

Driving EO Innovation in Europe



Copernicus, Europe's most ambitious Earth observation (EO) programme to date, generates ten petabytes of free EO data every year for use by European governments, organisations and citizens. Big data from space holds great potential for innovative ideas and solutions in many sectors, and the Copernicus Masters – Europe's leading competition dedicated to EO applications – helps to drive such innovations. In this article, Thorsten Rudolph, managing director of AZO Anwendungszentrum GmbH Oberpfaffenhofen which organises the Copernicus Masters, explores how the competition functions as a deal flow pipeline and innovation driver.

The incredible development of EO's commercialisation got a big boost seven years ago when we started to work

together with our Copernicus Masters initiating partners: Josef Aschbacher, director of ESA's Earth Observation programmes, and Dr Thomas Beer, Copernicus policy coordinator at ESA. Back then, Copernicus did not exist in its present form; it was called the Global Monitoring for Environment and Security (GMES) programme. In terms of commercial EO-based applications, there was not much out there at that time.

Currently, six Sentinels are in orbit, and Sentinel-3B will join them on 25 April this year. Copernicus has literally skyrocketed, and so has the first innovation competition dedicated to respective solutions – the Copernicus Masters.

I would like to stress some key aspects about Europe's EO programme to give a better understanding of the role of the Copernicus Masters. Copernicus provides full free and open access to data for the development of applications in a wide diversity of domains. This enables the Copernicus services to deliver near-real-time data on a global level. Investments in the programme will increase to €7.5 billion by 2020, while the economic benefit is expected to double in value. That's quite impressive, isn't it?

And this is exactly where the Copernicus Masters comes into play. Its mission is to foster the user uptake of the Copernicus programme as well as to look at our planet and its environment for the ultimate benefit of European citizens. With more than 450 participants from 38 countries in 2017, the Copernicus Masters competition affirms the importance of EO. The competition website illustrates the vast variety of application fields. This year, the competition is bigger than ever: 16 challenges with exciting topics tackling global societal and business-related issues, including the Internet of Things (IoT), artificial intelligence (AI), machine learning, energy, health, sustainable living, smart farming, disaster management and digital transportation. The active role of the Copernicus Masters in the commercialisation of EO makes me proud. It demonstrates how this innovation competition functions as a European deal flow pipeline for EO and drives innovation worldwide.

The partners of the 2018 edition are the European Space Agency (ESA), the European Commission (EC), the German Aerospace Center (DLR), CGI, Planet Inc., BayWa AG, Stevenson Astrosat Ltd., Airbus, Satellite Applications Catapult Ltd. and the German Federal Ministry of Transport and Digital Infrastructure (BMVI).

Participants can enter the competition with their innovative EO ideas until 30 June. Besides cash prizes, challenge winners receive access to an international network of leading EO organisations, substantial satellite data quotas and a crowd investing platform, as well as business development support worth more than €600,000 in total. Additionally, the overall winner receives a VIP trip to a satellite launch in Kourou valued at €10,000.

I encourage all participants of the Copernicus Masters to submit their best ideas. They can actually make an impact on society and business.



Egg Island. Bahamas (2018). (Contains modified Copernicus Sentinel data, processed by ESA)



Southeast Namibia (2017). (Contains modified Copernicus Sentinel data, processed by ESA)



Yukon Delta (2017). (Contains modified Copernicus Sentinel data, processed by ESA)

