



AEROSPACE

Systems Integration | Engineering Design | Technical Consultancy



Delkia is proud to be a member of:



CONTENTS

Delkia's Mission, Vision & Values

Our Commitment to the Armed
Forces Covenant

About Us

Systems Integration

Engineering Design

Technical Consultancy

Product Development

Assurance and Training

Our People and Approach

Our Work

Our Facilities

Our Customers

Contact Us

DELKIA'S MISSION

Our expertise in high-integrity and mission-critical systems ensures there is a strong link between our core engineering principles and the demands of the defence sector.

Delkia provides some of the most complex, high performing control systems in the UK.

Our **vision** is to become the leading British systems integrator and partner of choice for **high-integrity** and **mission-critical systems** in the defence sector.

Driven by our values, we work collaboratively with customers to deliver national infrastructure programmes.

Delkia are proud to be signatories to the UK Armed Forces Covenant and were recently awarded a Bronze Award. We recognise the value serving personnel, both Regular and Reservists, Veterans and military families contribute to the business of the country.

In addition, Delkia supports STEM initiatives designed to encourage young people who are currently under represented in engineering, to engage with STEM subjects and become future engineers.

We are a friendly and ambitious company to work for, investing in our team to ensure we continue to offer operational excellence.



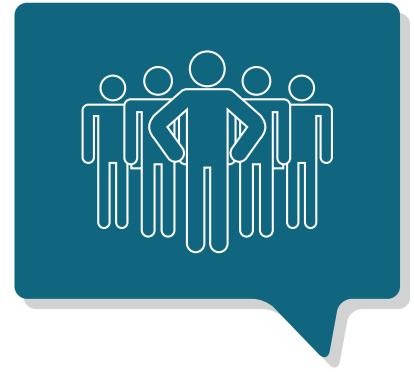
VISION

To become a leading British Systems Integrator and partner of choice for high-integrity and mission-critical systems.



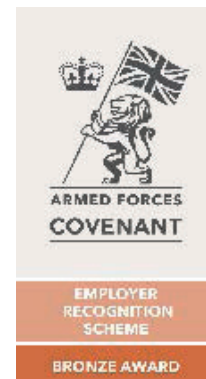
MISSION

To deliver innovative value-for-money technologies and services that protect lives and critical assets.



VALUES

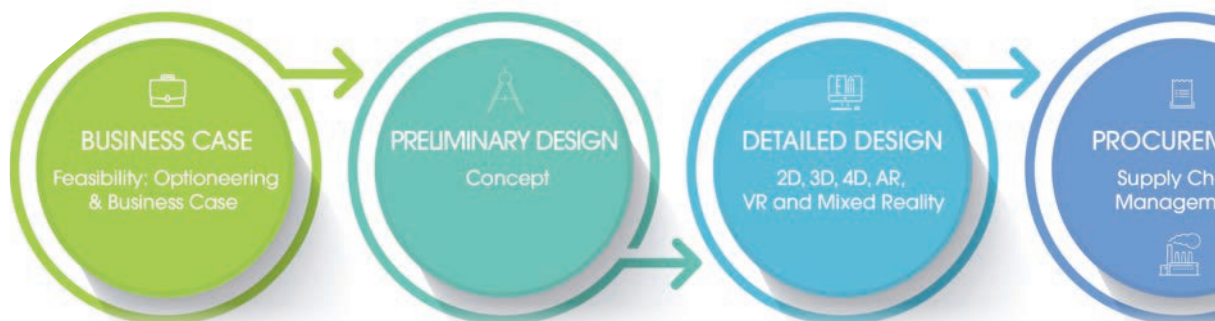
- Collaboration and teamwork
- Integrity, trust & accountability
- Safety and security
- Client focused
- Social value and impact
- Continuous improvement



ABOUT US

Delkia is an **experienced specialist systems integrator**, operating throughout the UK and Internationally for safety-related and mission-critical systems in aerospace, clean energy and maritime sectors.

The company grew out of the nuclear sector, where we built our reputation for providing some of the most complex, high-performing control systems in the UK, providing engineering and technology services for safety-related and mission-critical systems, aligned with CADMID¹ principles.



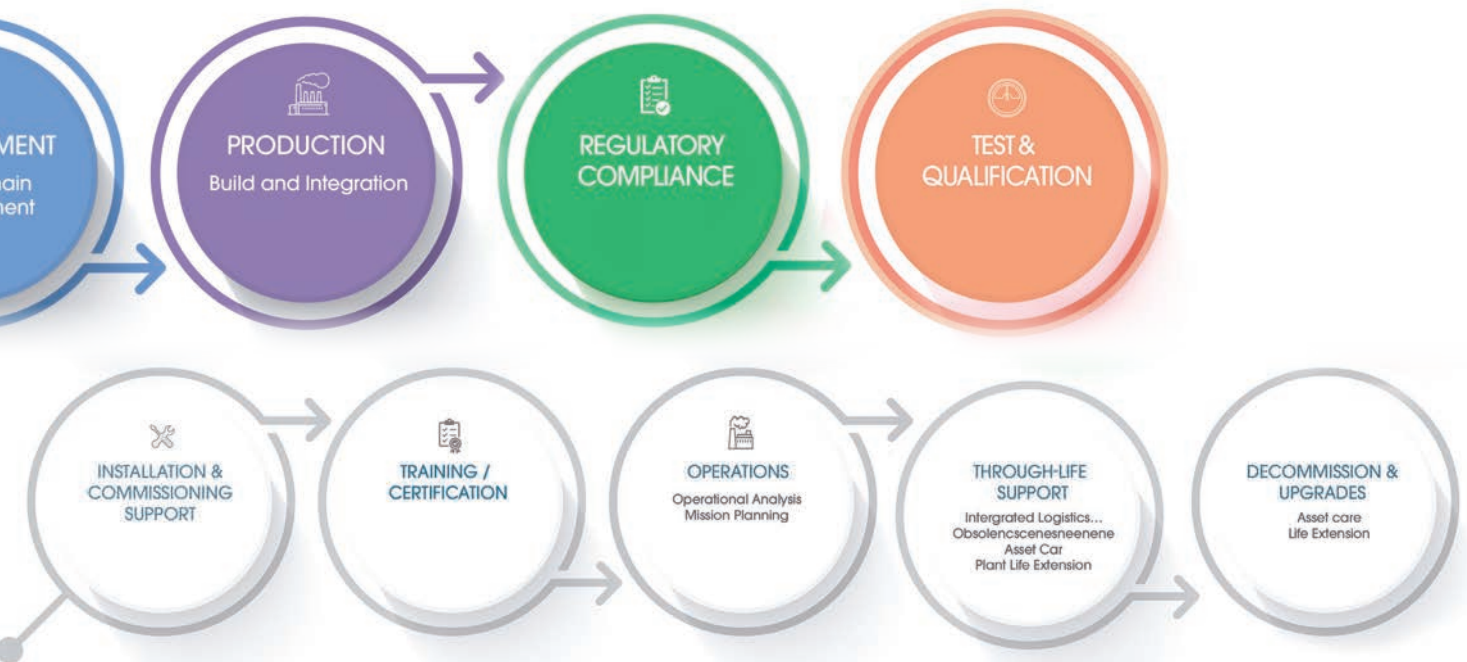
PRIMARY SERVICES

Our offering includes **systems integration**, **engineering design** and **technical consultancy**, encompassing **assurance and training services**, **build-to-print**, **complex system support**, **control system build**, **digital engineering**, **systems and lifecycle services**.

¹Concept, Assessment, Demonstration, Manufacturing, In-service, Disposal

Our collaborative approach builds long-lasting and trusted partnerships with our clients, enabling us to understand your exact needs. Delkia add value through innovative thinking, providing the right services, at the right time, both tactically and strategically.

Experts in **avionics**, **control systems development**, **functional safety** and **human factors**, we work with leading-edge technology and are investing in pioneering research and development programmes with our clients and academia.



SECONDARY SERVICES

SYSTEMS INTEGRATION

Our skills in design, engineering and systems integration, enable us to identify ways to improve safety and efficiency at the planning stage. You can move from the design environment to the built environment through our detailed design in 2D, 3D, 4D, AR, VR and mixed reality.

As **experts in systems integration**, with our own **Electronics Lab** and range of **highly skilled staff**, we offer a wide range of services, including:

- Design (MBSE), Build-to-Print, control system build, electronics development, repair & reverse engineering, through to testing & qualification
- Embedded systems design & development
- Management of complex procurement, lead-time management & inventory control
- Obsolescence management
- Oversight & management of complex systems & sub-systems
- Requirements capture
- Reverse engineering solutions
- Simulink, trials & testing
- Verification, validation, testing & certification



ENGINEERING DESIGN

Our skilled staff provide tried and tested engineering design capability.

We offer a wide range of services and resources, including **digital engineering, systems and system integration, engineering design, technical consultancy**, and **complex control system support**, plus **control and instrumentation services**.

Our capabilities include:

- 2D & 3D modelling, VR, AR, mixed reality
- Avionics
- Configuration management – Siemens Teamcenter
- Control design & philosophy
- Design, develop, qualify (DDQ)
- Electrical & power train management systems
- Electronics design
- Enclosure development
- Flight control systems
- Ground equipment
- Mission systems
- PDM, Navisworks, Inventor
- Plant & platform safety systems
- Requirements capture
- Simulation & modelling (inc. MBSE) – Simulink & Matlab
- Software development
- Systems certification

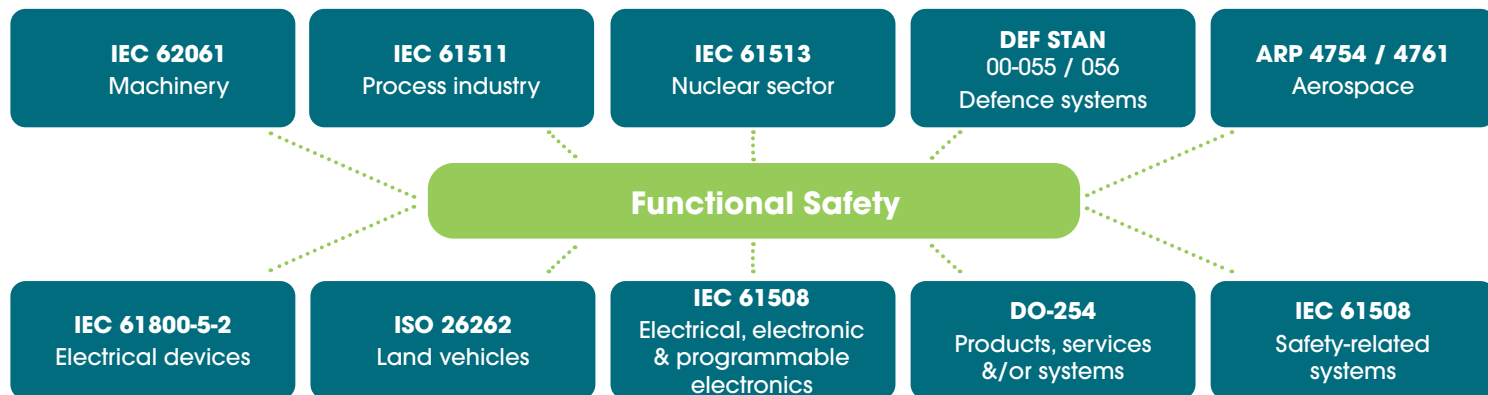


TECHNICAL CONSULTANCY

We could tell you that it's our expertise in high-integrity and mission-critical control systems that makes our technical consultancy so invaluable. We could talk about our talented specialists, great track record and awards, but what really sets us apart, is our open and honest approach. We work collaboratively with clients to meet project needs and our values of integrity, trust and accountability, continuous improvement, collaboration and teamwork, drive everything we do.

Our consultancy service embraces:

- Aircraft / air system qualification & certification
- Avionics
- Competency systems
- Complex control systems development
- Configuration & data management
- Conformity in standards (ARP 4754/4761, CAST 32A, Do-165/178/254/278/331)
- Control, electrical & instrumentation systems
- Equipment safety case development & substantiation
- Human factors & ergonomics
- Independent functional safety analysis mitigation & assessment
- Information assurance
- Mission systems
- Model based design (MBD)
- Model based systems engineering (MBSE)
- Product integrity & sustainment
- Route to market – air approach



PRODUCT DEVELOPMENT

Our team at Delkia has extensive experience in product development for major aerospace primes. Contact us to discuss how we can support your project.

Systems Services:

Uncrewed Air Systems (UAS)

- Aircraft types: fixed wing, rotary wing
- Military & civil applications
- Open, specific, certified category operations

Systems

- Auto flight
- Avionic systems
- Communications
- Electrical power & networks
- Electrical wiring & interconnect systems (EWIS)
- Flight test instrumentation
- Indication & recording
- Mission systems integration
- Navigation systems
- Weapons systems

PRODUCT DEVELOPMENT

Lifecycle Services:

Physical Design and Build

- Airbourne electronic complex hardware
- First off manufacture & qualification test
- Product breakdown structure management

Support Design

- Customer training & system interoperability
- Maintenance policy & logistics support including obsolescence
- Support equipment design

Functional Design

- Model based systems engineering & systems architecting
- Qualification test design
- Systems function design analysis & simulation (power loads, signal, HIRF, EMC)

Specialist Design

- Flight test & analysis
- Functional & physical safety analysis
- Reverse engineering of legacy systems
- System cyber security
- System environmental engineering



ASSURANCE SERVICES AND TRAINING

If you are looking for assurance services or training, look no further. Contact us to discuss how we can support your project.

Assurance Services:

- Airworthiness & product integrity services
- Change management (major, minor & repairs including build concessions)
- Compliance verification (performance, quality, safety, configuration, environmental & cyber security)
- Fault investigations
- Functional and physical audits
- Management system approvals & management
- Occurrence management
- Process development for aerospace regulatory compliance
- Product certification & acceptance
- Regulatory compliance - aerospace approvals (design, production, maintenance) Part 21 J & G, CAMO, Part 145 DAOS, MAOS, MAA, BCAR, FAA
- Requirements capture, management & traceability
- Stages of involvement (SOIs)
- Supplier Management
(data requirements for certification and product conformance)
- Synthetic environments & augmented / virtual reality

ASSURANCE SERVICES AND TRAINING

Training Services

- Accountable management
- Airworthiness in engineering design, production & maintenance
- Configuration and data management leading to NDIA Certification
- Data analysis & reporting
- Fault & incident investigation
- Human factors
- Lean engineering
- MAA approved scheme DAOS, CAMO, Part 145, CFAOS, ATM
- Part 21 J & G
- Product certification / CVE training
- Regulatory compliance management
- Root cause analysis & corrective actions
- Safety engineering
- Safety management system implementation
- Security engineering
- UAS regulation across aviation



OUR PEOPLE AND APPROACH

EXPERIENCE

At Delkia, we bring together decades of experience in human factors and the design, development and qualification of major aerospace programmes. Our expert team provide a wide range of support service to aerospace primes, other tiers and organisations.

ADDING VALUE

Our approach is to build long-lasting partnerships, adding value through a range of bespoke services in systems integration, engineering design, and technical consultancy.

COLLABORATIVE PARTNERS

We work closely with our customers to understand their objectives, and as partners to achieve the required outcomes.

INVESTING IN THE NEXT GENERATION OF ENGINEERS

You can advance in your career with Delkia. We offer apprenticeships, career opportunities, placements, graduate entry roles and R&D summer internships – working with a number of different universities. Find out more and check out our latest vacancies at **www.delkia.co.uk/careers**

MEET OUR TEAM

These are just a few of the faces that make up the Delkia Aerospace team, supported by specialist staff at our Headquarters and production facilities in Cumbria.



Kurt Canfield
CEO



Alan Barnes
Director,
Delkia Aerospace



Alan Watson
Business
Development Director



Geoff Cooper
Technical Manager



Mark Dimeck
Aerospace Defence
Principal Consultant



Jean Page
Principal Consultant
Human Factors



Richard Sleeman
Principal Engineer



Ash Jennings
Principal Safety
Engineer



Peter Hudson
R&D Manager



Christiane Watson
Office Manager &
Project Support

OUR WORK

Systems Engineering for mission-critical, high-integrity environments

“Collaborative working is one of Delkia’s greatest strengths, it is this that ensures effective and efficient working at each stage of the project lifecycle.”

Alan Barnes, Director, Delkia Aerospace

Not only does Delkia have a wealth of systems engineering experience with our systems engineers collectively proving over 300 years of experience, but we are also experienced in delivering systems that perform in the most demanding of environments.

A recent project for a major defence company involved the design, development and qualification of the weapons stowage compartment environmental monitoring system for a submarine. Whilst Delkia held overall design responsibility, a collaborative approach was embraced with the client as an integral part of the team. This enabled rapid decision making, review comment resolution and change management.

The project was monitored and measured through maturity gate reviews with a wide client stakeholder forum. Each review was preceded by a number of associated deliverables being developed and delivered to the client for review and acceptance. The reviewers ranged from client engineering owners to transversal owners of specific requirements (shock, materials, environment, ATEX, spatial, mass, etc.) which demonstrates Delkia’s experience in working with a wide range of disciplines to deliver a successful outcome.

Delkia Technical Consultancy – providing the right people at the right time

As systems integration specialists with experience in defence and clean energy projects, Delkia has extensive expertise in managing system specific design and the physical and functional interfaces required for larger platform systems. This requires bringing together a wide range of specialists able to work in an agile and collaborative manner, finding solutions at all stages throughout a project.

It is this experience and approach that had led to Delkia becoming a significant provider of technical consultancy. We understand not only engineering design, but the wide range of skills required throughout the project life cycle. This can be seen in Delkia's role in providing a wide range of engineering consultancy to major defence and nuclear contractors. These services range from provision of specialist engineering competencies, for example, human factors and aerodynamics specialists, through to systems architecture development services and assurance services for standards such as RTCA DO-178C and RTCA DO-254.

If you would like to find out more contact Alan Barnes today. abarnes@delkia.co.uk

DELKIA'S LABS

Delkia has 920m²/10,000 ft² of labs and facilities across Preston and Cumbria. This includes:

Research & Development Lab

- Delkia R&D develops technologies & systems that deliver operational gains to our customers. We pride ourselves on collaboration & have established several fruitful relations with major customers, SMEs and universities.

Electronics Lab

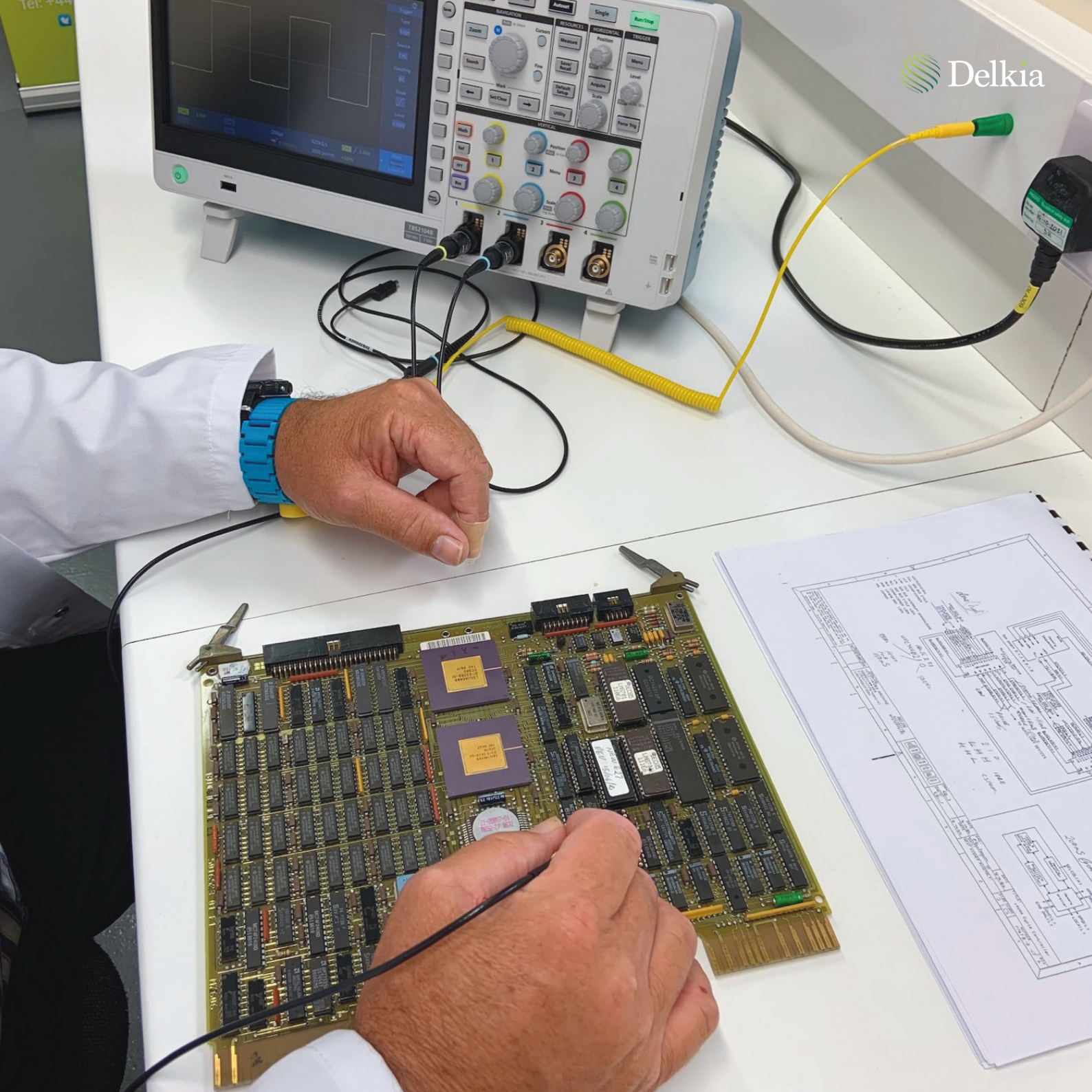
- A purpose-built facility for plant life extension support & obsolescence management, development and testing, plus production of custom-made spares

Systems Integration and Testing Facility – West Cumbria

- Dedicated industrial supplies and utilities
- Project buffer climate controlled secure storage, inventory control & management
- Zoned areas for manufacturing & project segregation

In addition, our resources include:

- AR, VR & mixed reality
- Autodesk Eagle
- Matlab
- PLD Programmer & emulators
- Product design & manufacturing tools
- Simulink



OUR FACILITIES



Delkia's aerospace and R&D teams are based in Preston, close to academic partners, customers and suppliers.

Ample conference and meeting space make it an ideal hub for project collaboration.

Delkia's electronics lab, systems integration and testing facility, head offices and manufacturing unit, are all within easy reach in Cumbria.

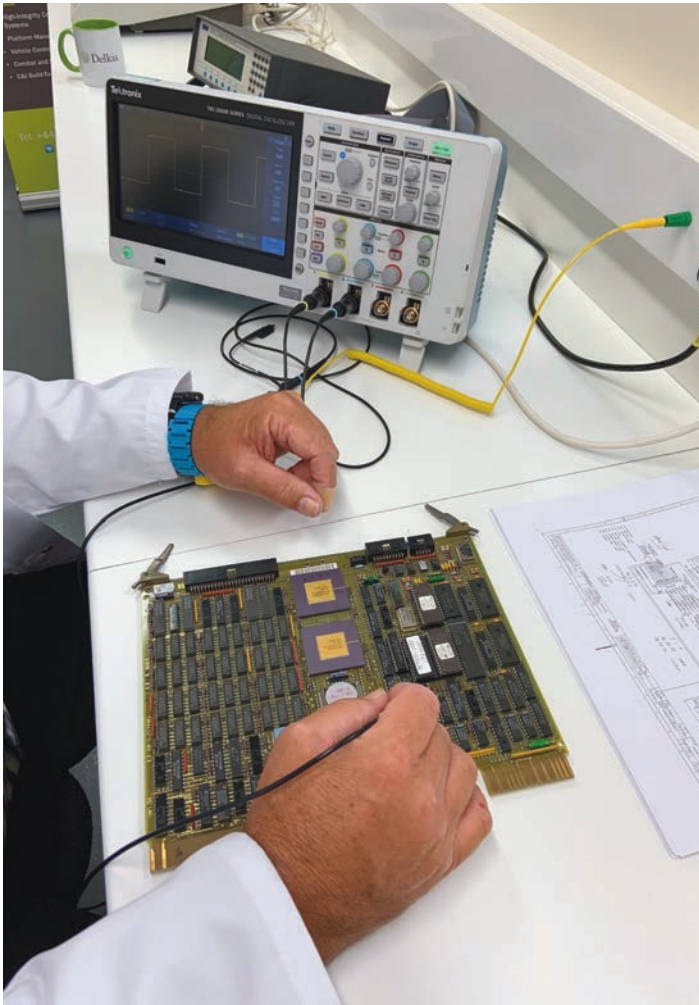


Delkia Preston



Delkia meeting, design and R&D facilities, Preston





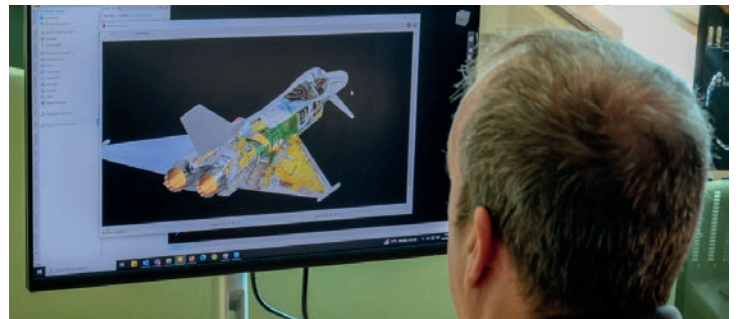
Delkia Electronics Lab



Delkia Westlakes Science & Technology Park



Delkia VR Suite



Delkia Design Services



Delkia Design Services



Delkia Production Unit

OUR CUSTOMERS AND PARTNERS

Delkia is proud of our client and partners list.

We value partnership working and **our mission** is to deliver innovative **value-for-money** products and **services** to customers to enable **safe** and **secure** operations.

BAE SYSTEMS

ATKINS



**NORTHROP
GRUMMAN**





Delkia

Contact us

Delkia Aerospace

Unit 3, Tustin Court, Portway,
Preston, PR2 2YQ

Delkia Head Office

Galemire Court, Westlakes Science and Technology Park,
Moor Row, Cumbria, CA24 3HY

Delkia West Cumbria

Unit 3D, Bridge End Industrial Estate,
Egremont, Cumbria, CA22 2RD



+44 (0) 1946 812288



info@delkia.co.uk



www.delkia.co.uk

