Trans-Atlantic Training and Capacity Building Activities in EO

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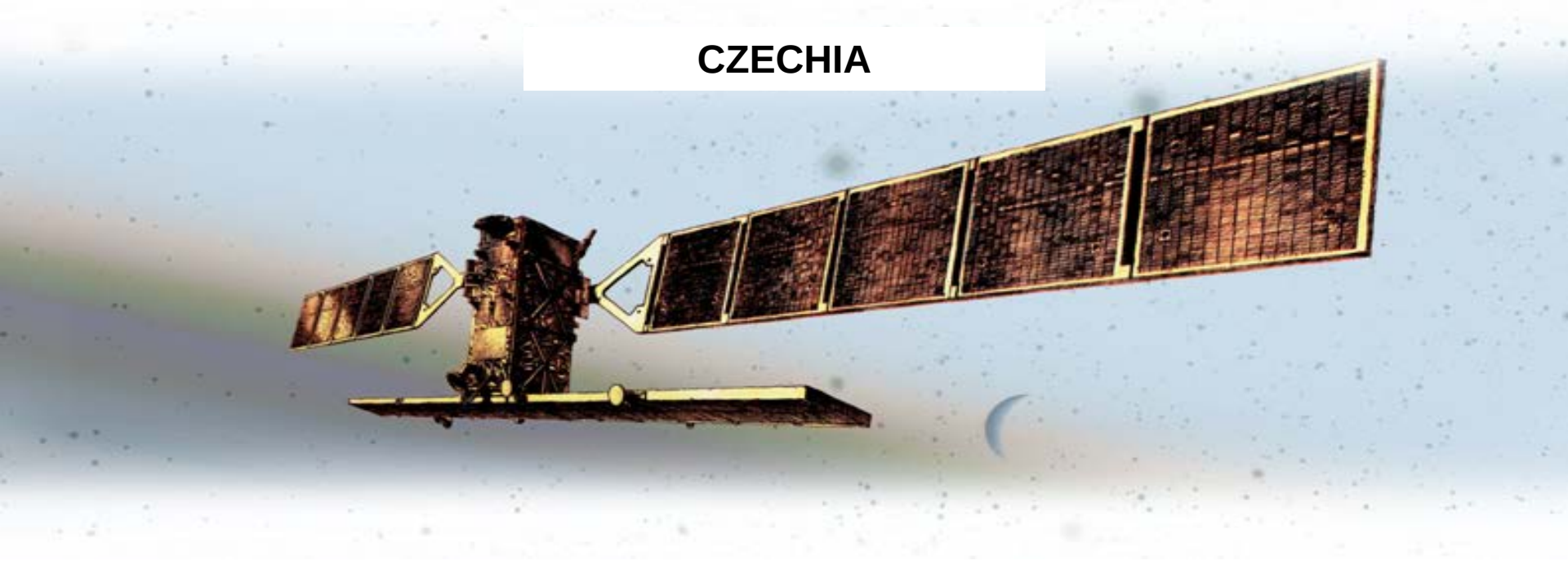
Charles University in Prague

CZECHIA



Aim of presentation

- To promote a relevancy of education aspect of EO
- Introduction of Trans-Atlantic Training (TAT)
- Presentation of selected results of GLOBE Programme
- Introduction of ESERO CZ Office
- Perspectives, planes…

Land-Cover / Land-Use Change Program

Charles University in Prague

Trans-Atlantic Training (TAT)

ESA advanced training course in land remote sensing in Prague

28 June – 3 July 2009

Charles University and Czech Technical University

66 students from 22 countries

12 leading scientists in land RS techniques

Francesco Sarti (ESA)

NASA Valmiera Training Workshop

April 18, 2010

„Quantitative research methods in human dimensions of environmental change within Eastern Europe“

Garik Gutman (NASA)

esa

NASA LCLUC
Land-Cover / Land-Use Change Program

Trans-Atlantic Training (TAT)

http://web.natur.cuni.cz/gis/tat/

- *Trans-Atlantic Training (TAT) initiative is an activity to **develop stronger awareness of NASA and ESA products in EO***
- ***LANDSAT and SENTINEL missions***
- *to promote capacity building among recent university graduates and postgraduate in EO research area.*
- *Training courses are focused on land-cover, social science processes, land-use modeling, …..*
- *Trainers are invited from **US and EU countries***

Land-Cover / Land-Use Change Program

global change SysTem for Analysis, Research & Training

Trans-Atlantic Training (TAT)

http://web.natur.cuni.cz/gis/tat/

- ***ESA support*** *– contract between Charles University and ESA*

- ***NASA support***

South Central European Regional Information Network (SCERIN)

The Northern Eurasia Earth Science Partnership Initiative (NEESPI),

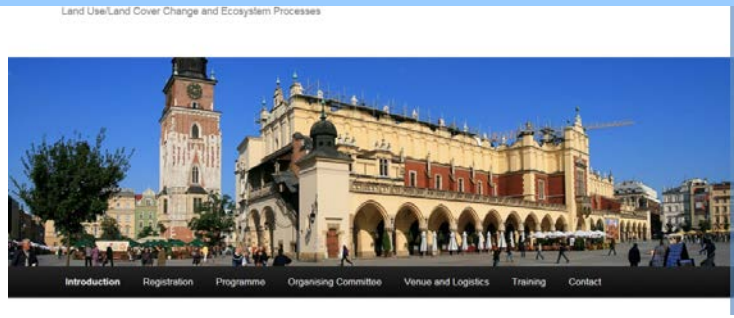
START - Global change SysTem for Analysis, Research & Training

Coordination: *Charles University in Prague (Premysl Stych)*

Land-Cover / Land-Use Change Program

global change SysTem for Analysis, Research & Training

TAT - Trans Atlantic Training



3 events so far:

2013 – Prague (SCERIN):

Prague, Czech Republic, three days during 20-22 June 2013

“Classification methods in Land-Use/Land-Cover Change”.

22 participants from five countries

2014 – Krakow (SCERIN)

Krakow, Poland, from 5 to 7 June 2014.

“Land Use/Land Cover Change and Ecosystem Processes”

36 participants from 12 countries

2015 – Prague (NEESPI):

Charles University in Prague, Czech Republic during 8-12 April 2015**,. “Earth Observation in Terrestrial Ecosystem Dynamics“**

29 participants from 9 countries

Trans-Atlantic training and Capacity Building Activities in EO

Trans-Atlantic training and Capacity Building Activities in EO

Venue: TAT 2016 training **“Multi-sensor Approaches in Monitoring Ecosystem Dynamics”, 23.-27.7. 2016**

Registration: http://web.natur.cuni.cz/gis/tat/

Coordinately with SCERIN

Training location: National Forest Centre and Technical University in Zvolen, Slovakia

Goals and objectives

“Multi-sensor Approaches in Monitoring Ecosystem Dynamics”.

Thematically focused on the new trends in optical remote sensing technics with emphasis on Landsat-8 and Sentinel-2 missions.

Applications in the ecosystems dynamics and biomass estimation, Lidar data

THE GLOBE PROGRAM

Global Learning and Observations to Benefit the Environment

www.globe.gov

Program Goals:

Improve student understanding across the curriculum;

Enhance environmental awareness;

Contribute to scientific understanding of Earth as a system; and

Inspire and Connect the next generation of global scientists

Sponsored by: NASA NSF Supported by: NOAA Implemented by: UCAR

THE GLOBE PROGRAM

Diversity of the activities

How to do a research in environmental disciplines

- **Education curricula** – GLOBE is implemented in many different ways
  - part of curricula (included in subjects)
  - school projects
  - after school activities (youth clubs)
- **Teaching approach – sharing examples of good practice**
- **School facilities**
- **Community involvement - involving scientists, parents and public in the GLOBE Program**
- **Environmental Education / Science Education**
- **Languages** - GLOBE is implemented in national language of each country – teachers/students need to know English for cooperation
- **Cultures and traditions** – intercultural learning

THE GLOBE PROGRAM

Region Annual Meeting 2015

- Poland, Warsaw on November 23rd -27th

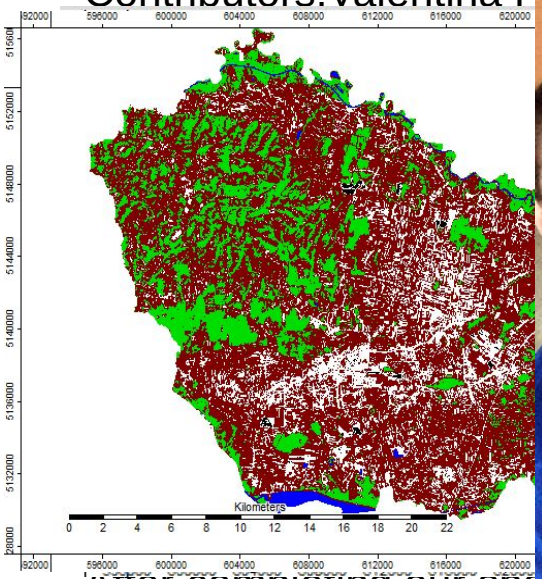
Sponsored by: NASA NSF Supported by: NOAA Implemented by: UCAR

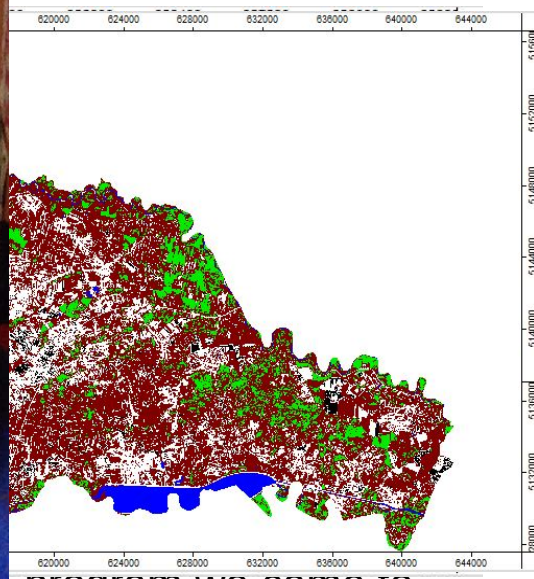
Regional Events – the start of cooperation

GLOBE Games in the the Czech Republic – May 28th – June 1st 2015 students from Slovak republic, Poland, Germany + CC Netherlands, GIO Gary Randolph

Changes in land use and land cover in Medimurje between 2000. and 2014 using LANDSAT satellite images

Organization:Srednja skola Prelog
Student(s):Josipa Golombos Lara Klaric Patricija Furdi
Grade Level:Secondary (9-12)
GLOBE Teacher:Kristina Jancec
Contributors:Valentina P





After completing our spa program we came to our results.

Furthermore, we are planing to expand our research and as a main focus set our city Prelog

The Effect of Land Use on Water Quality

Organization:St. Franci
Student(s):Madison Sie

ESERO Czech Republic

ESA's main way of supporting the primary and secondary education community in Europe.

ESERO CZ: Since 2015

Unique position: strongly oriented on EO/RS

Czech Republic esero

esa Scientica

iQLANDIA SCIENCE CENTER LIBEREC

Sdružení TEREZA

PRAHA PRAGUE PRAGA PRAG

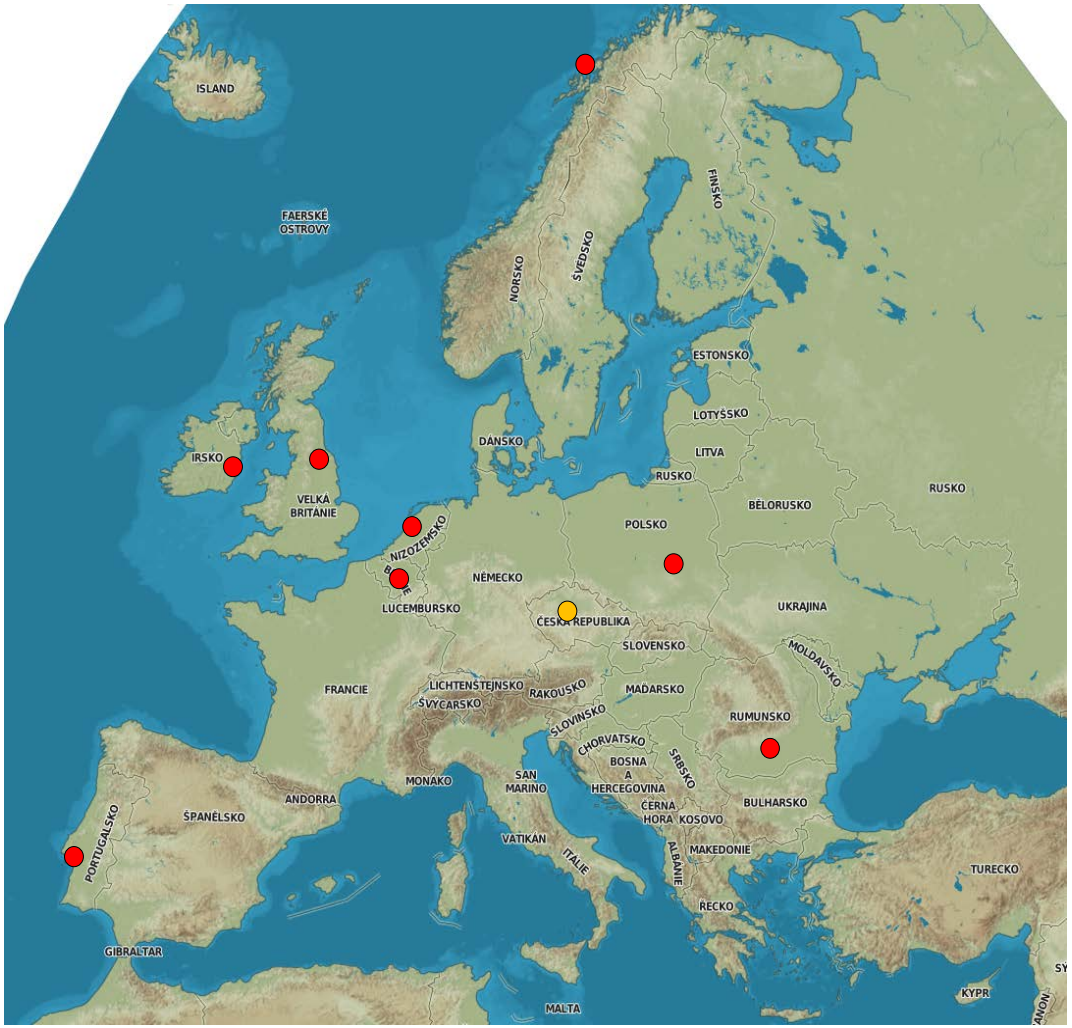
VUGTK

český svaz ochránců přírody

NÁRODNÍ PAMÁTKOVÝ ÚSTAV

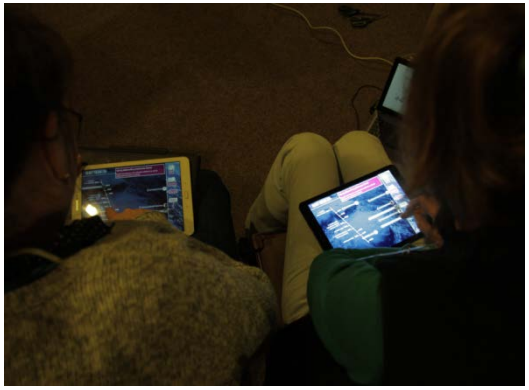
DOA DĚTSKÁ TISKOVÁ AGENTURA

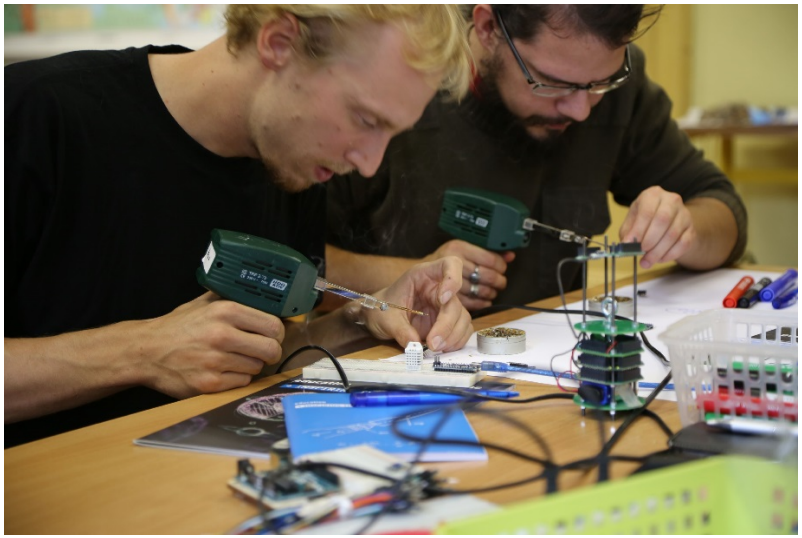
vesmír



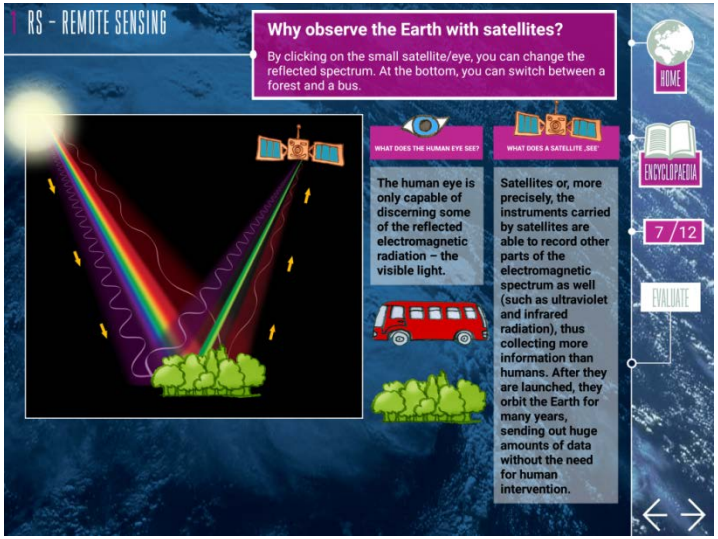
ESERO CZ

Teachers´ Training School





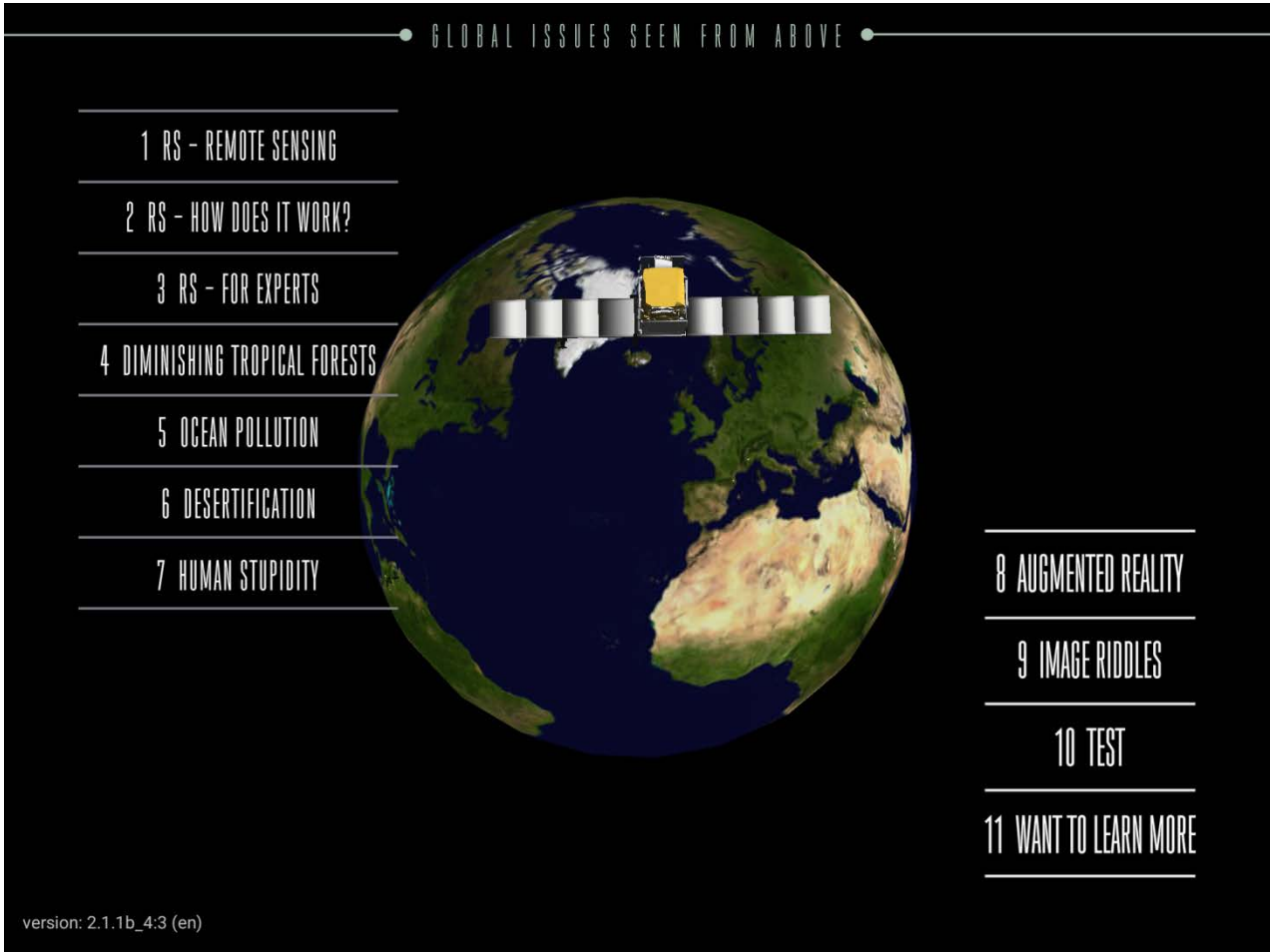
► Remote Sensing
(introduction to principles and function)



Global Issues from Above (EO tablet app)

Czech and English,

Introduction to EO and Global issues applications

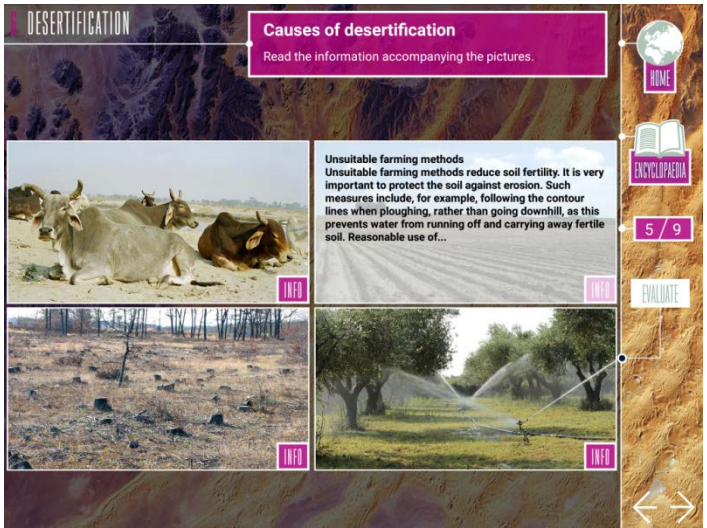


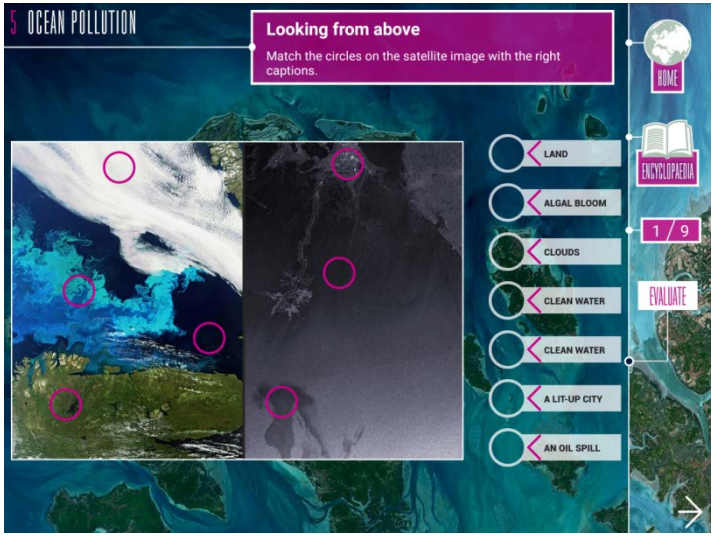
► Global issues – EO applications

Tropical forests

Ocean pollution

Desertification





► Specials

Augmented Reality

Art


Výroba kosmoskafandru
Čus lidi. Co takhle zajít někdy na kus UFOřeči? Ale v trenkách to nepůjde. Skafandrík - to je ono.
DĚSIVÁ VĚDA
VESMÍR
DĚSIVÁ VĚDA
POTŘEBÁ DATORI
Někde si seženete zepár krabic, nůžky, nůž, izolepu a jdeme na to...
A kouknete po sobě uklidit!
Pokračování


Jedeeéém!!!
MÁM VOKNO

Summary

- Making the science more relevant and visible for students:
  to show applications, present our projects and results, to explain relevancy of our research
- Linking closer the scientists and young generation:
  very important is personal experience, social networks
- Offering the new educational tools and approaches
- To motivate talented students for EO/Science

Thank you to many people and institutions:
Garik Gutman, Chris Justice, Francesco Sarti, Petya Campbell, Pavel Groisman, Jana Albrechtova, Lucie Kupkova, Petr Mares, Antonios Mouratidis, Ivan Sackov, Julie Malmberg, Kasia Ostapowicz….teachers…students…and many more…

GOFC-GOLD Global Observation of Forest and Land Cover Dynamics

esa

The GLOBE Program

TEREZA

NASA LCLUC Land-Cover / Land-Use Change Program

START global change SysTem for Analysis, Research & Training

NEESPI

Thank you for your attention

stych@natur.cuni.cz

Looking forward to our collaboration in EO education!