

# eoSCAN (April 2023)

## Corporate News

EARSC, the European Association of Remote Sensing companies, is conducting an industry survey to map the state and health of companies providing EO services in Europe. Will you contribute?

- Airbus Intelligence has **partnered** with TerraNIS to export Farmstar, its precision farming and crop monitoring service, outside of France
- Albedo launching very-high-resolution optical imagery instruments along with thermal infrared sensors
- CollectiveCrunch, a Finnish startup building sustainable forestry platform using satellite data among other sources **raised** €1.4M
- Iceye and Satlantis proposing the Tandem4EO constellation to Spain, made up of optical and radar satellites
- Impact Observatory, a US-based startup building global land cover maps from EO data **raised** \$4.9M in seed funding, from investors including Esri
- Galaxeye Space launching a satellite with SAR and optical sensors
- Maxar partnering with Umbra for access to high-resolution SAR imagery and acquiring Aurora Insights for radio frequency signal monitoring
- Meta **released** its Segment Anything Model that automatically extracts objects from images, with huge potential for processing satellite data
- NASA **awarded** Iceye with a contract to provide high-resolution SAR (1m to 15m) data for evaluation within the Commercial SmallSat Data Acquisition program, which includes Planet, Spire & Maxar as **suppliers**
- Planet to enhance their data analysis platform through the acquisition of Sinergise tech. Planet **reported** record Q4 earnings bringing in \$53M and also announced its plans to **acquire** Sinergise, an EO data platform from Slovenia. Planet is partnering with EO platform startup Ursa Space **allowing** access to its daily imagery on Ursa's platform and with environmental software startup Upstream Tech **offering** subscriptions to its basemap product. Planet is also **collaborating** with The Nature Conservancy to build Blue Carbon Explorer, a digital tool to map mangrove and seagrass blue carbon around the world. Planet diversifying into hyperspectral with Tanager instruments
- SatelliteVu, the UK-based thermal infrared satellite startup **received** £300K in public funding from the Energy Entrepreneurs Fund for research on using their datasets for commercial solar farm monitoring
- Satelogic will be building and launching, what looks like, a hyperspectral sensor to orbit **designed** in collaboration with agtech firm InnerPlant
- Sidus Space, a startup offering EO solutions through a space-as-a-service model is **partnering** with SatLab to integrate its automated identification system technology into the LizzieSat multi-sensor satellite constellation
- Tomorrow.io launching precipitation radars and microwave sounders
- UK startup Space Intelligence which builds carbon monitoring solutions from EO data is **partnering** with Everland, a company that manages the world's largest portfolio of forest conservation projects
- Australia's national science agency, CSIRO, **launched** AquaWatch Australia, a a 'weather service' for water quality leveraging EO data
- China's hyperspectral Earth observation satellite put into use. China **launched** four X-band synthetic aperture radar satellites from private company Piesat Information Technology Co. Ltd. focused on interferometry applications
- China **released** public images from one of their more recent satellites, with a thermal infrared imaging instrument, and a hyperspectral imager, aimed at monitoring greenhouse gases and environmental applications
- DEWA's SAT-2 6U nanosatellite to launch in April
- Digital Earth Africa, the EO platform for Africa has **received** additional funding for three more years from its original donors
- Dubai's Electricity and Water Authority will **launch** an EO satellite, Dewa Sat-2, with a multispectral sensor after the first mission Dewa Sat-1, which had an IoT sensor, for planning, operation, and maintenance activities
- Kenya set to launch its first earth observation satellite. Kenya Space Agency to Launch First Operational 3U EO Satellite. Kenya will **launch** an EO satellite, designed and developed by SayariLabs, a Kenyan startup, on SpaceX's upcoming launch
- NASA Administrator Bill Nelson **claimed** that the proposed spending reductions for US fiscal year 2024 could lead to cancellations of planned EO missions in the Earth System Observatory program
- Norway's International Climate and Forest Initiative (NICFI), which provides open access to high resolution satellite imagery of the world's rainforests has been **extended** by a year, until September 2024
- UAE and China have **signed** an MoU to advance meteorological technologies including satellite-based monitoring and China's FengYun program
- The European Commission **launched** the first-ever EU Space Strategy for Security and Defence, which includes a pilot for new EO governmental service as part of the evolution of Copernicus

The Strategic Roadmap developed under the FIREFORUM project reflects the research and innovation strategy, with the EC and Member State funding agencies in mind as the prime audience. Download the pdf version of the road map for the following sectors

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AGRICULTURE	INFRASTRUCTURE	MARINE & MARITIME	RAW MATERIALS	URBAN DEVELOPMENT	WIND ENERGY

- BlackSky **commissioned** its newly launched satellites in less than a day, and integrated the data into its geospatial intelligence platform
- dashboard** of dashboards with climate-related indicators
- Data from NOAA **showed** that greenhouse gases (carbon dioxide, methane and nitrous oxide) continued to rise rapidly in 2022. Data from NOAA also **showed** that the average ocean surface temperature at the beginning of April rose to uncharted levels potentially risk of extreme weather events due to climate change
- Data from ESA's Soil Moisture and Ocean Salinity mission **showed** low levels of soil moisture across Europe (see an example from France below) raising concerns about water supply, agriculture and energy production.
- Digital earth: yesterday, today, and tomorrow
- ESA's SMOS, CryoSat and Swarm missions, which monitor soil moisture, ice and magnetic field respectively among other parameters, have been **extended** at least until the end of 2025
- ESA's HydroGNSS mission, which planned to measure climate variables like soil moisture using a technique called Global Navigation Satellite System (GNSS) reflectometry, **will now** be made up of two satellites (instead of one)
- Former NASA scientist and executive has **joined** the satellite image processing service unit launched by consulting firm, EY
- Hyperspectral Imagery, the technology and its applications
- UNEP MARS, will **detect** at least 40-50 episodes a month and make them public, with data provided by French startup, Kayrros and the Netherlands Institute for Space Research (SRON)
- Maxar **announced** an update to its global basemap, which will now be available at 30 centimeters per pixel. Maxar is also diversifying into imaging other satellites providing data for space situational awareness - **her** e's an image of Landsat 8 from a Maxar satellite (joining companies like HEQ Robotics and AxelSpace)
- NASA's GEDI **mission**, which collects LiDAR data from the ISS, was put in hibernation, but will continue to be operational until at least 2030
- paper** summarising the considerations of EO and artificial intelligence for building agriculture solutions in Sub-Saharan Africa.
- Report** from the UN found that more people are being affected by more disasters because decision-makers are failing to invest in risk mitigation
- Spire Global receives NRO contract for RF data
- The Surface Water and Ocean Topography mission from NASA and CNES, which suffered a minor **setback** is now working as expected and downlinked its **first images** of water on the planet's surface;
- Tomorrow.io **announced** the launch of 'Gale,' the first generative AI product (think ChatGPT) dedicated to weather and climate for businesses and governments to easily identify key trends, risks and opportunities
- BlackSky **launched** two high resolution optical imagery satellites with Rocket Lab, marking an end to its Gen-2 version (90 cm), before moving onto its Gen-3 satellites (50 cm) from 2024
- China **launched** four commercial weather satellites with GNSS radio occultation instruments, part of the Tianmu-1 constellation
- Descartes Labs was **selected** to be one of the technology partners by Comtech, a satellite telecommunications solutions provider
- Space Security Company True Anomaly Emerges From Stealth With \$30M In Financing
- Spire **entered** into a long-term agreement with Switzerland-based ch-aviation, an airline insights platform to supply global flight analytics from its constellation of satellites with ADS-B sensors. Spire Global and PlanetQ, both flying radio occultation instruments, **won** follow-on Indefinite Delivery Indefinite Quantity contracts by NOAA to compete for orders worth \$59M
- The satellite launch vehicle market size is projected to grow from USD 15.7 billion in 2022
- The US National Reconnaissance Office **awarded** contract extensions to Aurora Insight (now **owned** by Maxar), HawkEye360, Kleos Space and Spire to evaluate radio-frequency data from their satellites (it looks like Terran Orbital and Umbra **missed out** after they were selected last year)
- The UK Geospatial Commission **released** a new digital map of underground pipes and cables in the UK
- The TEMPO (Tropospheric Emissions Monitoring of Pollution) **instrument** from NASA aimed at measuring air pollution in North America, will launch later this week hosted on an Intelsat communication satellite
- D-Orbit's IRIDE satellite observation program receives €26-Million contract with ESA. D-Orbit, the Italian space logistics company **signed** a contract with ESA worth €26M to supply and operate one SAR satellite as part of the IRIDE constellation program of Italy (**Thales Alenia Space** was another awardee)
- Google **awarded** a \$5M grant to the World Resources Institute as part of its Impact Challenge to study extreme heat and adaptation techniques, a project that will use EO among other sources
- Measat Wins New Oil and Gas Deal in Malaysia
- NASA Awards Iceye 5-Year Blanket Purchase Agreement
- NOAA has **requested** \$6.8B in funding for FY 2024, an increase of roughly \$450M for future weather satellite programs after reduced funding in 2023
- Thales Alenia Space **won** a contract from ESA to supply five SAR satellites and one optical satellite for the Italian EO constellation, IRIDE, worth €142M along with options for more orders
- US' National Reconnaissance Office **awarded** six study contracts worth \$300,000 each for hyperspectral satellite imagery to BlackSky, HyperSat, Orbital Sidekick, Pixxel, Planet, and Xplore;
- vortex-io, a French startup **received** (in French) a grant of €2.5M from the European Innovation Council to create the first European flood and drought forecasting service with in-situ monitoring sensors

- IPCC report, look no further than [this piece](#) from CarbonBrief
- Geospatial Artha: Indian Geospatial Industry Outlook Report 2022,
- [report](#) presenting the importance of geospatial data for finance
- Airbus Intelligence [webinar](#): Two-Pronged Approach: How Industries Are Using Diverse EO Datasets to Efficiently Improve Insights
- Belgian Earth Observation Day 2023
- Indo-Pacific GeoIntelligence 2023
- Up and above event will take place on 19 April in Brussels
- [online event](#) from Geoawesomeness on EO for deforestation regulation.
- 2nd ISDE International Lectures with the theme of "The Digital Earth(s) of Citizens"
- 13th International Symposia on Digital Earth will be held from 11th to 14th July, 2023 in Athens, Greece ([here](#))

#### Results of 2021 Horizon Europe Calls

- A SAR satellite from Iceye, purchased with the donations from Ukrainians, has [helped](#) detect and destroy thousands of pieces of Russian military equipment in five months of use
- Corteva Agriscience, one of the leading agriculture firms is [collaborating](#) with Ukrainian EO company, EOS Data Analytics to research the use of satellite imagery for crop monitoring applications
- Japanese EO company Axelspace [announced](#) partnerships with Space Compass, a venture building space data relay networks and Tokio Marine Holdings, an insurance firm, along with a new round of undisclosed funding

#### List of capdev meetings at CEOS

[Materials](#) (openly accessible) from ESA's training course on EO (+ an upcoming SAR [course](#) focusing on Polarimetric SAR Interferometry )

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★ contributions from Terrawatch Space