

UK space sector mission to Global Space and Technology Convention 2024



HM Government



Science and
Technology
Facilities Council

RAL Space





Satellite image of the Thames estuary captured by Sentinel 2
Credit: Copernicus data – processed by RAL Space



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UK and Singapore collaboration

The ongoing science and innovation partnerships between the Science Technology Facilities Council (STFC), Singapore Space & Technology Ltd (SSTL), and their partners has resulted in a wide range of new research and business partnerships.

Originating from the partnership between RAL Space and the Singapore Government the SPEQTRE Quantum Key Distribution mission has paved the way for co-innovation and co-development between UK-based and Singapore-based organisations, which in turn helped to instigate the successful International Bilateral Fund projects.

The International Bilateral Fund is the UK Space Agency's pioneering £20m programme which seeks to build and strengthen international partnerships with established and emerging space nations.

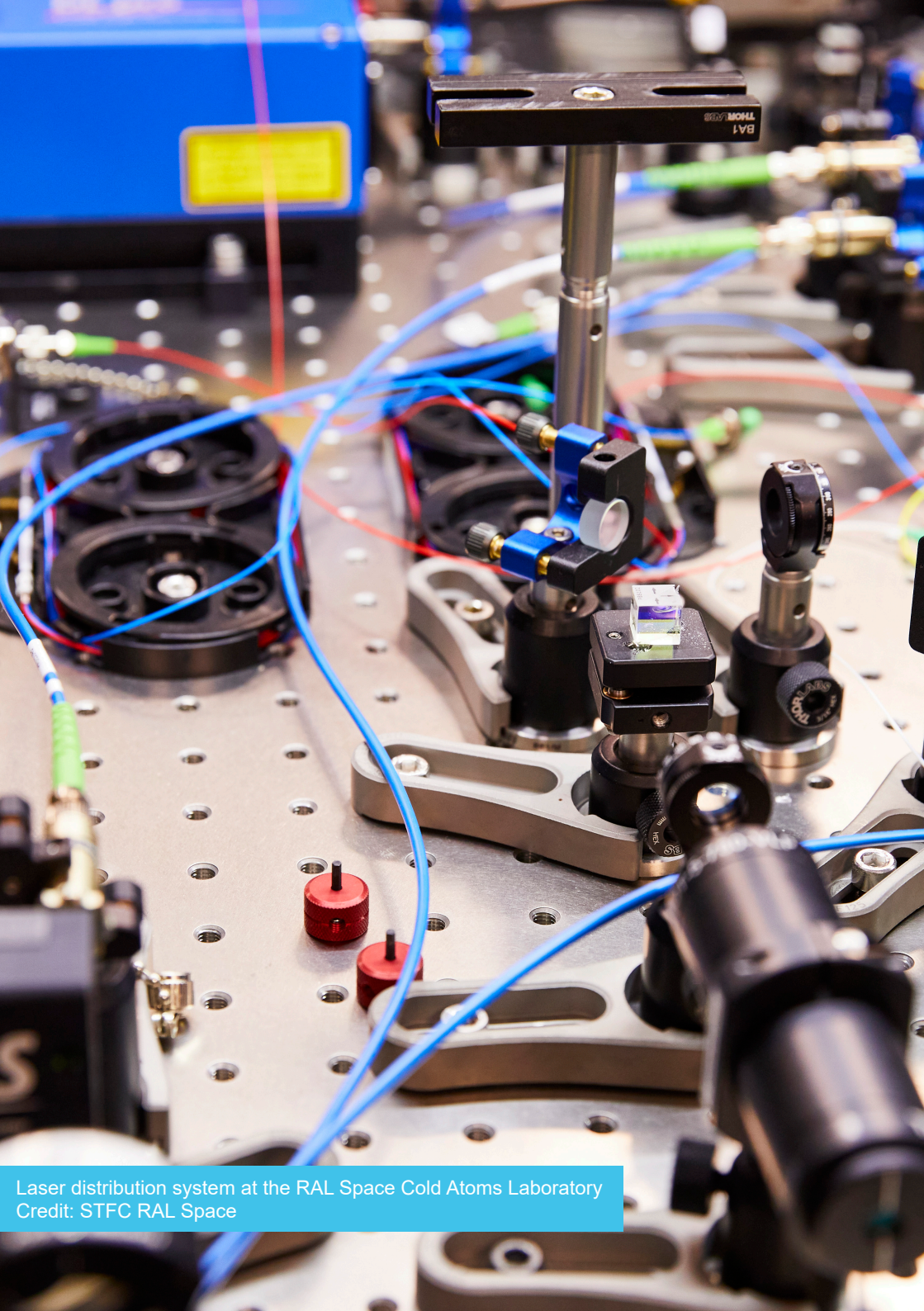
The first tranche of 32 projects includes partnerships between UK organisations and 14 different countries. These 32 projects will enter a second round of competition at the end of November 2023, with a further £1.5 million available to support the next phase of work for around six of those projects. Alongside this we are funding five major international collaborations with organisations including NASA AMES, the Canadian Space Agency and JAXA.

There have been 4 direct UK and Singapore collaborations as a result of this International Bilateral Fund, reinforced by the continued presence of UK delegations at the Global Space and Technology Convention in Singapore in 2020, 2023, and 2024.

These bilateral partnerships will not only strengthen UK space sector capabilities by drawing on expertise from around the world, but they will ensure the UK, and its world-leading scientists, remain a driving force behind generating a diverse and collaborative global space sector that benefits the world for generations to come.



Artist's impression of the SPEQTRE QKD satellite. Credit: ISISpace.



Laser distribution system at the RAL Space Cold Atoms Laboratory
Credit: STFC RAL Space



Exhibitors

UK Government

Department for Business and Trade
UK Space Agency
Science and Technology Facilities Council | RAL Space
Department of Science Innovation and Technology
Scottish Development International
South West Space Partnership
British High Commission Singapore

UK Organisations

AmbaSat
Advanced Manufacturing Research Centre
Astrostructures Ltd
Satellite Applications Catapult
Celestia
Earth Blox
Halo PR & Communications
Interstellar Space Technologies
Oxford Space Systems
Price Forbes
Spire Global
AstroAgency
Bright Ascension
Digital Content Analysis Technology Ltd
DDK Positioning Ltd
Fire Arrow Ltd
Krucial



Organisational summary

The Department for Business and Trade (DBT) lead the UK's trade relationships. We facilitate foreign direct investment into the space sector competitively and securely.

DBT enables exports to global markets including working with UK Export Finance, and jointly enforces the UK's strategic export controls over dual-use space technologies and services.

DBT have a team 100% focused on the space sector. We work with UK and international stakeholders throughout the supply chain and across all space capabilities.

Partnership offering

Speak to us about;

- Engaging with the UK space sector
- Investment opportunities in the UK
- FTA negotiations
- Defence opportunities
- Capital growth
- Clean growth

Contact information

space@trade.gov.uk



Organisational summary

The UK Space Agency plays a major role in delivering the government's National Space Strategy.

We support a thriving space sector in the UK, which generates an annual income of £16.5 billion and employs 47,000 people across the country.

Our staff include scientists, engineers, commercial experts, project managers and policy officials who help to:

- Catalyse investment to support projects that drive investment and generate contracts for the UK space sector
- Deliver missions and capabilities that meet public needs and advance our understanding of the Universe
- Champion the power of space to inspire people, offer greener, smarter solutions, and support a sustainable future

Partnership offering

To achieve the greatest impact in these three areas, we focus most of our resource behind eight delivery Priorities.

These are;

- Launch - supporting satellite launch services from UK spaceports
- Sustainability - taking a leading role in keeping space safe and accessible now and in the future
- Discovery - supporting space science and exploration missions
- Innovation - investing in bold new technologies
- Levelling-up - boosting space investment and jobs across the country
- Earth observation - studying our planet to drive discovery and tackle climate change
- Low-Earth orbit - delivering vital everyday satellite services
- Inspiration - inspiring new space customers, investors and the next generation

The International Bilateral Fund is our pioneering £20m programme which seeks to build and strengthen international partnerships with established and emerging space nations. Our first tranche of 32 projects included partnerships between UK organisations and 14 different countries. The second successful tranche will be announced soon.

Contact information

Eva Georgiou – International Relations Lead (Asia-Pacific)
eva.georgiou@ukspaceagency.gov.uk
internationalrelations@ukspaceagency.gov.uk



Science and Technology Facilities Council | RAL Space



Science and Technology Facilities Council

RAL Space

Organisational summary

The Science and Technology Facilities Council (STFC) coordinates research on some of the most significant challenges facing society, such as future energy needs, monitoring and understanding climate change, and global security. It offers grants and support in particle physics, astronomy and nuclear physics, and operates major UK science facilities at its research and innovation campuses in Harwell (RAL), Daresbury, Edinburgh (UK ATC). In the space sector, STFC operates RAL Space, the space hub for UK Research and Innovation, the UK Astronomy Technology Centre as well as incubators and common-access facilities at Harwell, Daresbury and Edinburgh. RAL Space has had significant involvement in over 200 space instruments over the last 60 years and the UK ATC has played a key role in designing and building many astronomical instruments, including the MIRI spectrometer for the James Webb Space Telescope.

Partnership offering

Space at STFC: your partner in space

Occupying a unique position between industry, academia, and government RAL Space are an international collaboration

partner, provide access to world class facilities, and support business growth. We build international relationships that add momentum to scientific progress and global prosperity.

Access to expertise

You can work directly with world-leading scientists and engineers from RAL Space and UK Astronomy Technology Centre.

Access to facilities

Harness the power of the UK's most advanced space and science facilities, such as the National Satellite Test Facility and Chilbolton Observatory, part of RAL Space.

Access to campuses

STFC campuses are home to hundreds of homegrown and international businesses in space and complementary sectors from the Space Cluster at Harwell to the Higgs Centre for Innovation in Edinburgh.

Access to networks

We can support you to open new markets, join accelerator programmes, secure funding from investors and meet with key bodies from across the UK

Contact information

RALSpaceEnquiries@stfc.ac.uk



Department for Science Innovation and Technology



Department for Science, Innovation & Technology

Organisational summary

The UK Department for Science, Innovation and Technology (DSIT)'s mission is to:

- Position the UK at the forefront of global scientific and technological advancement;
- Drive innovations that change lives and sustain economic growth;
- Deliver talent programmes, physical and digital infrastructure and regulation to support our economy, security and public services; and
- Research & Development funding.

Amongst DSIT priorities, strengthening international collaboration on science and technology in line with the Integrated Review, and ensuring researchers are able to continue to work with leading scientists in Europe and around the world.

It is the central department with coordinating responsibility for civil space policy and strategy, through the Space Directorate. It is also the sponsoring Government Department of the UK Space Agency and UK Research and Innovation, which are two key arms-length bodies of the delivery of the UK's National Space Strategy.

The DSIT Space Directorate has dedicated policy teams working on priority areas such as Launch, Regulation and Sustainability, Skills, Sector policy, ESA, Earth Observation and International space policy.

DSIT's purpose is to build on the UK's strong foundations of world-class research, a thriving technology scene and global networks of collaboration to create a golden thread from outstanding basic science to innovations that change lives and tackle global challenges, cementing the UK as a science and technology superpower.

DSIT was established in February 2023, taking on policy responsibilities from the former Department for Business, Energy and Industrial Strategy (BEIS).

Partnership offering

The DSIT Space Directorate is responsible for overseeing the implementation of the United Kingdom's National Space Strategy [insert link]. Officials will be looking to foster international partnerships to help deliver our civil space strategic objectives.

Contact information

Kaoutar Abousmir
kaoutar.abousmir@dsit.gov.uk



Organisational summary

As Scotland's trade and inward investment agency, Scottish Development International aim to help more businesses from around the world do business in or with Scotland. If you're an overseas business looking to set up in Scotland or source Scottish products, services or innovation, we can help. Scottish Development International promotes Scotland as a place for investment and trade. Securing more international trade and investment is vitally important in helping to create a more dynamic and globally competitive economy in Scotland. We do this by providing information, partnering with businesses and investors that want to set up or invest here, and helping businesses find the connections they need.

Partnership offering

Property searches and advice:
Find the right facilities and get help with feasibility studies and procurement.

Academic connections:
Connect your company to Scottish universities and colleges to access cutting-edge innovation and exceptional talent.

Supply chain development:
Identify the partners and suppliers that can help your business thrive.

Links to intermediaries:
Connect to the business professionals who can help you set up in Scotland.

Talent, recruitment and skills advice:
Research, identify, and recruit the people with the skills and experience you need.

Flexible workforce development:
Access flexible training support and courses available to support staff development needs.

Link to business networks:
Connect to local and global business networks.

Business support and advice
Access dedicated advisers who understand your business and can help develop your strategy and signpost you to the right support.

Financial support
Get advice on financial support that may be available to locate or expand your business in Scotland.

Contact information

+44 300 013 2734



South West Space Partnership



Organisational summary

The South West of England is home to the third largest concentration of Space organisations in the UK and the largest aerospace cluster in the UK. The South West Space Partnership is delivered by the UK Space Agency, the West of England Combined Authority, Cornwall Space Cluster, and Space West to champion pan regional space strengths, capabilities and opportunities. Its main aim is to support international investment into the South West of England and develop strategic collaborations with existing clusters. The wider South West region has a large and highly sophisticated defence sector, closely interlinked with space, aerospace, marine and cyber. This includes the Ministry

of Defence Equipment and Support. The upstream space sector is complemented by one of the most capable aerospace clusters in the world, supporting 98,000 jobs. The University of Bristol, University of Bath, Exeter University, and the University of the West of England, have academic expertise and research in space technologies, including Earth observation, GIS mapping, space engineering, and space safety. The Cornwall Space Cluster has a number of key assets which pull through the supply chain across the South West - these include Spaceport Cornwall, Goonhilly Earth Station, commercial teleport and Deep Space Network, The Lizard Range drone test facility and the University of Exeter's Environment and Sustainability Institute.

Contact information

Valentina De Micheli
valentina@bristolandbath.co.uk

Nicola Lloyd
Nicola.lloyd@cornwall.gov.uk





Organisational summary

The British High Commission in Singapore maintains and develops relations between the UK and Singapore.

We encourage Singapore to look to the UK as a global partner of choice in trade, investment, science and research, and we help Singapore on low-carbon economic development. Every year, we help about 100 UK companies gain a foothold in Singapore. We also work with Singapore to protect the national security of both countries, including through holding joint military exercises under the Five Power Defence Arrangements.

The UK is a global leader in science and innovation. International collaboration is essential to maintaining the excellence of the UK's research base and the competitive advantage of our innovative businesses,

for filling capability gaps and for ensuring value by leveraging international resources. Maintaining our science excellence and supporting innovation ensures the UK is a partner of choice, and supports innovative UK companies to grow globally.

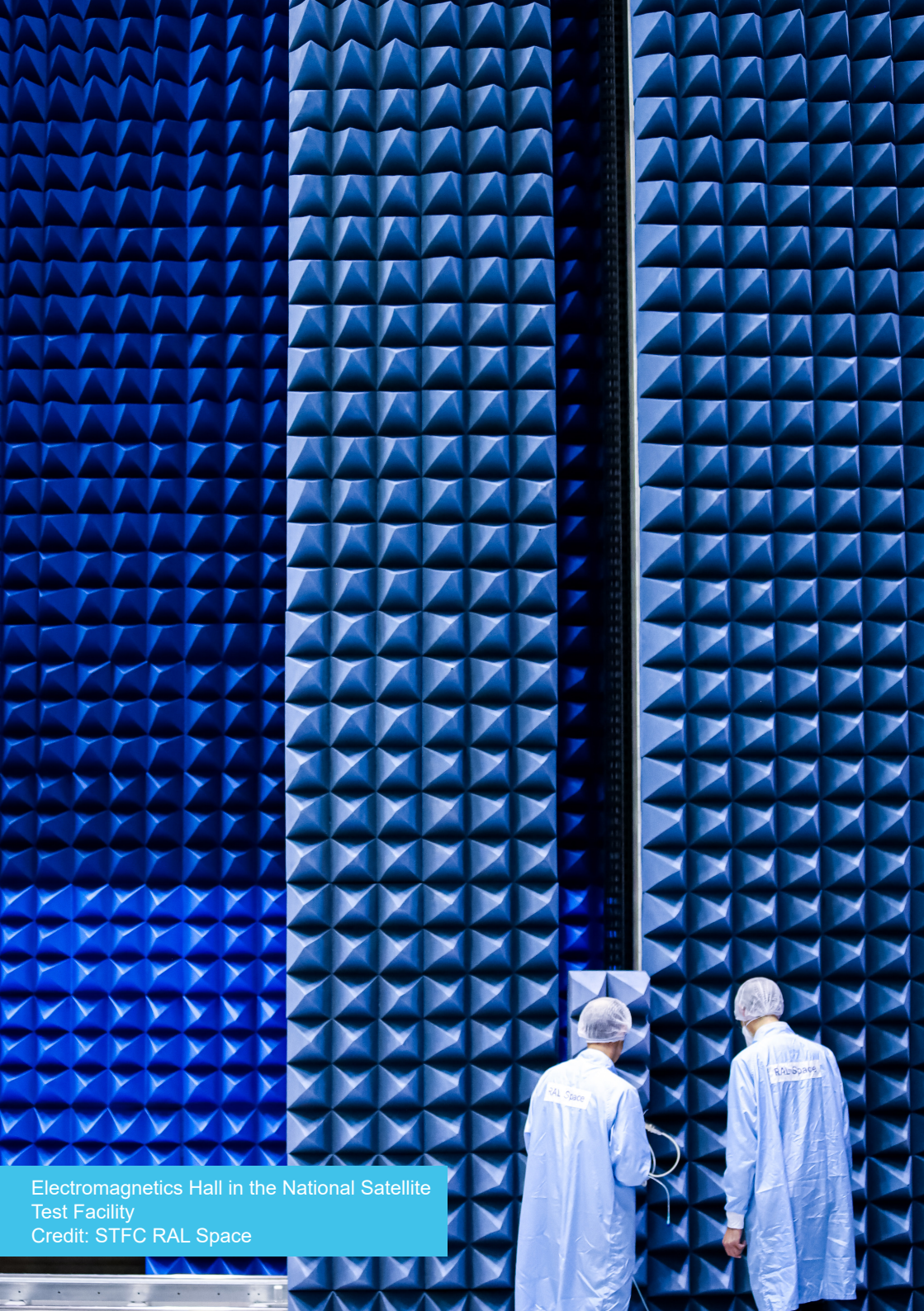
Partnership offering

The UK Science and Innovation Network (SIN) team at the BHC in Singapore works with local stakeholders to develop partnerships and collaborations across the breadth of science and innovation.

Contact information

enquiries.singapore@fcdo.gov.uk





Electromagnetics Hall in the National Satellite
Test Facility
Credit: STFC RAL Space

AmbaSat Ltd

Organisational summary

With an estimated market value of \$5 billion, AmbaSat is pioneering the transformation of CubeSat satellite technology through its advanced Modular Payload System. Fuelled by strategic investments from the European Space Agency (ESA) Business Incubation Centre and SparkFund, AmbaSat has developed an innovative spacecraft which highly optimises space exploration and earth observation. Positioned as a leader in the emerging ChipSat space sector, AmbaSat offers its first-to-market modular spacecraft, ChipSat satellite kits and rocket launch programs. Its turnkey satellite kit, tailored for business, science, and education, encompasses a cutting-edge satellite launcher and complimentary rocket launch service, significantly reducing the cost of access to space.

Partnership offering

AmbaSat offers a dynamic partnership characterised by cutting-edge innovation and comprehensive expertise in satellite design, encompassing both hardware and

software. Our advanced Modular Payload System, developed with investments from the European Space Agency (ESA) Business Incubation Centre and SparkFund, underscores our commitment to pioneering CubeSat satellite technology. As a partner, AmbaSat brings a wealth of knowledge in regulatory applications, including orbital and radio frequency licensing. Our turnkey solutions cater to businesses, educational institutions, and scientific endeavours. With first-to-market ChipSat satellite kits, rocket launch programs, and an extensive network of space industry partners, AmbaSat can provide unparalleled access to space at a competitive price point. Partnering with AmbaSat unlocks opportunities for ground-breaking space exploration, regulatory compliance, investment and industry collaboration, creating mutual value and fostering innovation on a global scale within the emerging \$5 billion ChipSat space sector.

Contact information

Martin Platt, Co-Founder
martin@ambasat.com
+44 (0) 7447 691224



Organisational summary

The Advanced Manufacturing Research Centre is one of the UK's leading organisations for carrying out high quality industrial research related to manufacturing. As a key part of the High Value Manufacturing Catapult, we aim to help all companies accelerate the Technology and Manufacturing Readiness Levels of their products and processes to reduce time to market. Based on your needs, this can be achieved through a range of funding sources from grant funded research to direct commercial work.

Partnership offering

We have over 1000 Engineers with extensive expertise across a range of manufacturing areas from design to machining, composites,

additive manufacture, robotics, and digital technologies such as industrial IoT. The AMRC ecosystem includes close partnerships with Rolls Royce, Airbus, Siemens and other space organisations/agencies which could be leveraged to help meet your needs. In the space sector, we have a good relationship with the satellite application catapult and the UK Space Agency where we aim to use our expertise to conduct more research in the area of in-orbit servicing and manufacturing, launch capability and other space technologies (e.g. communication and navigation).

Contact information

y.h.cho@amrc.co.uk



Organisational summary

Astrostructures is a boutique engineering services partner specialising in thermal and mechanical engineering of space hardware.

We develop high quality space hardware for the scientific space community, including satellite systems and subsystems.

We are an innovative team of engineers, our knowledge and expertise have enabled novel technologies not only in the space sector, but also in other high technology fields including energy storage and medical devices.

Our design, analysis, manufacturing, and testing capabilities will support your space hardware journey from initial concept all the way to system integration. Our team combines a strong heritage working on high profile ESA missions like Euclid, Plato, and ExoMars, with an extensive network of suppliers, manufacturers, and test houses across the UK and Europe. Astrostructures is the engineering partner you need to guarantee the success of your innovative space hardware project.

Partnership offering

We are an experienced and resourceful engineering team. We bring to you our expertise in thermal and mechanical engineering from working on multiple prestigious European space missions.

Whether you are a small business, a university department, or an established company, we become your engineering partner to complement and enhance the capabilities of your team.

We have experience in every stage of the space project cycle and will create bespoke solutions that fit your objectives as well as the strict qualification requirements imposed by space product assurance standards.

We can support you from start to finish, or through a specific stage within the larger hardware development journey.

Contact information

Ashraf Al-Bahlawan
a.albahlawan@astrostructures.com
+447441398339



Organisational summary

The Satellite Applications Catapult is an innovation and technology company transforming the way the world uses satellite technology and data. The Catapult helps organisations, large and small, to overcome barriers to innovation using satellite applications to grow their business in the UK and internationally. The Catapult team does this by bringing together industry, researchers, and end-users to explore and develop new ideas, and accelerate products and services to market.

Partnership offering

Through the Satellite Applications Catapults' missions and interventions, Connected Earth, Autonomous Earth, Sustainable Earth, and Beyond Our Earth, the Catapult connects the space applications sector with end-users' building collaborative programmes that address their challenges.

The Catapult hosts world-class facilities and provides business and technical support

services, connecting organisations with the resources they need to launch and grow. The team hosts large business networking event every month and offers support across the UK regions through its Centres of Excellence. One such facility managed by the Satellite Applications Catapult is the Westcott Business Incubation Centre, created for early-stage businesses working in rocket propulsion, 5G communications, drones, and other autonomous systems.

The Satellite Applications Catapults' Technology Programmes build capability, helping companies advance their products and take advantage of new emerging technologies, such as artificial intelligence and smart analytics, robotics and autonomous systems, visualisation technologies, 5G, and the Internet of Things, amongst other technology areas.

Contact information

Stuart Naylor, Director of International Engagement
stuart.naylor@sa.catapult.org.uk
+44 (0)776 711 1736



Organisational summary

Summary of organisation and capabilities
Celestia is a European group of multi-technology companies creating turnkey communications solutions for a worldwide market.

For over 25 years, the business has been synonymous with world-class innovation, quality and engineering excellence with a customer focus.

Celestia delivers technology products, systems and services to its partners across the aerospace, defence, satellite and scientific sectors.

It focuses on continuous innovation in spacecraft communications. Experts in electronic scanning antennas, RF (S to Q/V Band), ground segment and ground stations, payload simulation and testing, EGSE and RF & optical modems, Celestia invests in research and development to give customers a true competitive edge.

Partnership offering

An international group with an established track record in world-class innovation and quality, Celestia is your Ground Segment Technologies Partner.

Celestia partners with businesses and international space agencies from development to commercialisation in a wide range of communication technologies, with engineering excellence and a customer-centric approach.

As a leading supplier of RF and antenna solutions, the business offers over 25 years' experience in superior quality equipment and innovative technology for a wide range of

applications in many different markets. For the ground segment, turnkey ground station solutions for TT&C, Comms, Data Acquisition and Navigation applications are tailored to customer requirements and needs.

This includes the design, development, integration and testing of new ground stations plus retrofitting services.

The business is also reference supplier in the areas of satellite ground testing and high speed data acquisition and TT&C modems, with proven solutions that demonstrate high quality and superior performance.

Contact information

info@celestia-tech.com
+31 71 7515 100





Earth Blox

Organisational summary

Earth Blox gives sustainability teams satellite imagery analytics to report on climate and biodiversity impacts, risks, and opportunities for millions of assets in minutes. We aggregate data sources and simplify the extraction of insights from the data.

Partnership offering

High quality expertise in Earth observation data analytics and the delivery of geospatial content in meaningful ways to clients worldwide.

Contact information

Prof Iain H Woodhouse
i.h.woodhouse@earthblox.io
+44 7887551724



Halo PR & Communications



Communications That
Change Your World

Organisational summary

Halo exists to challenge how people see the world, and more specifically, how people see the innovation that is happening behind the scenes to create global transformation, on and off planet.

We are a creative, bold and future focused agency covering all aspects of communications - from traditional PR to video content. We see storytelling as an agile practice and it is this flexibility that keeps us ahead of the curve. Specifically, we are leaders in space technologies, deep tech, AI, climate tech and societal transformation.

Partnership offering

We all know technology has the power to change the world and continues to do so everyday.

What is missing is an awareness of how technology is making life on Earth better, and who the people are behind the innovation. These stories make all the difference geopolitically, economically and for societal benefit - putting people and planet at the forefront of this ever changing narrative, and make hope for our future tangible.

By partnering with extraordinary organisations, we ensure they are heard and seen to unlock further innovation, impactful profile raise both brand and team, investment and commercial growth.

We are on a mission to make the world a better place through communication, technology and partnerships.

Contact information

Jess Ratty, CEO & Founder
jess.ratty@ha-lo.co
+44 (0) 7789 102 402



Organisational summary

Interstellar Space Technologies is an in-space manufacturing and construction company. We are enabling mass manufacturing in space. Providing access to space offers perfect environment for manufacturing which enables creation of new advanced materials of vastly superior quality than that is possible on earth.

We are an access to space service provider, positioning to build and operate a new in-space manufacturing supply chain to:

- To perform research and create materials in space which are impossible to manufacture on Earth providing multiple benefits including reducing energy consumption targeting advanced Pharmaceuticals, Electronics – semiconductor and Metallics – super alloys and;
- To support space for space infrastructures, with aim to support construction of bigger structures in space including Space Based Solar power.

We are doing this by developing spacecraft to host customer experiments and manufacturing factories in space and return produced products back to Earth. Our low-cost, uncrewed, scalable dedicated spacecraft system combined with a reusable supply vehicle leverage proven technologies and next-generation innovation.

Contact information

Mohit Joshi – Founder & CEO
mohit.joshi@interstellarspace.co.uk
+44 7762295154

Partnership offering

We aim to offer unique value to potential partnerships by empowering collaborators to conduct groundbreaking research in space and manufacture materials for use on Earth. This opens up possibilities unattainable on our home planet, particularly in advanced Pharmaceuticals, Electronics (semiconductors), and Metallics (super alloys). We are actively seeking partnerships to collectively build the capabilities necessary for advancing manufacturing of these materials and the space industry.

Our commitment extends to facilitating customer experiments and manufacturing factories in space, with a focus on efficiently, reliably, and cost-effectively returning produced products to Earth, all while prioritizing sustainability. This commitment sets us apart in the industry. Through strategic partnerships, we provide access to a revolutionary in-space manufacturing ecosystem. We are keen to bring manufacturing and space technology innovations at the universities and industries to commercial use.

Collaborate with Interstellar Space Technologies to lead the future of in-space manufacturing and contribute to the progress of space-based industries. Together, we can shape the future of space-based manufacturing, extending from orbit to the Moon, Mars, and beyond.



Organisational summary

Oxford Space Systems is aiming to become the global leader in deployable antennas for space, providing effective solutions to unlock the future of satellite services. We use techniques inspired by origami and space qualified stored energy materials to create deployable antennas that stow into a compact volume for launch and unfold to an accurate form when deployed in orbit. Our antennas enable a wide range of space-based services for the Internet of Things and vessel tracking (AIS/VDES) using deployable helical and yagi structures, Synthetic Aperture Radar using deployed reflector surfaces and data relay using deployable high gain steerable antennas. Oxford Space Systems employs 87 staff and is based on the Harwell Campus, United Kingdom.

Partnership offering

Our company brings together skills in radio and mechanical engineering, mechanisms and materials to provide customers with antennas that deliver the optimum trade-off between performance, mass budget and stowed volume while maintaining high standards of quality and dependability, enabling greater capability from a smaller satellite platform.

Contact information

Chris Bee
chris.bee@oxford.space



Organisational summary

Ardonagh Specialty Limited trading as Price Forbes is the largest independent broker in the United Kingdom. We specialise in placing complex risks. Our Space team focus solely on New Space business.

Partnership offering

Price Forbes is the New Space broker. We protect our client's assets from the start of the build process, transit to the launch site, launch and in-orbit. We also arrange liability insurance for satellites in-orbit. We specialise in arranging insurance for satellite operators and manufacturers.

Contact information

Neil Stevens, Head of Space
neil.stevens@priceforbes.com
+44 7800 593 722



Organisational summary

Spire is a global provider of space-based data, analytics and space services, offering powerful insights about Earth so that organizations can make decisions with confidence. Spire's fully deployed satellite constellation observes the Earth in real time using radio frequency technology to provide global weather intelligence, ship and plane movements, and spoofing and jamming detection.

Spire offers Space as a Service solutions that empowers customers to leverage Spire's established infrastructure to put their business in space. Space Services allows organizations to deploy and scale their own constellation at maximum speed and with minimum risk by leveraging Spire's proven space platform, global ground station network, end-to-end manufacturing facility, and extensive launch partnerships. Organizations can bring their own payload, develop a custom one with Spire or upload software to existing Spire satellites, and they will have full control of their applications in space through an API.

Partnership offering

Spire provides data and analytics from space and enables customers to do the same with its flexible Space Services. From the ultimate vantage point of space, Spire activates a hub for global weather intelligence, ship and plane movements, and spoofing and jamming detection to better predict how their patterns impact economies, global security and human potential. Built on our 500+ years of space heritage, Spire offers Space as a Service solutions that empower customers to leverage Spire's established infrastructure to put their business in space.

Contact information

Jonathon Brain, Business Development Director, APAC
Jonathon.brain@spire.com
+61 400 148 129





Organisational summary

AstroAgency has quickly established itself as the global leader in space-focused strategic communications, supporting over 50 companies and 7 governments with a blend of digital marketing and messaging development, market guidance, technical analysis, branding and events delivery. The company's diverse team boasts significant space sector experience, supporting key global players from satellite and launch vehicle manufacturers, spaceports and a wide array of space data processors, as well as component and subsystem suppliers.

Partnership offering

Through combining technical knowledge and space research expertise with marketing professionals, AstroAgency is able to refine messaging and promote client space offerings, driving new revenue opportunities from relevant target audiences. While the company's expertise covers the entire space sector value chain, a speciality in areas such as Space Sustainability has been added recently due to many projects in this area, including the creation and promotion of the world's first space sustainability strategy for a national space sector, as well as the development and promotion of regional space strategies.

Contact information

Daniel Smith
daniel@astroagency.co.uk
+44 07909523004

Daria Filichkina
daria@astroagency.co.uk
+44774978780



Bright Ascension

Organisational summary

Bright Ascension is an industry-leading space software technology provider, offering unique and innovative products and solutions for spacecraft development, operations, management and delivery of space-based data and services. Our innovative modular approach allows our customers to simplify and shorten their mission development, reduce risk, optimise and automate operations, and significantly lower total mission costs. Easily scalable and adaptable to the exact requirements of every unique mission, our software technology has been tried and tested in flight and helped over 50 spacecraft to maximise their mission potential.

Partnership offering

Our robust Partnership Programme is designed to offer a wide range of space tech companies multiple new pathways to generate additional revenue streams through our products and solutions.

From re-sale of software licences or turnkey mission software services to specialised onboard & payload software package development – our Partnership Programme allows to create flexible new business opportunities and help clients develop missions significantly faster, easier, with reduced risk and at lower cost.

Contact information

enquiries@brightascension.com



Organisational summary

D-CAT is a prominent SME in data analytics and data services. We excel in delivering specialised MRV (monitoring, reporting, and verification) data services for climate, environmental and nature-based oversight, leveraging state-of-the-art satellite remote sensing.

Our data services are crafted by fusing different satellite data with other sources and advanced processing algorithms, offering precise, reliable data to support our clients' monitoring and regulatory reporting needs.

Partnership offering

Proven algorithms

D-CAT's distinctive edge lies in our array of top-tier, proven algorithms capable of drawing detailed insights from the many types of satellite imagery and various data sources.

Globally scalable data services

These insights, crucial for MRV, are accessible through both on-demand and routine API data services. Our services, powered by our Fusion Platform® and supported by AWS, ensure constant, scalable, and global availability.

Our collaborative approach

Our collaborative ethos and expertise have garnered us a highly valued reputation. We work closely with our clients to identify the trade-off between affordability and data quality. We take pride in aiding a growing roster of premier global enterprises to integrate these pivotal environmental and climate insights into their offerings, enhancing their services, products, and competitive edge.

Contact information

Phil McLachlan
phil.mclachlan@d-cat.co.uk
+44 7796938543



DDK Positioning Ltd

Organisational summary

DDK Positioning is a provider of enhanced Global Navigation Satellite System (GNSS) solutions. Incorporated in 2016 and headquartered in Scotland, we provide a Precise Point Positioning service along with the associated hardware and software for all your positioning needs.

By combining technical ingenuity with the Iridium Burst service, we have created a robust, resilient and completely independent military grade GNSS solution, with an enhanced accuracy of less than 5cm, without the need for local reference stations.

This multi-constellation service uses all available GNSS signals and optimises them in our GNSS positioning solution. In addition the service can operate for up to 10-minutes without corrections, ensuring the user always has precise positioning at all times, globally.

Partnership offering

Offshore Energy

Our high accuracy and pole-to-pole coverage is ideally suited to the demands of offshore survey and construction projects. Our Iridium based distribution method

reduces the risk of sat-comm masking, ensuring seamless positioning during the duration of a project.

Maritime

At DDK Positioning, we recognise that reliable and accurate positioning is critical to maritime safety. Our delivery method gives a true, full system redundancy option for vessels and inherent resilience to augmentation signal loss or disruption, whether unintentional or malicious.

Agriculture

With DDK Positioning's ground-breaking technology, it eliminates the need for base stations and infrastructure. Our Precise Point Positioning service can be called upon allowing farming even in the most rural areas to continue without connectivity issues.

Defence

Our service is extremely robust and resilient, utilising many layers of failover systems. Our proprietary algorithm minimises the band width required for our service, allowing existing communications channels to be utilised for its delivery without over-stressing them.

Contact information

info@ddkpositioning.com
+44 1224 953138



Organisational summary

Fire Arrow® offers a unique to market launch concierge service that helps customers navigate the journey to space from IDEA to ORBIT.

Our management team has years of firsthand experience leading the design and build of complex vertical and horizontal spaceports and providing a comprehensive suite of subject matter expertise covering all aspects of spaceport development from concept of operation to regulatory compliance. Our unique consortium approach and 'new space' operating model allows us to take care of the complexity to let our customers focus on their mission.

We offer the depth and breadth of expertise of a large company and responsiveness and affordability of a small to medium sized enterprise. We deliver public and private spaceport programmes enabling our customers to achieve safe, secure, feasible and viable access to space.

Partnership offering

Our team of spaceflight subject matter experts has experience of vertical and horizontal spaceport programmes, and since 2018 has worked continuously on the design and build of two UK Spaceports; Prestwick and Sutherland. Our expertise includes,

- Programme Management and Cost Management
- Stakeholder Management
- Project Feasibility and Business Case Production
- Governance, Risk and Compliance Management
- Spaceport Operator and Launch Operator Concept of Operation (CONOPS)
- Space Industry Regulation and Regulatory Engagement
- Energetic Materials and Site Sizing Analysis
- System Development and Integration
- Risk and Safety Assurance
- Human Factors
- Physical and Cyber Security
- Infrastructure Design and Delivery
- Airspace Change and Aerodrome Operations
- Environmental Impact Assessment and Environmental Management Planning

Collaboration is core to our approach to programme governance and execution. Beyond the implementation of rigorous project controls and safeguards we focus strongly on the "people" aspects and complexity of managing large, distributed programme teams.

Contact information

Dr Mick O'Connor
mick@firearrow.space
07795832405



Krucial

Organisational summary

Krucial provides digital solutions that enable access to mission-critical data for industries with remote and hard-to-reach assets such as energy, aquaculture, agriculture or infrastructure monitoring. Using a combination of state-of-the-art satellite and cellular technology combined with internet of things (IoT) devices and cloud services, Krucial offers a full end-to-end digital infrastructure to connect operations from anywhere on earth.

In practice, this enables enterprises and solution providers to build solutions on the Krucial connectivity platform and deploy the latest IoT technology on sites and assets with no existing communications infrastructure – meaning operators can get continuous data insights no matter the location or conditions.

Partnership offering

Krucial's open architecture allows the build of end-to-end digital solutions with partners by providing a robust connectivity platform that makes it simple to move data from sensors from anywhere to any data application.

Integrating seamlessly with IoT deployments and analytics tools to unlock the power of digital transformation for enterprises with assets and sites in remote locations, unbound by geography or available infrastructure. Complex IoT deployments are simplified by enabling continuous data transmission from remote locations via a single robust connectivity platform to data analytics tools.

Contact information

Allan Cannon, Co-founder and CEO
allan@krucial.com
+447793679817





Visual inspection of a printed circuit board in the laboratory
Credit: STFC RAL Space

The UK Space sector

Our way of life on Earth depends on space. Satellites forecast the weather, keep businesses connected and products moving, and monitor our natural environment. They underpin the UK's economy and support our critical national infrastructure.

The UK Space Agency helps deliver the Government's National Space Strategy, by catalysing investment into the space sector, delivering missions and capabilities, and championing space for the benefit of life on Earth.

Our 8 Priorities describe how we focus our efforts:

- Discovery
- Earth Observation
- Innovation, Inspiration
- Launch
- LEO Capabilities
- Levelling Up
- Sustainability

Space is essential to protect our planet. Over half of the Essential Climate Variables can be measured from space. Space technologies enable services like driverless cars that will create a smarter, greener future.

Space drives growth across the UK. The UK space economy contributes £17.5 billion to the economy and employs nearly 50,000 people.

The UK is pushing space frontiers. UK science and technology is on its way to study Jupiter, Mercury and the Sun, will soon be bound for the Moon, and is onboard the International Space Station. It made possible the most powerful telescope ever launched into space - the James Webb Space Telescope. The UK-built Rosalind Franklin Rover mission will search for life on Mars in the coming years.

The UK Space Agency's budget will grow to over £600 million by 2024-2025, helping us deliver programmes that foster innovation, grow local space clusters, deliver ground-breaking discoveries, and inspire the next generation of scientists and engineers.

In addition to our national programmes, we deliver for the space sector through our membership of the European Space Agency (ESA). Our investment of £1.58 billion at the Council of Ministers 2022 demonstrates our ongoing commitment to ESA membership.

Every £1m invested in ESA is expected to generate £11.8m over time.

UK strengths

The UK is a world leader in small satellite technology and applications, telecommunications, robotics and Earth observation, while British universities are some of the best in the world for space science.

We've been leading the global debate on space sustainability and strengthening UK expertise in satellite management, maintenance and retrieval.

We're setting the gold standard for satellite climate measurements, with funding for further development of the TRUTHS mission - first proposed by scientists at the National Physical Laboratory, will deliver a 10x increase in accuracy of climate measurements.

The UK also has a leadership role in ESA's Vigil space weather mission, which will travel to a point in deep space known as L5 and give advance warning of dangerous solar storms.

Our vision is to become the leading European provider of small satellite launch by 2030 – providing a valuable new capability, bringing new markets to the UK and inspiring the next generation of space professionals.

We are supporting the technologies of the future, from Space-based Solar Power to in-orbit manufacturing and satellite servicing.

We've committed millions of pounds over the next two years for a range of UK-wide educational and skills activities, mostly focused on younger people, who will become the next generation of space professionals.

In 2022 we secured three new UK astronauts – Rosemary Coogan, John McFall and Meganne Christian – highlighting the leading role that the UK is playing in space exploration and collaborating with international partners to use the unique vantage point of space to benefit life on Earth.



Find out more



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