



## Editorial

June brings the EARSC annual general meeting which is the opportunity to meet and talk with many members of the Association.

Our chairman stepped down and [Chetan Pradhan](#) of CGI was elected as the new chair. I wish to express my personal thanks to [Han Wensink](#) for all the support he has given to me and to the Association over the last 7 years and wish him all the best with his many new ventures. Han will remain as a director and has the goal to extend and increase participation of SME's. [Giovanni Sylos](#) from Planetek was elected as the new vice-chairman and two new directors – [Andre Jadot](#) of Eurosense and [Massimo Comparini](#) of E-Geos – were elected to the [board](#)

[Keep reading...](#)

## Summary

## Issue Summer 2016

### EARSC Activities

### [Add your voice to the EO industry community in Europe](#)

Joining EARSC is a very efficient way of knowing the status of our industry, getting answers, and being active at defending the development of our business.

### [Concept Paper: Industry-led Repository of Open Source. Resources for Geospatial Data Exploitation](#)

In the context of ESA's "EO-Innovation Europe" vision, which has been shared with EARSC and which aligns very well with EARSC EO Marketplace initiative, we have elaborated the following concept paper

### Issue Summer 2016

Deimos Imaging selected by EARSC as the European Earth Observation Company of the Year

Deimos Imaging has been presented with the EARSC Company Achievement Award during the occasion of the pre General Assembly cocktail, held on 21st June in Brussels. We want to thank GAF AG, Planet Germany GmbH and Spacetecpartners for their sponsorship.

### EARSC Annual reports

Read about our activities over the last few months and understand what the Association is doing.

### EARSC contribution to the Copernicus Value Chain Workshop

Summary report and reference materials from the Copernicus Value Chain workshop, 26-27 April 2016, are now available [online](#) and EARSC contributions

### EARSC will participate at the ConnectinGEO and ENEON Workshops

(October 10-14, 2016, Laxenburg, Austria). The ConnectinGEO workshop on gap analysis and prioritization and the ENEON workshop will take place in the week of October 10, 2016 in Laxenburg, Austria. These workshops are co-located with a ConnectinGEO project meeting.

### EARSC will participate at the GEOCRADLE project workshop

A Horizon 2020 funded project, GEO-CRADLE is first and foremost an exciting opportunity to interconnect a regional community of geo-information actors.

### Election Board of Directors of EARSC

On June 22, 2016 EARSC members elected their new chairman and vice-chairman at the occasion of the general assembly of the association.

### EOEP-5 Industry Consultation Workshop: Presentations & Summary Report

ESA in cooperation with EARSC held this Industry Consultation workshop. Conclusions will actively take

### [Interview of Chetan Pradhan at the Copernicus Value Chain Workshop](#)

April 2016: Chetan Pradhan shared the EO services industrial view that will feed into the consultation process in preparation of the upcoming European Space Strategy.

### [Inventory of Private Sector Companies in Earth Observation and Geospatial Fields in Africa](#)

[AARSE](#), the African Association of Remote Sensing of the Environment in cooperation with [EARSC](#) published an inventory of the African private EO and Geospatial industry. We wish to thank the European Commission and Spacetec Partners for their support to this work.

### [Rocket: the Earth in your pocket, selected by EARSC as the European Earth Observation Product of the Year](#)

For the first year, under the umbrella of the EU Framework Program for Research and Innovation [ConnectinGEO project](#), the EARSC competition “European EO product of the year” rewarded a company which has developed the most innovative product integrating an element of open data.

### [The case of Pipeline Monitoring in the Netherlands.](#)

EARSC and The Green Land investigated the benefits brought by the use of satellite imagery to monitor gas pipelines at affordable costs in the Netherlands. Between €15.2m and €18.3m of economic benefit could be made each year in the whole country thanks to this application.

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

Three concrete cases have been analysed in the frame of the study “Assessing the detailed economic benefits derived from Copernicus Earth Observation (EO) data within selected value chains”, undertaken by EARSC under an assignment from the European Space Agency (ESA).

## Industry Profile

### [0 - Astrosat leads the way in the commercialisation of space technology](#)

Astrosat is a leading space services and management company which specialises in earth observation, using data from an impressive array of orbiting satellites to provide services of vital value to countries on several continents.

### [1- Astrosat is ready to solve your earth-bound problems from space](#)

Now Astrosat, one of Europe's most consistently award-winning space services and management companies, is throwing open a challenge to space innovators everywhere to join in the international effort to help realise the possibilities of space.

## Member News

### [AMREL + Airbus Defence & Space Bring GATOR Into The Geospatial Worlds](#)

American Reliance, Inc. (AMREL) and Airbus Defense and Space have partnered to integrate GATOR (Geospatial Appliance Targeted for Operational Response) into a rugged, one-box laptop solution called the GATOR Rugged Geospatial Laptop.

### [\\$22 billion market value for small satellites over next ten years](#)

Paris, Washington D.C., Montreal, Yokohama, July 7, 2016 – According to Euroconsult's latest report, Prospects for the Small Satellite Market, we are on the cusp of a major revolution for the space sector and overall space ecosystem, as more than 3,600 smallsats are expected to be launched over the next ten years, a significant increase from the previous decade. The total market value of these satellites is anticipated to be \$22 billion (manufacture and launch), a 76% increase over that of 2006-2015. This rate of growth is unprecedented for the space sector and will bring about fundamental changes as both new and established industry players attempt to increase their capabilities in order to gain market share.

### [\\$26 Billion Remotely Piloted Aircraft Systems Market by 2025](#)

Paris. Washington D.C.. Montreal. Yokohama. May 31.

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2016 – According to Euroconsult's latest report, Prospects for Remotely Piloted Aircraft Systems, the size of the professional RPAS (Remotely Piloted Aircraft Systems) manufacturing and services market is expected to grow significantly in the next ten years, from \$1 billion in 2015 to \$26 billion in 2025

### [Airbus Defense and Space and 3v Geomatics Partner for TerraSAR-X Imagery Acquisition Program](#)

Airbus Defense and Space and 3v Geomatics Inc. (3v Geomatics) have signed a multi-year agreement that will provide 3v Geomatics with Synthetic Aperture Radar (SAR) imagery acquired by TerraSAR-X and TanDEM-X satellites. Both sensors deliver imagery access with resolution ranging from 25cm to 40m, an unrivalled geometric accuracy combined with the unique ability to collect anywhere in the world, independent of weather conditions.

### [Airbus Defense and Space Recognized by Hexagon for Shaping Smart Change](#)

Airbus Defense and Space has been selected as a 2016 honoree in the Hexagon Shaping Smart Change Recognition Program for their innovative imagery solutions and use of Hexagon technologies. Airbus Defense and Space was recognized during a ceremony held at HxGN LIVE, Hexagon's international conference held June 13-16 at the Anaheim Convention Center in Anaheim, California.

### [Ansur presented at World Humanitarian Summit together with Innovation Norway and NOREPS](#)

AnsuR is one of seven Norwegian suppliers of emergency solutions. Together with Innovation Norway and NOREPS we are present when top executives from around the world meet in Istanbul this week on the world's first humanitarian summit – World Humanitarian Summit.

### [CGG GeoConsulting introduces EARS BasinMap](#)

(Paris, France – June 20, 2016) CGG GeoConsulting's NPA Satellite Mapping group has launched the multi-client EARS BasinMap for exploration de-risking across the vast region of East Africa, from regional-to-prospect or play scale. The EARS BasinMap is part of a new NPA Map product suite that offers world-leading satellite imagery-based geological mapping at different scales on either a proprietary or multi-client basis

### [CLS & Sentinel 1 : Mediterranean pollution](#)

CLS detects oil spills by using satellite radar images, determines the drift trajectories of oil slicks to identify polluters and the possible source of the pollution and finally, supplies the detection report.

### [Coastal Mapping & Monitoring... An EO Opportunity For The O&G Industry](#)

By Dr. Peter Hausknecht, Chief Scientist, Earth-i .

### [Competitive environment, success factors for newspace startups](#)

Paris, Washington D.C., Montreal, Yokohama, July 13, 2016 – Euroconsult’s latest report, Top NewSpace Startups to Watch, assesses 20 startups via business-based criteria in robust individual profiles in order to track their current standing, challenges, and future potential within the rapidly-evolving space/satellite value chain.

### [Contract signed by Airbus, Space UK and ESA to deliver Biomass satellite](#)

The UK arm of Airbus Defence and Space UK has won the contract to build ESA’s Biomass satellite

### [Dam monitoring with InSAR technology](#)

Dams and their associated elements are critical infrastructures due to the need of maintaining uninterrupted operation for ensuring business continuity. Security is a major concern that demands continuous supervision as a dam failure can cause catastrophic loss for the territory. Dam monitoring is therefore a key aspect during the design, construction and maintenance of dams.

### [DHI GRAS awarded by Airbus Defence and Space](#)

The Intelligence team of Airbus Defence and Space hosted their 2016 Channel Partner Conference (CPC) from 11-12 May 2016 in Toulouse, France. During the event, DHI GRAS was awarded the ‘Rising Star 2015’ award for the Northern Europe and Middle East region. This achievement is a continuation of our winning streak, having been awarded the ‘Best Newcomer’

### [e-GEOS, a Copernicus operational hub for geospatial services](#)

The Earth Observation market and the Geospatial information services are continuously growing and changing following the evolution of satellite missions, the new very high resolution image acquisition technologies both Radar and Optical and the proliferation of geospatial information sources.

### [Earth-i and Telespazio Vega Sign Memorandum of Understanding Regarding Data Services Collaboration](#)

26th May 2016 – Westminster, London: Earth-i ([www.earthi.space](http://www.earthi.space)), the innovative UK-based distributor of image and data services from the DMC3 / TripleSat satellite constellation, has signed a Memorandum of Understanding (MoU) with space technology and enabled services specialist, Telespazio VEGA.

### [Emergency preparedness with satellite radar data: The collapse of an embankment section of the River Arno in Florence](#)

A section of the embankment of the River Arno in central Florence collapsed on May 26, sending part of the road and several parked cars into a newly formed ditch, fortunately without harming any people. The hole is about 200m in length and 7m across.

### [EUROSENSE is selected by Dutch Space Office NSO for a research project "KWALUST" on air quality modelling using 3D city models.](#)

EUROSENSE (in cooperation with the Dutch company Hermes) was selected to execute a research project on air quality modelling in cities using detailed 3D city models.

### [exactEarth's First Generation Constellation Expands with Successful Launch of M3MSat](#)

Cambridge, ON – June 22, 2016 – exactEarth Ltd. (TSX: XCT), the leading provider of Satellite AIS data services (Joint-venture of Hisdesat and COMDEV) announces announced today the successful launch of the M3MSat (Maritime Monitoring and Messaging Microsatellite) by the government of Canada. M3M contains a high performance AIS satellite payload and exactEarth has exclusive license with the government



### [GAF to Implement a Geological Data Management Information System in Malawi](#)

The Ministry of Natural Resources, Energy and Mining in Malawi is establishing a Geological Data Management Information System (GDMIS). GAF has been awarded a contract to design and implement the system at the Geological Survey Department (GSD) in Zomba.

### [Image Alert in EarthImages and EarthImages Pro](#)

Image Alert has been a long standing and popular feature of EarthImages.

### [Innovation on show in Pretoria](#)

SANSA, together with Airbus Defence and Space, hosted a World Café at The Innovation Hub in Pretoria, the culmination of an OpenIX open innovation challenge through which over two dozen small companies, entrepreneurs and scientists developed innovative technologies and applications using earth observation data.

### [JO 2016 : CLS provides satellite data to clean RIO Bay](#)

CLS provides for a year of satellite data to help clean the bay of Rio de Janeiro in the run-up of the 2016 Olympics.

### [KSAT signs agreement in Argentina](#)

(01.07.2016) The Norwegian Minister for foreign Affairs, Mr. Børge Brende, witnessed the signing of an Implementing Agreement (IA) between KSAT and VENG SA (a CONAE owned company) Thursday, covering joint activities related to ground station development as well as satellite operations.

### [Launch of a new geo-portal by the Gabon Mining Administration](#)

The geo-portal has been designed and implemented by GAF and its partner Sofreco.



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#### [Monitoring of agricultural crops using Sentinel imagery in the Czech Republic](#)

Gisat has been contracted to implement CzechAgri study focusing on full country demonstration of integrated use of Sentinel 1&2 imagery for agricultural monitoring.

#### [NEUROPUBLIC' s participation at Horizon 2020](#)

Sustainable agriculture, food production systems, safe food production as well as assisting farmers in decision making are the objectives of an innovative proposal submitted in the context of the program "Horizon 2020 – IoT-01-2016 on IoT Large Scale Pilots" by a group of international organizations and companies, including NEUROPUBLIC S.A.

#### [New SAR processing contract](#)

(June 2016) The Norwegian Space Center has awarded Kongsberg Spacetec AS a contract to demonstrate their lightning-fast SAR processor MEOS NRT-SAR.

#### [OneWeb Satellites + Airbus Defense and Space Forge Ahead Selecting Three Subcontractors To Supply 900 Satellites](#)

This ambitious plan is beginning to take form, now that the three companies have been named to begin work on building the 900 satellites.

#### [Remote Sensing and the DIKW Pyramid by Pixalytics](#)

Satellite remote sensing industry is evolving and anyone working in it needs to become familiar with the Data, information, Knowledge, Wisdom (DIKW) pyramid as this is one map, albeit simplistic, of the industry's and our current journey.

#### [Rhea at the Downstream Space Activities to Play a Major Role in Market Growth](#)

The Organization for Economic Co-operation and Development (OECD) and the European Space Agency (ESA) brought together the main private industries and public institutions in the downstream and the space sectors to discuss the "Innovation Drivers in Downstream Space Activities." – See more at:

### [Rheticus®Marine: Cloud based geoinformation services for coastal water quality and marine resources](#)

Coastal zones are among the most productive areas in the world, but at the same time, the excessive exploitation of natural resources puts enormous pressure on our coastal ecosystems, with great risks for the coastal and marine environment.

### [Shelter from the summer sun under legal umbrellas](#)

(Munich, 11/07/16) Planning to take your summer holiday in Santorini? Now, due to a study carried out by TotalView and the Municipality of Santorini based on using very high-resolution satellite imagery you can be rest assured you are sitting under the shade of a legally placed umbrella.

### [space4environment part of consortium on validation and accuracy assessment of Copernicus global land cover and land cover change mapping products](#)

space4environment is part of an international consortium led by IGN-FI that has been awarded a JRC framework contract for the independent validation and accuracy assessment of global land cover and land cover change mapping products.

### [Spacemetric and Sky Eye Innovations partner to deliver nextgeneration inspection tools](#)

STOCKHOLM. To meet the rapidly growing demand for more advanced industrial airborne inspection tools, Sky Eye Innovations, producers of a powerful UAV solution with unique capabilities to control the most advanced sensing technologies on the market, and Spacemetric, a provider of worldclass image data management software solutions, announce the start of a strategic partnership to provide powerful turnkey solutions for collection, storage and management of data from airborne sensors.

### [Spacemetric awarded Copernicus data hub contract](#)

Spacemetric has won an open procurement to build and operate a Copernicus data hub for Sweden's space

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agency, the Swedish National Space Board. The so-called "SWEA" system is being implemented over the coming months with operations commencing already in early 2017.

### [TERRASIGNA's participation in 10th GEO European Projects Workshop 2016](#)

TERRASIGNA representatives participated in the 2016 GEO Workshop for European projects on Earth observation that took place between 31st of May and 2nd of June in Berlin. The event was jointly organized by the European Commission, the Federal Ministry of Transport and Digital Infrastructure of Germany, and the Museum für Naturkunde – Leibniz Institute for Evolution and Biodiversity Science.

### [TRE and ALTAMIRA INFORMATION become TRE ALTAMIRA](#)

Milan, June 21, 2016. Tele-Rilevamento Europa – TRE, a CLS group company since 2015, with a subsidiary in Vancouver (TRE Canada) and ALTAMIRA INFORMATION, formerly acquired by CLS, with a subsidiary in Calgary, officially become TRE ALTAMIRA.

### [Update on the Deimos KORE precision agriculture project](#)

Deimos Space UK is delighted to be leading the KORE (Knowledge, Observation, Response, Evaluation) project, an integrated applications demonstration co-funded by the European Space Agency (ESA), with collaborators SoilEssentials and G2Way.

### [Visit the ACRI-ST](#)

ACRI-ST is a member of the ACRI Group established in 1989, comprising companies that provide services the scope of which spans from satellite remote sensing, ocean & land surveys to hydraulic civil engineering through environmental research Computational Fluid Dynamics and dynamic similitude. The ACRI group consists of a hundred people spread across all office sites.

### [Wine improves with age but also with very high-resolution satellite imagery](#)

(Munich, 24/05/16) Researchers in Greece reveal that using satellite imagery can improve the quality of wine and help manage the arane harvest.

### Earth Observation News

#### [21AT Celebrates Anniversary of the TripleSat Constellation Launch](#)

Twenty First Century Aerospace Technology Co. Ltd (21AT) is the first commercial Earth Observation satellite operator in China and is celebrating the Anniversary of the launch of the TripleSat Constellation (named as Beijing-II in China)

#### [A map of Europe based on Sentinel-2 data updated every month](#)

A new open web map portal was created to present Sentinel 2 data in a 1.1 million km<sup>2</sup> / 17.2 gigapixel image of Europe, to be updated every month. The idea behind is to make available for everyone the best possible cloud-free mosaic of Sentinel-2 images, based on free data from Sentinels Scientific Data Hub.

#### [AARSE members attend the 1st AfriGEOSS Symposium in Zimbabwe](#)

According to Bulelwa Semoli – the 1st Afrigeoss Symposium was a success with a good turnout from 32 African countries. She further notes that “the Afrigeoss supports the implementation of the African Union 2063 Agenda. It provides a platform to implement the Societal Benefits Areas (SBAs) in order to achieve the Sustainable Development Goals (SDGs). It is also important that national and regional GEO initiatives are linked to the AU’s policies in order to make a meaningful impact.”

#### [Amazon Basin Drought Upping Fire Risk](#)

South America’s Amazon basin, El Niño conditions in 2015 and early 2016 reduced rainfall during the wet season, leaving the region drier at the start of the 2016 dry season than any year since 2002.

#### [An enhanced version of our EUMETSAT Earth Observation Portal \(EOP\) has just been released.](#)

With this new release, our [Earth Observation Portal](#) simplified registration to our data access services, with a more user-friendly look and feel.

#### [App developers needed for space project](#)

### [Assessing the Impacts of Building Capacity in the Use of Earth Observations through the NASA DEVELOP Program](#)

With the growing need for interdisciplinary approaches to address environmental and social issues, Earth observations are becoming an increasingly valuable resource. The versatility of Earth observations enables their application to a variety of decision-making situations. With this increased use, there has been emerging interest in quantifying the impacts from these applications. As a capacity-building program that utilizes NASA Earth observations, NASA's DEVELOP National Program has begun to explore such assessments.

### [BAE Systems gets contract to provide assistance in geospatial intelligence services](#)

US: BAE Systems was awarded with a \$75 mn contract from the U.S. Army on Tuesday. The contract was given to provide assistance in development of next-generation geospatial intelligence capabilities for the U.S. Army Intelligence and Security Command.

### [Bayer partners with Planetary Resources to use space data to boost agriculture on Earth](#)

by Taylor Soper on May 31, 2016. German chemical and pharmaceutical giant Bayer today inked a memorandum of understanding with Planetary Resources as part of a deal to utilize satellite images collected by the Redmond-based space startup.

### [BlackSky And United Nations Join Efforts To Create Constellation That Will Help Mankind](#)

BlackSky has plans for a 60-satellite imaging constellation that will partner with the UN Institute For Training and Research (UNITAR).

### [China's Capital Shown to be Subsiding](#)

Researchers using InSAR satellite images (Envisat ASAR images and TerraSAR-X images) have determined that the geology under the city of Beijing is collapsing due to excessive pumping of groundwater. The imagery revealed that the central business district is subsiding by as much as 11 centimeters each year.

On 10 September 2016 about 2000 citizens from 22 European countries will participate in the first Citizens' Debate on Space for Europe. In the course of the day, citizens will have the opportunity to learn, debate, have their say and participate by suggesting priorities on all aspects of current and future space programmes.

### [Combining Imagery Forces Are Sentinel-1A + Sentinel-1B](#)

The twin Sentinel-1 satellites have—for the first time—combined to show their capability for revealing even small deformations in Earth's surface.

### [Copernicus Atmosphere Monitoring Service \(CAMS\) Announces a Major Improvement on Atmosphere Data Accessibility](#)

ATHENS, Greece, June 14, 2016 /PRNewswire/ — At the first CAMS summit in Athens on 14-16 June, ECMWF, in charge of CAMS on behalf of the European Commission, will launch a radically new interactive and ready to use version of its online platform of atmosphere data. Policy makers, scientific and business communities or citizens will benefit from an enhanced free-to-access array of customisable and “live” maps and charts in just a few clicks.

### [DigitalGlobe Foundation Grants](#)

The DigitalGlobe Foundation provides grants for Researchers (who are AARSE members) in the form of imagery, basemap, elevation suite and/or Maps API.

### [DigitalGlobe Shifts WorldView 1 to Afternoon Orbit](#)

[Via Satellite 06-29-2016] DigitalGlobe has completed its 18-month-long transition of the WorldView 1 imaging satellite from a morning orbit to an afternoon orbit. The satellite now passes directly above Earth locations at approximately 1:30 p.m. local time.

### [DigitalGlobe signs contract to provide World Imagery Map for ArcGIS platform](#)

US: Earth imagery provider, DigitalGlobe has signed a contract to provide more World Imagery Map to Esri's ArcGIS platform. The contract will evolve the partnership between the two companies and will provide

### [Earth observation and Innovation and the European Commercial sector](#)

(Brussels, 21-22 September 2016) We want to draw your attention to the above-referenced event so that you can reserve the date in you diary. On 21-22 September 2016, the European Commission (DG Research and Innovation) will organise a second workshop with the European commercial sector with the aim of investigating innovation requirements and related collaborative approaches needed to develop new Earth observation markets in Europe.

### [ECOPOTENTIAL newsletter](#)

### [Enhancing geospatial content through data conflation](#)

Stefano Cavazzi and Gobe Hobona explain how crowdsourced geoinformation can be conflated with authoritative datasets to realise enhanced defence-oriented products

### [EO Data Startup Rezatec Raises \\$1.4 Million for Satellite-Based Analytics](#)

[Via Satellite 04-22-2016] Rezatec, a U.K.-based Earth Observation (EO) data analytics company formed in 2012, has raised more than \$1.4 million in a seed financing round to expand its sales and marketing teams worldwide. Run Capital led the round with support from the Harvard Business School Alumni Angels and existing shareholders.

### [ESPI Releases Space for Sustainable Development Report](#)

By Marc Boucher. The European Space Policy Institute (ESPI) has released ESPI Report 50 "Space for Sustainable Development". The report builds on the Sustainable Development Goals (SDGs) approved by the United Nations General Assembly in 2015.

### [EU Research and Innovation in Support of the Earth Observation Market](#)

Reminder: Ongoing call for expressions of interest to contribute with an oral presentation to the European



### [EUMETSAT & ARGOS agreement](#)

The agreement was signed in the presence of Christophe Vassal, chairman of the Collecte Localisation Satellites (CLS) Board, the operator of ARGOS and a subsidiary formed by CNES and the French Ifremer institute in 1986, which – like EUMETSAT – is celebrating its 30th anniversary this year.

### [EUMETSAT takes over operations of Copernicus Sentinel-3A satellite](#)

After successful completion of in-orbit commissioning, ESA has handed over operations of the Copernicus Sentinel-3A satellite to EUMETSAT

### [Eurisys newsletter](#)

### [European Space Directory 2016](#)

Since 1986, the “European Space Directory” is published each year in March by ESD Partners, formerly SEVIG PRESS.

### [European Space Policy: Space Strategy for Europe: the road ahead](#)

Brussels, 24 & 25 January 2017

### [Europe's SpaceDataHighway Relays First Sentinel Data](#)

The European Space Agency (ESA) released the first Sentinel-1 satellite images sent via the European Data Relay System (EDRS), also known as the SpaceDataHighway.

### [exactEarth and DigitalGlobe partner to combat illegal and unreported fishing](#)

(14 June 2016) exactEarth and DigitalGlobe today announced a strategic alliance to offer joint services to the commercial fishing industry and to aid in the combating of Illegal, Unreported and Unregulated (IUU) fishing.

The Joint Research Center of the European Commission (JRC) published the latest MARS Bulletin: "Crop monitoring in Europe". This report analyses the period from 1 May until 15 June, so when many regions in Europe were experiencing heavy rains and extreme weather conditions.

### [From data sources to end-users – The road for sustainable capacity building in the Balkas, Middle East and North Africa](#)

Earlier in May, the [GEO-CRADLE](#) project organised a dedicated session at the [10th GEO European Projects Workshop](#) in Berlin, to discuss best practices for the sustainable exploitation of capacity building projects. The panel gathered experts from public, private and research sectors to share their lessons learned and present their recommendations for strengthening local EO value chains. From decision makers to the private sector, from data sources to the final user, each stakeholder has a vital role to play in the grander scheme of GEO. Read on...

### [GEO Senior External Relations Manager](#)

The Group on Earth Observations (GEO) is a partnership of 103 governments and 95 organizations that envisions a future where decisions and actions for the benefit of humankind are informed by coordinated, comprehensive and sustained Earth observations. Together, the GEO community is creating a Global Earth Observation System of Systems (GEOSS) that will link Earth observation resources world-wide to inform policies on sustainable development, mitigation and response to the effects of climate change, disaster risk reduction and protection of the environment.

### [GEO-CRADLE 1st NEWSLETTER](#)

GEO-CRADLE brings together key players representing the whole (Balkans, N. Africa and M. East) region with the overarching objective of establishing a multi-regional coordination network (the GEO-CRADLE network) that will support the effective integration of existing EO capacities, and contributes to the improved implementation of GEO, GEOSS, and Copernicus in response to the regional needs.

### [Global geo-information entity urged](#)

26, May 2016, DOHA: The Arab Committee of UN experts on Geographical Information System (GIS)

### [Google brings Earth into better focus](#)

Google's free online mapping service is bringing the world into better focus with an updated version of Earth that takes advantage of photos from a US Landsat 8 satellite.

### [Google Maps And Earth Just Got A Huge Boost: New, More Detailed And Higher Contrast Images](#)

Google has made major upgrades to its popular mapping service Google Maps and its addictive bird's eye view application, Google Earth, giving them fresh imagery from Landsat 8 satellite and new processing techniques for creating even sharper images.

### [International Space Station Ejecting CubeSats](#)

In May 2016, 17 CubeSats were released by the NanoRacks CubeSat Deployer on the International Space Station. The Dove satellites are part of a constellation designed, built and operated by Planet Labs to take Earth images for humanitarian and environmental applications ranging from monitoring deforestation and urbanization to improving natural-disaster relief and agricultural yields in developing nations.

### [It's time for the EU to capitalise on its space investments](#)

Written by Monika Hohlmeier on 1 June 2016 in Opinion. The EU is in need of a strategic vision that can enable the development of space-based applications and services, argues Monika Hohlmeier.

### [Jason-3 Ocean data products become available to all Users](#)

1st July 2016, Today, an important milestone has been passed in the commissioning of the US-European Jason-3 ocean-monitoring mission launched on 17 January 2016 with the release of the near-real time (NRT) Operational Geophysical Data Records (OGDR) and the non-time critical (NTC) Interim Geophysical Data Record (IGDR) to all users.

On July 5th, SI Imaging Services (SIIS) initiated commercial services of KOMPSAT-3A imagery — the satellite is part of the Korean Multipurpose Satellite Program developed and operated by the Korea Aerospace Research Institute (KARI) for Earth Observation (EO) purpose.

#### [Korea's SI Imaging: DigitalGlobe is no longer alone in selling 50-cm imagery](#)

by Peter B. de Selding — July 6, 2016. PARIS – SI Imaging Services (SIIS) of South Korea on July 6 said it had begun commercial sales of imagery from its Kompsat-3A optical Earth observation satellite, making Korea the second nation, after the United States, to put 50-centimeter-class pictures on the open market.

#### [Lombardy Region's Open Innovation Platform \(RIS3\) selected as finalist for 2016 RegioStars Awards](#)

Two other NEREUS Regions (Basilicata and Wallonia) are also among the finalists

#### [Luxembourg taking major stake in Planetary Resources' European business](#)

PARIS — The Luxembourg government has agreed to purchase up to 49 percent of the equity in asteroid-mining company Planetary Resources' Luxembourg operations as part of the effort to make Luxembourg the nexus of space-based resource exploitation, an industry official said. –

#### [Market Report: India's Geospatial Market and Prospects](#)

Geospatial technology is aggressively helping in various sectors in India. The key to its usage lies in data acquisition and visualisation. The report “India's Geospatial Market and Prospects” is an in depth study and analysis of geospatial industry in India. It provides a detailed view of the market; its behaviour and trends related to the consumption and applications of geospatial technology in the region.

#### [Monitoring pipelines from space](#)

Dutch company Orbital Eye has developed a service that uses satellites to monitor gas and oil pipelines. A major African pipeline operator has already signed up

### [MONROSA – Monitoring tropical forests in Costa Rica by observing the Earth](#)

Costa Rica aims to be climate-neutral by 2021 – an ambitious target. This Central American country has been focusing on environmentally friendly development and the sustainable use of natural resources for some years. Satellite observations of the Earth can document the development of land use and the condition of protected areas.

### [NASA designated Landsat-7 Earth observation Satellite as objective for planned Restore-L mission.](#)

NASA is seriously planning robotic service mission on Low Earth Orbit. Since 2009 all NASA efforts which are referring to refueling, tuning or servicing satellites in space are developed by Satellite Servicing Capabilities Office (SSCO). This institution remaining inside NASA is able to use all necessary Technologies developed by Agency to reach its ultimate goal. This objective is to create affordable technology which could be used by U.S. space industry to become a leader in servicing satellite in orbit and change experimental status of present technology to something which is utilized regularly and commercially available.

### [NEREUS The annual Activity Report has been published!](#)

Look into the main highlights of 2015 and have an outlook on 2016

### [New ESA Director of Earth Observation](#)

(14 June 2016) At a restricted meeting of the ESA Council held in Paris mid June Mr Josef Aschbacher was appointed as ESA Director of Earth Observation.

### [OneWeb Satellites completes its industrial organization](#)

- Joint-venture with Airbus Defence and Space to build estimated \$85 million automated facility in Florida to manufacture nearly 900 satellites
- The satellites are designed in Toulouse (France) and series production will be tested there on a prototype assembly line

rasdaman GmbH is world technology leader in Big Data Analytics on Earth Science data. Its flexible, scalable, open, and cost-efficient raster server technology allows to directly manipulate, analyze & remix any-size geospatial data. The unique true multi-dimensional data model supports all types of raster maps, such as x/y/t image timeseries, x/y/z geo tomograms, and x/y/z/t climate and ocean data.

### [Orbital Insight Raises \\$20 Million from Venture Capital Firms](#)

[Via Satellite 06-28-2016] Geospatial big data startup Orbital Insight has raised \$20 million in funding through a \$15 million Series B round and an investment and development agreement from In-Q-Tel. GV, formerly Google Ventures, led the round, with participation from CME Ventures, and existing investors Sequoia Capital, Lux Capital, and Bloomberg Beta.

### [Planet OS Announces Powerboard to Improve Wind Farm Performance](#)

Planet OS, the world's leading provider of online geospatial environmental data, today announced Powerboard, a data intelligence solution that helps wind farm operators and renewable energy service providers to boost power output by up to 30%.

### [Planetary Resources raises funds for Earth observation platform](#)

Posted on May 31, 2016 by Kathy Fey. Space mining company Planetary Resources has plans to refit its asteroid prospecting satellite system to create an Earth observation platform.

According to Gizmag, the observation system, named Ceres, will involve the company's Arkyd spacecraft being outfitted with infrared and hyperspectral sensors. The craft will monitor Earth industries and resources from orbit.

### [SAP Geographical Enablement Framework Simplifies Spatial Processing of Enterprise Business Data](#)

SAN DIEGO, Calif.— SAP SE (NYSE: SAP) today unveiled SAP® Geographical Enablement Framework, powered by SAP HANA®, which helps organizations enrich business applications with geographic data from geographic information systems (GIS), such as Esri

ArcGIS. This announcement was made at the Esri User Conference being held June 27–July 1 in San Diego.

### [Scientists fear wheel loss could cripple satellite](#)

If the malfunction is caused by a hardware failure, there might be no way to repair it, leaving Taiwan dependent on other nations for months

### [SCS AG Signs Earth Observation Contract with UrtheCast](#)

South Africa-based Space Commercial Services Aerospace Group (SCS AG) has acquired the imagery distribution rights for sub-Saharan Africa from UrtheCast. Under the agreement SCS AG provides imagery products from UrtheCast's two cameras on board the International Space Station (ISS) as well as its two Deimos satellites.

### [Sentinel Imagery Now Works Inside ArcGIS](#)

Esri enhanced its ArcGIS technology to simplify the use of free global imagery from the Sentinel-2 satellite launched by the European Space Agency. ArcGIS supports visualization, interpretation, and analysis of Sentinel imagery, which is of significant value in applications for forestry, agriculture, land resources management, and environmental monitoring.

### [Sentinel-1 satellites combine radar vision](#)

The twin Sentinel-1 satellites have – for the first time – combined to show their capability for revealing even small deformations in Earth's surface. Following its orbital manoeuvres, the recently launched Sentinel-1B satellite reached its designated orbit position on 15 June.

### [Solar Sensor Observation Platform](#)

### [Space App Camp Now Open To Programmers To Deliver EO Data To A Broad Audience](#)

An array of Earth Observation (EO) satellites, including the Sentinels involved in Europe's Copernicus program, collect untold amounts of data as they circle our planet.



### [Symposium Explores the Critical Role of Earth Observations Across Africa](#)

(May 23rd, 2016) In April 2016 START Program Specialist, Senay Habtezion, attended the first Symposium of the AfriGEOSS Initiative where earth observation experts met to discuss data access and dissemination across the African continent. Senay wrote a brief update in START's quarterly newsletter. More details and outcomes from the event are now available in this press release from the symposium organizers.

### [Trees do grow on money](#)

Shifts in funding for forest governance mean donors want to see they're achieving results. Richard Tipper and Karin Viergever look at the pros and cons of the different earth observation data available for measuring forest areas

### [Urban sprawl in Europe](#)

There is growing evidence that urban sprawl is having an increasingly negative effect on the environment and on the quality of life across Europe. Existing actions to prevent, contain or control such development have had limited results. Better targeted measures are necessary. That is the main conclusion of a joint European Environment Agency (EEA) and Swiss Federal Office for the Environment (FOEN) report published today.

### [USA Congressmen Scrutinize NOAA for Delaying DigitalGlobe Imagery Approvals](#)

[Via Satellite 06-08-2016] Two U.S. congressmen from the House of Representatives — Lamar Smith, R-Texas, and Brian Babin, R-Texas — have submitted a letter to U.S. Department of Commerce Secretary Penny Pritzker on the National Oceanic and Atmospheric Administration's (NOAA) lack of decision on granting DigitalGlobe a license to fully operate its WorldView 3 remote sensing system.

### [USGS awards multimillion-dollar contract to Atlantic](#)

US: United States Geological Survey (USGS) has awarded a multimillion-dollar contract to Atlantic. The contract was given under the Indefinite Delivery Indefinite Quantity (IDIQ) category for 5 years. According to the contract, Atlantic will complete task

## Summary

According to the contract, Atlantic will complete task orders nationwide to support geospatial needs of the USGS and its partners.

### [Issue Summer 2016](#)

#### [Using sentinel-2 for crop monitoring](#)

Sentinel-2 is the optical satellite of the Copernicus programme. It can be compared to Landsat, although it has a better resolution, of 10 to 20 meters. We'll be using it for crop monitoring with simple vegetation indices.

#### [Where is the money in geospatial industry?](#)

The geospatial industry has been expanding at a breakneck speed with 'geo' getting embedded in more and more workflows. As new innovative players enter the game with disruptive business models, existing players have no choice but to go through a transformation to stay relevant. By Anusuya Datta

#### [World Bank: Earth Observation for Water Resources Management – New report](#)

A Practical Guide for the use of Earth Observation Data  
A Practical Guide for the use of Earth Observation Data

## Programmes

#### [Access to geospatial communication is a key to get user information says, Chief Director of Department of Land Reform, South Africa](#)

In an exclusive interview with GeoBuiz Derek Clarke says that Access to geospatial communication is a key to get user information.

#### [ADPC signs an agreement with UNOOSA to become a UN-SPIDER RSO](#)

The Asian Disaster Preparedness Centre recently signed an agreement with the United Nations Office for Outer Space Affairs to become a Regional Support Office of the UN-SPIDER programme. For three decades ADPC has been devoting efforts to provide technical advisory support to countries in Asia and Asia Pacific in the topics of disaster risk reduction, preparedness, disaster response and recovery.

#### [China to launch 14 meteorological satellites into space](#)

China is planning to launch 14 more meteorological

### [Copernicus Accelerator Seeking Applications](#)

Until July 18, 2016, the European Commission is taking applications from individuals and teams from startups, SMEs, industrial companies, research institutes and universities for its Copernicus Accelerator, which hopes to foster development of commercial space applications and products. Participants will be able to determine the focus of this coaching, such as creating a business plan, acquiring customers, raising capital, etc.

### [ESA's Dragon cooperation with China extended to 2020](#)

ESA and China have Launched the fourth phase of the collaborative Dragon programme in Wuhan City, on the Yangtze River, which recently experienced major floods witnessed by Europe's Sentinel-1 Satellite.

### [EUMETSAT approves new Strategy and move of Meteosat-8 over the Indian Ocean](#)

At its 85th session, the EUMETSAT Council endorsed a new strategy establishing the framework for EUMETSAT activities in the next decade.

### [Free satellite data](#)

Satellite data can be applied for monitoring almost any natural hazard across the globe, and is therefore a crucial component for all phases of the disaster management cycle. More and more satellite imagery is available for free, and the image archives are continuously growing. This is a great data treasure, which is still underexploited for operational disaster and risk management. Some good examples of data usage are outlined below.

### [Greg Scott, Inter-Regional Advisor, UN-GGIM explains, how Geospatial data is important for meeting the SDGs](#)

Greg Scott, Inter-Regional Advisor, UN-GGIM Secretariat explains about importance of Geospatial data is for meeting the SDGs.

### [IAASARS of Greece signs an agreement to become a UN-SPIDER RSO](#)

The Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing (IAASARS), one of the three institutes of the National Observatory of Athens (NOA), recently signed an agreement with the United Nations Office for Outer Space Affairs to become a Regional Support Office of the UN-SPIDER Programme.

### [Indian Government Embarks on Mineral Mapping](#)

The government of India will undergo a detailed mapping effort of all the mineral resources in the country. The country is known as a mineral-rich area with 28 varieties of minerals that include precious stones. The minerals that will be mapped include diamonds, iron ore, coal, limestone, dolomite, tin ore, bauxite and gold.

### [Indian state govt using GPS, satellite mapping to monitor forest cover](#)

India: The state govt of Indian state, Maharashtra, is using GPS and satellite mapping technology to monitor the forest cover in the state. "The government will use GPS and satellite mapping technology to monitor the forest cover. We are keen to introduce such technologies with the help of companies and NGOs in the three next months," state Forest Minister Sudhir Mungantiwar said on July 3.

### [Innovation Showcase: Positioning, Earth observations and Minerals](#)

Geoscience Australia's Innovation Showcase will highlight recent and ongoing geoscience innovations with the potential to influence the Australian Government's ability to use geoscience for more effective decision making:

### [Interview: The European Union's Copernicus Programme and the Middle East](#)

The European Union's Copernicus programme is a boon for analysts and researchers around the world since it provides all of the imagery taken by its Sentinel earth observation satellites for free.

SpaceWatch Middle East interviewed Andreas Veisapak, the acting Head of Unit for Space Data for Societal Challenges and Growth at the European Commission in Brussels, Belgium, about the Copernicus programme and what it means for the Middle East.

### [Iranian Space Agency to launch environmental monitoring satellites](#)

TEHRAN — The Iranian Space Agency (ISA) signed a memorandum of understanding with the Department of Environment (DoE) on Tuesday setting out on launching three environmental monitoring satellites.

### [Joint forces to enhance access to biodiversity monitoring data](#)

Two R&D projects funded by the European Commission, EuMon and EU BON, collected the large database on programmes, data and metadata on biodiversity monitoring in Europe and now the initiative calling out to monitoring programs across Europe and beyond, to join in, provide information about their schemes and share their expertise for the cause.

### [New videos presenting the Copernicus programme are now available](#)

The European Commission recently released two videos presenting the Copernicus programme.

### [NRO planning shift to smaller satellites, new ground system](#)

by Mike Gruss — May 18, 2016. ORLANDO, Florida – The director of the National Reconnaissance Office, which builds and operates the country's spy satellites, said May 18 that the intelligence agency, known for its gigantic satellites, intends to increase its use of cubesats in the near future.

### [OGC – Uniting & Growing a diverse industry](#)

By Mark Reichardt – May 21, 2016. As geospatial data becomes more common and useful to all aspects of commerce and personal activities, users are demanding simple ways to access content, thus turning the focus on interoperability and consistency in service of data. – By Mark Reichardt, Scott Simmons & Simon Chester, Open Geospatial Consortium (OGC).

### [Philippines to put up earth observation center](#)

THE PHILIPPINES is putting up PEDRO (Philippine Earth Data Resource Observation Center), is one of the five components of the PHI-Microsat program of

the components of the FHE microsat program of Department of Science and Technology poised to be the satellite ground station and always ready to receive data and satellite images from Diwata-1 at a speed of 2.4Mbps.

### [Recommendations of the European Space Sciences Committee for the H2020 Space Programme and Space Strategy](#)

The European Commission is working on the 2018-2020 Work Programme for Horizon 2020 – SPACE, as well as is undergoing public consultation on a Space Strategy for Europe.

### [Resolution on Space Market Uptake](#)

(Wednesday, 8 June 2016 – Strasbourg). Adoption of the European Parliament resolution on space market uptake

### [Satellite Imagery Helping to Monitor Cultural Heritage Sites under Threat](#)

30 June 2016, Geneva, Switzerland – Cultural heritage around the world suffers from intentional attacks, collateral damage, looting and the effects of natural disasters. Reaching affected sites and areas quickly to monitor the situation, plan for restoration and prevent further loss often proves very difficult. Thanks to a partnership between UNESCO and the United Nations Institute for Training and Research (UNITAR), satellite images developed through UNITAR's UNOSAT programme in 2015 have been contributing to the work of UNESCO and heritage experts to evaluate and protect sites in Iraq, Syria, Yemen and Nepal.

### [Satellites for Society - Public administrations and satellite services](#)

European national, regional and local public authorities are using satellite data and signals in their everyday activities. They rely on satellites to monitor the environment, improve the efficiency of agricultural practices, better prevent and manage natural hazards, ensure the reliability of transport networks, and for urban planning purposes, among others.

### [Seeing the Impact of Electricity in India](#)

A new web map allows for an interactive view of the impact of electricity in India. The spread of electricity in India has been an ongoing objective for more than 20 years, however, there are still more than 310 million

### [Space agencies of 60 countries agree to engage satellites to monitor greenhouse emission](#)

BENGALURU: For the first time, under the impetus of ISRO and the French Space Agency (CNES), space agencies of over 60 countries have agreed to engage their satellites, to coordinate their methods and their data to monitor human-induced greenhouse gas emissions.

### [Taiwan To Temporarily Gain Access To Japanese Satellite Services](#)

As reported by Milly Lin and Elizabeth Hsu of Focus Taiwan News Channel, Taiwan will seek to use Japan's satellite services until the country's newest satellite, Formosat-5, can be launched later this year, this according to Science and Technology Minister Yang Hung-duen.

### [TECTERRA Funds Additional \\$4.9 Million for Geomatics Innovation in Canada in 2015-16](#)

Calgary, Alberta – TECTERRA Inc. announced today that it had committed \$4.9 million of funds to support the geomatics technology sector in Canada during the last fiscal year, which ended on March 31, 2016. This additional commitment brings TECTERRA's investment in the geomatics industry to over \$37.3 million to date.

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

SUMMARY REPORT. [Source](#)

## Events

### [Events Summer 2016](#)



