

# HORIZON 2020



## EU projects - experiences

*Přemysl Štych*

*Department of Applied Geoinformatics and  
Cartography, Faculty of Science*

*mail: [stych@natur.cuni.cz](mailto:stych@natur.cuni.cz)*



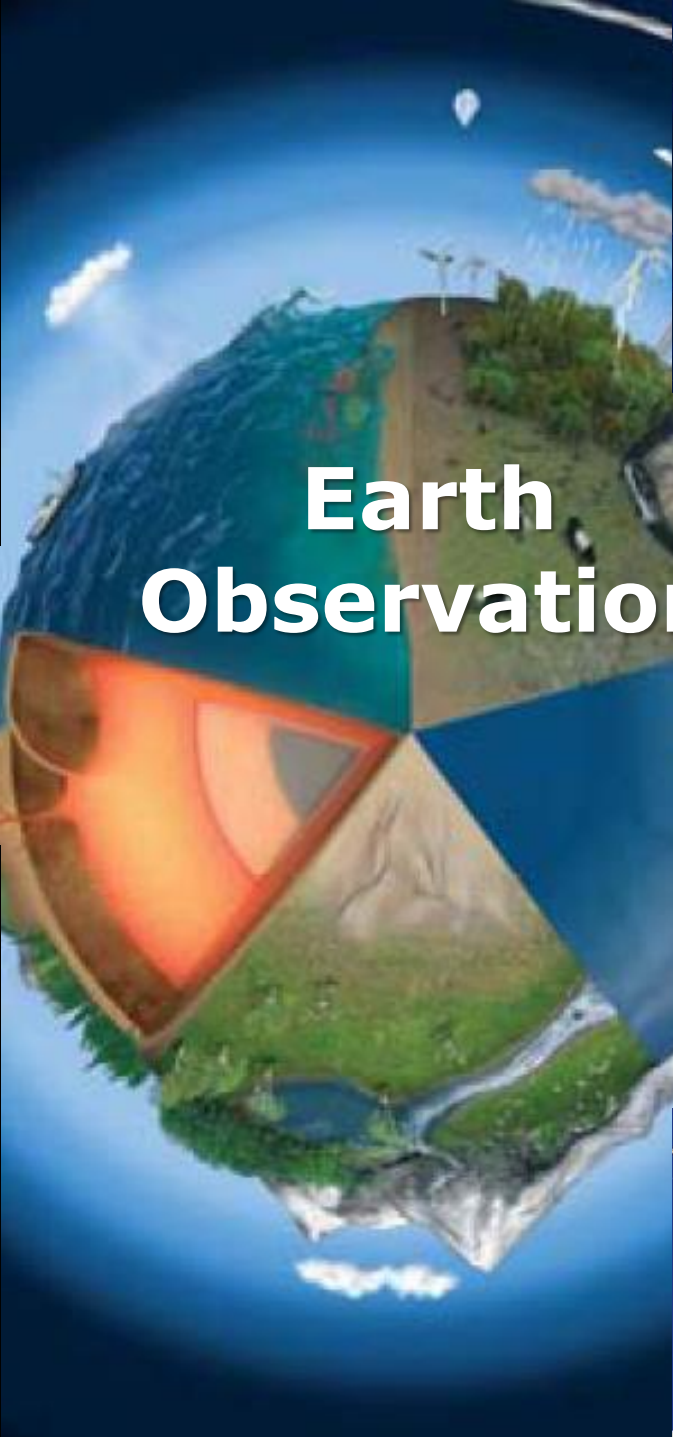
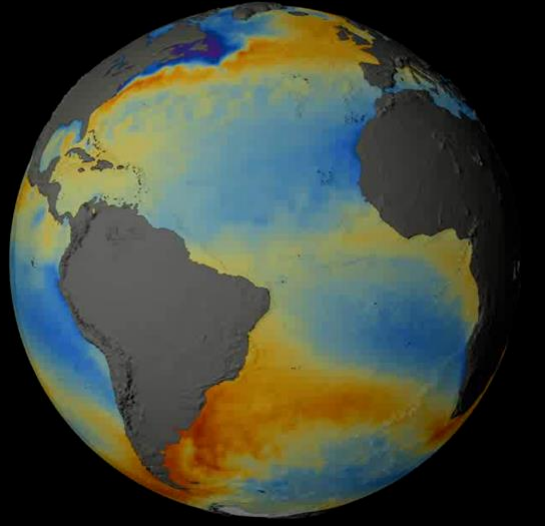
**Prague 10.2. 2021**

# The Department of Applied Geoinformatics and Cartography

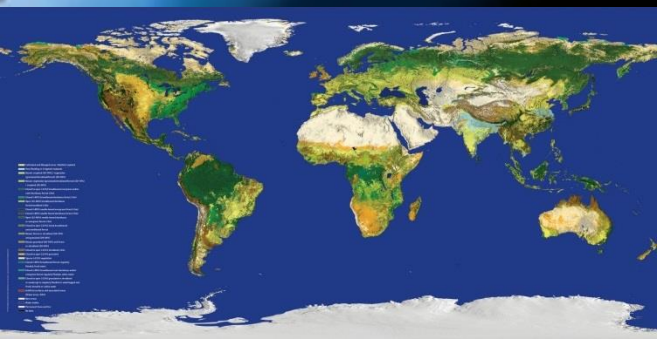
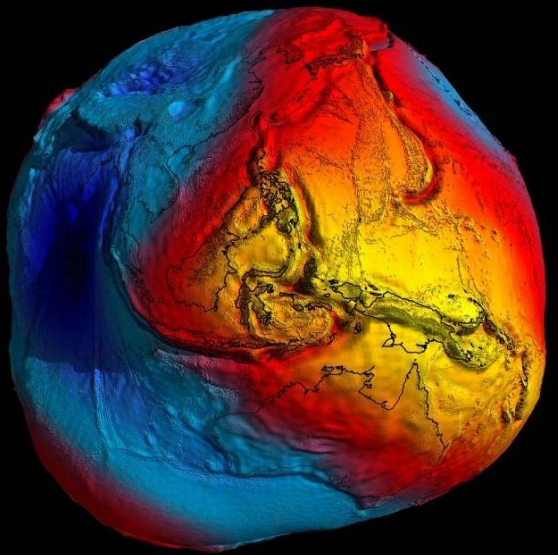
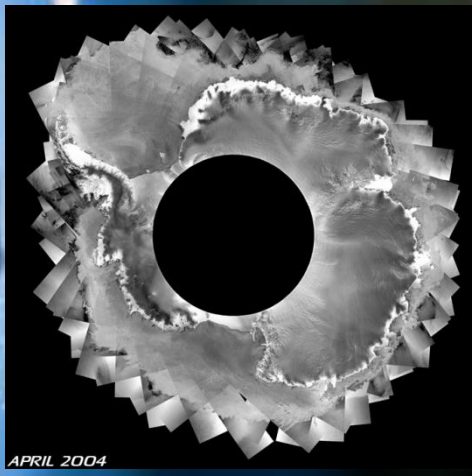
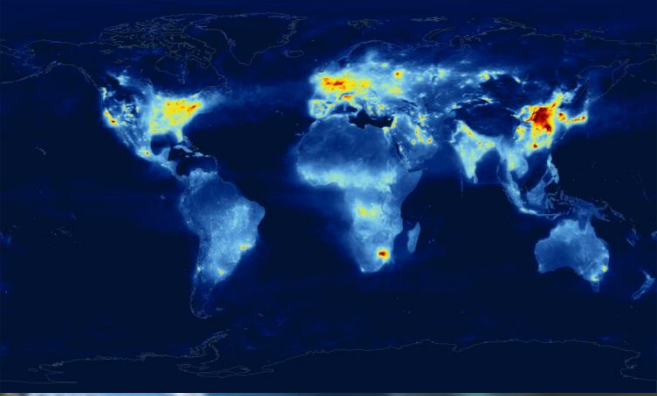
- Research and Education in the fields of:
  - Remote sensing and photogrammetry
  - GIS a geodatabases
  - Cartography
  - Computational geometry, algorithm development & programming
  - Geodetic and surveying methods of data collection

Research team: **EO4Landscape**

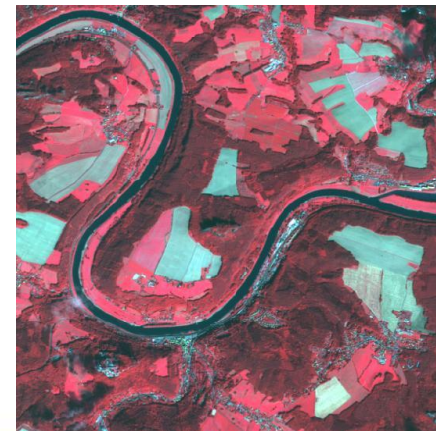
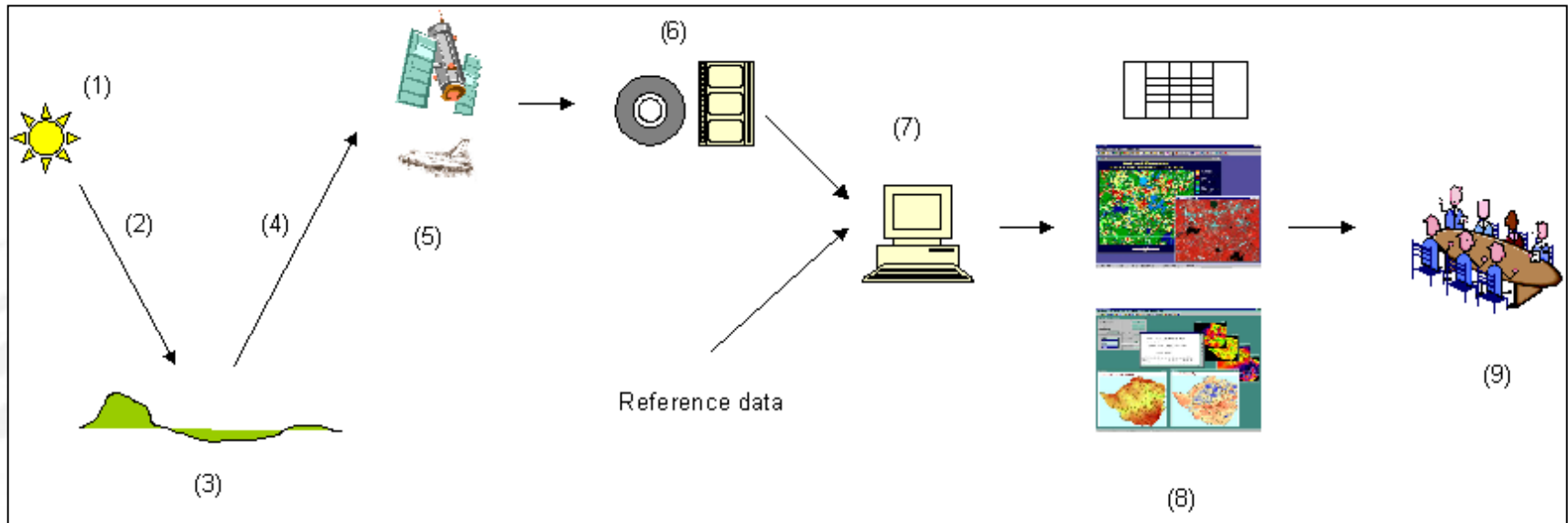
- Earth Observation (EO)
- Land Use/Land Cover (LUCC)
- Capacity building and education in GIS and EO



# Earth Observation



# Earth Observation/Remote Sensing



# Copernicus Programme



## Copernicus – a new Phase in EO

### European Earth Observation System

- Led by the EU
- EU-ESA Collaboration

### European response to global needs:

- to manage the environment
- to mitigate the effects of climate change
- to ensure civil security

### European independence, contribution to global system (GEOSS)



## International projects:

PULCHRA - Science in the City: Building Participatory Urban Learning Community Hubs through Research and Activation, Horizon 2020 (ID 824466), 2019-2022

Framework Partnership Agreement on Copernicus User Uptake (FPCUP), European Commission (ID 275/G/GRO/COPE/17/10042), 2018 - 2023

Earth Observation for Economic Empowerment (EOPOWER), 7th FWP (Seventh Framework Programme), 2013-2015 Project ID: 603500, FP7-ENVIRONMENT,

GEO Network for capacity building (GEONETCAB), 7th FWP (Seventh Framework Programme), 2009-2013, Project ID: 244172, FP7-ENVIRONMENT,

## **International projects:**

EO4Edu - Earth Observation for Education, Erasmus + (2020-1-UK01-KA201-079007), 2020 - 2023.

Earth Observation Capacity Building for Baltic Countries and Eastern Europe, ESA Contract No. 4000108374/14/I-BG, 2013-2018

Young Scientists as Change Explorers - Students Evaluating Environmental Change in Europe with Digital Space Technologies (YCHANGE), Programme Erasmus+, Key Action KA2 - Cooperation for innovation and the exchange of good practices, ERASMUS + EC: 2016-1-DE03-KA201-023127, 2016 – 2018,

European Space Education Resources Office - ESERO CZ (Vzdělávací kanceláře Evropské vesmírné agentury), supported by ESA, 2016 –

**A partner of the projects with budget ca 40 000,- Euro per year**



# GEONETCAB, EOPOWER

GEONetCab - GEO Network for Capacity Building.  
Earth Observation for Economic Empowerment  
2010-2013, 2013-2015



[www.eopower.eu](http://www.eopower.eu), <http://www.geonetcab.eu>



8/13 partners



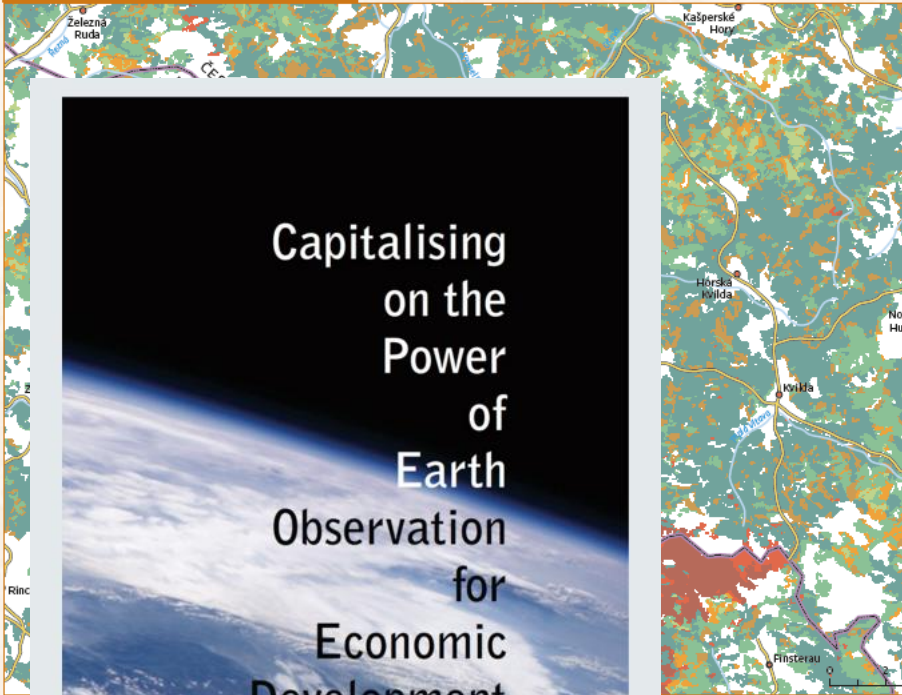
# Bringing Science and Research into Practice

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Monitoring lesních porostů v NP Šumava

Změna lesních porostů v NP Šumava v letech 2001-2005



Capitalising  
on the  
Power  
of  
Earth  
Observation  
for  
Economic  
Development



SUCCESS STORIES

## SUBURBANIZATION AND URBAN SPRAWL IN THE CZECH REPUBLIC

A project called 'Suburban development, Suburbanisation and Urban Sprawl' was carried out in the Czech Republic with the aim to assess and tackle the negative impacts on the environment.

The research was done by a working group consisting of social geographers affiliated with the Charles University in Prague, Faculty of Science, Department of Social Geography and Regional Development. The research was made possible by a grant from the Czech Ministry of Environment for the period 2007 – 2011.

Earth observation data, areal photographs, orthophotos and QuickBird images were the main data sources to evaluate the spatial spread of suburbanization.

The project aims at assessing the current spatial extent and the intensity of the suburbanisation process in the Czech municipalities. In addition, an attempt was made to quantify the predominantly negative consequences of suburbanisation from the point of view of sustainable development of society in general and the landscape in particular. On the basis of empirical and analytical findings, a system of indicators is proposed in order to monitor size, intensity and impact of suburban development, also with respect to territorial heterogeneity. One of the main goals of



**SUCCESS STORIES**

**ACCESS PORTAL**

Earth Observation for Economic Empowerment



**QUICK WIN PROJECT**

**MARKETING TOOLKIT**

Username \*

Password \*

Log in

**NETWORKING**

**Capacity building needs**

The purpose of the EOPOWER project is to promote the increased use of Earth observation products and services for environmental applications. This purpose serves the higher goal of effective use of Earth observation for decision making and management of economic and sustainable development processes.

The EOPOWER project builds on the results of the GEONetCab, BalkanGEONet, OBSERVE, enviroGRIDS, SEOCA and EGIDA projects. The GEONetCab project produced global and regional marketing studies, success stories, marketing toolkits and valuable feedback from promotion activities and quick-win projects. This enables the EOPOWER project and the partners involved to benefit fully from the experience of the GEONetCab and the other projects.



UNIGE

**PROMOTION**

# H2020 Project PULCHRA

<https://pulchra-schools.eu/>



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ABOUT

## open activities

**“Meet the scientists – Introduce science in the city – approach the city as an urban ecosystem”.**

participating schools to explore. These will:

- build good scientific knowledge;
- promote expert and community participation;
- and encourage active engagement in shared living environments and futures.



City Challenges have been designed to link with the UN Sustainable Development Goals, a universal call to action to end poverty, protect the

H2020-EU.5.d. - Encourage citizens to engage in science through formal and informal science education, and promote the diffusion of science-based activities, namely in science centres and through other appropriate channels

# Copernicus User Uptake

<https://www.copernicus-user-uptake.eu/>

Coordinated by  DLR

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## Welcome to the project homepage of FPCUP

### Objectives

The primary objective of the FPCUP-project is to increase the number of Copernicus users and applications derived from Copernicus based on user requirements. Furthermore, the project aims at expanding the existing markets and creating new markets and competitiveness of European Earth Observation downstream operators.

General objectives:

1. promote the use of earth observation in applications and services;
2. foster the development of a competitive European space and service industry and maximise the opportunities for European enterprises to develop and provide innovative Earth observation systems and services;
3. strengthen the European autonomous access to environmental knowledge and key technologies for Earth observation and geo-information service and thereby enable Europe to achieve independent decision-making and action.

[Different activities \(actions\)](#) adress international, national, regional or local authorities, researchers or enterprises.

# Remarks and experiences

- *Think and act internationally from the beginning of your career*
- *Try to gain experience in the international field, create a network of collaborators*
- *Be a reliable and teamworking person*
- *Try to solve your field of interest in broader dimensions – stakeholders, end-users, cooperation of universities, state and private sector*
- *Search and have an awareness about international project calls*
- *Bringing actively your ideas and proposals*
- *Don't be afraid to start an international project: there could be a higher chance of to get support than in some cases of domestic projects*
- ***Do not hesitate and contact faculty project units/departments***

# Remarks and experiences

- *The main coordinator of the project plays a key role*
- *The central idea of the project is important - to reserve a longer time for the preparation of the project proposal, the partners must be close/believed to the main content and mission of the project (do not write a project just for the project)*
- *Reflect the EU's strategic goals - "story"*
- *An adequate and structurally balanced budget*
- *Structure and content of WP (promise achievable outputs, properly defined at the beginning)*
- *Input signed recommendations of stakeholders/important persons*
- *Structure and number of partners (geopolitics and institution)*

# Remarks and experiences

- *To create a team with wider roles and status of the collaborators (management, administration, research...PhD students, academy staff, technical and administrative support)*
- *During the project, to take into account certain differences in terms of work habits, approaches of partners*
- *The project should have a strategic goal, not just a financial one: try to make the best for further project opportunities*
- *What will happen when the project is over?*
- *Actively present the project, results and search end-users*
- ***Significant support from the administrative and project departments of the Faculty of Science***



Thank you for your attention

**Přemysl Štych: [stych@natur.cuni.cz](mailto:stych@natur.cuni.cz)**

