

Press Release

Launch of the new H2020 project EIFFEL. A game changer in earth observation applications for climate change adaptation and mitigation.

EIFFEL (REVEALING THE ROLE OF GEOSS AS THE DEFAULT DIGITAL PORTAL FOR BUILDING CLIMATE CHANGE ADAPTATION & MITIGATION APPLICATIONS), a new project coordinated by [ICCS](#) and funded under the European Union's Horizon 2020 Programme will be officially launched on 22-23 June 2021.

EIFFEL is a game changer in the domain of climate change adaptation and mitigation by harvesting the benefits of the GEOSS data. The project will offer to the Earth Observation community the **ground-breaking capacity of exploiting existing GEOSS datasets** and will also build upon prior knowledge, with minimal new data collection activities. Added-value services interoperable with GEOSS will be designed, using cognitive search and metadata augmentation tools based on Artificial Intelligence, including Natural Language Processing. These tools will leverage advanced cognitive features to **extract meaningful information from and enrich GEOSS metadata**.

The project will promote the development and uptake of 5 pilot applications from different geographic areas and climate regions, addressing the UN Sustainable Development Goals, The Paris Agreement and the Sendai Framework for Disaster Risk Reduction and aligned with GEO Societal Benefit Areas: i) Water and Land Use Management, ii) Sustainable Agriculture, iii) Transport Management, iv) Sustainable Urban Development and v) Disaster Resilience. The project targets urban, regional, national and cross-border scales with a view to upscale their scope and results to larger areas and to a pan-European scale.



The main objectives of the **EIFFEL** project are to:

- **Exploit** the untapped potential of available GEOSS datasets, i.e. satellite, in-situ, modelling, crowd-sourced, by creating AI-based cognitive search tools;
- **Leverage** techniques of Explainable AI to develop tangible indicators for Climate Change impacts;
- **Contribute** to GEO's new infrastructural feature, the GEO Knowledge Hub, a digital repository providing access to knowledge needed to build GEOSS-driven applications;
- **Foster** the co-design of Climate Change adaptation and mitigation applications by bringing onboard the decision makers who are working towards the Paris Agreement goals at local, regional and national scales;
- **Develop**, using co-creation, a set of Climate Change adaptation and mitigation applications in different and quite diverse GEO Societal Benefit Areas, in order to demonstrate the project innovations.

To achieve these objectives, **EIFFEL** brings together a strong consortium consisting of 19 partners from 8 European countries.



Project info

Short description:	<p>EIFFEL will offer the EO-based community the ground-breaking capacity of exploiting existing GEOSS and external datasets, with minimal new data collection activities. Added-value services interoperable with GEOSS will be designed, using cognitive search and metadata augmentation tools based on Artificial Intelligence (AI), including Natural Language Processing. These tools will leverage advanced cognitive features to extract meaningful information from and enrich GEOSS metadata. Moreover, novel methods (super resolution, data fusion) for augmenting the spatiotemporal resolution of explored EO data will be proposed, in order to address the needs of the diverse EIFFEL CC adaptation and mitigation applications.</p>			
Starting date:	01/06/2021			
Duration:	36 months			
Total cost:	4 999 466.25 €			
EC contribution:	4 999 466.25 €			
	<p>This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 101003518.</p>			
Call (part) identifier:	H2020-LC-CLA-2018-2019-2020			
Topic:	LC-CLA-19-2020- Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement			
Coordinator	<p>Institute of Communications and Computer Systems (ICCS)</p>  <p>Dr. Angelos Amditis- Research Director e-mail: a.amditis@iccs.gr T: +30-210-300-5896 W: https://i-sense.iccs.gr https://amditis.iccs.gr</p>			
Dissemination Manager	<p>National Observatory of Athens (NOA)</p>  <p>Contact details: Mirka Rossi - Dissemination Leader e-mail: mrossi@noa.gr T: +30-210-3490125 W: https://www.noa.gr/</p>			
Partners:	ID	Organisation	Short Name	Country
	1	INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS	ICCS	GREECE
	2	NATIONAL OBSERVATORY OF ATHENS	NOA	GREECE
	3	PRODEVELOP SL	PRO	SPAIN
	4	UNIVERSITAT POLITECNICA DE VALENCIA	UPV	SPAIN



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	6	STICHTING IHE DELFT INSTITUTE FOR WATER EDUCATION	IHE	NETHERLANDS
	7	OPEN UNIVERSITEIT NEDERLAND	OUNL	NETHERLANDS
	8	NOORD-BRABANT PROVINCIE	NOORD-BRABANT	NETHERLANDS
	9	LIBRA MLI LTD	LIBRA	UNITED KINGDOM
	10	INTERBALCAN ENVIRONMENT CENTER	IBEC	GREECE
	11	AUTORIDAD PORTUARIA DE BALEARES	BPA	SPAIN
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