



## Editorial

This month, I wish to focus on our communications and the tools which EARSC uses to inform and exchange with our members as well as other stakeholders.

But before launching into that subject I want to just draw your attention to our latest position paper referred to elsewhere in this magazine which considers the idea to establish a [Marketplace Alliance for EO Services in Europe](#). We consider that the pace of development in the industry is leaving many small companies vulnerable to developments elsewhere and outside their control. The European Copernicus programme has the potential to help drive development and growth but much work needs to be done to open up the data and information coming from this programme in which €7b has already been invested. The EC has started to recognise industrial messages on this topic and hence we propose to establish a new form of Alliance to help companies individually and collectively to address new customers and markets which we see opening as a result of Copernicus and various technology changes. We refer to this as [MAEOS – Marketplace Alliance for EO Services](#) – which you should hear more about over the next few months.

[Keep reading...](#)

## Summary

### EARSC Activities

## Issue Spring 2016

### [Copernicus Sentinels' Products Economic Value Study](#)

In studies looking at public sector investments (eg in Copernicus), socio-economic studies analyse the economic benefits which will be generated. For EO

programmes, this approach is very top down looking at broad brush benefits. In a study funded by [ESA](#), EARSC, in collaboration with the [Green Land BV](#), has been developing an alternative approach which is very focused and bottom-up.

### [Creating a European Marketplace for Earth Observation Services](#)

(8th February 2016, Brussels) A European Marketplace for EO Services will enable companies to offer new products and services building upon those coming from Copernicus and other sources. It will allow the European industry to capitalise on the public investments in Copernicus and, by linking with other data sets, can unleash a new wave of innovative geospatial products addressing many markets.

### [EARSC Annual report](#)

We're about to published our second annual report.

### [EARSC at ESA Living Planet 2016](#)

EARSC is participating to the next [Living Planet Symposium](#)

We will present two papers and will be exhibiting during the conference.

### [EARSC is now a GEO Participating Organization!](#)

The European Association of Remote Sensing Companies (EARSC) is pleased to have been accepted as Participating Organization for joining the Group on Earth Observations (GEO)

### [EARSC is part of ENEON](#)

European Network of Earth Observation Networks:  
Connecting Earth Observation in Europe

### [EARSC Survey into Public Service Bodies using EO data and services](#)

EARSC has published the initial results from its survey into Public Service Bodies using EO data and services.

### [EARSC welcomes new members](#)

Since January, we are pleased to welcome the latest companies as EARSC members:

Come see us at booth No.24 at [ESA Living Planet](#) and at the [European Space Solutions](#) event (booth to be assigned) and learn more about [EARSC](#) activities, its [members](#), the [marketplace alliance](#) and our brokerage service [EOpages](#)...

### [eoSCAN Spring 2016](#)

Market Watch "at glance".

### [Exploiting the value in EO data - Workshop by EARSC at GWF2016](#)

After 8 consequently years the [Geospatial World Forum](#) has gained a repute of being a not-to-be-missed conference for the professionals engaged in geospatial sector and its application domain. In this context, GWF offers a great opportunity to communicate on the results of the Copernicus Sentinels' Products Economic Value study to a broad audience.

### [Geoff Sawyer March Blogs](#)

EARSC secretary general latest blogs

### [Inventory of African EO Companies](#)

The African private sector involved in remote sensing (RS) and geospatial technologies to address scientific, practical and policy aspects has immensely grown over the past 20 years. However, there is no comprehensive information to fully understand how companies operate and what challenges they face. It is therefore difficult to harness their expertise and to assess state and health of the sector.

## Interview

### [Interview Andreas Veispak: Head of EC's Space data for societal challenges and growth Unit](#)

Andreas Veispak is the Head of Unit for Space Data for Societal Challenges and Growth at the European Commission. His responsibilities include space-related data, user uptake, and new business models as well as international relations and outreach activities.

### [Interview with Dr Haris Kontoes, coordinator of GEO-CRADLE](#)

## Summary

**Issue Spring 2016**  
This year H2020 project focussing on the integration of EO capacities in North Africa, Middle East and the Balkans.

## Industry Profile

**ACRI-ST: “observer pour comprendre, comprendre pour prévoir, prévoir pour survivre”**

In 2015 ACRI-ST joined [EARSC membership](#)

## Member News

**[According To Euroconsult, Defense Requirements Will Create New Opportunities Along EO Value Chain](#)**

According to Euroconsult's latest report, Earth Observation: Defense & Security, the number of countries expected to launch proprietary Earth observation (EO) defense capacity is expected to remain limited, despite increases in global tensions. Under exploration by multiple countries are other avenues to receive data capable of image intelligence (IMINT) applications, such as dual-use and commercial approaches.

**[Airbus Defence and Space and Thales to produce new digital maps for French defence](#)**

- The French National Institute of Geographic and Forestry Information (IGN) has awarded the Thales-Airbus Defence and Space consortium the GeoMaps contract for the next six years – French armed forces will get high added-value geographical data that will give them the upper hand in missions in theatres of operations

**[Airbus Defence and Space to Enhance Qatar Armed Forces Command and Control Capabilities with Direct Access to Satellite Imagery](#)**

- Qatar Armed Forces will receive and process satellite data through a multi-mission Direct Receiving Station  
- This ground infrastructure will be specifically equipped with all necessary tools to support military operations, crisis monitoring or environment studies

**[Airbus Defense and Space and J.R. Simplot Company Partner to Deliver Crop Information in Near Real Time to Farmers in North America](#)**

Higher precision and faster data delivery will help produce higher yields

### [Airbus wins contract for solid state recorder on NASA-ISRO SAR Mission](#)

Airbus Defence and Space will supply its latest generation Solid State Recorder for the NASA-ISRO Synthetic Aperture Radar (NISAR) mission, slated for launch in 2020. The contract was recently signed between Airbus Defence and Space and NASA's Jet Propulsion Laboratory, CA, USA.

### [Astrosat's 'CCTV in the sky' could help Guatemalan farmers fight back against illegal loggers](#)

The blight of illegal timber removal from fragile rainforests could be alleviated by a "CCTV in the sky" being developed by Scottish-based, internationally-operating space services and management company Astrosat.

### [Best of PlanetSAT 15 L8 satellite images from North Africa to the Pacific](#)

Our selection of unusual and unique satellite images from PlanetSAT 15 L8 imagery base map

### [BMT ARGOSS Provides Metocean Support to Energean](#)

BMT ARGOSS (BMT), a subsidiary of BMT Group, the leading international design, engineering and risk management consultancy, has recently completed an assessment of metocean conditions to support Energean's Prinos and Epsilon oil field developments in the Gulf of Kavala.

### [CGG Leads Research on Monitoring of Ground Hazards Affecting Transport Infrastructure](#)

(Paris, France – March 15, 2016 )Leading UK Experts Join Forces to Develop Unique Solutions for Transport Operators.

### [CNES selects Airbus Defence and Space to build instrument for MicroCarb to map CO2 levels](#)

MicroCarb will map global carbon dioxide levels and monitor global warming

### [Copernicus selects CGI for insurance sector information service](#)

London, United Kingdom, 23 February 2016 – CGI to develop a proof of concept to forecast impact of severe wind storms in the next 35 years

### [CropWatch for South Africa](#)

The agricultural sector is crucial to South Africa's socio-economic stability. The sector is sensitive to key issues including climate change, population growth, changes in consumer needs and shifts in the global economy and related markets. Volatility in these key issues is increasing. The result is lowering investment incentives in agriculture and increasing uncertainty within the sector.

### [Data visualization by Globesar](#)

To facilitate visualization, analysis and distribution of our data and products to our customers we have developed a new user friendly web interface.

### [Deimos-2 monitors SpaceX SES-9 launch campaign](#)

Thanks to its high revisit rate capabilities, the Very High Resolution (VHR) Deimos-2 satellite eyed the whole SES-9 campaign, starting from pre-launch operations in early February, capturing the Falcon 9 at the Launch Pad in Cape Canaveral on Feb. 23, 27, 28 and then spotting the drone ship 'Of course I still love you' ready to recover the first stage in the Atlantic Ocean on March 4.

### [e-GEOS has a new CEO](#)

The e-GEOS Board of Directors, a company created by Telespazio (80%) and the Italian Space Agency (20%), appointed Massimo Claudio Comparini as new CEO of the company.

### [e-GEOS to monitor deforestation in Brazil](#)

(12 April 2016) e-GEOS has been awarded, with the Brazilian company Geoambiente, a contract from CENSIPAM (Centro Gestor e Operacional do Sistema de Proteção da Amazonia) to monitor deforestation in the Amazon.

This ESA funded project will develop an EO broker application for the oil and gas sector

#### [Elecnor Deimos focuses in the development of future internet technologies to improve Earth Observation Data processing and distribution](#)

Deimos Space UK is among the presenters at the ESA 2016 conference on Big Data from Space (BiDS'16). Jose J. Ramos will be speaking about how to save money and increase performance deploying big EO data systems on the cloud using technology developed in the ENTICE Horizon 2020 project (<http://www.entice-project.eu>).

#### [Elecnor Deimos UK & European Space Agency Helps New Precision Ag Product Launch](#)

08-Apr-2016 London, by SoilEssentials Ltd. The leading, award-winning, Scottish precision ag specialists based at Hilton of Fern, near Brechin in Angus have chosen Cereals 2016 to launch the new version of their product – EssentialsMap. First launched in 2012, EssentialsMap is an intuitive online farm mapping system allowing customers to manage spatial farm data such as soil sampling, yield mapping and variable rate map production. The new version takes advantage of the wider availability and lower cost of Earth Observation (EO) data to develop this effective online tool.

#### [ESA Director General visiting DHI GRAS](#)

DHI GRAS had the pleasure to welcome the Director General of European Space Agency (ESA), Jan Woerner and his delegation accompanied by delegates from the Danish Agency for Science, Technology and Innovation.

#### [European Space Imaging case study reveals how satellite imagery helps protect UNESCO World Heritage sites](#)

(Munich, 25/01/16) European Space Imaging (EUSI) released a new case study outlining the success of using satellite imagery to help protect UNESCO World Heritage sites this week. Working together with experts at the German Archaeological Institute (DAI) and the German Aerospace Centre (DLR) they explain what high-quality satellite data reveals about the situation on

### [EUROSENSE helps the city of Antwerp \(Belgium\) for the 2nd time in fighting climate change!](#)

For the 2nd time in 6 years, EUROSENSE acquired recently several thousands of thermal images covering the city of Antwerp and some neighboring municipalities. Similar to 2009, these images will be processed into a thermographic map focusing on heat losses through roofs. An easy-to-use interpretation key with corresponding legends, established by means of volunteer measurements on the ground, will help the citizens to check the status of the roof insulation quality of their building. The city actively will use the map to sensitize its citizens about efficient energy use, reducing CO2 exhaust and the fight against climate change.

### [Fighting climate change](#)

(Tuesday, 12 April 2016) Mr Luigi Pasquali (CEO of Telespazio) will participate at "Fighting climate change: Sharing Italy's innovative Technologies"

### [Five reasons to implement the Concurrent Design Platform™ to your engineering processes by Rhea](#)

A collaborative working environment and the open exchange of design information and data are essential for the successful implementation of any project.

### [Fugro has successfully delivered surface current data to characterise conditions in the Gulf of Mexico.](#)

(Houston, TX, USA, 08 Feb 2016) Fugro and technology partner Areté Associates have successfully delivered near real-time, synoptic, surface current data to characterise Loop Current and Loop Current eddy conditions in the US Gulf of Mexico during a period of intense current conditions.

### [GAF completed upgrade of the electronic mining cadastre in Mongolia](#)

GAF AG is pleased to announce the successful system extension and training of more than twenty province officers. Hence provincial administrations can manage licenses for exploration and mining of common minerals through real time on-line access to the central

### [GISAT awarded at the Conference on Big Data from Space](#)

Demonstration of innovative ways how to visualize metadata from Sentinel-1 and Sentinel-2 satellites in 4D using open source libraries within the Web World Wind framework were voted Best Demo and Best Poster at the conference.

### [GISAT participates in the Urban Thematic Exploitation Platform](#)

The ESA-funded initiative of an Urban Thematic Exploitation Platform (U-TEP) aims at bridging the gap between the technology-driven Earth Observation sector and the information needs of urban and environmental science, planning, and policy.

### [Hydrology : monitoring floodwaters by CLS](#)

The two major challenges covering all of these themes are the preservation of environmental resources and ecosystems, and universal access to water (mainly for drinking) and sanitation. In this context, CNES has been commissioned to support the development of satellite applications and services in the field of water, in particular.

### [Improving farm and water management with DMC constellation](#)

In 2011, eLEAF received funding from the Western Cape Department of Agriculture, Hortgro and ESA to start the FruitLook project. The purpose of this project is to provide farmers with an improved knowledge of water and crop management for fruit and wine producing areas of the Western Cape.

### [Improving vegetation representation in Multi-sensor Earth Observation Products through phenology and trait-based priors](#)

How can various aspects of plant trait phenology (such as trait-trait covariance, spatial and temporal variances, and intraspecific variances) be analyzed through remote sensing to create priors for robust vegetation products and analysis?

(31.03.2016) Kongsberg Satellite Services (KSAT) has signed an expanded satellite support agreement with duration until 2042 with the European meteorological organization EUMETSAT. The agreement has, with options, a total value of approximately 550 MNOK in the period from 2016 to 2042.

### [Kongsberg Spaceteq: NewsLetter 11](#)

Sentinel-1A MEOS, Korea water resources, FFi, NSPO...

### [Modeling Cities and Regions as Complex Systems: From Theory to Planning Applications](#)

© VITO. Milestones in scientific modeling of urban dynamics in book by Canadian and VITO experts

### [Pixalytics Blog on "The cost of the data"](#)

Last week, the US and Japan announced free public access to the archive of nearly 3 million images taken by ASTER instrument; previously this data had only been accessible with a nominal fee.

### [Pixalytics Blog: Satellite Data Continuity: Hero or Achilles Heel?](#)

One of satellite remote sensing's greatest strengths is the archive of historical data available, allowing researchers to analyse how areas change over years or even decades – for example, Landsat data has a forty year archive. It is one of the unique aspects of satellite data, which is very difficult to replicate by other measurement methods.

### [Planetek listed top 100 companies in SME Welfare Index Report 2016](#)

Few months has passed Planetek Italia was awarded as best Apulian aerospace company by Premio Industria Felix 2015. On March 2016, Planetek Italia has been listed top 100 Italian companies by the SME Welfare Index Report 2016.

### [Reach>U : Powering Up the Energy](#)

Energy companies need multiple tools for managing,

### [ReSAC successfully fulfilled a project for mapping flood risk and flood hazard for East-Aegean River Basin Directorate, Bulgaria](#)

Remote Sensing Application Center – ReSAC, Bulgaria in a consortium with other organizations finished the project for Mapping flood hazard and flood risk in East Aegean River Basin Directorate (EARBD) in Bulgaria.

### [Rheticus: an Earth monitoring service platform fuelled by Sentinel Data.](#)

Last 15-17 March 2016, Planetek Italia participated the Conference on Big Data from Space 2016 (BiDS'16), held in Santa Cruz de Tenerife, Spain, jointly organized by ESA, EUSC and CCR.

### [Sentinel-1B will complete Europe's "Radar Vision"](#)

- Airbus Defence and Space built C-Band radars will monitor the environment around the clock in all weathers
- Copernicus satellite Sentinel-1B set for launch on 22 April, 2016

### [SENTINEL-3, higher resolution, more detailed data](#)

How can we monitor the effects of global warming, optimize management of our freshwater resources, help traditional local fishermen exploit marine resources in a sustainable way, and ensure a safe route for skippers in solo round-the-world races?

### [Space Growth Partnership report highlights importance of Low Cost Access to Space](#)

(April 2016) A low cost, domestic launch capability will be of significant strategic value to the UK space sector achieving its ambitious growth target, according to a new report published today by the Satellite Applications Catapult.

### [Space4Environment: SPIN – Solar Panel Inspection](#)

New brochure on the airborne inspection of solar Panels using thermography (SPIN – Solar Panel Inspection) is now available.

### [SpaceTec organised a workshop on Climate Change to discuss the evolution of Copernicus](#)

Within the framework of the Next Generation Copernicus Space Component contract launched by DG GROW in June 2015 SpaceTec, with the support of Noveltis and FDC, organised a workshop aimed at identifying specific needs and expectations and likely evolution scenarios for Climate Change-related users in the post-2022 timeframe.

### [Thales Alenia Space has Signed €450 Million ESA Contract to Build Sentinel-3C and D Satellites for Copernicus Program](#)

Cannes, Cote d'Azur, France, 2016/02/09 – Thales Alenia Space is celebrating today the signing with the European Space Agency (ESA), for the contract worth €450 million, to build the Sentinel-3C and D environmental monitoring and oceanographic satellites for the European program Copernicus.

### [UrtheCast's Video of Iran's Space Launch Facility Reveals Increased Activity](#)

Captured on March 2nd by UrtheCast's full-color UHD video camera, Iris, the HD video reveals an increase in activity at Iran's Imam Khomeini space launch facility. The video suggests the potential launch of the Simorgh SLV rocket, which is designed to send satellites into space.

### [User Requirements Gathering for the Next Generation of Copernicus Space Component "Call for Interest" survey Copernicus is the European Union programme for Earth](#)

Copernicus is the European Union programme for Earth observation and monitoring. It provides users with reliable and up-to-date information through a set of services related to environmental and security issues. It consists of a complex system which collects data from multiple sources: earth observation satellites and in situ sensors. All data and information are provided through a free, full and open data policy.

### [Vastitude reseller for COSMO-SkyMed](#)

### Issue Spring 2016

The 2016 EUMETSAT Meteorological Satellite Conference will take place in EUMETSAT's home town of Darmstadt in Germany from 26 to 30 September 2016. This is particularly fitting as 2016 sees the 30th anniversary of EUMETSAT's establishment in 1986.

### 3rd Commercial UAV Show: Europe's largest gathering of the commercial and civilian UAV community.

19-20 October 2016, ExCel, London, UK: This event is a showcase for new civilian and commercial applications for UAVs. Our visitors span the breadth of new users: surveying, photography, mapping, GIS, emergency services, agriculture, utilities, infrastructure and more. Our exhibitors are the world's most innovative UAV and UAV systems manufacturers.

### 5 Dimensions Multi-Purpose Land Information System - 5DMuPLIS

This project developed an advanced 5D Multi-Purpose LIS (Land information System), based on existing 3d packages (traded by the two participating enterprises) for integrating and managing various types of information (financial, architectural, topographical, cadastral, valuation, engineering, ownership, etc.) from governmental, regional and local databases at 3d spatial dimensions + time + scale. The system will allow representations and analysis of real estate properties and man-made features in three physical dimensions (X,Y,Z), through time (planning phase, development phase, registration phase, modification phase, and so on) and at varying scales (level of detail).

### AfriGEOSS Symposium 2016: EO for the Africa we want

A symposium April 27 to 29, 2016 in Zimbabwe offers an opportunity for experts in environmental and development planning, disaster risk reduction and food security to unlock the power of Earth observation tools to make better decisions.

### Astro Digital Releases Platform For Anyone To Analyze Satellite Imagery

by Emily Calandrelli (@TheSpaceGal). Astro Digital, a satellite imaging and imagery analysis company, released the newest version of their image processing software today. Anyone can access their software, for free, and retrieve satellite imagery of any area on Earth. The company also offers an API that developers can use to incorporate satellite data into their products.

### [Belgian Law Formally Creates Association of the European Space Research Establishments](#)

By Caleb Henry [Via Satellite 03-16-2016] Belgian law has formed the Association of the European Space Research Establishments (ESRE) as an international nonprofit organization. Members consist of space research centers in Italy (CIRA), Germany (DLR), Spain (INTA), the Netherlands (NLR) and France (ONERA).

### [Booster](#)

On January 11th 2016, COSPACE (consultation committee between French State and space industry) steering committee approved the labeling of 4 “Boosters” dedicated project enablers, bringing together different actors from space, digital and applications domains.

### [Canada Releases Report Detailing Economic Contributions of Geomatics Sector](#)

The Canadian Geomatics Environmental Scan and Value Study Summary Report provides highlights and key results from two major bodies of work carried out by Hickling Arthurs Low Corporation on behalf of Natural Resources Canada (NRCan). This research represents the most comprehensive assessment of geomatics and geospatial information in Canada to date.

### [Cartosat-2C to boost military surveillance capabilities](#)

A couple of weeks ago, the Cartosat-2C — built at Space Applications Centre (SAC) in Ahmedabad — has been dispatched to ISRO Satellite Centre (ISAC) at Bengaluru after successful rounds of tests and evaluation.

### [China's Forest Recovery Shows Hope for Mitigating Global Climate Change](#)

China's sweeping program to restore forests across the country is working.

### [Commercial UAV Expo Issues Free Report: Surveying and Mapping with UAVs](#)

Commercial UAV Expo today announced the release of their most recent report, titled “Surveying and Mapping

with UAVs.” This free report provides information on the use of UAS technology for surveying and mapping, including key insights into how UAVs are being used today and how they will be utilized in the near future.

### [Commercial UAV Show 2016](#)

An exhibition for new civilian and commercial applications for UAVs.

### [Copernicus Value Chain Workshop](#)

Crowne Plaza, Brussels, Belgium on the 26th and 27th of April 2016

### [Copernicus: The EU's global perspective on climate change](#)

Juan Garcés de Marcilla, Director of Copernicus Services, ECMWF, explains the purpose of the EU's earth observation programme and the economic and moral imperative to act on the insight it provides.

### [Data Being Received From The Sentinel-3A Satellite Is Most Promising](#)

[Satnews] The Sentinel-3A Earth observation satellite, built by Thales Alenia Space as prime contractor on behalf of the European Space Agency for the European Commission's Copernicus program, has reached the stage when all of the satellite's instrument are operating and transmitting their scientific data, in line with the expectations for this global ocean and land monitoring mission

### [DigitalGlobe Bolsters Direct Access Contract with International Customer](#)

[Via Satellite 03-25-2016] DigitalGlobe has reached an agreement with an existing international defense and intelligence customer to convert an existing letter of intent into a definitive agreement. The new agreement extends the customer's contract by four years and adds direct access to the WorldView 3 Earth observation satellite.

### [DigitalGlobe Forms Joint Venture to Develop SmallSats in Saudi Arabia](#)

[Via Satellite 02-22-2016] DigitalGlobe has formed a joint venture with TAQNIA, a firm dedicated to accelerating technology development for the Kingdom

accelerating technology development for the Kingdom of Saudi Arabia. In partnership with King Abdulaziz City for Science and Technology (KACST), to develop a constellation of highly capable small imaging satellites to support the needs of customers around the world. The joint venture will be responsible for developing six or more sub-meter resolution imaging satellites.

### [Drone Technology and Global Markets](#)

The global drone market is expected to grow from \$639.9 million in 2014 to \$725.5 million in 2015. This market is further expected to grow to \$1.2 billion by 2020 with a compound annual growth rate (CAGR) of 11.4% for the forecast period, 2015-2020.

### [ECMWF launches new simulated satellite data product](#)

ECMWF has launched a new dataset called Simulated Satellite Data (SSD), which provides global high-resolution forecasts of the weather as seen from space.

### [Ecopotential: Improving future ecosystems benefits through Earth Observation](#)

The Newsletter is intended to provide information on the Project goals, activities and results, and it will regularly report the progress of the Project. The Newsletter can be downloaded from the Project website, [www.ecopotential-project.eu](http://www.ecopotential-project.eu)

### [EP: EU space policy should focus on civilian possibilities](#)

@ The Parliament. Written by Constanze Krehl on 10 March 2016 in Opinion. Space technologies are instrumental to safeguarding our planet, writes Constanze Krehl.

### [EP: Investing in space is good business](#)

@ The Parliament. Written by Bogdan Andrzej Zdrojewski on 8 March 2016 in Opinion. Space technologies have huge potential, and should be priorities on the European policymaking agenda, says Bogdan Andrzej Zdrojewski.

### [EP: Investment in space sector is 'not an extravagance but a necessity'](#)

@ The Parliament. Written by Jerzy Buzek on 2

February 2015 in Opinion. Promoting the European space market will do wonders both for EU competitiveness and the imagination of teenagers everywhere, writes Jerzy Buzek.

### [EP: Space sector offers new and exciting economic horizons](#)

@ The Parliament. Written by Elżbieta Bieńkowska on 7 March 2016 in Opinion. The EU is losing its competitive edge within the space sector, but the Commission has a plan to remedy this, writes Elżbieta Bieńkowska.

### [Europe launches super satellite to monitor natural disasters](#)

FRANKFURT • Europe has launched the first part of a new space “data highway” that will pave the way for faster monitoring of natural disasters like earthquakes and floods.

### [European Geospatial Business Summit is making its debut](#)

The 1st [European Geospatial Business Summit](#) will be organized alongside Geospatial World Forum starting from May 23-26, 2016, in Rotterdam, The Netherlands. The summit attempts to bring together leaders of European geospatial business and stakeholders and facilitate collaborative business transactions in a two-day event.

## [EUROPEAN SPACE SOLUTIONS](#)

### BRINGING SPACE TO EARTH

30 May – 03 June 2016

The Hague, The Netherlands

### [Free Report Examines UASs in Precision Agriculture](#)

The Commercial UAV Expo published a free report, UAVs in Precision Agriculture, which describes how drone/UAS/UAV technology is reshaping how farmers and growers perform crop scouting, nutrient management, field mapping, drainage assessment and more.

### [Future geospatial business opportunities](#)

(Harsha Vardhan | MAR 28, 2016) Geospatial business

have identified 7 potential areas, where the geospatial industry would actively work in the future, where the business and job market would be. Please note that these are very boarder figures, taken from various published reports.

### [GEO Announces Launch of Early Warning Crop Monitor: A New Tool to Fight Food Insecurity](#)

(March 18) The Group on Earth Observations announced the launch of the Early Warning Crop Monitor, a new tool to fight food insecurity. The announcement was made during the GEO 36th Executive Meeting held in Geneva on 8-9 March.

### [GEO-CRADLE: Coordinating and integrating state-of-the-art Earth Observation Activities in the regions of North Africa, Middle East, and Balkans and Developing Links with GEO related initiatives towards GEOSS](#)

GEO-CRADLE brings together key players fully representing the Region of Interest (Balkans, N. Africa and M. East) and the complete EO value chain therein, with the overarching objective of establishing a multi-regional coordination network that will:

### [Geospatial latest magazine](#)

[link](#)

### [Global Satellite-Based Earth Observation Market 2016-2020 study](#)

Fast Market Research announces the availability of the new TechNavio report, "Global Satellite-based Earth Observation Market 2016-2020", on their comprehensive research portal

### [GOES-R satellite could provide better data for hurricane prediction](#)

The launch of the GOES-R geostationary satellite in October 2016 could herald a new era for predicting hurricanes, according to Penn State researchers. The wealth of information from this new satellite, at time and space scales not previously possible, combined with advanced statistical hurricane prediction models, could enable more accurate predictions in the future.

### [Google's Skybox Imaging renamed to Terra Bella](#)

## Summary

Terra Bella

### Issue Spring 2016

Google has just announced that Skybox Imaging has been renamed Terra Bella. The new name is intended to indicate a change of focus from just a satellite imaging company to pioneering the search for patterns of change in the physical world.

### [How coordination of data can help protect the world's vanishing wetlands](#)

The Earth has lost more than half of its wetland extent since 1900. The satellite-based Wetland Observation Service (SWOS) is working to provide a data portal that will have real-world impacts, helping to track wetland degradation, identify pollution sources, and assess restoration strategies.

### [How we used satellite data to track California wildfires](#)

(By Eric Sagara / March 9, 2016). As different satellites scan the globe, they gather a variety of information. That data gathering, known as remote sensing, regularly is used by scientists, and the data is free and publicly available.

### [Igniting the geospatial revolution](#)

Even if they don't know the term "geospatial" more and more people are using geospatial technology in their daily lives. From hailing an Uber to finding the nearest Starbucks, geoinformation has permeated almost every aspect of our lives.

### [Image Processing and GIS for Remote Sensing. Techniques and Applications. 2nd Edition](#)

Following the successful publication of the 1st edition in 2009, the 2nd edition maintains its aim to provide an application-driven package of essential techniques in image processing and GIS, together with case studies for demonstration and guidance in remote sensing applications.

### [India To Launch Earth Observatory Next Month](#)

NEW DELHI — India will launch its new Earth observation satellite, Cartosat-2C, in May, in an effort to boost the country's military reconnaissance and surveillance capability.

### [Innovative multi-sensor network for DEformation and Seismic Monitoring of Urban Subsidence-prone Areas. INDES MUSA. Change detection using LiDAR point clouds and orthoimages](#)

Following the previous publication concerning the main goal of the research project INnovative multi-sensor network for DEformation and Seismic Monitoring of Urban Subsidence-prone Areas – [INDES MUSA](#), a newly implementation is performed associated with a change detection process.

### [Invitation and Call for Contributions to 1ST ESCAPE Dissemination Workshop](#)

The EU-funded project ESCAPE is part of ECMWF Scalability programme, looking at improving coding

efficiency for both weather and climate modelling. ESCAPE is organising its 1st Dissemination and Training workshop between the 18th and 20th October 2016 in Elsinore, Denmark on the topic of: “Energy-efficient Scalable Algorithms for Weather- and Climate prediction: Status and Prospects”.

### [IPR Helpdesk: Your Guide to IP Commercialisation](#)

Commercialisation is the process of turning products and services into a commercially viable value. Concerning Intellectual Property (IP), this term can be more specifically defined as the process of bringing IP to the market in view of future profits and business growth.

### [Jason-3 begins mapping oceans, sees ongoing El Niño](#)

(16 March 2016) Jason-3, a new U.S.-European oceanography satellite mission with NASA participation, has produced its first complete science map of global sea surface height, capturing the current signal of the 2015-16 El Niño.

### [JAXA satellite to monitor illegal logging in 3 continents](#)

The Japan Aerospace Exploration Agency (JAXA) and the Japan International Cooperation Agency (JICA) are set to begin monitoring rampant illegal logging in tropical rain forests near the equator, using the advanced land observation satellite Daichi-2.

### [MDA Providing Subsystems to Thales Alenia](#)

[Via Satellite 04-05-2016] MacDonald, Dettwiler and Associates (MDA) has signed two contracts with Thales Alenia Space for four subsystems to be installed on the Sentinel 6A, 6B, 3C, and 3D environmental monitoring satellites. The subsystems are dedicated to the satellites' altimetry instruments and provide the satellites with the capability to measure the distance to Earth from the satellite, enabling capabilities such as mapping ocean-surface topography.

### [MDA to provide additional direct access ground station solutions for DigitalGlobe's satellite constellation](#)

RICHMOND, BC, March 29, 2016 /CNW/ – MacDonald, Dettwiler and Associates Ltd. ("MDA" or the "Company") (TSX:MDA), a global communications and information company, today announced that it has been awarded two contracts with a total value of several million dollars from DigitalGlobe Inc. to provide new ground station solutions to two international customers. The ground stations will receive and process imagery and data from DigitalGlobe's satellite constellation, and are also configurable to receive and process data from the RADARSAT-2 Synthetic Aperture Radar satellite, enabling future integration of electro-optical and radar imagery capabilities.

### [Multispectral imaging system returns images from space](#)

February 29, 2016, By James Carroll. Designed by Teledyne DALSA, a multispectral imaging system on board the DMC3 earth imaging satellites, is now returning images from space, in order to aid urban planning and intelligence management based on high-resolution images.

### [NASA Airborne Mission Looks At Fires and Cooling Atlantic Clouds Decks](#)

A new NASA airborne field experiment planned for this summer will make key airborne measurements of clouds and smoke particles over the southeastern Atlantic Ocean to help scientists understand a major challenge to our understanding of climate science.

### [NASA, Japan Make ASTER Earth Data Available At No Cost](#)

As of April 1st 2016, all Earth imagery from a prolific Japanese remote sensing instrument operating aboard

### [New issue of the Mercator Ocean Journal](#)

The latest issue of the Mercator Ocean Journal is now available! You can access it by clicking on this link:  
<http://goo.gl/h3vn89>

### [New service release of the Copernicus Marine Environment Monitoring Service](#)

Copernicus Marine Environment Monitoring Service is pleased to deliver a New Service Release from 13 April 2016.

### [Norwegian Coast Guard demonstration of satellite derived information in the high Arctic](#)

The Norwegian Coast Guard recently took part in a demonstration to test the feasibility of using satellite derived sea ice information products for navigation at high latitudes in the Arctic Ocean.

### [NSR Forecasts \\$175 Billion in Non-Geo Revenue](#)

(By Juliet Van Wagenen | March 25, 2016). [Via Satellite 03-25-2016] Non-Geostationary (NGSO) satellites will contribute \$175 billion to launch and manufacturing revenue in the next 10 years, leading satellite market growth opportunities while accelerating emerging satellite technologies, according to a new Northern Sky Research (NSR) report. NGSO satellites, or anything orbiting at an altitude other than 22,300 miles (36,000 kilometers) in the geostationary arc, are making headlines as of late with new entrants such as O3b — which has launched a growing fleet of Medium Earth Orbit (MEO) satellites — OneWeb, SpaceX and LeoSat all planning sizeable Low Earth Orbit (LEO) telecom systems. More lower profile or unannounced systems are in the works as well, and legacy players, such as Iridium and Globalstar, have either recently completed or are in the process of refreshing NGSO constellations.

### [OGC Announces Oil Spill Response Common Operating Picture Recommended Practice](#)

The Open Geospatial Consortium (OGC®) announces that the International Association of Oil & Gas Producers (IOGP) through the Geomatics Committee and IPIECA (the global oil and gas industry association

for environmental and social issues) have issued, in cooperation with OGC and Resource Data, Inc., the OGC IOGP/IEICA Recommended Practice for a Common Operating Picture for Oil Spill Response.

### [Online Portal Improves Access to Geoscience Data from Africa](#)

The Botswana Geoscience Institute (BGI) is launching a Geoscience Portal that provides free access to multi-disciplinary datasets from Ngamiland, a district in the country's northwest, for a period of one year.

### [PCI Geomatics Expands Partnerships in Southern Africa](#)

MARKHAM, Ontario, Canada – April 14, 2016: PCI Geomatics, a world leading developer of remote sensing and photogrammetric software and systems, announced today a renewed partnership with its reseller for Southern Africa.

### [PCI Geomatics Releases Geomatica 2016](#)

MARKHAM, Ontario, Canada – March 30, 2016: PCI Geomatics, a world leading developer of remote sensing and photogrammetric software and systems, announced today the release of its Geomatica 2016 – the latest version of the company's complete and integrated desktop, geo-image processing software featuring tools for remote sensing, digital photogrammetry, geospatial analysis, mosaicking and more.

### [PCI Geomatics Releases GXL 2016](#)

MARKHAM, Ontario, Canada – March 1, 2016: PCI Geomatics, a world leading developer of remote sensing and photogrammetric software and systems, announced today the release of its Geolmaging Accelerator (GXL) 2016 – the latest version of the company's proven, high-performance, and scalable image processing solution.

### [Potential of Satellite Remote Sensing to Monitor Species Diversity](#)

The importance of measuring species diversity as an indicator of ecosystem health has been long recognized and it seems that satellite remote sensing (SRS) has proven to be one of the most cost-effective approaches to identify biodiversity hotspots and predict changes in species composition.

### [Proceedings of 2016 conference on "Big Data from Space" available](#)

(21 March 2016) The "Big Data from Space" conference was held from the 15th to the 17th of March 2016 at the auditorio de Tenerife (Santa Cruz de Tenerife, Spain), being co-organized by the European Commission, ESA, Joint Research Center of the European Commission (JRC) and the European Union Satellite Centre (SatCen).

### [Recommendations on adding a regional dimension to the European Space Strategy](#)

© NEREUS

### [Remote Sensing Applications Competition \(RSAC 2015\)](#)

Mohammed Bin Rashid Space Centre (MBRSC)  
Remote Sensing Applications Competition (RSAC 2015)

### [Remote Sensing Industry Expanding Commercial Opportunities, Reports BCC Research](#)

WELLESLEY, MA—(Marketwired – April 12, 2016) – The remote sensing community has expanded beyond national space agencies and handful of private companies to include scores of small businesses that specialize in creating customized imagery from free and low-cost government-acquired data. BCC Research reveals in its new report that the while the cost of creating remote sensing products will fall from tens of dollars to as little as pennies, expanded global demand will increase the value of the global business at a double-digit compound annual growth rate (CAGR).

### [Remote Sensing Technologies and Global Markets](#)

The global market for remote sensing products reached \$8.4 billion in 2015. This market should reach nearly \$8.9 billion in 2016 and \$13.8 billion by 2021, a compound annual growth rate (CAGR) of 9.3% over the five-year period from 2016 to 2021.

### [Remote sensing techs and global markets](#)

The industry has experienced an increase of free

The industry has experienced an increase in new software programs for integrating data across different types of platforms and merging it with archival records from multiple private and government sources.

### [Resurs Earth observation satellite climbs to operational orbit, delivers first photos](#)

The Russian Resurs-P No.3 satellite continues its in-orbit testing campaign and delivered its first photos of the planet, despite problems with one of the satellite's solar arrays that failed to fully deploy shortly after launch.

### [Russia to build 2 new remote sensing centres in Arctic](#)

To ensure adequate emergency monitoring in Russia's Arctic, the country will build two new remote sensing centres in the region. The same was confirmed by Russian Emergencies Ministry (EMERCOM) on Wednesday.

### [Satellite data will transform environmental understanding and protection](#)

Information from the Copernicus Earth Observation programme, launched by the European Union and European Space Agency, is being used by Defra to improve understanding of our environment and better inform our work to manage it.

### [Satellite imagery connects the dots for advanced solutions on the ground](#)

When wildfires start blazing across remote parts of South Africa, electricity providers, whose transmission lines can burn up, take a hit. Monitoring every inch of these lines by CCTV or by human eye would be costly, but commercial satellite technology, in combination with data-crunching software and internet connectivity, is equipped to solve this. All the problem needed was someone to connect the dots.

### [Satellite Imagery Reveals Deforestation in the Amazon](#)

Over the past 15 years, satellite imagery has revealed that deforestation has been increasing at an unprecedented rate in the Peruvian Amazon. According to the Environment Ministry of Peru, the high rates of deforestation are attributable to the rise of agroindustrial crops such as coffee, cacao and African palm oil. These 'cash crops' are transforming the

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palm oil. These cash crops are transforming the Amazon rainforest, impacting the local climate, water cycle and biodiversity. Satellite imagery has been used to produce valuable maps which reveal the 'hotspots' where this deforestation is occurring and where the effects are likely to be most prominent.

### [Satellite imagery to assist in monitoring illegal mining activities](#)

5th February 2016 By: Ilan Solomons. Monitoring abandoned mines and illegal mining activities using satellite imagery is now possible, says Hansjörg Eberle, director of Crosstech remediation services provider and subsidiary of the Swiss Foundation for Mine Action.

### [Satellite mapping to boost dairy farming](#)

Dairy farming is the latest addition to the list of traditional businesses that are achieving higher efficiency and productivity through technology.

### [Satellites to help check unauthorised construction at monuments](#)

(16 March 2016) The National Remote Sensing Centre of ISRO has signed an agreement with the Archaeological Survey of India (ASI) for preparing satellite-based maps to help check unauthorised construction around over 3,000 protected monuments

### [Satellogic on its Way to Launching 300 Satellite Constellation for Earth Observation](#)

[Via Satellite 03-17-2016] Small satellite startup Satellogic is on its way to building and orbiting a constellation of 300 Earth Observation (EO) satellites to provide near-real time imagery of the Earth, with the first non-prototype launches slated to occur this year. Having already launched three prototype satellites between 2013 and 2014, Satellogic opened a manufacturing facility in Montevideo, Uruguay last year with the potential to build several dozen satellites per year — something the company feels is necessary to support a constellation of this size.

### [Sentinel satellites offer agri-tech business opportunity](#)

The recent launch of the new Sentinel satellites, part of the European Union's 'Copernicus' Earth observation programme, has the potential to help farmers take precision agriculture to a new level, along with a host of

### [Sentinel-3A impressive first images: Thermal-infrared channels used to view of ocean features off the coast of Namibia](#)

©EUMETSAT. Wednesday, 06 April 2016. Arguably the most comprehensive of all the Copernicus Sentinel missions, Sentinel-3A carries a suite of state-of-the-art instruments to systematically measure the temperature of Earth's oceans, land, ice and atmosphere.

### [Southland advanced earth observation institute proposed](#)

(AMBER-LEIGH WOOLF, March 17 2016) A plan for an advanced earth observation centre in Southland is understood to have made the shortlist for the Government's regional research institutes initiative.

### [Study on Space Market Uptake in Europe](#)

This study, provided by Policy Department A at the request of the ITRE committee, aims to shed light on the potential applicability of data acquired from the EU Galileo and Copernicus satellite systems in both the public and private sector, and on the reasons why such potential still remains largely underutilized.

### [Survey on European Geospatial Business](#)

Contribute to the EU Geospatial Business Outlook Report.

### [Tech giants Apple and Alphabet \(Google\) strengthen spatial capabilities](#)

Tech giants Apple and Alphabet (Google), considered to be the world's two most valuable companies, have both recently sought to strengthen their spatial data capture capabilities with strategic investments into new spatial technologies.

### [Technavio Announces Top Five Vendors in the Global Remote Sensing Satellite Market From 2016 to 2020](#)

LONDON—(BUSINESS WIRE)—Technavio has announced the top five leading vendors in their recent global remote sensing satellite market report. This research report also lists five other prominent vendors

### [UrtheCast and National Geospatial-Intelligence Agency Form R&D Partnership](#)

[Via Satellite 04-04-2016] UrtheCast has formed a Cooperative Research and Development Agreement (CRADA) with the U.S. National Geospatial-Intelligence Agency (NGA) to boost the operational effectiveness of the company's upcoming OptiSAR constellation. The agreement enables the two organizations to collaborate on Research and Development (R&D) related to the primary areas of multi-source fusion, improving/ensuring metric accuracy, and optimizing collection and dissemination strategies.

### [UrtheCast Announces Establishment of a Cooperative Research & Development Agreement with the NGA](#)

UrtheCast Corp. today announced the establishment of a Cooperative Research and Development Agreement (CRADA) with the National Geospatial-Intelligence Agency (NGA).

### [UrtheCast wants 8 satellites on top of 16 Surrey stands to build](#)

by Peter B. de Selding — March 31, 2016. PARIS — Geospatial imaging services provider UrtheCast Corp. of Canada on March 30 gave investors an in-depth look at the company's strategy, including a new eight-satellite constellation addition to the 16-satellite system announced in 2015.

### [USGS Budget Plan to Advance Earth Observations, Hazards Measures](#)

The request for across-the-board increases in fiscal year 2017 also seeks to improve water monitoring and terrain mapping, downsize infrastructure, and grow operations in support of scientific work.

### [Western Europe Landsat 8 Mosaic from Earthstar Geographics](#)

Earthstar Geographics LLC announced the release of their new TerraColor NextGen Landsat 8 satellite image mosaic covering Western Europe. The product is a seamless mosaic of pan-sharpened true color Landsat 8 satellite images from the 2013-2015 time frame that have been carefully processed to provide high quality color and contrast with minimal cloud cover. Coverage

### [What can Sentinels do for regions?](#)

The results of the joint NEREUS-ESA project [Improving Copernicus among Local and Regional Authorities](#) will be presented on Tuesday 28th of June 2016 at the European Parliament, during an event under the auspices of Patrizia Toia, Member of European Parliament and Vice-Chair of the ITRE Committee.

### [Within months, EUMETSAT will begin disseminating the eagerly-awaited marine mission from Sentinel-3A, the latest addition to the EU's Copernicus fleet of earth observation satellites.](#)

©EUMETSAT (Tuesday, 12 April 2016). Following its successful launch and early operations phase, EUMETSAT has been supporting the European Space Agency (ESA) in-orbit commissioning activities, before EUMETSAT takes over routine operations of the spacecraft and processing data at its Sentinel-3 Marine Centre.

### [Workshop Access to Finance for European space industry](#)

(3 May 2016, Brussels) The European Commission organises a second workshop dedicated to Access to Finance for European space industry

## Programmes

### [African Union heads of State and Government adopts the African space policy and strategy](#)

Addis Ababa 31 January 2016- The African Union Heads of State and Government during their Twenty-Sixth Ordinary Session on 31 January 2016 in Addis Ababa adopted the African Space Policy and Strategy as the first of the concrete steps to realize an African Outer space Programme, as one of the flagship programmes of the AU Agenda 2063. They immediately urged the Member States, RECs, Partners and the Commission to raise awareness on the central role of space science and technology in Africa's socio-economic development and mobilize domestic resources for the implementation of this policy and strategy. Adoption of the Space Policy and Strategy has set pace for collective revitalization of African space activities in contribution to the achievements of the overarching Agenda 2063.

[Australia ensured access to Sentinel data](#)

## Summary

[Australia ensures access to Sentinel data](#)

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ESA and Australia's national geological survey, Geoscience Australia, today agreed to cooperate to ensure data from the EU's Sentinel satellites are accessible in Southeast Asia and the South Pacific.

### [Call for dedicated polar Sentinel satellite](#)

European scientists are worried they could soon lose a vital tool for monitoring Earth's ice fields.

### [China successfully launches Beidou-22 satellite](#)

China: With a successful launch of Beidou-22, China on Tuesday conducted its third successful orbital launch of the year. Beidou-22, which is a navigation satellite, was launched by a Long March-3A rocket from the Xichang Satellite Launch Center. The new satellite, the sixth Beidou-2IGSO, is based on the DFH-3 Bus and features a phased array antenna for navigation signals and a laser retroreflector.

### [Egyptian satellite monitoring construction of disputed Ethiopia dam, Africa's largest](#)

Egypt, fearing its access to the Nile river will be hindered, plans to use a new satellite to track Ethiopia's construction of Africa's largest dam.

### [Framework for Satellite Remote Sensing Essential Biodiversity Variables](#)

In a newly published article by the Joint Research Centre of the European Commission (JRC), the researchers examine the concept of satellite remote sensing Essential Biodiversity Variables with their challenges and future directions.

### [Horizon 2020 SME Innovation Associate – Funding PhD recruitment in SMEs](#)

The European Union is taking first steps to help European SMEs and start-ups fund recruitment of the best talent for research and innovation from around the world. The EU will fund the recruitment of post-doctoral research associates from other countries to explore an innovation business idea in the European SMEs and start-ups.

[NASA, Japan Make ASTER Earth Data Available At No Cost Public Will Have](#)

(NASA) – Beginning today, all Earth imagery from a prolific Japanese remote sensing instrument operating aboard NASA's Terra spacecraft since late 1999 is now available to users everywhere at no cost.

### [Open Data Incubator - Opportunities for SMEs to develop Open Data applications](#)

Open Data Incubator for Europe (ODINE) for funding of SMEs with innovative ideas on how to use open data.

### [POLICY: African space policy and strategy](#)

### [Polish Armaments Group signed agreement with National Space Agency of Ukraine](#)

Representatives of Polish Armaments Group (PAG) and National Space Agency of Ukraine (NSAU) signed on March 8 2016 agreement for joint development of Technologies for remote sensing Satellites.

### [Satellite Constellation Designed For The African Continent Is Now Operational](#)

[Satnews] Africa can now rely on the services of a satellite constellation tailored for the continent to provide reliable data over a wide range of essential human activities and for the protection of the environment.

### [Satellites key to monitoring harmful emissions: space agencies](#)

Satellite technology plays a crucial role in measuring greenhouse gas emissions globally, the heads of several space agencies agreed Sunday as they vowed to work together to develop a coordinated monitoring system.

### [Sentinel 3A ides the waves](#)

(04th March) Following the first impressive images from Sentinel-3A's Ocean and Land Colour Instrument, this latest Copernicus satellite is now showing us how another of its instruments, an altimeter, will track sea level change

Part of broader US-Europe science agreement. The U.S. Geological Survey and the European Space Agency (ESA) have established an innovative partnership to enable USGS storage and redistribution of Earth observation data acquired by Copernicus program satellites.

### [Using Copernicus to boost economic activity and business growth](#)

Copernicus is the European Union system for Earth observation (EO). It provides users with reliable and up-to-date data from the Sentinels satellites, in-situ sensors and contributing mission. In addition, the Copernicus programme offers information through a set of services (Land-, Marine- and Atmosphere Monitoring, Emergency Management, Security, and Climate Change). The services' information is prepared by our partners and available on specialised webpages. All data and information are provided through a free, full and open data policy.

### [With £40bn for the taking, SMEs are venturing into space](#)

The UK plans to capture 10% of the global space market and tech startups are being targeted for investment

### [World Bank Launches Platform for Sustainable Cities](#)

Urban areas will play a critical role in achieving sustainable development and combating climate change. Many cities have already taken bold steps to reduce their environmental footprint, and have often been able to do so much more quickly and pro-actively than their national governments.