

- > **VEGA Deutschland**
Europaplatz 5
64293 Darmstadt
Germany
Tel. +49 (0)6151 825 7100
Fax. +49 (0)6151 825 7799

- > **VEGA Technologies SAS**
Parc Technologique du Canal
12 avenue de l'Europe
Villa San Diego
31520 Ramonville Saint Agne
France
Tel. +33 (0)567 77 19 99
Fax. +33 (0)561 53 42 12

- > **VEGA**
2 Falcon Way
Shire Park
Welwyn Garden City
Herts AL7 1TW
United Kingdom
Tel. +44 (0)1707 368 099
Fax. +44 (0)1707 393 909

- 360 Bristol Business Park
Coldharbour Lane
Bristol BS16 1EJ
United Kingdom
Tel. +44 (0)117 988 0033
Fax. +44 (0)117 988 0034

- > www.vegaspacespace.eu



> Client list

- > British National Space Centre (BNSC)
- > CNES (French National Space Centre)
- > DLR (German National Aerospace Agency)
- > EADS Astrium
- > ETRI – Korea
- > European Satellite Navigation Industries
- > European Space Agency (ESA)
- > European Commission
- > EUMETSAT
- > Eutelsat
- > Inmarsat
- > Intelsat
- > ISRO
- > JAXA
- > NASA
- > RapidEye AG
- > SES Astra
- > SSTL
- > Thales Alenia Space

> Capabilities

VEGA has an extensive track record in providing independent strategic advice and pragmatic technical solutions for its Space clients. Our consultants advise clients on the practical implementation of business strategy from the earliest stages of programme lifecycles, while our engineers develop innovative bespoke systems and tools 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 and specialist fields.

- > **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 in Space



> VEGA in Space

VEGA 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 300 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 programmes and initiatives.

Expert advice. Pragmatic solutions.

VEGA is a trade name of SELEX Systems Integration Ltd, a subsidiary of SELEX Sistemi Integrati SpA.

> Earth Observation

Information generated from Earth Observation (EO) programmes has become increasingly essential for decision making, defining policies, and implementing management strategies to ensure mankind has a sustainable future on Earth.

VEGA has been involved in EO programmes worldwide, from feasibility studies and procurement support through to the operations of remote sensing satellites. We develop EO ground segment systems for organisations such as ESA and CNES. Our consultants and engineers are currently involved in the European GMES programme, in the design of the payload data segment infrastructure and in the ground segment elements of the Sentinel satellites.

> Satellite Navigation

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

VEGA has been involved in the design and development of Europe's global navigation satellite system – Galileo – since the very early system studies. Our engineers are active in many areas of the Galileo programme, including the integration of key elements of the ground mission system. VEGA also developed and currently maintains the Galileo System Simulation Facility widely used by the navigation community. Whilst we continue to play an active role in the implementation of Galileo, our attention is now also on supporting the development of applications in markets such as aviation, transport and logistics.

> 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 system engineers developed the ground mission control and planning systems for ESA science missions, such as Rosetta, Mars Express and Venus Express. 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 business traffic, rely increasingly on sufficient communications capacity.

VEGA consultants and engineers have provided operations expertise to commercial telecommunications companies such as Inmarsat, Eutelsat and SES Astra.

Our Security & Resilience consultants are experts in telecommunications security architecture and system evaluation, and can support security accreditation.

> Human Spaceflight

The exploration of Space through manned (and robotic) programmes is a fundamentally inspirational and scientifically challenging activity.

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

> Military Space

The use of Space has been agreed by international treaties for 40 years and is vital to maintaining security and peace around the world.

VEGA has a strong track record of providing services to the UK Ministry of Defence and NATO, including security policy, mission planning, flight dynamics, operations analysis, anomaly investigation, subsystem engineering, operations and procurement. Our consultants play a lead role in providing communications consultancy and supporting the security policies and architecture through the satellite programme lifecycle, from initial design through to evaluation and security accreditation. In Germany, VEGA supported the development of the German military telecommunications satellite ground control system.