



The Copernicus Master Prize and the ESA App Camps

EO Open Science 2.0

Frascati, 12 October 2015

Thomas Beer
Copernicus Space Office, ESA- ESRIN

How it all started :

- In 2009 ESA- EO was invited to attend the awards ceremony for the **ESNC Master Prize** competition (“Galileo Masters”) which is being implemented since 2004.
- In 2010 ESA-EO was given the opportunity to organize and hand over a **special GMES prize** in the frame of the ESNC Master Prize
- In 2011 the self- standing **GMES Master Prize** was born.
- Since then, both the Copernicus Masters and the ESNC Masters are held separately, with a joint award ceremony in the 4th quarter of each year

Who is behind the Masters?



- The Copernicus Masters is an idea of the GMES/ **Copernicus Space Office at ESA-ESRIN**
- ESA is the **overall responsible** for the Master Prize and has entrusted **Anwendungszentrum Oberpfaffenhofen GmbH (D) (AZO)** with the organisation and implementation of the competition and of the award ceremony. AZO organises also the ESNC Masters

The Copernicus Masters objectives

The Copernicus Masters Competition aims at:

- **Creating awareness** for the Copernicus programme and its benefits for EO data driven businesses and societal undertakings
- **Fostering new ideas and innovation**, product development and entrepreneurship within the EO market
- **Creating new ventures** to be supported in the eleven ESA Business Incubation Centers (BICs), and potentially also in other, similar Centers. Potential synergies with the Galileo network of incubation centers

The Copernicus Masters today

5 years of innovative services and business concepts

- >1,200 registered participants
- > 700 completed idea submissions from all over the world
- > 100 experts involved in the evaluation
- 9 Challenges in 2015
- 9 Challenge partners in 2015



IMAGINE THE OPPORTUNITIES!



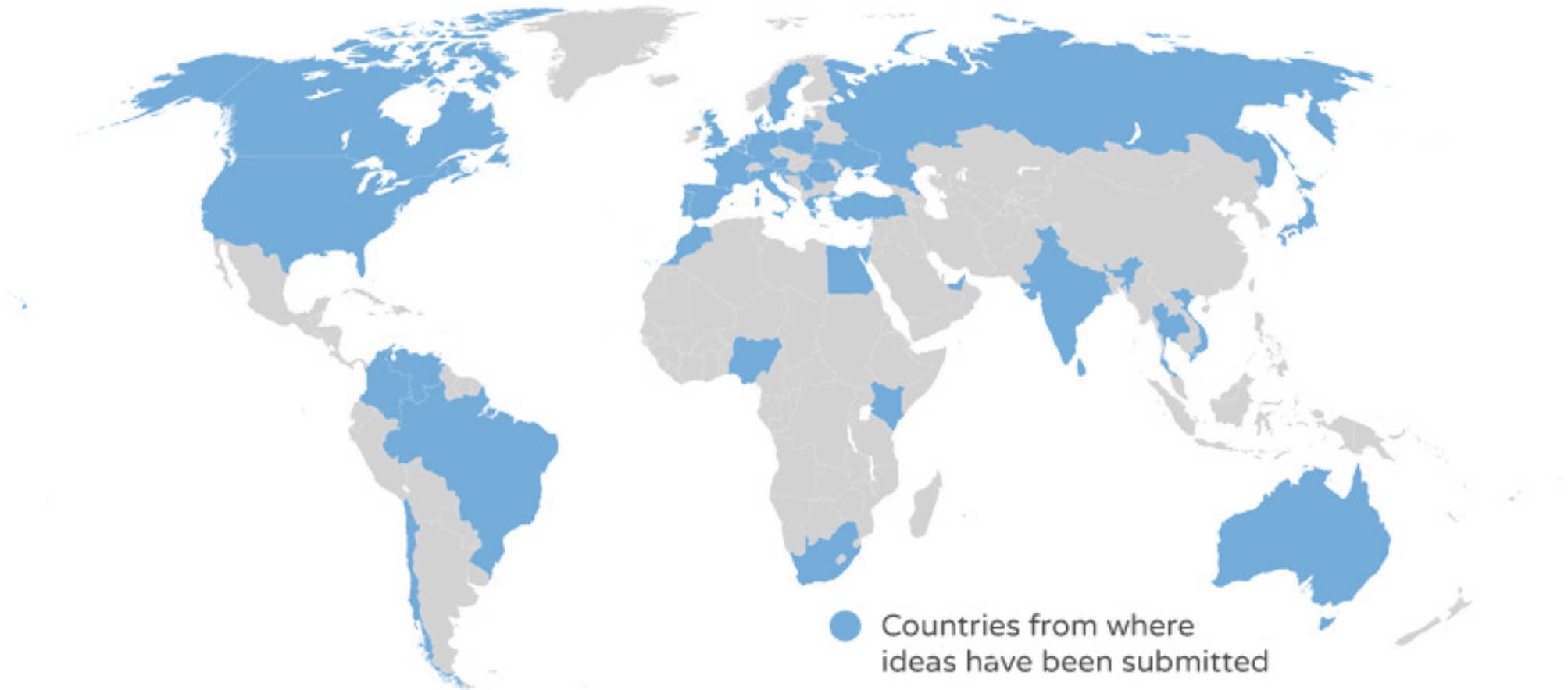
The Copernicus Masters is oriented towards:

- Start-up companies
- Entrepreneurs
- SMEs
- Researchers
- Students

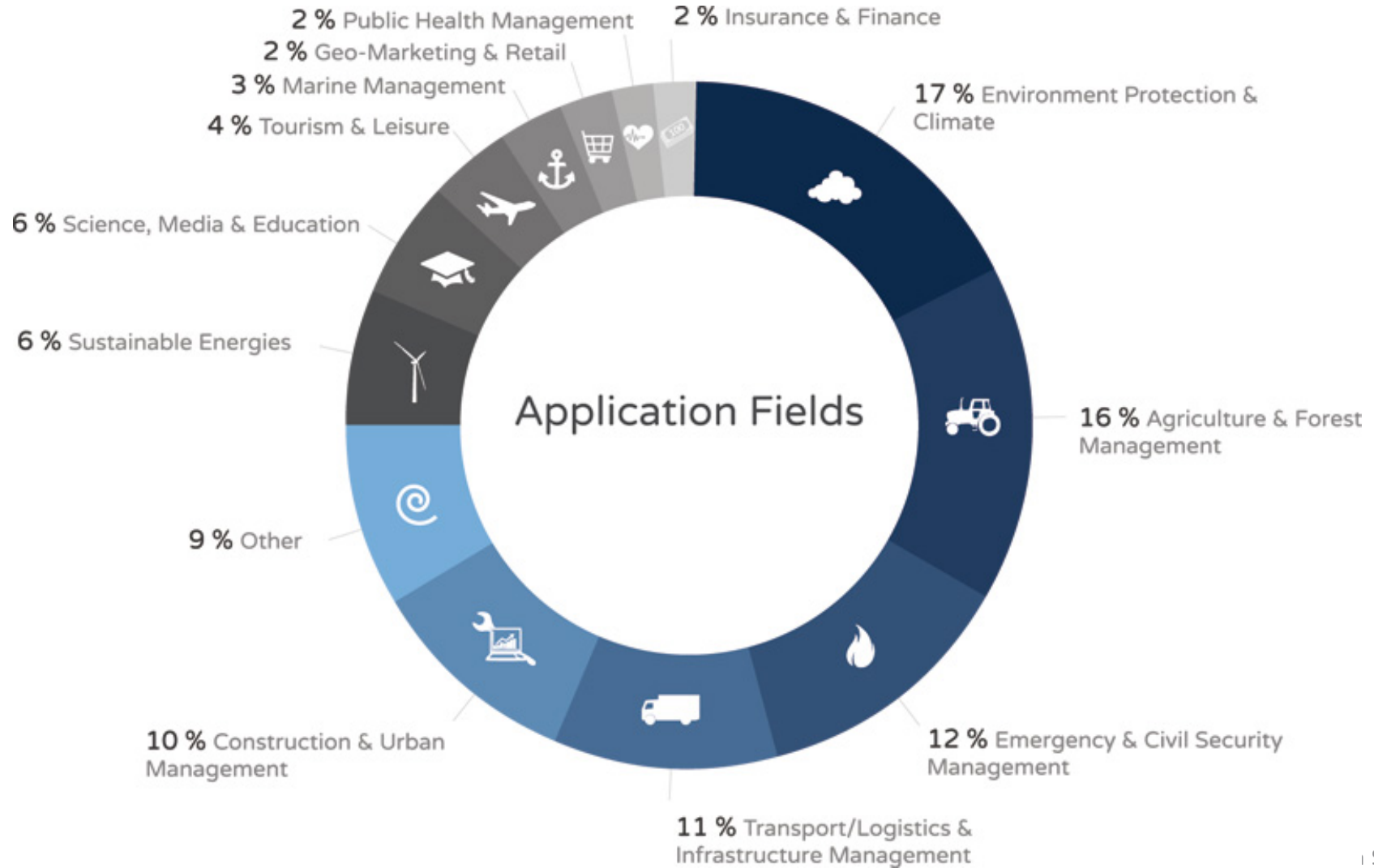
Since 2014: Competition is open to submissions „**worldwide**“

New in 2015: **University Challenge** specifically addressing students and research associates

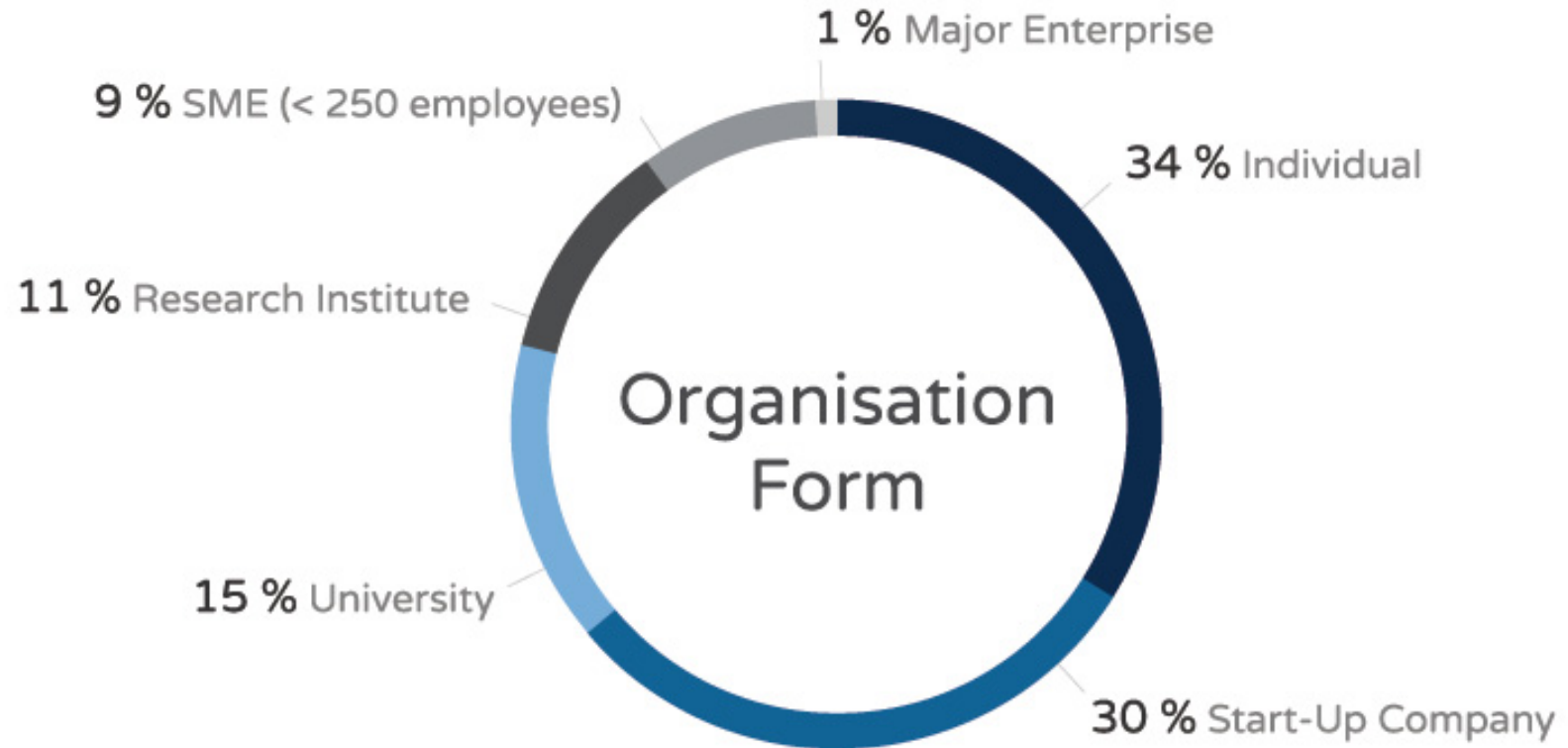
A TRULY GLOBAL COMPETITION



Application Fields 2014



Source of submissions in 2014



Copernicus Masters Partners 2015



UPON THE INITIATIVE OF



PARTNERS



ORGANISED BY



ANWENDUNGSZENTRUM
Oberpfaffenhofen

EO related incubatees at ESA BIC locations

Bavaria



Darmstadt



Italy



Noordwijk



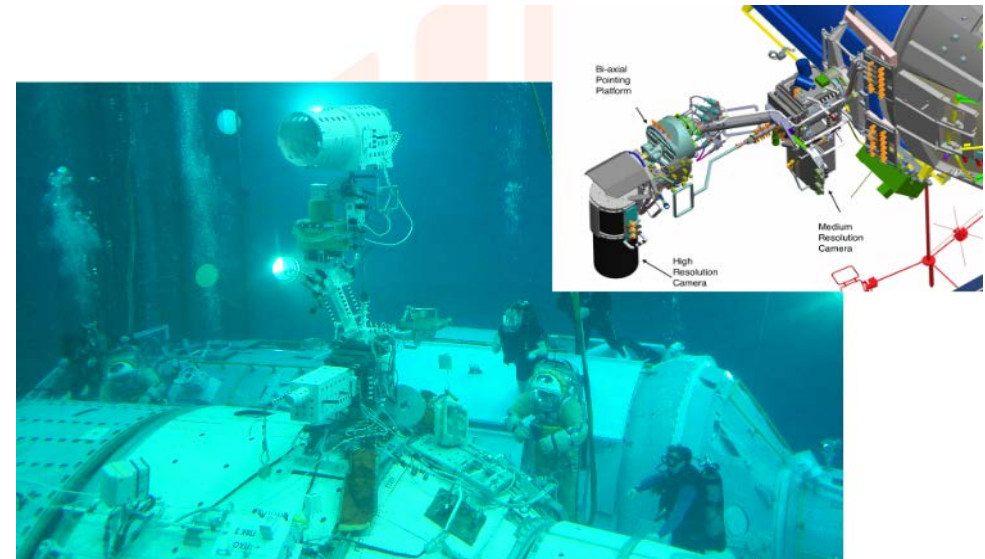
Harwell



Master Prize Success Stories

UrtheCast - Earth Video Camera by the Canadian company Urthecast

- > **Platform for first HD video streaming of Earth from space**
- > **Service operational since March 2014**
- > **Ultra HD video camera Iris installed on ISS, with a Ground Sample Distance (GSD) as fine as 1-meter and a duration of up to 60-seconds.**

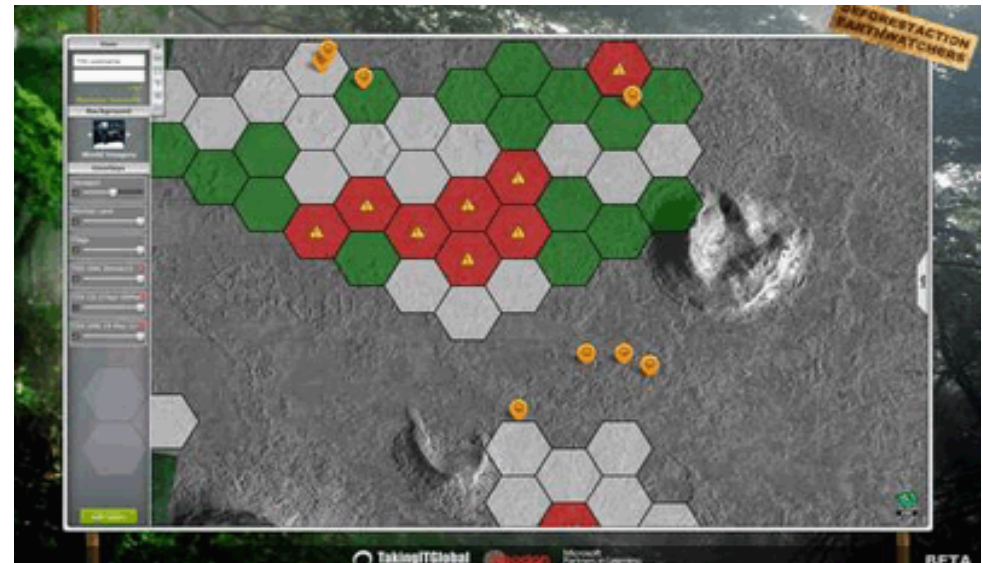


© UrthCast

Success Stories

DeForest Action EarthWatchers - Crowd-sourced rainforest monitoring by the Dutch company Geodan

- > **Application allow worldwide monitoring of Borneo forest**
- > **Project is online and active**
- > **Necessary to decrease illegal deforestation**
- > **Collaboration with UrtheCast to provide real time HD data**



© Geodan

"Taking part in the Copernicus Masters gave us the chance to make some key contacts and gather valuable feedback," reports John Smedegaard, a co-founder of **Ceptu, which won the CloudEO Farming Challenge in 2014**. "The whole process was a huge help in advancing our idea and developing it into a commercial product through our new start-up."

SPACE 
APP CAMP

INITIATED BY



Mission

- To raise **awareness of and demand for the Copernicus Programme services and Earth Observation Data in general**
- To **enrich mobile apps** and educate mobile developers about the specific features and business opportunities offered by space infrastructures
- To put forth **Copernicus apps** which are (almost) ready for the market.

Target Group

- The app camp targets **young innovative app developers** with proven experience in app development.
- Experience with the integration of Copernicus/ geo-information data is explicitly not required.

Who is behind the ESA App Camp?



- **The ESA App Camps are an idea of the GMES/ Copernicus Space Office**
- **ESA has entrusted Anwendungszentrum Oberpfaffenhofen GmbH (D) (AZO) with the organisation and implementation of the competition and of the award ceremony.**

Results 2013/2014



- In the last two years more than 500 developers applied for the ESA App Camp, coming from more than 60 different countries. 20 participants have been selected each year.



The winning team receives a cash prize of 2.500 Euro and all teams are encouraged to apply for ESA BIC incubation



Winning team 2012 - **ShareAware**

- Aims to interconnect people concerned about the environment to understand, learn about, be prepared for or react to various events or remote sensing results.



© ESA

Winning team 2013 – **Thermal Guidance System**

- Uses satellite data to detect areas of high thermal updraft – rising air currents that are responsible for keeping the planes and gliders aloft.



© ESA

Winning team 2014 – **WaterSense**

- The proposed app will combine information from ESA's Sentinel-1 mission with weather predictions from meteorological satellites to give farmers a field-by-field analysis of soil moisture, resulting in the better use of precious water resources.



Winning Apps at ESA App Camp



Winning team 2015 - GAIA

This app is proposing the use of satellite data for agriculture, matching areas of interest with possible diseases.

This would allow farmers to benefit from early warnings, for evaluating crops at risk.

It could also provide tips on how to respond to possible dangerous situations in their fields.



PRAGUE 09-13 MAY 2016



**Main Objective: Presentation of Exploitation
Results based on ESA
Earth Observation Measurements**

living planet | PRAGUE
09-13 May
symposium 2016



<http://lps16.esa.int>

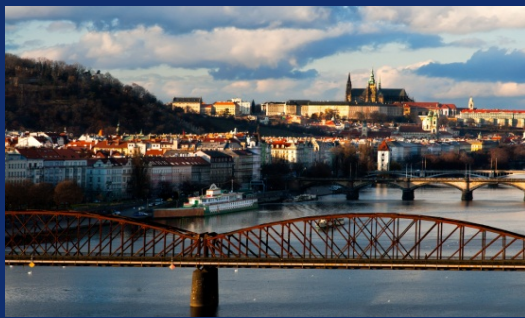
European Space Agency

Important Dates:

Deadline for abstract submission	16 October 2015
Notification of Acceptances	End January 2016
Issue of Preliminary Programme	February 2016
Opening of Registration to the Symposium	February 2016
Release of the Final Programme	at the symposium
Submission of Full Papers	at the symposium

Themes:

Atmosphere, Oceanography, Cryosphere, Land, Hazards, Climate and Meteorology, Solid Earth/Geodesy, Near-Earth Environment, Methodologies and Products, **Open Science 2.0**





Thank you for your attention

www.copernicus-masters.com

<http://www.app-camp.eu/>