

CLIENT LIST

- > African Union
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- > UK Space Agency
- > VAST

CAPABILITIES

VEGA Space has an extensive track record in providing independent strategic advice and pragmatic technical solutions for its clients. Our consultants advise clients on the practical implementation of business strategy from the earliest stages of programme lifecycles, while our engineers provide expert services and develop innovative bespoke solutions to support the successful execution of client programmes.

Our capabilities include:

- > **Programme and Project Support** – the provision of senior consultants to support the procurement process and management of satellite and ground segment systems.
- > **End-to-End Ground Systems** – the design, development, test and deployment of ground segment systems, including ground station, satellite control and planning, payload data segments and network communications.
- > **Simulations and Modelling** – the provision of simulation solutions to support satellite and ground segment integration and testing.
- > **Training Solutions** – the concept, design and provision of training solutions in ground segment, operations, military and commercial aerospace.
- > **Systems and Operations Engineering** – the provision of subject matter experts to support the design, development and operation of satellite and ground systems.

**EXPERT ADVICE
PRAGMATIC SOLUTIONS**



VEGA Space is one of the leading names in the European Space sector, working with Space agencies, satellite operators and manufacturers worldwide. We support the full programme lifecycle to ensure that the design, development and operation of Space missions meet the programme goals.

VEGA employs over 400 highly-qualified staff in the Space domain, working worldwide from our companies in the UK, Germany, France and Spain. We have a first-class reputation for innovation and pragmatism, providing consulting and engineering services and developing technology solutions to help guarantee the success of our clients' Space initiatives.

VEGA Space Ltd is a subsidiary of Telespazio, a Finmeccanica / Thales company. Telespazio is a world leader in GEO information, Satellite Systems & Applications, Satellite Operations and Networks & Connectivity.

Earth Observation

Earth Observation (EO) data has become essential in decision making, defining policies and implementing strategies to ensure a sustainable future on Earth.

VEGA has been involved in EO programmes worldwide, from feasibility studies and procurement, to the operations of EO satellites. We develop ground segment systems for ESA and CNES and we are involved in the GMES programme, through the development of payload data segments and the ground segment for the Sentinel satellites. We provide operational services to monitor EO data quality from ESA satellites at ESRIN and we are developing flight operations systems for the EO Hub at ISIC,Harwell.

Satellite Navigation

Originally conceived to support military applications, satellite navigation has had a major impact on the way we do business and on our daily lives.

VEGA has been involved in the design and development of Europe's global navigation satellite system (Galileo) since the earliest system studies. Our engineers are active in many areas of the Galileo programme, including the integration of the ground mission system. VEGA also developed and currently maintains the Galileo System Simulation Facility widely used by the navigation community. We also support the development of navigation applications in markets such as aviation and transport. We are a key shareholder in the Centre for Satellite Navigation in Hessen (CESAH), Germany.

Space Science and Exploration

Space Science pushes the boundaries of technology and human understanding through the exploration of the universe, shedding light on the origins of life and what the future may hold.

VEGA consultants and engineers provide subject matter expertise to ESA's Technology and Engineering Centre (ESTEC) for all Space Science and Exploration programmes. Our ground systems engineers developed the ground mission control and planning systems for ESA science missions, such as Rosetta, Herschel-Planck and GAIA. Our operations engineers are active in preparation and post-launch activities for all ESA programmes, whilst our scientists and engineers support ESA's European Space Astronomy Centre (ESAC) in processing the scientific data.

Telecommunications

Satellite communication links have become an important component of the infrastructure that supports our society. Personal communications and entertainment, as well as emergency and business traffic, rely increasingly on sufficient mobile and fixed communications capacity.

VEGA consultants and engineers have provided operations expertise to commercial telecommunications companies such as Inmarsat, Eutelsat and SES. Our Security and Resilience consultants are experts in telecommunications security architecture and system evaluation, and can support security accreditation. VEGA's links to its parent and other telecommunications companies make it perfectly placed to develop satellite communication services and solutions for its clients.

Human Spaceflight

The exploration of Space through manned (and robotic) programmes is a fundamentally inspirational and scientifically challenging activity. The International Space Station has created an unparalleled platform for the advancement of scientific knowledge and the development of new technologies and applications, based on experiments conducted in Space.

VEGA is currently engaged with the European Astronaut Centre (EAC) in the design and provision of astronaut training and our engineers also support the integration, validation and operations of the European elements of the International Space Station. VEGA also plays an active role in the development and debate regarding commercial NewSpace initiatives such as Space Tourism.

Military Space

The military use of Space is vital to maintaining security and peace around the world. Fast, reliable communications and intelligence sharing have played an important role in preserving relative balance since the launch of the earliest satellites.

VEGA has a strong track record of providing services to the UK Ministry of Defence, the German military and NATO, including mission planning, flight dynamics, operations analysis, anomaly investigation, subsystem engineering, satellite control systems, operations and procurement support. Our communications consultants play a lead role, advising on security policies and systems architecture throughout the satellite programme lifecycle, from initial design through to evaluation and security accreditation.

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**Expert advice
Pragmatic solutions**

