network

Total cost

No data



GEOVILLE INFORMATIONSSYSTEME UND DATENVERARBEITUNG GMBH

Austria

EU contribution

€ 281 350,00

Address

SPARKASSENPLATZ 2
6020 Innsbruck



Region

Westösterreich > Tirol > Innsbruck

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

- Contact the organisation Website
- Participation in EU R&I programmes
- HORIZON collaboration network

Total cost

No data



GEOSAS CONSULTING SERVICE PLC

Ethiopia

EU contribution

€ 121 654,00

Address

KIRKOS KIFLE KETEMA 02 MEGA/H/106
Addis Ababa



Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

- Contact the organisation Website
- Participation in EU R&I programmes
- HORIZON collaboration network

Total cost

No data



Regional Centre for Mapping of Resources for Development

Kenya

EU contribution

€ 179 872,00

Address

Kasarani Road
00613 Nairobi

Activity type

Public bodies (excluding Research Organisations and Secondary or Higher Education Establishments)

Links

- Contact the organisation Website
- Participation in EU R&I programmes
- HORIZON collaboration network

Total cost

No data



INSTITUTO NACIONAL DE TECNOLOGIA AGROPECUARIA

Argentina

EU contribution

€ 150 802,00

Address

RIVADAVIA 1439
C1033AAE Buenos Aires

Activity type

Research Organisations

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Total cost

No data



GISAT S.R.O.

Czechia

EU contribution

€ 335 338,00

Address

MILADY HORAKOVE 1523/57A
170 00 Praha 7

Region

Česko > Praha > Hlavní město Praha

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Total cost

No data



SARVISION BV

Netherlands

EU contribution

€ 199 530,00

Address

AGRO BUSINESS PARK 10
6708 PW Wageningen

Region

Oost-Nederland > Gelderland > Veluwe

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links
[Contact the organisation](#) [Website](#)
[Participation in EU R&I programmes](#)
[HORIZON collaboration network](#)

Total cost
No data



CENTRE REGIONAL AGRHYMET

Niger

EU contribution
€ 99 512,00

Address
**BOULEVARD DE UNIVERSITE 425
11011 Niamey**

Activity type
Higher or Secondary Education Establishments

Links
[Contact the organisation](#)
[Participation in EU R&I programmes](#)
[HORIZON collaboration network](#)

Total cost
No data



INSTITUTE OF REMOTE SENSING AND DIGITAL EARTH - CHINESE ACADEMY OF SCIENCE

China

EU contribution
€ 243 158,00

Address
**North no JIA-20, Datun Road, An Ding Men Wai, Chaoyang District
100101 BEIJING**

Activity type

Research Organisations

Links

- Contact the organisation Website
- Participation in EU R&L programmes
- HORIZON collaboration network

Total cost

No data

Last update: 6 September 2024

Permalink: https://cordis.europa.eu/project/id/603719

European Union, 2025

