



## COSMOS2020 NEWSLETTER #26

04 April 2017



**erc**

### **10 Years of the European Research Council: A European success story**

European Research Council

Established by the European Commission

**The European Research Council (ERC) is a flagship component of Horizon 2020, the EU's programme for research and innovation. It was set up by the EU in 2007 to fund excellent scientists and their most creative ideas. It supports cutting-edge 'blue sky' research in all fields, and helps Europe keep and attract the best researchers of any nationality.**

Imagine developing new anticancer therapies or tackling Parkinson's disease? Or discovering Earth-like worlds in outer space? Can research develop batteries that make our mobile devices last longer? This is the type of cutting-edge research that the EU is promoting through the ERC, set up ten years ago. Some 7,000 top researchers have been supported in Europe to expand the frontiers of our knowledge and draw us nearer to the solutions. Many already led to breakthroughs.

The ERC, established by the EU to support excellent researchers in Europe, has backed scores of them, including six who later received Nobel Prizes. ERC grants also created career opportunities for some 50,000 research staff, resulted in numerous scientific breakthroughs and led to over 800 patent applications that lay the foundations for growth and jobs, and the improvement of people's daily lives.

The President of the ERC, Professor Jean-Pierre Bourguignon, said:

"For the past ten years the European Research Council has supported high-quality research projects proposed by ambitious scientists. Their endeavours have a positive impact on thousands across Europe. ERC grants led to many scientific breakthroughs, such as the recent discovery of potentially inhabitable planets beyond the solar system. There is ample proof that the ERC is fulfilling the mission it was given to make Europe the place to be for the world's best brains."

[Read more!](#)



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INTERNATIONAL KICK-OFF 2017

# Copernicus Masters and European Satellite Navigation Competition Kick-off

Brussels, Belgium, 5<sup>th</sup> April 2017

**Europe's major innovation competitions for space downstream applications – the Copernicus Masters and the European Satellite Navigation Competition (ESNC) – is set for April 5, 2017 in Brussels, Belgium.**

The event is your chance to connect with important EO and GNSS stakeholders and relevant regional representatives, in a truly pan-European environment. Discover the various opportunities to engage in business innovation scouting.

## Program Highlights

The program highlights feature keynote speakers, high-level roundtable discussions and a Bavarian-style reception offering networking in a pleasing atmosphere. The keynote: "Bringing the Benefits of Space to Earth," will be given by Philippe Brunet, Director of Aerospace, Maritime, Security and Defence Industries, European Commission (EC).

New to this year's event will be accelerator programs for Copernicus & Galileo on a broad scale, and Increased regional dimension with the new Copernicus Associated Regions, plus the ESNC patronage by the European Committee of the Regions. More program details can be [found here](#).

Each year, the ESNC seeks services, products, and business innovations that use satellite navigation in everyday life. In the 2016 edition, prizes were awarded by some of the most relevant institutional GNSS stakeholders, such as the European GNSS Agency (GSA), the European Space Agency (ESA), the German Aerospace Center (DLR), and the German Federal Ministry of Transport and Digital Infrastructure (BMVI). In addition, more than 20 partner regions from all over the world host their own regional challenges. Last year's prize pool was valued at about 1 m€, or about \$1,086,450, which includes cash awards, business incubation, business coaching, patent consulting, technical support, access to testing facilities, prototype development, publicity, marketing support, and much more.

[Read more!](#)



## Southern African Large Telescope (SALT) Research Chair



European  
Commission

Horizon 2020  
European Union funding  
for Research & Innovation

**With the aim of "Strengthening Technology, Research and Innovation Cooperation between Europe and South Africa" and increasing scientific research capacity and generation of new knowledge, European Commission and the Department of Science and Technology of South Africa under Horizon 2020 have funded ESASTAP2020 in 2016.**

Now, the Department of Science and Technology (DST) and the National Research Foundation (NRF) of South Africa have approved funding for the awarding of a Southern African Large Telescope (SALT) Research Chair under the SARChI funding instrument.



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The South African Research Chairs Initiative (SARChI) was established in 2006 as a strategic intervention of the South African Government to reverse brain drain in the public academic and research sector and to develop local expertise. In particular, the Initiative is aimed at increasing scientific research capacity through the development of human capacity and by stimulating the generation of new knowledge.

The SALT Research Chair will be awarded in an open and competitive process. The application must include, (i) *the motivation by the South African public university to co-host the Research Chair with SAAO*; (ii) *the extensive CV of an approved candidate for appointment to the Research Chair position*; and (iii) *a research and activity plan drafted by the nominated candidate*.

**Closing date for applications: 01 May 2017**

[Get more info now!](#)



## **EU Space Programmes plan prominent presence at upcoming 33rd Space Symposium**

**Colorado Springs, USA, 2-6<sup>nd</sup> April 2017**

**With both the European Union's (EU) global flagship space programmes, Galileo and Copernicus, now delivering services to users around the world, for the first time the EU - represented by the European Commission and the European GNSS Agency (GSA) - will have a strong presence at the 33rd Space Symposium event, held 2-6 April in Colorado Springs, USA.**

The first week of April sees the opening of the [33rd Space Symposium](#) in Colorado Springs, Colorado, U.S.A. This annual event will bring together more than 10,000 space leaders from around the world to discuss, address and plan for the future of space.

The Space Symposium over the years has become widely known as the premier U.S. space policy and program forum, but this year attendees will see a stronger international presence with the European Commission and the European GNSS Agency (GSA) featured prominently throughout the four-day program (3-6 April).

According to GSA Executive Director Carlo des Dorides, the larger EU profile at the event this year reflects the December 2016 Declaration of Galileo Initial Services. Along with Mr. des Dorides, the European Union Space Programmes will be represented at this year's Space Symposium by EU Commissioner for Internal Market, Industry, Entrepreneurship and SMEs, Elżbieta Bieńkowska, European Commission Deputy Director General, Pierre Delsaux, and European Commission Director for Galileo, Matthias Petschke.

The European Union will also host a stand at the Symposium exhibition for attendees to meet EU officials and learn more about the services offered by the EU Flagship Space Programmes, Galileo, EGNOS and Copernicus.

For the first time, the GSA will partner in the Space Generation Fusion Forum, providing insights on the 'Space to Earth' track. 2017 marks the sixth edition of the event. Held in conjunction with the Space Symposium, the two-day Fusion Forum (2-3 April) will gather young adults from various areas of space – government, industry, and academia.

As part of GSA participation, it has awarded a Space Generation Fusion Forum scholarship. The 'Young GSA – New Navigation Horizons Scholarship' invited European students and young professionals to share their views in a 30-second video and 400-word essay on the possibilities that Galileo in a multi-GNSS world can bring to society, business and European integration.

[Read more!](#)



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## Sentinel-2B launch: one more "eye in Space" for Earth observation

**Sentinel-2 is an Earth observation mission developed by ESA as part of the Copernicus Programme to perform terrestrial observations in support of services such as forest monitoring, land cover changes detection, and natural disaster management. It consists of two identical satellites, Sentinel-2A and Sentinel-2B.**

The 1100 kg Sentinel-2B was launched on the 7<sup>th</sup> of March atop a Vega rocket from Europe's Spaceport in Kourou, French Guiana. Joining its orbiting twin, the new satellite will double the high-resolution coverage from the Sentinel-2 mission for the EU's [Copernicus environmental monitoring system](#).

Information from the mission is helping to improve agricultural practices, monitor the world's forests, detect pollution in lakes and coastal waters, and contribute to timely disaster mapping.

[Read more!](#)



## Exploration on atmospheric pollution measurements!

### How is atmospheric pollution – and forecast – measured by satellites?

You have probably used an app on your mobile phone to get the weather forecast. Now, thanks to a satellite network and ground-based stations, it is possible to get through an app on your phone information about pollution in your cities.

Earth's atmosphere is a complicated system, influenced by a large number of factors. Observation satellites orbiting around our planet constantly monitor the state of the air we breathe and how natural and man-made pollution are affecting the quality of the atmosphere. Researchers at the University of Bremen have pioneered the measurement of atmospheric pollution.

[Learn more by watching the video!](#)



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## Final two Exomars landing sites chosen!

**Two ancient sites on Mars that hosted an abundance of water in the planet's early history have been recommended as the final candidates for the landing site of the 2020 ExoMars rover and surface science platform: Oxia Planum and Mawrth Vallis.**

A primary technical constraint is that the landing site be at a suitably low level, so that there is sufficient atmosphere to help slow the landing module's parachute descent.

Then, the 120 x 19 km landing ellipse should not contain features that could endanger the landing, the deployment of the surface platform ramps for the rover to exit, and driving of the rover. This means scrutinising the region for steep slopes, loose material and large rocks. Around a year before launch, the final decision will be taken on which site will become the ExoMars 2020 landing target.

All of the sites lie just north of the equator, in a region with many channels cutting through from the southern highlands to the northern lowlands. As such, they preserve a rich record of geological history from the planet's wetter past billions of years ago, and are prime targets for missions like ExoMars that are searching for signatures of past life on Mars.

[Read more about our future landing on Mars!](#)



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