



EO ClimLab

The Earth Observation ClimLab (EO ClimLab) is a collaborative research e-environment enabling the rapid development and prototyping of new Earth Observation (EO)-based products aiming to support adaptation and mitigation to climate change across multi-disciplinary societal and business themes (e.g. agriculture, health, risk management, infrastructure maintenance, education, outreach).

The project will have a duration of 18 months, with partners from 3 different countries: Romania, Czech Republic and Poland. The partners from Romania are: ARIES Transilvania (Cluj-Napoca), Indeco Soft (Baia Mare) and AROBS Transilvania Software (Cluj-Napoca).

The purpose of the project is to popularize the use of information provided by satellites in order to create apps in Romania, Poland and Czech Republic, the final objective being the identifying of the most promising apps in order to support them and to be put to use. Mostly, it's purpose is to develop commercial apps which will use the data provided by satellites.

The EO ClimLab can be seen as kind of “Fablab” environment providing developers with the data, tools and knowledge needed to develop new products and services to enhance climate resilience. The EO ClimLab can be operated by different organisations (e.g. incubators, techno park, local authorities, universities), which will have access to the EO ClimLab package described above including physical and virtual infrastructure and support.

Earth Observation ClimLab-A cloud-based collaborative environment for rapid prototyping of innovative Earth Observation products and services to enhance climate resilience of our society and economy.

Global objective:

Climate change differentially poses risks and opportunities with implications for the health and wellbeing of people and their communities, and the environment and these in turn drive the need (pressure) for action.

EO ClimLab:

- one-stop shop-access to a range of data (incl. space data), free software & data processing tools, to develop new applications.
- new innovation scene needed to set up a creative environment to build concrete new tools and business models
- will provide a new free-access service and place dedicated to collaborative data-driven innovation

EO ClimLab's mission:



- To create local dynamics, involving universities, local authorities, companies, around climatic resilience challenges.
- To promote and democratize the use of space data for climate resilience solutions by the installation of DAP platforms based on open source tools able to interconnect Space and local data.
- To propose support to entrepreneurs after the development of new ideas with the contribution from incubators and accelerators.

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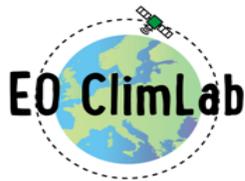


In particular, the EO ClimLab includes the following physical and virtual elements:

A physical co-working environment, ideally hosted in universities

A virtual infrastructure environment on the cloud including:

- Data from EO satellites, with focus on ESA missions;



- Open Data from local providers and IoT sensors;
- Processing and storage capabilities;
- Tools for visualisation, programming and processing;
- Development Tool Kits (e.g. iOS, Android.);

An educational layer including on-line and physical training (e.g. EO ClimLab academy) and technical support

A community animation layer including dedicated **EOvation** events (type of hackathons, data challenges) bringing together the developers (supply) and users (demand) of EO products for specific themes.

A financial support to support early stage ideas and teams



The Romanian Association for Electronic Industry and Software - Transilvania Branch (ARIES Transilvania): a voice that supports the interests of its members both in Romania and abroad. ARIES Transilvania has more than 250 companies all over the country.

Since October 2016, **ARIES Transilvania implements a project named ClimLab Earth Observation (EO ClimLab), funded by ESA (European Space Agency)**. The aim of this project is to stimulate the development of new services and products based on the use of open data and Copernicus services, all of which are combined with local data.

Purpose of ARIES Transilvania:

- Promoting trade and professional interests of its members from the North –West of Romania, strengthen their representativeness and authority at national level;
- Support services for innovation;
- Participation to international trade fairs;



Aries Transilvania recently became a Copernicus Relay Center in Romania.



Copernicus is a European Union Programme aimed at developing European information services based on **satellite Earth Observation** and in situ (non-space) data. The Programme is coordinated and managed by the European Commission. It is implemented in partnership with the Member States, the European Space Agency (ESA), the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), the European Centre for Medium-Range Weather Forecasts (ECMWF), EU Agencies and Mercator Océan.

Vast amounts of global data from satellites and from ground-based, airborne and seaborne measurement systems are being used to provide information to help service providers, public authorities and other international organisations improve the quality of life for the citizens of Europe. The information services provided **are freely and openly accessible to its users.**

For more information:

www.aries-transilvania.ro

www.eoclimlab.eu

www.copernicus.eu