

EO industry is hungry for Innovation

says François Lombard
of Airbus Defence and Space

AIRBUS

*Article extracted from
Geospatial World.
Written on August 8, 2018
By: Anusuya Datta*



Airbus Intelligence is recognized as a World leader in geo-intelligence and delivers geospatial data and services, as well as defense intelligence across a comprehensive range of markets, addressing defence & security, commercial and civil institutional customers. The company is also the No. 1 European supplier of land command and control solutions as well as a lead supplier of ISR and Air Defense solutions to France, Germany and NATO. Based on more than 30 years' experience in Earth Observation and Defence Systems, the company provides decision-makers with sustainable solutions to increase security, optimize mission planning and operations, boost

performance, improve management of natural resources and, last but not least, protect our environment.

Airbus Intelligence is present around the Globe, with subsidiaries and offices in twelve countries across five continents. More than 140 authorized resellers are accredited worldwide, and selected partners operate their own direct receiving stations around the Globe. This ensures a premium customer service through local availability and expertise. In an exclusive, shares François Lombard, SVP, Head, Intelligence Business, Airbus Defence and Space in an exclusive interview.

What are the latest trends in the Earth Observation (EO) industry?

The EO sector is increasingly becoming a strategic, innovative and globally orientated sector, predominantly government-orientated though experiencing increased venture capital/private sector investment. As a consequence, it induces a diversification of funding models to support infrastructure needed due to private/public sector interaction. A related trend is the increased focus of capabilities on achieving societal, security and economic returns on investment.

In commercial terms, the market will increasingly be dominated by operators offering 30cm resolution imagery as standard serving defense intelligence applications as well as to the commercial and civil government sectors. The market will also constantly seek data that is updated and refreshed more consistently and delivered in near real time.

Such imagery will more and more be used as a core enabler within increasingly complex ecosystems: heterogeneous sensors and non-geospatial datasets.



Paris, France, Louvres Museum

The updated imagery, refreshed datasets and multi-source assets have fuelled markets that specialize in analytics and predictive behaviours. At Airbus we are investing in the needs of the market and look towards the future and beyond, with the Pléiades Neo constellation to be launched in 2020, and Zephyr, the High-Altitude Pseudo Satellite which will provide below 20cm resolution and video capacity to help drive these new markets.

It is said the ability of satellites to transform businesses and quality of life is significantly more relevant today than ever. Can you elaborate? How is Airbus helping in this sector?

Satellite imagery and derived datasets have already had a transformative impact on a citizen's quality of life. Urban density, land use, global warming, shorelines, natural disasters, development and retail activity are all examples that can be monitored by earth observation satellites. The quality and access to these datasets are improving, as well as the depth of analytics that can be derived from massive amount of data. As we listen to customer demands, we are expanding on our digital transformation to improve all facets of the geospatial business. Our OneAtlas platform will allow easy access to premium imagery, allow users to perform large-scale image processing, extract industry specific insights and benefit from Airbus assets to develop solutions. Together, OneAtlas will enable

users, businesses and partners to build a better future.

There seems to be a lot of collaboration instead of competition between the satellite and EO players. What is driving this trend?

Collaboration brings more success, and more rapidly. As one resolution cannot fit all needs, one constellation cannot answer all revisit needs. That is why there is a commercial logic to collaboration where assets are complementary. When it comes to the development of new services, and especially analytics, the key is to find the right partners to work with, either the specialist in a given market or through technical compatibilities.

Our recent partnership with Planet is a good example of what can be achieved by combining forces. Our satellites are covering any place on Earth at least once a day at 0.5m and 1.5m, but are not capable of acquiring the entire landmass every day like Planet's Dove constellation. We have complementary assets.

Where do you see the business coming from / developing? What is your business model?

In our former commercial satellite imagery business, we mostly used to support a range of business models for the deployment of satellites and their operation. But today, our customers do not want only pixels or systems. They want us to solve their problems and

create efficiencies or, improvements in their daily activities and operations. Simply put, provide the right information to the right person and at the right time for the right decision, via simple and direct connections. To answer such market expectations, we are developing new services, new ways of doing business and new routes of going to market in order to deliver the actionable intelligence required by our customers.

We are currently in the process of rolling out a comprehensive range of Cloud-based digital solutions which will be made available via the OneAtlas platform. This includes data, processing, thematic services (for precision agriculture, forestry, maritime domain awareness, security and defense), analytics and much more. This platform will also allow easy API access and hosting ecosystem for our partners' algorithms and analytics.

Our business models offer the ability for our customers to procure imagery either directly or through access to our satellites, with a telemetry contract, often as part of a multi-satellite package. We also leverage the quality of our data and expertise of our business by building value-added solutions that serve markets with specialized products. Some of these solutions include Field Maps for precision agriculture, Starling for no-deforestation commitments, Stack Insight for mining evaluations, and many others.



There has been a rise in the number of start-ups and new companies in the last few years. How is this changing the space industry and opening up further innovation? Do you think this speed of expansion is sustainable in the long run for smaller/newer players?

It is exciting to be in an industry that is hungry for innovation. In the long-run, the companies that will be successful will be those that are able to deliver on their commitments and deliver what the customer requires. Airbus is well positioned in this market by virtue of its own capabilities, experience, long-standing customer relationships as well as a willingness to partner to deliver sophisticated offerings to fit customer needs across international markets.

Do you think we are on the verge of new space race where the players, technology and services are as diverse as it is innovative?

Yes, there is clearly more involvement in space and this could be termed a new space race. We are not “on the verge” rather we are in the midst of this race. We are seeing a profusion of initiatives serving many sectors from a range of different technologies.

Do you think cheaper launches, better communication services, easy dissemination of information and new technologies like artificial intelligence have made data cheaper and more accessible?

I think that the key trend we have observed over the recent past is that we are moving from an era where applications were siloed, to a cross-collaborative ecosystem that drives success. There is no doubt that technology is increasingly making data more accessible and there is a general trend that data is less expensive. The challenge that we all face is how to make these enhanced capabilities provide services that are better valued. Airbus is a perfect example of a company who is into all these areas.



Could you explain how your various divisions/platforms and interdependence have made data more accessible to people?

It is true that Airbus has a diverse portfolio and is positioned across the value-chain. Our business relies upon the ability of Airbus to produce world-class imagery, may they come from satellite, UAVs or Zephyr, and how we process and analyse them to transform them into actionable intelligence. Our remit is to work within the Airbus ecosystem and to maintain strong investment to grow our satellite constellation and our digital business through several industries. As an example, Pléiades Neo will offer enhanced performance and the highest reactivity in the market thanks to their direct access to the data relay communication system, known as the SpaceDataHighway, which is also developed by Airbus.

With so many satellites in space, do you think we have a deluge of data now which we do not know how to make sense of?

There has clearly been an expansion in the volume of data provision. It is also true that more and more emphasis is placed upon how to better process, fuse and analyse this data. Airbus is driving this activity with our efforts to deploy data processing capabilities on the Cloud through solutions like Pixel Factory Neo in the coming months. We are also developing our own multi-

source and Cloud-deployed analytical capabilities to services industries such as defense, maritime surveillance or precision farming.

With Field Maps for example, customers can have direct access to satellite images acquired on their fields, as well as biomass and nitrogen information characterizing crop status, and which can easily be integrated into agrometeorological models to elaborate practical farming recommendations. Access to lots of satellite data, with the capacity to go back in time is also valuable to establish abacus. That's how we develop our Fodder Production Index for monitoring grass production, using more than 10-year archived imagery over France to estimate, month after month, the fodder development, and therefore determine thresholds for possible lack of production, which could lead to severe troubles for farmers. This index is already being used by most of the French insurance companies, with data being acquired every 10 days.

Do you think democratization and commercialization of data can go hand-in-hand?

There is no choice. We have to continue the innovation on business models that make this possible. An essential component of this will be continued engagement between the public and private sectors.

Airbus Defence and Space

Australia, Brazil, China, Finland, France, Germany, Hungary, Singapore, Spain,

United Kingdom, United States

PLEIADES © CNES 2018, Distribution Airbus DS

© Airbus DS 2017

Twitter @AirbusDefence

www.intelligence-airbusds.com

AIRBUS