Intelligence solutions for the oil, gas and mining industry
Out of this world Intelligence

Feasibility
Our value-added services, such as geographical studies and seismic planning, can be augmented with our extensive archive of satellite imagery to provide reliable cost and risk minimizing solutions to discover and examine potential resource leads.
Our unique satellite constellation, combined with over 30 years’ experience in Intelligence, make us the perfect partner for oil, gas and mining organisations throughout the entire project lifecycle.

**Exploration**
Intelligence solutions, such as the world’s leading Global Seeps database and highly accurate terrain elevation data, including WorldDEM™, have become key tools to support conventional survey techniques when assessing future exploration opportunities.

**Development**
Our high-precision digital elevation models and mapping solutions support the accurate planning and construction of assets, identifying the shortest and safest route, and most suitable locations for your infrastructure planning activities.

**Production**
With unique access to our satellite constellation, we offer unrivalled solutions to monitor your global production assets, keeping you informed in near real time wherever you are, enabling you to react quickly.

**Decommissioning**
Our range of remote observation services enables our clients to cost-effectively monitor decommissioned assets all around the world, helping to reduce the potential for environmental damage, whilst maximising security.
Feasibility

How can we be the first to find and evaluate leads?
With oil, gas and mining resources being located in some of the world’s most inaccessible or inhospitable regions, our Intelligence products, services and expertise provide crucial tools to cost-effectively identify and assess leads.

**Geological Studies**
*Full geological understanding of a region*

Off-the-shelf and custom geological interpretation studies deliver cost-effective mapping and geological interpretation, including fracture and structural analysis.

**Seismic Planning**
*The essential risk-ranking tool*

Our industry-leading seismic mapping service integrates satellite imagery, digital elevation models and derived information to analyse and characterise near-surface effects on seismic quality for planning purposes.

**Extensive Imagery Archive**
*Adding clarity to your business decisions*

Our 30-year+ archive offers a cost-effective and extensive variety of imagery, all delivered directly to your desktop, 24/7. The images provide reliable baseline data to assess your area of interest, changes in the region and to map infrastructure.

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**Did you know that...**

With an estimated 75–85 billion recoverable barrels, Ghawar in Saudi Arabia represents the world’s largest oil field.
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Exploration

How do we validate and prioritise our opportunities?
When exploring new regions and trying to identify new leads, you need cost-effective and accurate tools in order to minimise risk. Our premium Intelligence products, services and expertise provide the most accurate, reliable and timely information possible.

**WorldDEM™**

Elevation 1–30
Accurate terrain elevation products

Our satellite-based Digital Elevation Models (DEM) provide you with a vertical accuracy down to 1 metre and the scope to assess terrain, regardless of weather conditions, vegetation or man-made structures to support you during feasibility, exploration and development of your project.

**Global Seeps**
The world’s leading oil slick database

Characterise slick types and confidence levels prior to entering licensing rounds and before offshore exploration with Global Seeps. Our annual subscription service gives you access to every identified potential seepage slick around the world and is continually updated.

**Did you know that…**

Most of the oil found in the ocean has been released naturally from the ocean floor; along the California Coast an estimated 2,000 to 3,000 gallons of crude oil is released from the seabed every day.

**WorldDEM™**
Standardised pole-to-pole elevation data

A worldwide, homogeneous, standardised Digital Elevation Model (DEM) with seamless regional or national coverage based on high-resolution radar interferometer data to get a better understanding of the terrain and support your exploration planning.
How do we minimise cost and risk when developing our assets?
During development when constructing new wells and large-scale infrastructure, as well as defining best pipeline routes in inaccessible areas, our specific products and services provide the accurate and up-to-date information you need about the surrounding landscape, helping you make informed decisions and minimise both risk and costs.

**Elevation 1**

Highly accurate digital elevation model

Tailored to your specific area of interest, Elevation 1 provides highly detailed and accurate elevation data. Ideally suited for pipeline and infrastructure planning and the development of your operations.

**Environmental Monitoring Services**

Environmental analysis and assessment

Our cost-effective tools enable you to assess your environmental footprint and react to environmental risks, thanks to rapid information of the world’s most remote onshore or offshore areas.

**24/7 Emergency Response**

Ultimate reactivity to specific challenges

Our highly experienced team is available 24/7 to provide the best solution for your specific needs, supporting you with the highest level of reactivity and delivery of products, and expertise in response to an incident.

**Did you know that...**

When added together, the US’s natural gas distribution pipelines would stretch from the Earth to the Moon 7 to 8 times.
Production

How do we cost-effectively monitor our global assets?
Enabling rapid and automated access to the latest imagery of your global locations, our specific solutions and services allow you to proactively monitor site activity and react quickly in emergency situations, minimising down-time and reputational risk.

SAFEcommand™
Our easy-to-use GIS-based communication network increases the efficiency of your operation and response, providing asset tracking, satellite communications and data management tools.

Instant Tasking
Premium acquisition and delivery
Take control and task a satellite for acquisition of the image coverage and resolution you need in minutes from the comfort of your desk, 24/7, to ensure an ultimate level of reactivity.

Mine Monitoring
Stay informed and ready to respond
Measure the volume of minerals extracted and track changes across your assets without the risks and costs associated with having staff on site.

Did you know that...
With estimated reserves of over 70 million ounces, Grasberg, in the Papua province of Indonesia, is currently the world’s largest gold mine.
Decommissioning

How do we measure and reduce our impact on the environment?
When a project comes to the end of its life cycle and production ceases, we continue to play an important role, providing cost-effective tools for security, environmental monitoring, as well as change analysis, actively supporting the reporting and demonstration of environmental and project compliance.

Did you know that…
Over 800 wells are scheduled for plugging and decommissioning in the North Sea in the next seven years.

Change Detection
Automatic change identification service

Based on the latest technical advancements, our change detection service automatically identifies the location of potential change, targeting and delivering relevant information on evolutions of your field quickly.

Environmental Mapping
Assessment of site abandonment

Eliminating the need to visit decommissioned sites, we have a competitive and remote tool to follow completion of your assets, as well as demonstrating license compliance.

Surface Movement Monitoring (SMM)
Surface changes in millimetre precision

Periodically updating changes of complex or small-scale surfaces with millimetre precision, SMM offers high revisit rates with an added option of expert interpretation – a cost-effective solution to monitor your area of interest.
Our Constellation

Pléiades

Rapid delivery and very high resolution

Pléiades 1A and 1B operate as a constellation in the same orbit, phased 180° apart. The identical twin satellites deliver very-high-resolution optical data products with an unrivaled reliability when it comes to collecting a new image.

Features

Very-high-resolution multi-spectral twin satellites [50cm products].
Daily revisit capacity and highly reactive tasking.
Advanced agility and truly available capacity.
Stereo/Tristereo capacity and archive.
### SPOT

**The ideal solution for country-wide, demanding applications**

The SPOT 6/7 constellation is specifically designed to efficiently cover huge areas in record time. National map series are now de-facto updated free from seasonal effects, to support you in large-scale cartographic and land monitoring applications.

**Features**
- Daily capacity of 6 million km.
- Twin high-resolution multi-spectral satellites [1.5m products].
- Daily revisit capacity everywhere.
- Stereo/Tristereo capacity and archive.

### DMC

**Rapid and cost-effective continental screening**

The DMC Constellation provides timely coverage and rapid revisit times for the largest countries or entire continents. It is the cost-effective solution for large-scale disaster management.

**Features**
- Vast daily collection capacity, with extra-large image footprint.
- 3-medium resolution clone satellites.
- 22m spatial resolution (GSD) with 3 spectral bands (NIR, R,G).
- Radiometric cross-calibration to Landsat 7 (+ 1%).

### TerraSAR-X, TanDEM-X and PAZ

**Industry-leading quality, best-in-class versatility**

TerraSAR-X and its TanDEM-X twin, fly in formation just a few hundred metres apart. They will soon be joined by the Spanish satellite PAZ, a third clone. All three satellites reliably acquire the widest range of radar images, from the highest resolution to very wide coverage – regardless of weather and day light conditions.

**Features**
- Broadest range of acquisition modes – from the very big to the very small (25cm resolution, commercially unique).
- Strong acquisition capacity, daily revisit ability in most latitudes with PAZ, professional delivery.
- High image quality: below 1m geolocation accuracy and premium radiometry.
- Stereo/Tristereo capacity and archive.
Our Global Network
Our dedicated, experienced team and unique satellite constellation makes us your ideal Intelligence partner throughout the life cycle of your project.

Hosting and Delivery Services
Easy and secure data management solutions:

Our wide range of hosted and deployed data management solutions include easy and secure portals, customer facility integrated systems, as well as fully customised solutions – giving you the most suitable secure and easy access to the data.

Get in Touch
Find out how Airbus Defence and Space solutions can help you:

Our dedicated, experienced team and unique satellite constellation makes us your ideal Intelligence partner throughout the life cycle of your project.
Pléiades Marikana Platinum mine, Rustenburg, South Africa