







VIGISAT CELEBRATES ITS 10 YEAR ANNIVERSARY:

Satellites serving man and his environment November 14th, 2019 at IMT Atlantique

MEDIA KIT

The VIGISAT project has enabled many accomplishments over the past 10 years, such as reducing oil pollution in European waters by half; combating illegal fishing, drug trafficking, and illegal immigration; improving our understanding of extreme weather events like hurricanes; and aiding in the detection of icebergs threatening major ocean races including the Vendée Globe, the Barcelona World Race, and more. It has also created a platform for accessing satellite imagery data for research, training, and business purposes in the fields of land management, oceans, climate, agriculture, and the environment.

VIGISAT is a satellite image acquisition station owned and operated by CNES subsidiary CLS, in parallel with an ambitious scientific project led by IMT Atlantique. Structured around scientific interest group GIS BreTel, VIGISAT gives a network of innovators privileged access to spatial data. This innovative, forward-looking project would not have been possible without the support of the Brittany Region, Brest Métropole, and Europe.

VIGISAT project leaders and stakeholders invite you to look back on 10 years of public/private partnership serving humanity and the environment.

To celebrate this achievement, scientists, businesses, elected officials, project leaders, and stakeholders will gather on November 14, 2019, from 10:30 a.m. to 2 p.m. at IMT Atlantique at 655 avenue du Technopôle 29280 Plouzané to revisit the major milestones on this journey and usher in the next phase of this adventure in space with the signing of an agreement between CNES and the Brittany Region.

For the occasion, Antoine Seillan, CNES committee executive member, and Bernard Pouliquen, Brittany Region vice president in charge of higher education, research, and the digital shift, will sign a framework agreement between CNES and the Brittany Region. The agreement supports the VIGISAT project in particular and strengthens the entire region's commitment to innovation in space.

VIGISAT, keeping an eye on space An operational infrastructure to monitor maritime situations

Ten years ago, with the support of the Brittany Region, Brest Métropole, and Europe, CNES subsidiary CLS partnered with IMT Atlantique to set up VIGISAT, the first and only civilian station for receiving high-resolution radar satellite images on the Technopôle Brest-Iroise site.

VIGISAT is a shining example of how successful public/private partnership can be—and it has the figures to prove it (see next page). VIGISAT is an undisputed triumph in terms of maritime surveillance (radar, optical, and drone imagery), Earth observation, and scientific progress.



Thanks to CLS's operational and real-time capabilities, VIGISAT has joined the tight circle of European maritime satellite surveillance. VIGISAT has helped reduce oil pollution in our European waters by half and is a valuable tool in the fight against illegal fishing, drug trafficking, and illegal immigration. It is also used to improve our understanding of extreme weather events like hurricanes and to detect icebergs threatening major ocean races including the Vendée Globe, the Barcelona World Race, the Brest Atlantiques, and more.



Christophe Vassal, Chairman of the CLS Executive Board:

"VIGISAT is now a key maritime surveillance operational center in Europe supporting state action at sea. Our clients include the European Maritime Safety Agency, the maritime affairs ministries of many countries, major ocean races, and leading offshore energy operators.

Day in, day out, our missions contribute to understanding our planet, managing its resources sustainably, and safeguarding

peace and state sovereignty. All this would not have been possible without the support and collaboration of IMT Atlantique and the backing of the Brittany Region, Brest Métropole, and Europe. We are thrilled to be part of this outstanding community and very proud to be among those working to make our planet—despite the abuse it may suffer—a little bit better every day."

VIGISAT Meeting Earth observation needs in Brittany

VIGISAT is also part of a scientific project led by IMT Atlantic. It is a platform for accessing satellite imagery data



for research and training in the Brittany region.

The project is run by Groupement d'Intérêt Scientifique Brétagne Télédétection (GIS BreTel), a group of 10 academic and public stakeholders from the region's scientific community. VIGISAT has enabled GIS BreTel members to develop innovative data processing methods (AI, big data, etc.) with applications in many fields, including

the environment, climate, agriculture, and maritime and coastal activities.

Paul Friedel, President of IMT Atlantique Bretagne-Pays de la Loire and President of GIS BreTel:

"VIGISAT, driven by the enthusiasm of its stakeholders, can be considered a major step in building an entire 'space' ecosystem in the Brittany region, one that has resolutely put innovation to work for businesses.

At IMT Atlantique, cutting-edge research on the processing and interpretation of remote sensing data uses VIGISAT to conduct macro- and micro-observation of the maritime environment.



The creation of the GIS BreTel scientific interest group in 2009 established the station, and the research projects carried out by regional actors, as a key European infrastructure."

Brittany has a role to play in the future of the space sector

With its substantial scientific ecosystem and numerous startups active in space technology and its applications, the Brittany Region has supported the development of the space sector for more than 10 years.

To further boost this momentum, CNES (Centre National d'Etudes Spatiales) and the Brittany Region will sign a framework partnership agreement on November 14, the anniversary of VIGISAT.



This agreement aims to:

- 1. Support and strengthen the research, expertise, training, and outreach capacities of laboratories, public institutions, and economic actors in Brittany in terms of innovative applications based on spatial data and solutions
- 2. Develop observation and analysis systems to consolidate local expertise in space technology and its applications
- 3. Support the economic development of the region's space technology and applications sector
- 4. Support the dissemination of space technology and its applications in specific areas (maritime operations, land-use planning, agriculture, energy, the environment, mobility, cyber security, the Internet of things, etc.)
- 5. Support public institutions in using space applications for land management, environmental protection, and adaptation to climate change
- 6. Strengthen the national, European, and international positioning of the regional space technology and applications ecosystem

VIGISAT: Key figures



6 satellites transmit data to VIGISAT each day



10,600 pollution reports

sent to the European Maritime Safety Agency by operators of VIGISAT



#6,374 pollution incidents detected in 10

years, in areas ranging from several dozen meters to several dozen kilometers



#1 deterrent system

In 10 years CLEANSEANET has reduced pollution in Europe by half

700 threatening icebergs detected

along the 2016–2017 Vendée Globe race course



50 partners

in academia, research, training, the private sector, and regional bodies in the GIS BreTel ecosystem



#9 research laboratories

using spatial data from VIGISAT for land-use management, oceans, climate, agriculture, the environment, and more



3,000 radar and optical images

delivered to the scientific community in the past 10 years by VIGISAT



#8 training programs for Earth observation

(specialized training in remote sensing and image processing) offered by BreTel GIS



IMT Atlantique Bretagne-Pays de la Loire

École Mines-Télécom

CLS

CLS, a subsidiary of CNES, Ardian, and IFREMER, is a pioneering global company that has provided cutting-edge Earth observation and monitoring solutions since 1986. Its mission is to deploy innovative space-based solutions to understand and protect our planet and manage its resources sustainably. CLS employs 720 people at its headquarters in Toulouse, France, and its 25 other sites around the world. The company works in five strategic areas: sustainable fisheries management, environmental and climate monitoring, maritime security, fleet management, and energy and mining. Media contacts:

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IMT Atlantique

IMT is a leading school of general engineering (among the world's top 400 universities in the THE World University Rankings 2019, 59th university worldwide under 50 years old, and third among French engineering schools). It is known internationally for its research, and is recognized in four disciplines in the Shanghai, QS, and THE rankings. It belongs to Institut Mines-Télécom and operates under the French Ministry of the Economy, Industry and the Digital Sector.

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CNES

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CNES (Centre National d'Etudes Spatiales) is the government agency responsible for shaping and implementing French space policy in Europe. It designs and puts satellites into orbit and invents the space systems of tomorrow; it promotes the emergence of new services useful in everyday life. Founded in 1961, CNES has developed major space projects, launchers, and satellites and is the industry's natural partner for promoting innovation. As a partner of many commercial companies, CNES supports strategic activities and participates in the development of new space applications and uses, thereby contributing to the competitiveness of the French space ecosystem. CNES also forges scientific partnerships and is involved in many international cooperative endeavors. France, represented by CNES, is the main contributor to the European Space Agency (ESA).

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CENTRE NATIONAL

D'ÉTUDES SPATIALES

THE BRITTANY REGION

The Brittany Region has built a regional ecosystem based on satellite technology in a strategic field of pan-European importance. It contributes to observation programs via Contrat de plan État région, VIGISAT, and the GéoBrétagne portal and supports nascent and established firms providing operational services for land and maritime ventures. The Brittany Region has been a member of NEREUS (the Network of European Regions Using Space Technologies) for 10 years.

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GIS BreTel

GIS BreTel is made up of IFREMER, Université de Bretagne Occidentale, ENSTA Bretagne, Université de Bretagne Sud, Université de Rennes 1, Université de Rennes 2, AGROCAMPUS OUEST, École Pratique des Hautes Études, MétéoFrance, and Cerema. Created in 2009 under the impetus of the Brittany Region, GIS BreTel operates the VIGISAT project, which provides satellite data to researchers and consolidates a broad ecosystem dedicated to innovation, training, and the use of satellite applications.