ESA App Camp Barcelona: Big Data from Space for SAP HANA Cloud Applications

At this year's Mobile World Congress, the European Space Agency (ESA) and SAP SE rewarded exciting apps that tackle the challenge of global food security by monitoring and managing agricultural land.

Hang on a minute – isn't the European Space Agency a bunch of astronauts and rocket scientists? What does ESA have to do with app development and SAP?

From space, our planet's atmosphere, land, and water can be monitored and benefit at the same time multiple application fields.

"The Earth observation (EO) satellites of Europe's Copernicus programme and the big data they are going to produce will help countless innovative apps really take off," explains Josef Aschbacher, Head of Programme Planning & Coordination Service, Directorate of ESA's Earth Observation Programmes. "We are extremely pleased to have added SAP as a valuable partner in our developer initiative, which I am glad to explore further. Combining EO data with business data using the SAP HANA Cloud Platform can provide myriad opportunities for startups and developers."

This is where the ESA App Camp comes in: Offering access to the latest space data and the SAP HANA Cloud Platform, the most recent edition invited creative developers to make the resulting information accessible to a broad audience and create value in the process. More than 170 participants from around 30 nations gathered at six ESA Business Incubation Centers (BICs) and partner locations for a series of pre-selection Appathons held in parallel across Europe on 24-25 January 2015. After being grouped into 44 teams, these like-minded innovators put their heads together to tackle some of the world's greatest challenges. The winning team from each local Appathon was then invited to the App Camp in Barcelona (25 February - 2 March 2015) to continue developing their app concepts.

Today, the ESA App Camp Barcelona culminated in a presentation of awards to two winning teams at the Mobile World Congress (MWC), the world's largest annual gathering of the mobile industry and related sectors.

"I am pleased to see that our engagement in the ESA App Camp enabled young entrepreneurs and developers to create next generation enterprise apps with commercial viability in the cloud," states Ann Rosenberg, Vice President and head of SAP University Alliances.

Finnish developers Aarni Koskela, Matti Määttänen, Otso Rasimus, and Henrik Skogström won both the SAP special prize and their local pre-selection Appathon in Turku with AGRAI, a personal farming solution for mobile phones. The app simplifies farmers' work by advising them on their daily routines – such as when to fertilise or harvest – and issuing warnings on imminent anomalies like pests,

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drought, or frost. By combining data from satellites and various other sources on the SAP HANA Cloud Platform, AGRAI will save farmers time and money while making their daily lives easier.

Meanwhile, Anda Truta, Alex Dumitrescu, Alex Dantis, and Julian Laval from Code Green took home the ESA prize with the app FarmIQ. The four computer science students from the University of Bristol (UK) are focusing on analysing crowd-sourced information to develop predictive agricultural models. Offered in a product-as-a-service (PaaS) format, their app harnesses the power of Earth observation and agricultural big data to provide state-of-the-art crop monitoring, predictive monitoring (including suggestions on field optimisations), and advance warnings regarding potential problems.

“An invention remains just an idea until someone invests in it,” states Frank Salzgeber, head of ESA’s Technology Transfer Programme Office. “That’s why ESA supports over 100 new start-ups a year at our ESA BICs. I’m sure that we’ll see some of the winners take advantage of our support, and we would be honoured to help their ideas take wing.”

Despite two EUR 5,000 cash prizes being on the line, the 23 developers maintained a congenial working atmosphere and supported one another in meeting the challenges that arose.

“During the ESA App Camp in Barcelona, all six teams created value by developing impressive applications that make Earth observation data accessible to a broad audience,” reports Thorsten Rudolph, managing director of Anwendungszentrum GmbH Oberpfaffenhofen. “They now have the chance to join the ESA BICs and the SAP Startup Focus program to develop their apps further.”

Other apps developed during the ESA App Camp Barcelona included:

EcoFit*,* which identifies the best potential renewable energy sites (wind farms, solar parks, or geothermal plants, for example) in a fast, easy way to help users make related decisions*;*

Malevich, a smart solar sales mobile app powered by a mix of Earth observation and business data analytics for energy providers

Viridian Raven*,* a mobile, space-based early-warning system for detecting bark beetle outbreaks in forests, which will help reduce global insect-related forest damage through early intervention

SAMPEI*,* a mobile solution for precision fishing that identifies phytoplankton-rich areas as potential fishing zones.

The event was organised by Anwendungszentrum GmbH Oberpfaffenhofen (AZO) on behalf of the European Space Agency and sponsored by SAP University Alliances.

www.app-camp.eu

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