

Press release

Three innovation awards for EOMAP

Two new breakthroughs by the German expert for space-based information on water environments have recently received three awards: RastLess, a new cloud computing solution for fast and cost-saving geospatial data analytics and SDB-Online, the WebApp for mapping shallow waters.

(Seefeld, Germany – December 2022)

For the growing Earth observation market, efficient processing of large raster data volumes in various resolutions is key. Therefore, Marcel Siegmann (31), software engineer at EOMAP, has been a double winner at the Space Awards 2022 in Rome, where the Copernicus Masters were celebrated. On December 1st, his cloud computing innovation “RastLess” won the “Regional Prize Bavaria” by AZO and the “Frontier Tech Challenge” by the European Space Agency ESA. Supported by Professor Adam Roe of CODE University Berlin and EOMAP’s software team, Siegmann solved two pain points of analysing raster geo-data: *“Continuously running servers are one of the most expensive cloud workloads, and low performance in accessing multiple data sources a real pain for users.”*

In contrast to existing Data Cube applications, RastLess is a serverless solution for visualising and analysing distributed raster data. It allows to process hundreds or thousands of images simultaneously within seconds and to handle all sorts of projections and resolutions. *„EOMAP demonstrated a unique proposition to introduce new ways of EO data processing using serverless architectures. This can result in cutting infrastructure costs and improving Copernicus cloud productivity“,* said Anna Burzykowska, Copernicus Innovation Officer of ESA.

EOMAP combines state-of-the-art cloud technologies with geospatial formats and uses a pay-per-use concept. *“In benchmark tests, RastLess shows speed improvements of up to ten times while reducing the costs by 99 percent“,* Siegmann explains. For visualizing raster layers, the application uses a dynamic map tiling approach. By this, users can rapidly colorise the layers or visualise them in 3D. In addition, the serverless approach consumes far less energy. - In this year’s Copernicus Masters competition, EOMAP competed against more than 620 participants from 47 countries.

Two weeks earlier, the Bavarian State Ministry of Economics awarded EOMAP the “Innovation Prize Bavaria 2022” for SDB-Online. *“Supporting coastal stakeholders with easy and rapid access to bathymetry data was our motivation for this new WebApp. We feel deeply honoured by these awards. Our breakthroughs root in the innovative spirit of the entire team“,* says CEO Thomas Heege.

SDB-Online is designed for coastal engineers, surveyors, modelers, and scientists. With the new WebApp, they can create high-resolution bathymetry grids directly from their desks. The online solution builds on satellite data archives of the ESA and automates complex data processing. EOMAP has been pioneering Satellite-Derived Bathymetry (SDB), a cost-effective technique to map shallow waters from space, for over two decades.

More info on [ESA’s Frontier Tech Challenge](#).

Download the [winner’s brochure of Copernicus Masters 2022](#) here.

More information [including the video of the Innovation Prize 2022](#): eomap.com

Notes to the Editor:

SDB-Online has been developed with co-funding by the European Union’s Horizon 2020 research and innovation program under grant agreement no. 101004221.

About EOMAP

Turning satellite data into key information on coastal and inland waters is EOMAP's daily business. Clients around the world value the deep understanding of aquatic environments by the international team of water enthusiasts. They enjoy the panoptic view they gain on the water bodies of their interest and software tools for accessing satellite data faster and easier than before. By "digital twins" of aquatic environments and software services the EOMAP team wishes to advocate a more sustainable management of coastal and inland waters. The German tech company founded in 2006 has its headquarters near Munich and maintains offices in Australia, USA, Indonesia and in the United Arab Emirates.

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Image 1: Anna Burzykowska (Copernicus Innovation Officer at ESA) and Thorsten Rudolph (CEO of AZO) are congratulating Marcel Siegmann on Stage of the Space Awards 2022- ©EOMAP

Image 2: EOMAP's team (Mona Reithmeier, Karin Schenk, Knut Hartmann and Thomas Heege) at the the Innovation Prize Bavaria 2022.

Image 3: Screen Capture of SDB-Online - ©EOMAP