#### **NEWS & EMERGING TECHNOLOGY**

## WORKING TO IMPROVE THE RESILIENCE OF CARIBBEAN WATER SUPPLY

Two major hurricanes devastated the Caribbean in 2017. The resulting damage and disruption to water services had a severe impact on the general population, as well as on essential services. **HR Wallingford** is working on a project to improve the resilience of the Caribbean water supply services sector. The climate risks facing each island's water services sector are unique. Climate risk and vulnerability assessments carried out by HR Wallingford in Grenada and St Kitts and Nevis has revealed these diverse challenges.

In Grenada, the water supply is dominated by surface water systems, which are at risk of damage from sediment laden flood flows during storms that cause regular disruption and outages in the wet season. In St Kitts and Nevis, where groundwater is used more widely, its supply is dependent on reliable electricity. The passage of Hurricane Irma through St Kitts and Nevis disrupted water supplies when power outages prevented the pumping of groundwater.

www.hrwallingford.com



# PIX4D ANNOUNCES PIX4DFIELDS, ITS FIRST FULLY DEDICATED PRODUCT FOR AGRICULTURE

To provide fast and accurate maps while in the field, with a simple yet powerful interface fully dedicated to agriculture, Pix4D decided to create a fully dedicated product for agriculture to go beyond the research and development and create a product that actually understands agriculture. Pix4D are happy to announce Pix4Dfields. Equipped with a new fast processing that provides accurate and instant results and an easy-to-use interface with tools tailored to agricultural workflows, users will be set to cover everything from simple to complex scenarios. Pix4Dfields is currently available as a closed beta, which are opening to select users to test it and provide feedback. The product will evolve at a fast pace with new and updated features being added with every new iteration. Pix4Dfields is currently available for macOS only; next iterations will include Windows support as well. www.pix4d.com

## FUGRO BOOSTS EFFICIENCY OF SUPER SEWER SITE CHARACTERISATION

Fugro's leading expertise in over-water geotechnical characterisation has saved time, cost and congestion during riverbed assessment for London's major sewer upgrade, the **Thames Tideway Tunnel**. The global geoscience leader recently completed two site investigation campaigns for Ferrovial Agroman and Laing O'Rourke, the consortium undertaking construction of the project's central section for client, Tideway. Over a seven-month period work has included drilling, downhole geophysics and testing to depths of 80 metres to provide ground risk and engineering data along a 10-kilometre stretch of the river. Efficiency in cycletime and river transit was crucial in delivering information from over 40 borehole and Cone Penetration Test (CPT) locations in tidal waters to suit the phasing of planning and design. The programme involved 55 bridge manoeuvres negotiating 12 of the Thames' most famous, but also structurally diverse bridges, between Blackfriars and Wandsworth. www.fugro.com

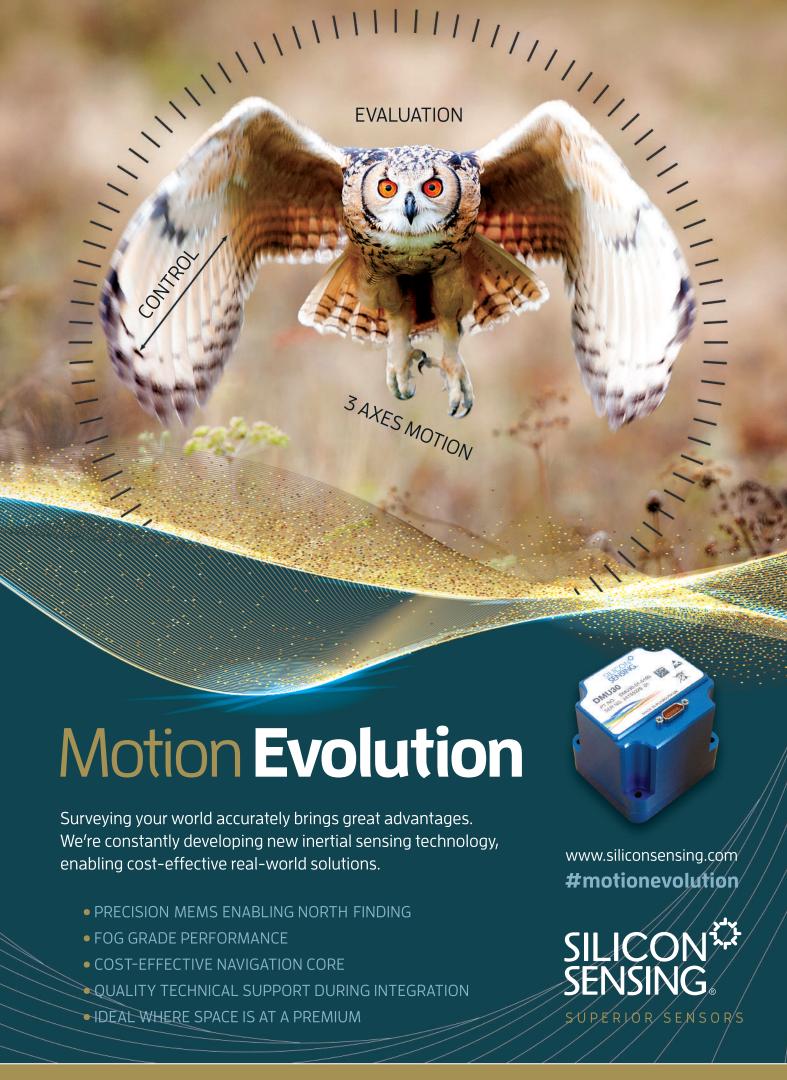


#### COPERNICUS DATA WAREHOUSE OFFERS 40 CM IMAGERY EXCLUSIVELY FROM EUROPEAN SPACE IMAGING

The **Copernicus Data Warehouse** is now offering eligible users the ability to order 40 cm satellite imagery in remarkably guick time frames, thanks to a 24-hour service exclusively available from European Space Imaging and its partner DigitalGlobe. On March 16, the European Space Agency released an updated version of the Copernicus Data Access Portfolio offering 40 cm imagery from the WorldView-3, WorldView-2, and GeoEye-1 satellite missions. This is the highest resolution imagery ever offered to Copernicus users who are eligible to order rush image tasking through the service. These users include the Copernicus Emergency Management Service and the European organisations operating the Copernicus Security Service. Henning Götz, Copernicus Project Manager at European Space Imaging said, "Seeing more of what is actually happening on the ground, or at sea, is vital for improving the situational awareness of any agency tasked with responding to security threats or emergencies."

www.euspaceimaging.com









#### CSA AND HWCG DELIVER RAPID MONITORING SOLUTION FOR O&G OPERATORS

**CSA Ocean Sciences Inc.** (CSA) and **HWCG LLC** collaborated on the design of a deepwater sampling and monitoring equipment program to support the environmental needs of the offshore industry. The equipment program remains containerized, on standby, and ready to be immediately mobilized in the event a deepwater blowout occurs in the U.S. Gulf of Mexico. The offshore oil and gas industry requires access to deepwater equipment, instruments, and services to support environmental monitoring for life of field activities. Equipment and instruments that can probe deepwater areas are highly specialized and require dedicated maintenance, mobilization, and deployment services to ensure utility, safety, and data quality. The solution delivered by CSA and HWCG is a "three lift" system consisting of an Operations Container, Laboratory Container, and Launch and Recovery System (LARS) that can be transported to a Gulf of Mexico seaport within hours of an incident and outfitted on an offshore supply vessel. **www.csaocean.com** 

#### COPERNICUS MASTERS 2018 SUBMISSIONS OPENED 1 APRIL

Copernicus is Europe's most ambitious Earth observation programme and provides full free and open access to data for the development of applications in a wide variety of domains. 10 Petabytes of free **Earth Observation** (EO) data is generated by the Copernicus Programme every year. This data enables the Copernicus services to deliver near-real-time data on a global level, contributing toward the sustainable management of the environment. The data is sourced both from the family of Sentinel satellite missions, and from a multitude of in situ sensors. The **Copernicus Masters** 2018 – Europe's leading innovation competition for EO is searching for such outstanding ideas, applications, and business concepts from future-oriented SMEs, start-ups, universities and individuals in the fields of business, research, and higher education. Participants of the Copernicus Masters can submit their innovative EO ideas to 16 challenges offered by the largest number of world-class partners since the competition started.

www.esa.int/copernicus

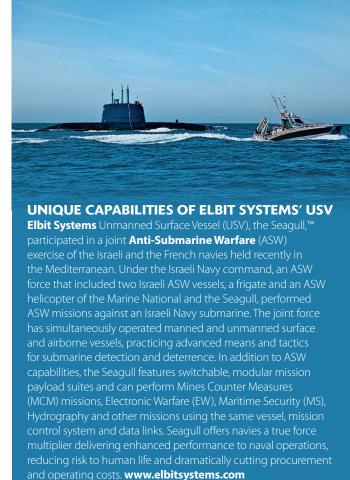
#### PLANETOBSERVER ANNOUNCES RELEASE OF PLANETSAT GLOBAL IMAGERY BASEMAP

PlanetObserver announces the release of the most up-to-date global mosaic processed with recent and cloud-free satellite imagery. With an unmatched 10-meter resolution at the global scale, PlanetSAT Global #2018 mosaic provides accurate geographic information for any part of the world. Users benefit from a seamless view of the Earth in high quality natural colours, for an enhanced visual experience. Very recent Sentinel-2 imagery at 10-metre resolution is used to update all largest urban areas across the world and all capital cities. Continents are updated with new Landsat 8 imagery. All imagery is colour-corrected, optimized and ready-to-use in different professional formats. PlanetSAT Global #2018 mosaic will continue to bring great value to our users across different industries. The mosaic is easy to use in many military, commercial and consumer applications for visualization and simulation solutions, aircraft simulators, geo-intelligence solutions, web-mapping apps, to broadcast and weather graphics systems. www.planetobserver.com

#### TOPCON CONTINUES COMMITMENT TO CLOSING THE SKILLS GAP WITH SURVEY SCHOOL

As members and supporters of **The Survey Association** (TSA), *Topcon* GB & Ireland has been working with The Survey School, the UK's only commercial survey training centre, to ensure students are trained on the latest cutting-edge geopositioning technology. Home to the TSA Surveying course, The Survey School provides practical training to new entrants and those with experience but no formal training within the land survey industry. As part of its ongoing commitment to supporting the development of skills across the construction industries, Topcon has been working with the School's tutors to help bring the latest surveying equipment that's used within the construction industry to students. In the latest phase of the partnership, Topcon has donated a system of advanced survey kit, which includes the Hiper SR Network GNSS receiver, field controller and integrated MAGNET Field software package. **www.topcon.com** 







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# SOLUTIONS FOR PROBLEMS WITH LARGE NTV2 FILES IN GIS AND GEOSOFTWARE



**KilletSoft** provides solutions for problems with large **NTv2** files in GIS and Geosoftware. With a new program and new features of **GeoDLL**, it is possible to copy from very large NTv2 files into smaller NTv2 files. The file sizes of the NTv2 grid files for large area Federal States are enormous and can be reduced. For example, the development by the **Bavarian Surveying Administration**, has a volume of more than 3.18 gigabytes. KilletSoft has developed a tool as part of its GeoDLL, which allows users to copy out a required area from a large NTv2 file by defining corner coordinates. The separated area is placed in a new NTv2 file that is much smaller than the original. Thereby all subgrids whose area intersects the given area are taken into account. The newly generated NTv2 file can now be used as usual in all geodetic programs and GIS. **www.killetsoft.de** 

### ORBIT GT LAUNCHES 3D MAPPING FEATURE EXTRACTION PRO VERSION 18.0.6.

"We're proud to announce that, with this release, our full portfolio has now been upgraded to version 18", says Peter Bonne, **CEO of Orbit GT**. "As version 18 bundles all the expertise and technology to support the various types of 3D mapping techniques, all users of Mobile Mapping, Oblique Mapping, UAS Mapping, Indoor and Terrestrial Mapping, can now use a single integrated tool for managing and exploiting all of their 3D data. This is a true revolution in the 3D Mapping business, providing dramatic improvements in workflow efficiency and overall project management." 3DM Feature Extraction Pro is Orbit GT's high end product, including a ton of tools to assist all users with ease of use, minimal learning curve, all-in-one solution, and assisting procedures up database connections and to QC tools. FE Standard is the workhorse for many 3D Mapping companies and government agencies and is leading the market for over 5 years. www.orbitgt.com

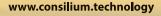
### EFFICIENT DATA COLLECTION FOR CRASH AND CRIME SCENE INVESTIGATORS

Trimble announced the Trimble® Forensics SX10 Solution, a hardware and software data collection and processing system for collision and crime scene reconstruction. The solution includes the **Trimble SX10** scanning total station, with the **Trimble T10 tablet** and **Trimble Capture** field software to enable highly efficient data collection. The Trimble SX10 enables law enforcement agencies to capture evidence faster with fewer station setups so they can clear collisions or crime scenes quickly and restore public safety sooner. Users collect data at the scene and view point clouds immediately in the field, confirming complete coverage. With scans registered in the field using the latest version of Capture field software and viewed on the Trimble T10 tablet, office time and expensive overtime costs are minimized or eliminated. Now investigators can benefit from a single, compact system, designed with input from law enforcement, with workflows specifically created for collision and crime reconstruction. www.trimble.com



#### SATELLITE IMAGERY AND AI SOFTWARE FOR VINEYARD HEALTH IN AUSTRALIA

An Australian-first agricultural artificial intelligence software has combined machine learning and high-resolution satellite imagery to provide wine industry insights into vine health. Geospatial Artificial Intelligence for Agriculture (GAIA) has been developed by Adelaide-based company Consilium Technology, in partnership with DigitalGlobe and Wine Australia. The University of South Australia has also partnered with Consilium Technology for research and development into the product. GAIA's machine learning algorithms analyse the latest satellite images to quickly and easily provide detailed insights including assessing the impact of weather-related damage on vineyards. The software's launch follows recent trials at some of Australia's leading wine regions including Barossa Valley, Margaret River and Tasmania. GAIA's first test will be to accurately map and identify vineyards in Australian wine regions. Growers are expected to have access to GAIA by the next Australian growing season, which begins in September, with plans expand the software into other areas of agriculture beyond viticulture.





## AIRBUS FURTHER STRENGTHENS ITS EARTH OBSERVATION IMAGERY PORTFOLIO

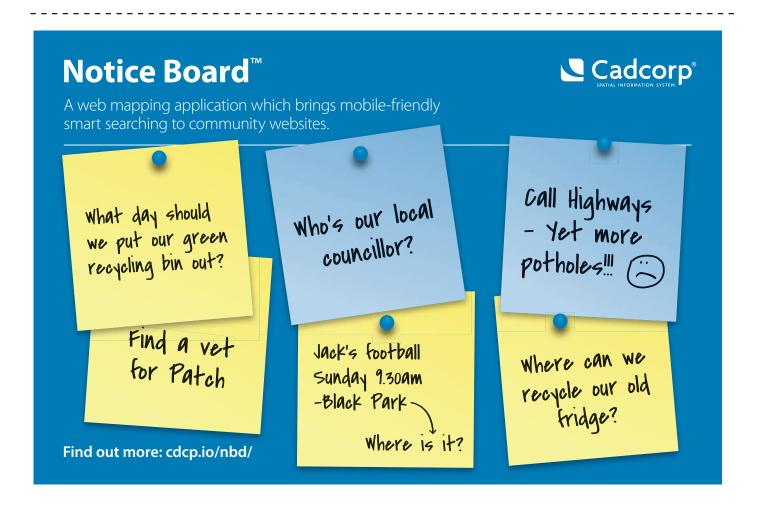
**Airbus** has entered into an agreement with **Twenty First Century Aerospace Technology Co. Ltd** (21AT), the Chinese commercial satellite operator, for the distribution of the images acquired by their TripleSat constellation. The TripleSat constellation consists of three identical very high-resolution Earth observation satellites set 120° apart, travelling around the same orbit. They offer daily monitoring of any place on Earth revealing details as small as 80 centimetres. The satellites were specifically designed to map large area coverage and will therefore reinforce the Pléiades and SPOT satellite capacities, improving access to information in critical situations. On the optical side, Airbus' constellation already comprises the very high-resolution Pléiades 1A and 1B, the high-resolution SPOT 6 and SPOT 7 satellites as well as the DMC constellation. On the radar side, weather-independent satellites such as TerraSAR-X and TanDEM-X were recently joined by the PAZ radar satellite. The constellation is also reinforced by satellite partners such as KazEOSat.

www.airbusdefenceandspace.com



#### **1SPATIAL AWARDED CONTRACT BY THE EUROPEAN UNION SATELLITE CENTRE**

**1Spatial** is pleased to announce that they have been awarded a contract from the **European Union Satellite Centre** (SatCen) in Torrejón de Ardoz (Madrid, Spain) to provide a solution which implements a geospatial data quality workflow based on 1Integrate and 1Integrate for ArcGIS. The workflow automatically validates, enhances, integrates and transforms vector dataset products produced at **SatCen** or obtained from external sources. The **Validation Service** will automate the SatCen rule sets for different vector data products and will be developed using 1Spatial's 1Integrate product and implemented across the SatCen secured environment. In parallel, 1Spatial will also implement another project to transform OpenStreetMap data into SatCen's Data Model, using FME software from Safe Software. **Issam Tannous, Country Manager, 1Spatial France & Belgium** says: "We are delighted to announce this contract with the European Union Satellite Centre and look forward to working with their teams in partnership during the project delivery." **www.1spatial.com** 



www.geoconnexion.com 11

### A NEW GENERATION OF HIGH PRECISION MULTISPECTRAL SENSOR

The combination of **Parrot Sequoia+** with **Pix4D** is an illustration of the combined hardware and software expertise delivered by Parrot Business Solutions. This approach showcases exactly what the Parrot Group brings to professionals, notably in the agricultural sector, by providing high-value drone solutions that are both reliable and affordable, thus offering an optimized user experience. Thanks to Pix4D's new radiometric processing pipeline, Parrot Sequoia+ enables a more consistent evaluation of collected data and improves the user experience by removing the need for a reflectance target. Farmers and agronomists are able to access absolute reflectance measurements, saving them time and providing them with highly accurate vegetation index maps (such as NDVI and NDRE) and in-depth analysis. Parrot's R&D department worked alongside Pix4D to create target-less calibration, enabling very precise crop data capture. Parrot Sequoia+ is available to buy on Parrot's distribution network.

www.parrot.com www.pix4d.com

#### KINESIS CLOCKS UP 2 BILLION COMMERCIAL VEHICLE TRACKED MILES

**Kinesis**, the global vehicle tracking solution, is celebrating a significant milestone recording over 2 billion vehicle tracked miles. Since launching in the UK, Kinesis has installed its state of the art tracking hardware in more than 50,000 vehicles across Europe, Southeast Asia and North America. Providing the latest technology to help manage transport and service vehicles, Kinesis provides real time, online monitoring of vehicle movements with a host of additional live operational data and intelligence. Through an easy to use dashboard or smartphone app, Kinesis offers driver performance and vehicle check reporting, messaging and real time alerts, as well as integration with fuel management and vehicle diagnostics. Additional features include driver performance monitoring, vehicle health monitoring and real time location and event alerts. Kinesis is one of the few telematics solutions to provide fuel use insight with integrated fuel cards, offering accurate mpg (miles per gallon) monitoring for individual vehicles, drivers and journeys. www.kinesisfleet.com

#### GSSI ANNOUNCES NEW SALES RESTRUCTURING TO BETTER SERVE CUSTOMERS

**GSSI** announces a new territorial sales restructuring designed to better serve customers. GSSI has reorganized its sales department into four regional territories to support further growth in its concrete inspection, nondestructive testing, and utility locating markets. With the new structure, application specialists will be based in the Northeast, Southeast, Northwest, and Southwest, making sales staff closer in proximity to customers. In the Northeast territory, Peter Masters will serve as application specialist and has been instrumental to the success of the StructureScan and UtilityScan products. The Southwest territory will be served by Michael Phillips, who recently joined GSSI as an application specialist. The Northwest Territory will be served by **Tom Timperman**, who has been with GSSI for two years as the Search & Rescue Product Specialist. Bruno Silla will serve the Southeast territory. Bruno has been a concrete application specialist with GSSI for four years. www.gssi.com

### HERE TECHNOLOGIES OPENS SELF-DRIVING CAR R&D SITE IN BOULDER, COLORADO

The leading global provider of high-definition maps for autonomous vehicles, **HERE Technologies**, has opened a new R&D facility in Boulder, Colorado. The site brings together experts in geospatial engineering, machine learning and data science to work on cutting-edge processes that enable HERE's HD Live Map to "self-heal". This is where crowdsourced data from live car sensors are used to validate and update the high-definition map, keeping it constantly fresh and accurate. HERE HD Live Map is essential for the overall safety and comfort of autonomous driving. The vehicle relies on the map to localize itself on the road, as well as to better understand the road environment beyond the range of its near-field sensors for strategic path planning. The HERE Boulder team will work closely with colleagues across the world, from Berkeley, California to Berlin, Germany, and join the company's more than 8,500 employees across 56 countries. **www.here.com** 

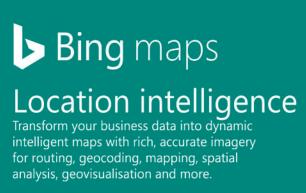


#### **UPDATED GLOBAL MAPPER ACADEMIC LABS NOW AVAILABLE**

**Blue Marble Geographics** is pleased to announce the availability of an update to the Global Mapper Academic Curriculum. Comprised of a series of hands-on lessons, the full package of lab materials is available free of charge to schools and colleges using Global Mapper in the classroom. Developed by Blue Marble Application Specialists, the goal of this program is to streamline the deployment of Global Mapper within the academic community while introducing some of the fundamental principles of GIS, in a concise and understandable way. Institutes of higher education in the U.S. and Canada can install Global Mapper for instructional use at no cost through the Global Mapper Academic Licensing Program. Discounted licensing is also available to academic institutions outside North America. Blue Marble's GIS software is used by hundreds of thousands of satisfied customers throughout the world who need affordable, user-friendly, yet powerful GIS solutions. **www.bluemarblegeo.com** 

## SERCEL DELIVERS TO ALGEOLAND

Sercel announced the delivery of a 25,000-channel 508XT land seismic acquisition system and 15 Nomad 65 Neo broadband vibrators to Algeoland, Algeria's leading private geophysical company. Algeoland will deploy the Sercel equipment to conduct a major 3D seismic survey over a 2,000-km<sup>2</sup> area of the Rhourde-Nouss desert region in north east Algeria, on behalf of the national oil company. The 508XT system drives productivity, data quality and adaptability to an unprecedented level thanks to its X-Tech architecture. Generating high-fidelity low-frequency broadband sweeps down to 1Hz, the all-terrain Nomad 65 Neo is able to contribute to the delivery of higher resolution seismic data. Pascal Rouiller, Sercel CEO, said: "We are pleased to have been selected once again to equip a major land seismic survey in Algeria. Both the 508XT and Nomad 65 Neo have been successfully field-proven in the toughest desert conditions and their deployment will enable Algeoland to achieve the best productivity and reduce operational downtime." www.sercel.com



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#### **OSLO LOOKS INTO THE AUTONOMOUS FUTURE**

Norway's capital Oslo wants to be prepared for autonomous vehicles and new mobility trends. The software tools required for transport planning and modelling are provided by **PTV Group** from Karlsruhe, Germany. The job is to develop a model that helps understand the implications of new forms of transport and trends brought about by the introduction of driverless vehicles. **COWI** has been selected

to identify potential opportunities, risks and implications for urban and transport planning in Oslo and Akershus that may arise from these new mobility trends. Various future scenarios will be examined using PTV software. What is the impact of driverless vehicles that are integrated into the public fleet on the people's mobility behaviour? What happens if everyone owns their own autonomous car so that conventional vehicles are steadily being replaced? What kind of autonomous sharing concepts should be implemented? With PTV MaaS Modeller, it can map and analyse exactly these kinds of scenarios. www.ptvgroup.com



#### SUPERGIS DESKTOP WINS THE HEART OF ROMANIAN CONSULTING FIRMS

After using **SuperGIS Desktop** for years, **SysCAD**, the Romanian surveying consulting firm recommends its business partner, **EcoGIS**, to select the same product. **SuperGeo**, is excited to announce its great result in enlarging its sales in new territories. Headquartered in the suburbs of Bucharest, SysCAD is a Romanian surveying instruments reseller and construction consulting firm. SysCAD possesses a team that has rich experiences both in marketing and technical support. Combining the expertise in GIS, GNSS, and RS, the services provided by SysCAD cover from consultancy in land development and cadastral management to surveying to land use change detection. As a company intensely using GIS software, SysCAD has purchased SuperGIS Desktop since 2015 and applied it to digitize maps and integrate surveying data with GIS data. With the three-year user experience, SysCAD is impressed by the reliable performance, the reasonable price, as well as the capabilities of COGO and land parcel editing of SuperGIS. www.supergeotek.com

#### ASSYSTEM TECHNOLOGIES AND UWINLOC JOIN FORCES

Assystem Technologies, specialised in product engineering and post-development services, and UWINLOC, pioneers of the first battery-less indoor location solution, combine their expertise to accompany industrial customers in their digital transformation seeking advanced geolocation solutions. Patrick Anglard, Chief Technology Officer in charge of Innovation, Assystem Technologies proudly comments: "Assystem Technologies offers cutting-edge engineering services for the improvement of industrial production and the performance of the Supply Chain. This partnership with UWINLOC creates a unique offer to optimize the tracking and flow of industrial assets via new geolocation technology." For Eric Cariou, CEO of UWINLOC: "the UWINLOC solution enables fast and accurate product tracking for tools, manufacturing parts, and other production equipment. Assystem Technologies experts are fully aware of the industrial processes and its constraints, therefore, this collaboration between our teams will include integrated solutions with high added value, responding to important needs of industry players." www.assystem.com www.uwinloc.com

www.geoconnexion.com 13