NORTHERN IRELAND SPACE DIRECTORY





SPACE SOLUTIONS IN NORTHERN IRELAND

Northern Ireland is recognised for its commitment to developing world-class innovative technology for the aerospace, defence, security and space sector. It has a vibrant and rapidly growing space industry, founded on a strong engineering heritage and backed by robust research competence, collaboration, world-leading academic institutions, and integral manufacturing capabilities, skills and experience.

The UK Space Agency is strongly supportive of efforts to grow the existing space capabilities in Northern Ireland through collaboration, knowledge exchange, innovation and skills development. This directory outlines the current expertise within Northern Ireland and showcases the region as a key player in the development of UK products and services for the global space sector.

"The UK's ambitious target to capture 10% of the global space economy by 2030 requires contributions from all regions of the UK to deliver innovative solutions in the up-stream and down-stream segments of the space sector, with one relying on the other in order to be successful. This regional approach to UK growth is supported by ESA Business Applications and Space Solutions which seeks to grow the space capability in Northern Ireland, the UK and Europe. This Space Supply Chain Directory showcases the expertise and capabilities in Northern Ireland to respond to the growing demand for space-based technologies and services and provides a strong foundation from which further growth can be delivered."

Pamela Anderson

ESA Business Applications Regional Ambassador - Scotland and Northern Ireland

"The global space economy is growing and evolving rapidly, representing a world of opportunity for Northern Ireland. This directory is an important step towards growing and capitalising on existing and emerging space capabilities. The UK Space Agency is backing these efforts, working closely with partners in Northern Ireland, encouraging collaboration and providing support for technology, innovation and skills. It is clear that the businesses in this directory are well placed to deliver high-quality products and solutions, which will help the UK play a leading role in the new space age."

> **Graham Turnock** CEO of the UK Space Agency

Northern Ireland Location and Key Facts

- As part of the United Kingdom it is ideally situated between Europe and the U.S.
- Population over 1.8 million
- Three airports daily flights to European business centres and Great Britain
- Modern road and rail network
- 100-gigabyte per second transatlantic link between Northern Ireland, Europe and North America
- The highest availability of superfast broadband in the U.K.



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Categories

Ancillary Services

- 3DEO
- AMF
- Centre for Competitiveness
- Cyber Guarded
- MF Logistics
- MiTech Design

- Morson Projects
- Mvdas Recruitment
- NISO Northern Ireland Space Office
- PING Handling
- Quality Blue
- RTA

Downstream Applications and Services

- 123INSIGHT QMS Insight
- 3DEO
- AMF
- Analytics Engines
- Cyber Guarded

- Mallon Technology
- Mydas Engineering
- Secure Broadcast
- Valuechain Technology

Manufacturing

- 1ADS
- AVX
- Bombardier
- Boyce Precision Engineering
- Brolis
- Causeway Aero
- CCP-Gransden
- Copas
- Cunningham Covers
- Denrov
- Donite Plastics
- Elite Electronic Systems
- Goudsmit UK
- G.E.E. Precision
- ICONIC RF
- IPC Mouldings
- Kingsbury

- Laser Prototypes
- McGreevy Engineering
- McKenzies NI
- MiTech Design
- Morson Projects
- Mydas Engineering
- Mydas Recruitment
- NI Precision
- Raptor Photonics
- Resonate Testing
- RW Coatings
- SAM Aerospace
- Springco
- Thales UK
- Warmflow Engineering Co Ltd
- Whiskin Precision Engineering

Research, Education and Outreach

- Armagh Observatory & Planetarium
- Invest NI
- NIACE

- Queen's University
- Sirius Science
- University of Ulster

QMS Insight Ltd. 11 Greenwood Park Carrickfergus Co. Antrim **BT38 7UW**





overview

QMS Insight Ltd supplies the 123insight MRP software system in Ireland and Scotland. The system includes quotes, sales, purchasing, stock control, subcontracting, scheduling, CRM and invoicing. 123insight has won over a dozen awards since its foundation in 2000, and is suitable for all manufacturers regardless of size.

areas of expertise

- In depth knowledge of Aerospace Sector with 20+ years' experience in implementing IT solutions
- In depth knowledge of applying IT solutions into a variety of roles
- Stock Management
- Master Production Scheduling
- Lean Business Improvement through application of IT solutions











3DEO NI Ltd

Scottish Provident Building 7 Donegall Square West Belfast BT16JH

contact Colin Borland - Head of Sales & Marketing telephone

+44 (0) 28 9091 2770

mobile

+44 (0) 74 9500 9099

c.borland@3deo.com web

www.3deo.com

core activity

■ 3D, sensor-agnostic visualisation of complex data sets relating to earth events year established 2015

no. of employees

<50

annual sales <\$1m

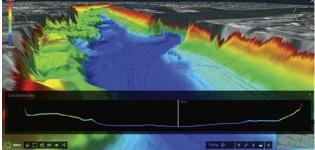
overview

3DEO provides sensor-agnostic visualisation of data relating to real-world events. From survey data for marine, hydrology and mining, to asset tracking and situational awareness, we provide a comprehensive and seamless visualisation to effectively unlock the power of your data and disseminate it via a clear and user-friendly platform.

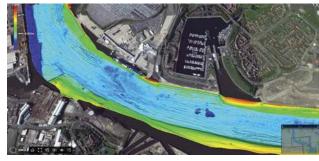
areas of expertise

- Earth Observation
- 3D visualisation of complex datasets
- Modelling of survey data, both above and below ground as well as under water
- Locating and tracking moving assets
- Modelling fixed assets in 3D to enable rapid ingest and analysis of information













overview

ADS is the Premier Trade Organisation for companies in the UK Aerospace, Defence, Security and Space Sectors. Membership is made up of over 1000 UK registered businesses. ADS Northern Ireland represents members in the region and works closely with Invest NI to grow the industry. Farnborough International Limited (FIL), which runs the Farnborough International Airshow, is a whollyowned subsidiary of ADS Group Ltd.



- Promotion of the Industry Improving the image and profile of our industries
- Industrial Policy Influencing the policy debates of most importance to our industries
- Quality Standards Supporting UK manufacturing and our industries' supply chains
- Encouraging investment in technology and innovation
- Providing Member value Supporting business development opportunities nationally and internationally through trade events and missions









Aerospace Metal Finishers Limited Unit 3 11 Paradise Avenue Ballymena

BT42 3AE

core activity year established contact Non-Destructive Testing 2002 **Roger Smyth** telephone and Surface Finishing no. of employees +44 (0) 28 2563 1066 for the Aerospace <50 email **Industries** annual sales roger@amfni.com www.amfni.com

overview

AMF is staffed by a handpicked team of people, fully trained and certificated to the highest standards in the metal finishing business. AMF's mission is to provide a consistent, fast, reliable service supplying a quality finished product that satisfies the customer's needs and meets with specification requirements. AMF provide its customers with a frequently updated information package ensuring they are aware of the progress of their components through the process.

areas of expertise

- Non-Destructive Testing, Penetrant and Magnetic Flaw Detection
- Anodising, Chromic Acid, Tartaric Sulphuric, Boric Sulphuric and Hard Anodising
- Painting, Primer, Topcoat, Solid Film and Heat **Resistant Coatings**
- Passivation and Titanium Processing
- Anodising of Titanium

certifications

- NADCAP NDT
- NADCAP Chemical Treatments
- AS9100

approvals

Airbus, Bombardier, Boeing, Safran, Leonardo Helicopters (in progress) and MOOG Aerospace

Analytics Engines Analytics Engines 1 Chlorine Gardens Belfast Co Antrim

BT9 5DJ





overview

Analytics Engines create tailored data and software solutions that enable you and your organisation to quickly and easily adopt data analytics as a central part of your strategy and enable the conversion of your data into actionable insights.

areas of expertise

- End to End Solutions We work alongside clients to develop complete data solutions
- Visualisation We are experts in create compelling data visuals and solutions that enable meaningful action

- Data Infrastructure Our suite of existing data solution modules enables the rapid deployment of solutions
- Specialism Our expertise includes data integration, data management, machine learning, AI, analytics and visualisations
- Data Analysis Our solutions and expertise enable you to produce more accurate and actionable results

certifications

- ISO 27001 Information Security Standard
- Cyber Essentials Security Certification





contact **Prof. Michael Burton, Director** telephone

+44 (0) 28 3752 3689

Michael.burton@armagh.ac.uk

www.armagh.ac.uk - research & education www.armagh.space - the place for space www.armaghplanet.com - Astronotes blog

core activities

- Astronomical Research
- Advice and Guidance to the astronomy and space-science sectors
- Educating and inspiring the public in the fields of astronomy and space science
- Providing Conferencing facilities
- Scientific history and heritage

year established 1790 Observatory 1968 Planetarium 2016 Merged no. of employees <50 annual sales

<\$1m

BT619DG

overview

The Observatory is the longest continuously operating astronomical research institute on these islands. The Planetarium is similarly the longest established planetarium. AOP remains an international leader conducting, supporting and facilitating world-leading research.

AOP has developed conferencing facilities to offer state-of-the-art, multi-screen, high-definition facilities in a unique and historic science-based environment.

areas of expertise

- Front-line astronomical research, primarily in Solar System Science, Solar Physics, Stellar, Galactic and extra-Galactic Astrophysics;
- Undertaking collaborative research with a range of national and international science and technology organisations globally;
- Providing advice / guidance on scientific and technical matters to these and other scientific institutions and companies;
- Promoting, inspiring and educating the public in, the astronomy space science and astronomical heritage fields;
- Providing state-of-the-art conferencing facilities, incorporating immersive visualisation within a unique and historic science-based, heritage environment.



certifications

AOP plays a full role in the international astronomical community, for example serving on committees of bodies such as the Science and Technology Facilities Council (STFC), the Royal Astronomical Society, the Royal Irish Academy, the International Astronomical Union (IAU) and the International Planetarium Society (IPS), assessing grant and research proposals on behalf of external funding agencies and reviewing scientific papers and editing international academic journals.

Armagh is also a member of the international consortia involved with the GOTO (Gravitationalwave Optical Transient Observer) optical, LOFAR (LOw FRequency Array) radio and the CTA (Cherenkov Telescope Array) gamma-ray telescopes.

approvals

AOP is approved for access to telescope time on international facilities, including the Dunn Solar Telescope at Sacramento Peak Observatory, the New Solar Telescope at Big Bear Solar Observatory, the Mopra radio telescope in Australia, the ESO Very Large Telescope and various spacecraft missions (such as SoHO, SDO, Hinode, Stereo, Swift, XMM-Newton and the Hubble Space Telescope).

Academic staff obtain research grants from a wide range of grant awarding bodies (e.g. the STFC, the Royal Society, the Leverhulme Trust, British Council etc.) and, through the organisation's membership of the UK SALT Consortium (UKSC), have access to the 11-metre diameter Southern African Large Telescope (SALT) located at the Sutherland Observatory, South Africa.





overview

AVX Ltd is a manufacturer and supplier of advanced electronic components and interconnect, sensor, control and antenna solutions with 29 manufacturing facilities in 16 countries around the world. The N. Ireland facility is qualified to manufacture and develop ceramics capacitors which are approved by ESA, NASA and Mil space authorities.

areas of expertise

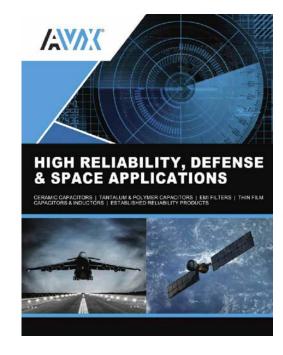
- AVX is fully qualified with the ESA, NASA and DLA Land and Maritime space authorities
- The AVX N. Ireland site encompasses a start of art production facility utilising nano material technology
- AVX has been supplying into the global aerospace market from the 1980s to ExoMars rover

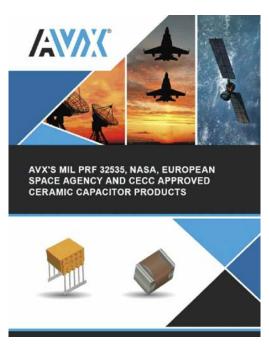
certifications

- IATF 16949
- ISO 9001
- ISO 14001

approvals

- ESCC 3009
- ESCC 3009041
- ESCC 3001
- MIL PRF 32535
- NASA S311P838
- ESCC 3012
- IECQ CECC





BOMBARDIER

Bombardier Airport Road Belfast BT3 9DZ

year established contact core activity **Nick Laird** Engineer complex 1908 structures no. of employees telephone +44 (0) 77 2573 1228 Manufacture 3,300+ composite and metallic Nick.laird@aero.bombardier.com components **Assemble** www.uk.aero.bombardier.com aerostructures Integrate systems Aftermarket support

overview

Bombardier Belfast is a premium aerostructures partner, providing end-to-end solutions through a broad range of capabilities. It specialises in research, design, manufacture, assembly, structural testing and after-market support of complex composite and metallic aerostructures, including wings, fuselages and engine nacelles. Focused investment of over £2.7bn in innovative technologies has led to the development of advanced IP materials that can be repurposed for the space industry. Bombardier Belfast has the capabilities and technologies to manufacture launch providers, payload fairings and inter-stage adaptors.

areas of expertise

- End to end solutions: design, test, manufacture, assembly and aftermarket support
- Design Integration: team includes design, stress, powerplant and systems, materials and processes, tooling and manufacturing
- Advanced Composite Manufacture: centre of excellence for the design and manufacture of complex composite components

- Supply Chain Integration: extensive experience in managing a global supply chain
- Aftermarket Services: Specialist in structural repair and overhaul of complex composite and metallic Aerostructures

certifications and approvals

- NADCAP
- EASA Part.21.G
- Part.21.J
- Part.145
- OHSAS 18001
- ISO9001
- AS9100
- AS9110
- Investors in People
- LEED Accreditation Gold Standard
- AEO approval and Export control program
- ISO14001: 2015 Environmental Management Systems
- 2019 MacRobert Award for UK engineering innovation for the A220 advanced composite wing





Boyce Precision Engineering Ltd 16 Charlestown Drive Portadown Co. Armagh BT63 5GA







overview

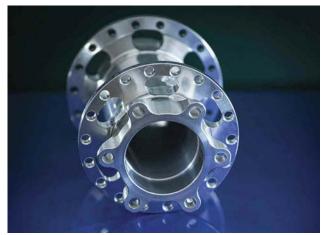
BPE are a flexible and dynamic SME, specialising in the manufacture of precision machined components for high value manufacturing sectors, such as: Aerospace, automotive, defence, space and pharmaceutical. BPE have fostered a culture of innovation and investment in the latest technologies to meet and exceed the needs of their clients.

areas of expertise

- CNC 3 and 5 Axis Milling
- CNC Turning and Turn-milling
- Hard Metal Machining
- Supply Chain Solutions
- High precision component machining

certifications

AS9100 Rev D







BROLIS

Brolis Photonics Solutions Ltd.

Unit A4, Innovation Suite Willowbank Business Park Millbrook Larne BT40 2SF



overview

Employing cutting edge technologies, BPS Ltd., develop and manufacture next-generation products, from NIR to SWIR and beyond. BPS Ltd's targeting, designation and surveillance solutions are in the hands of international customers such as police armed response units and elite special forces allowing them to remain undetected when engaging hostile targets at longer ranges and in unfavourable conditions.

areas of expertise

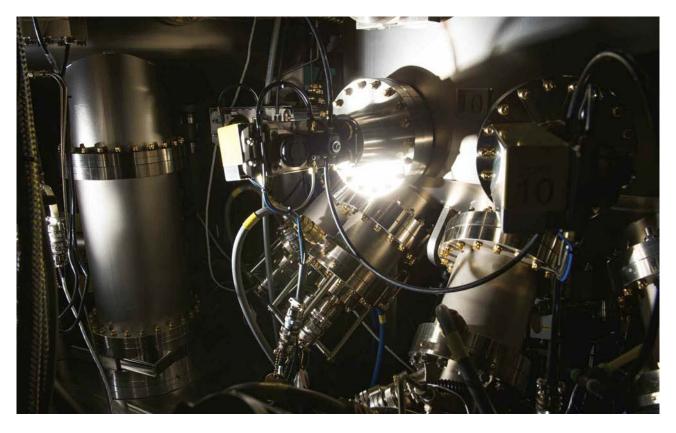
- Production of semi-conductor lasers
- GaSb/SOI photonic integrated circuits
- Fast Prototyping
- Bespoke laser module designs for OEM applications
- Volume manufacturing capability

certifications

■ ISO 9001

approvals

Registered UK Defence Contractor



Causeway Aero Ltd

Unit 2 Ballinderry Business Park 58 Ballinderry Road Lisburn **BT28 2SA**



core activities year established contact Airframe Structures and **Peter Hinds** 2000 **Aircraft Interiors** no. of employees telephone Engineering Design -+44 (0) 77 4814 8922 <50 metallics and composites annual sales **Programme Management** pete.hinds@causeway.aero \$1-\$5m Supplier Management www.causeway.aero Subcontract Manufacture and Assembly

overview

Causeway Aero Ltd offers a One-Stop-Shop Solution to customers from Engineering Design and Analysis, through to Supply Chain Management and Assembly. Unlocking the potential within the supply chain, Causeway's rapidly growing business will help deliver, develop and supply Lightweight Structures all under AS9100 RevD. On-Time, On-Spec and On Budget.

areas of expertise

- Design Lightweight Composites, Metals
- Statics, Dynamics, Shock, Vibration, Impact, Materials Simulation

- Test support Test plan development, management and reporting
- Subcontract Manufacture Highly skilled local supply chain management
- Assembly Full assembly, tooling, jig and fixtures

certifications

EASA Part 21 G (Race Completions Ltd - Group Company)

approvals

AS9100 Rev D



CCP Gransden 17 Moss Road Ballygowan Co. Down **BT23 6JE**



overview

CCP Gransden is a composite part manufacturer. With an advanced (Out of Autoclave) manufacturing cell, CCP Gransden offers design for manufacture and a wide range of capabilities. These include thermoset prepreg or resin infusion including HPRT, continuous fibre reinforced thermoplastic composites with single stage overmoulding and 7 Axis filament winding.

areas of expertise

 Thermoplastic composites - High performance polymers incl PEEK / PEI /PAEK, fast cycle time, recyclable, good joining properties

- Overmoulding Enables detail, eg ribs, fasteners etc and part count reduction
- Thermoset composites- snap cure resins for high volume, high FST tolerant resins
- Filament winding tubes, spars, pressure vessels or complex shapes

certifications

- ISO 9001, 14001 & 18001
- AS9100
- SC21 Bronze

approvals

Thales







Centre for Competitiveness Ltd

Catalyst Inc **Innovation Centre** Queens Road Belfast **BT3 9DT**





overview

The Centre for Competitiveness is a not-for-profit membership organisation. Its mission is to support the development of an internationally competitive economy in Ireland. The Centre has a portfolio of strategic international partnerships to ensure that its services to clients are at the leading edge in competitiveness principles and practices.

areas of expertise

- Operational Excellence supply chain productivity improvement in the aerospace, defence, space and security sectors
- Innovation Excellence assessment and accreditation against European Foundation for Quality Management framework

- Digital Transformation current state assessment and development of roadmap for strategic transformation
- Smart Grid Ireland strategy and technology for sustainably digitising, decarbonising and decentralising energy supply and consumption

certifications

- ADS Strategic Partner Ireland SC21 Operational Excellence and Competitiveness and Growth
- EFQM National Partner Organisation Ireland -Management Model 2020





COPAS Binnian Enterprise Park Kilkeel **BT34 4AX**

contact Shaun Copas, MD telephone +44 (0) 28 4176 4200 Enquiries@copastechnologies.com www.copastechnologies.com

■ INNOVATION - Low Cost, High Volume **Manufacture of Hard and Soft Metal Components**

core activities

EVOLUTION - 24/7 Fully Automated Production Capabilities

■ EXCELLENCE - AS9100, ISO9001, SC21

year established 2006 no. of employees <50 annual sales \$1-\$5m

overview

COPAS consistently delivers world class engineering excellence, cost effectively by optimising advanced production technologies, driven by a highly skilled responsive team.

Our experienced CAD/CAM engineering and quality departments, will assist and liaise, to ensure that your components are expertly programmed, produced and quality checked to exacting standards, AS9100 - 100% CMM as required.

We have extensive capacity in 3, 4 and 5 axis milling in hard and soft metals, with advanced technologies.

- NEW fully automated hard metal centre of excellence, delivering optimum accuracy and value. COPAS operates 24/7
- COPAS manufactures precision engineered components in:- Aluminium - Hard Metals -**Plastics**
- Post machining finishes are available in:-Silver Plate - Bead Blasting - Anodising -**Powdered Coated**

certifications

- AS9100
- ISO9001
- SC21





Cunningham Covers Ltd

Glenshane Industrial Estate **Tobermore Road** Maghera BT465DR



CLEVER PROTECTIVE COVERS



overview

Cunningham's capabilities in the design and manufacturing of clever protective covers are the foundation of their success in being a trusted supplier to the MRO and ground support sector.

Exporting to over 40 countries Cunningham work in all sectors and supply everyone from large multinationals to individuals. Cunningham Covers protect high value assets from vapour, UV corrosion, sand, dust, scratching and deterioration, all important for the storage and care of aircraft, engines, spares and associated ground support equipment.

areas of expertise

- MVP engine bags
- Engine cowling covers
- Ground support covers
- Engine lean mats
- Engine covers
- Stairway belows
- Safety nets

Cart/luggage handling covers

certifications

ISO9001:2015

approvals

Member of ADS, Queens Award for Enterprise 2017









Protective transport

Side cover for cargo

Thermal cargo blankets

Cargo containment

covers

boxes

covers

Turbine blade

protectors









overview

CyberGuarded a trademark of IT Guarded Ltd are a UK National Cyber Security Centre (NCSC) approved Penetration Testing and Auditing company, providing network infrastructure and application security auditing services to assist organisations strengthen their Cyber security posture.

As vendor independent Cyber Security Specialists there is no conflict of interest.

areas of expertise

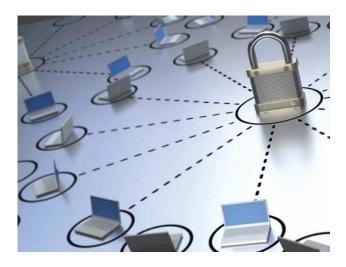
- HMG Cyber Security Standards
- International Cyber Security Best Practice
- Information Assurance
- Cyber Breach Response
- Cyber Forensics

certifications

 UK National Cyber Security Centre (NCSC) Certified CHECK Penetration Testers

approvals

NCSC Cyber Essential Plus Certification Body





Denroy Plastics Ltd

Balloo Drive Balloo Industrial Estate Bangor **BT19 7QY**





overview

Denroy Plastics is a leading supplier of injection moulded services and assemblies to the aerospace / defence sectors. Offering the latest CAD technology, 34 moulding machines, a variety of post moulding services and an extensive tooling facility, Denroy offers clients a complete project management package from conception through to full volume production.

areas of expertise

- Specialists in injection moulding of high-grade engineering polymers such as PEEK, PPS and Ultem
- In-house design team to assist with concept design and material selection

- Specialists in light weighting of components by converting from metal to polymer
- Variety of 3D printing machines capable of manufacture in high grade polymers
- SC21 Gold Award winner emphasising the Company ethos of exceptional quality and delivery in full every time

certifications

AS9100

approvals

Bombardier, Airbus, Thales, BAE SYSTEMS, Triumph, Spirit, GKN and CTRM.







Donite Plastics LTD 8 Station Road Saintfield Ballynahinch County Down **BT24 7DU**



overview

Donite Plastics is a leading specialist in heavy gauge industrial thermoforming in Northern Ireland.

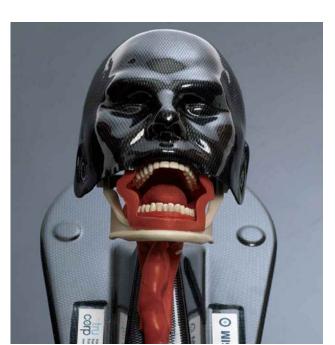
It specialises in the design of bespoke trays, tote box inserts for transport of components in a range of environments.

areas of expertise

- Thermoformed plastics manufacture for aerospace, automotive, industrial and energy
- 5-axis CNC trimming and tool making
- Bespoke transport trays for optimisation of production lines
- Plastics fabrication
- Sub-contract manufacture and assembly

certifications

ISO 9001:2015





Elite Electronic Systems Ltd

Lackaboy Industrial Estate Enniskillen Co. Fermanagh **BT74 4RL**





overview

Established since 1986 in Enniskillen, Co. Fermanagh, Northern Ireland - Elite is a leading provider of Contract Electronic Manufacturing Services to a diverse customer portfolio of innovative and successful companies in Ireland, UK and internationally. We employ over 200 people in 120,000 sq. ft. of manufacturing space and utilise state-of-the-art equipment to provide complete turnkey manufacturing, excellent quality and flexible scheduling. For additional capacity, a fresh approach or a solution to a new manufacturing challenge please contact us for advice or with a proposal.

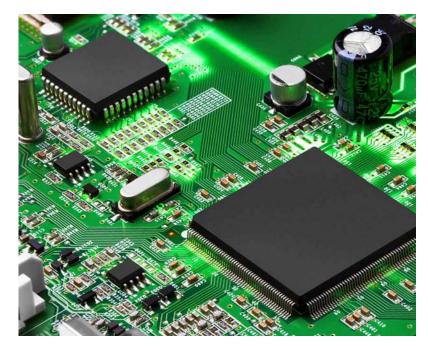
space sector activity

Elite have significant experience of complex

hardware manufacturing and offer excellent capabilities including 3D solder paste inspection, 01005 SMT component placement, X-ray BGA inspection, Automated Optical Inspection and XJTAG testing. Committed to continuous improvement and a combination of investment in equipment and training of our personnel - Elite aim to partner with market leading organisations for mutual benefit.

customers

Elite's client base consists of those operating in military, medical, power generation, automotive, industrial, telecoms and consumer markets. Elite manufacture electronics for portable defibrillators, airport access control and even power supplies that have been used in CERN's Large Hadron Collider.









G.E.E. Precision **Green Energy Engineering Ltd**

198a Lurgan Road **Dromore** Co Down BT251HL



overview

G.E.E. Precision is a quality-focused precision engineering company specialising in the supply of complex precision components and sub-assemblies to the Aerospace Industry. We support this sector with a comprehensive range of engineering services encompassing mechanical design, reverse engineering, precision component CNC machining, assembly and rapid prototyping, assisting at all levels of the manufacturing process.

areas of expertise

- Production of high-quality precision components and assemblies
- Multi-axis CNC Milling and Complex Mill Turn capacity
- Full multi-axis CADCAM programming capabilities
- Quality Control systems, Problem solving, Rapid delivery and Kanban Analytics
- Customer focused and solution driven organisation

certifications

- AS 9100: Rev D
- ISO 9001: 2015











overview

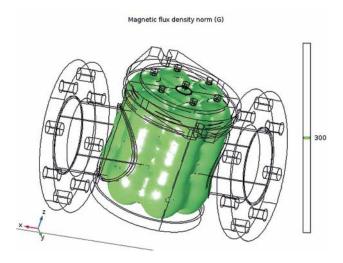
Part of the Goudsmit Group of companies founded in 1959, the group has over 60 year's experience in the design, manufacture and supply of magnets and magnetic assemblies. Alongside magnets, Goudsmit UK expanded into new areas, including plastics, metals and assemblies. Operating globally, supplying into sectors such as automotive, aerospace, oil and gas and medical.

areas of expertise

- Assembly and design
- Sub-contract manufacturing
- Project management
- Extensive logistic management
- Material resource planning on customers behalf

certifications

- ISO 9001
- AS 9120B
- IATF 16949





ICONIC RF

ICONIC RF Ltd Innovation Factory 385 Springfield Road **Belfast BT12 7DG**

Research, Education and Outreach

contact **Andrew Patterson** telephone +44 (0) 28 9590 2860 mobile +44 (0) 79 7456 1480

andrew.patterson@iconicrf.com web

https://www.iconicrf.com

core activity Microwave and mm-wave GaN and GaAs MMIC products

- Discrete GaN power transistors
- Custom MMIC development
- RF and microwave characterisation and modelling
- Rapid prototyping

year established 2017 no. of employees <50 annual sales

<\$1m

overview

ICONIC RF is a highly experienced business delivering higher performance GaN and GaAs MMICs to the worldwide market. Its products are used in Satellite, Aerospace and Defence and mmwave 5G telecommunications markets. The company supplies high power discrete GaN transistors and specialises in high performance power amplifier MMICs through mm-wave frequencies.

areas of expertise

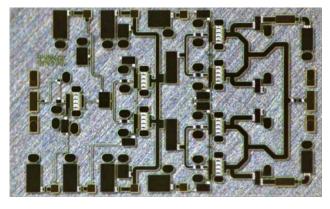
Innovative GaN and GaAs MMIC products for microwave and mm-wave applications

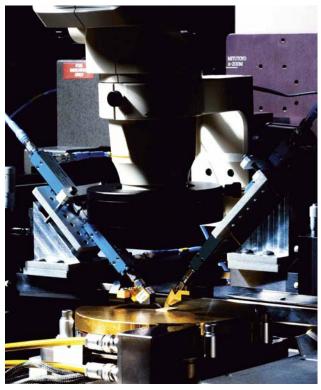
- High power discrete GaN transistors for operation to 14 GHz
- Custom MMIC development specialising in high performance power amplifiers to mm-wave frequencies
- Advanced microwave and mm-wave characterisation and device modelling
- Rapid prototyping service with die assembly facilities and production automatic wire bonding

certification

ISO9001:2015 pending







Invest Northern Ireland

Aerospace Team **Bedford Square Bedford Street** Belfast BT2 7ES



core activities year established contact Research, Education and Outreach Economic development **Aerospace Team** 2002 telephone of Northern Ireland no. of employees +44 (0) 28 9069 8507 through attracting new >250 inward investment and annual sales aerospace@investni.com supporting Northern N/A Ireland companies in www.investni.com/aerospaceanddefence increasing export sales

overview

Invest Northern Ireland is the economic development agency for Northern Ireland. It promotes inward investment and trade opportunities from an extensive local and international office network. It supports business development, helps to increase productivity and exports, attracts high quality inward investment and seeks to stimulate a culture of entrepreneurship and innovation.

areas of expertise

- Employment grants, to support job creation/ Market development assistance, to support exports
- Pre and post-employment training assistance, to support skills development
- Research and Development grants, to support new product development and innovation
- Investment in VC and Loan Funds, to support local start-ups and high potential growth companies
- Property search and selection





Industrial Precision Components Ltd t/a IPC Mouldings

19Y Kilroot Business Park Carrickfergus Co Antrim **BT39 7PR**

core activities contact year established **Graeme Bennett** Mould tool design and 1994 manufacture, CNC no. of employees telephone +44 (0) 28 9336 6696 machining, injection <50 moulding using high annual sales graemebennett@ipcmouldings.com performance <\$1-\$5m engineering polymers www.ipcmouldings.com and value add assemblies

overview

IPC Mouldings' parts and assemblies travelled with 900 million airline passengers in 2018. A Northern Ireland based supply chain partner in aircraft interiors delivering 2.5 million parts annually with average Q&D performance of 99.6% sustained since 2013, IPC has wide moulding capabilities and specialises in high quality, low volume production.

areas of expertise

- Product whole life management from DFM through to aftermarket
- Single source supplier for tooling, production and assembly

- Tooling optimised during DFM stage, transparent communication to identify and minimise risk to product manufacturability
- Early identification of opportunity to convert machined to moulded parts
- Extensive experience in processing structural, flame retardant, lubricated, conductive and coloured engineering thermoplastics

certifications

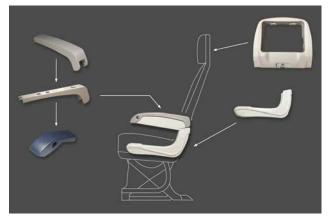
- ISO9001:AS9100
- SC21 Gold

approvals

Collins Aerospace









Kingsbury

Unit 6 - The Legacy Building, The Northern Ireland Science Park Titanic Quarter, Queens Road Queens Island, Belfast **BT3 9DT**





overview

Kingsbury are a solution provider delivering high quality milling, turning, grinding and additive machinery solutions.

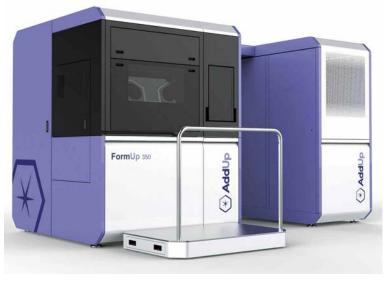
Kingsbury's wealth of expertise means they do not just sell machines, they are able to collaborate with our customers to create solutions tailored to their unique needs.

areas of expertise

- 3 to 6 axis milling machine solutions
- Turning solutions for complex and/or high volume production
- High accuracy grinding solutions
- Additive solutions based on powder bed technology
- Full automation solutions based around machining processes











contact **Robert Hill** telephone +44 (0) 79 2927 8501 email rhill1@kx.com www.kx.com

core activities

Kx technology sets performance benchmarks for the analysis of vast quantities of data, both realtime and historic. Kx comprises the kdb+ database, with its highly efficient 800kb footprint, and an enterprise layer designed to maximise analytic performance while providing vital functions such as security, control and visualisation. This platform enables the rapid development of applications and new solutions, either by our customers or partners across financial and industrial sectors.

year established 1993 no. of employees 250+ annual sales \$10m +

overview

First Derivatives is a leading provider of software and consulting services to some of the world's largest finance, technology, space and energy institutions. Our Kx technology addresses the most demanding data challenges our clients face. Find out more about our development and operations at www.kx.com.

areas of expertise

- High performance, high volume data capture, processing and storage
- Flexible visualization and querying capabilities via BI dashboards

- Rapid insights into streaming, in-memory and on-disk and remote sensing data
- Small technology footprint enabling edge and in-orbit processing
- Integrated programming toolkit enabling rapid customization and development of new functionality and analytics

approvals

European Space Agency, Airbus, NASA Frontier Development Lab, Thales and European Southern Observatory





overview

LPE is a production Additive Manufacturing (AM) company. They produce repeatable quality production parts in a range of plastic and metal alloys from qualified machines which are capable of producing consistent mechanical properties. This is complemented with a fully equipped machine shop which includes 5-Axis CNC machining, EDM, fully instrumented furnaces and CMM.

areas of expertise

 3D Metal Printing - Titanium, Aluminium and Stainless steel

- Production AM Parts Qualified machines, in-house furnaces and 5 Axis machining
- Quality First Article Inspection reports, full material traceability and process control documents
- Diversity of available materials Wide range of materials including lightweight plastics and metals
- AM Experts Longest established AM bureau in UK and Ireland with 28 years experience.

approvals

ISO 9001 and ISO 13485





Mallon Technology Ltd

Union House Union Place Cookstown Co. Tyrone **BT80 8NP**

contact **Marion Murphy** telephone +44 (0) 28 8676 1800 marion.murphy@mallontechnology.com https://www.mallontechnology.com/

core activities Geospatial Services

- Remote Sensing / Earth
- **Observation services GIS Application**
- **Development Software Development**
- Document Capture

year established 1995 no. of employees 51-249 annual sales \$1-\$5m

overview

Mallon Technology is an Irish SME that specialises in the provision of Geospatial solutions and downstream Earth Observation data services. Driven by the needs of our customer and underpinned by our expertise, the solutions we offer are focused on providing a comprehensive and quality driven service.

areas of expertise

 Geospatial project management, data preparation, capture, analysis and reporting

- Pre and Post Processing of Optical and SAR Satellite imagery
- Time Series and Change Detection Analysis observing geographical features, identifying and tracking change over time
- Feature extraction and mapping output
- Atmospheric Correction and Masking for data accuracy

certifications

- ISO 9001:2015
- ISO 27001:2013







McGreevy Engineering Ltd

Maryland Industrial Estate Ballygowan Road **Belfast BT23 6BL**





overview

McGreevy Engineering specialises in precision machined components, with internal engineering capabilities to support 5-axis milling and multi axis turn mill machine tools. The company utilises advanced manufacturing technologies in a lean environment, producing products from materials including Titanium, Inconel and Aluminium. McGreevy Engineering has AS9100 certification and SC21 Bronze accreditation.

areas of expertise

- Machining in 3 and 5-Axis, up to 3m, including vertical and horizontal capability
- NC code developed and produced using Mastercam

- Ability to turn up to 1m diameter and 3m length, using 2-axis turning machines
- Prototyping to high toleranced oil and gas products, in a range of materials
- Further capabilities include; CMM, Grinding, Fabrication and Assembly

certifications

- Full AS9100 Rev D and ISO9001:2015 approval (2221/AS)
- BRONZE Supply Chain 21 (SC21) approval (proven OTD > 90% and quality > 98%)

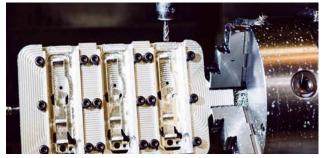
approvals

 Thales, Bombardier, Dornier Seawings and Thompson Aero Seating











McKenzies (NI) Ltd **McKenzies (Aluminium) Ltd** 76-86 Duncrue Street Belfast BT3 9AR

year established contact core activities **Stephen Russell** Metal Recycling 1998 Aluminium Foundry **Head of Strategy and Development** no. of employees Recycling Solutions 51-249 telephone +44 (0) 78 0362 6280 annual sales \$10m + email stephen.russell@mckenziesni.com www.mckenziesni.com











MF Logistics UK Ltd

Albion Park Warrington Road Glazebury WA3 5PG





overview

MF Logistics is proud to have established a solid and flourishing reputation within the Irish distribution market. With over 40 years of experience we offer competitively priced, time sensitive distribution packages and associated services to a comprehensive database of customers covering all areas of industry.

- UK to Ireland Road freight
- Europe to UK / Ireland transportation
- Abnormal load capabilities
- 4PL Management





MITECH DESIGN LTD

Quaker Buildings 80A High Street Lurgan, Craigavon Co. Armagh BT66 8BB

contact Arron Magill - Managing Director telephone +44 (0) 77 1616 8092 arron.magill@mitech-design.com www.mitech-design.com

core activities

- Novel Tool Design Solutions and Consultancy (Composites and Metallics)
- Composite Distortion **Analysis and Compensated Tooling Geometry**
- Conceptual Design, **Feasibility and Trade Studies**

year established 2018 no. of employees <50 annual sales <\$1m

overview

MITECH DESIGN LTD. is an independent design business providing innovative tool design solutions and consultancy to the Aerospace, Defence and Automotive sectors with aspirations to move into the Space sector. At MiTECH Design, we specialise in tooling design and tool compensation for process induced distortion for composite parts.

tool design expertise

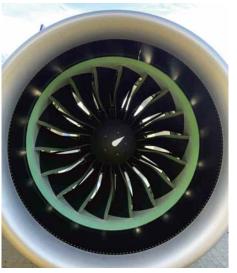
- Zero-Splice / One-Piece Nacelle / Composite Barrel / Multi-Piece Mould Tooling
- Tooling compensation (Spring-back) for process induced distortion in composites
- Innovative Tooling Solutions for producing hollow stiffened composite parts and structures
- Autoclave and Out of Autoclave (OoA) Mould Tools - Invar, Steel, Aluminium, Master Models and Composite Cure Tools
- RTM and RTI Tooling, Compression Mould **Tooling**

- Sub-Assembly and Assembly Jigs / Fixtures, Trim / Drill and Vacuum Fixtures
- CNC and In-Line Boring Fixtures

capabilities

- Tooling Engineering and Tool User Manuals
- R&D, Feasibility Studies and Trade Studies
- New Product Development
- Project and Tool Manufacturing Management
- CATIA V5 and CATIA V6 (3D Experience Platform)
- Conceptual Design, 3D Modelling and 2D Drafting
- Turn-Key Tooling Solutions, Design, Manufacture and Supply

- LMAT
- BOMBARDIER
- CCP GRANSDEN
- SPINTECH LLC / SMART TOOLING







Morson Projects Limited Unit 10 B1 Weavers Court Business Park Belfast **BT12**





overview

Morson Projects offers design, development and manufacturing services to the world's leading military and commercial aerospace organisations. From lightweight composite structures to complete systems integration, Morson Projects' engineers work independently, or in partnership with our client's project delivery teams, to provide comprehensive support throughout design, development, manufacturing and in service.

areas of expertise

- Software Development
- Systems Engineering and Integration
- Structural Design and Analysis
- Tooling Design and Manufacture
- Through Life Support

certifications

- ISO 9001
- AS 9100
- ISO 27001
- ISO 45001
- ISO 14001
- Cyber Essentials Plus

- EASA Part 21J EASA.21J.652
- EASA Part 145 Approval
- Achilles UVDB Verified



Mydas Engineering Ltd

Sketrick House Jubilee Road Newtownards Co.Down **BT23 4YH**

Manufacturing & Downstream contact **Richard Lennon** telephone +44 (0) 28 9145 0107 richard@mydas-engineering.com www.mydas-engineering.com

core activities Offload design, stressing and manufacturing

Placement of engineers on site at client premises year established 2000 no. of employees <50 annual sales <\$1-\$5m

overview

Mydas Engineering is an Aerospace Engineering and Offload Company established in 2000 working with aerospace primes and tier 1 organisations.

We can offer placement of engineers in your organisation or offloading of engineering work at our locations. In addition Mydas Engineering can offer you a bespoke, integrated support option, which is outside the traditional offload model.

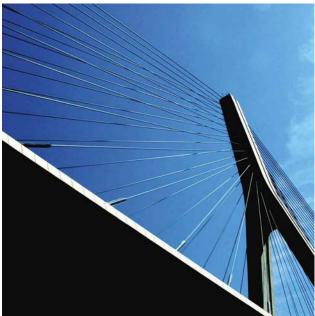
areas of expertise

- Design Engineering
- Tooling
- Stress Engineering
- Manufacturing Engineering

approval

Part 145 (in progress with partner organisation)





Mydas Recruitment Ltd

Sketrick House Jubilee Road Newtownards Co.Down **BT23 4YH**



core activity year established contact Ancillary Services & Manufacturing Bespoke recruitment **Richard Lennon** 1993 solutions for the telephone no. of employees +44 (0) 28 9182 3992 aerospace and space <50 sectors annual sales Offload design, richard@mydasrecruitment.com \$5-\$10m stressing and www.mydasrecruitment.com manufacturing

overview

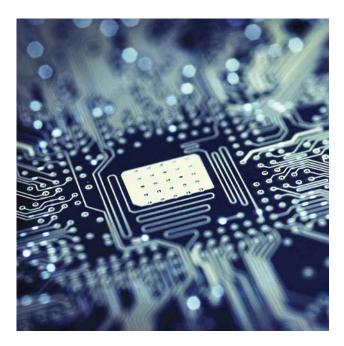
We are a specialist engineering and technical recruitment consultancy servicing the aerospace, space and manufacturing sectors. We supply engineers to many of the primes and their supply chain associates.

areas of expertise

- Sourcing, head hunting, interviewing, provision of permanent and contract staffing, innovative staffing solutions
- Design Engineering
- Tooling
- Stress Engineering
- Manufacturing Engineering

certification

REC Certified







N.I. Precision Ltd Lissue Industrial Estate Moira Road Lisburn Co. Antrim BT28 2RF



overview

N.I. Precision Ltd are a quality and technology driven precision engineering business specialising in the manufacture of precision machined components for the Aerospace, Defence, Medical and Space Industries.

With investments in the latest in technology our facility has 3, 4 and 5 axis machining capability for complex components utilising technology from market leading machine tool and auxiliary equipment manufacturers such as Hermle AG, Haas Automation, Haimer GmbH, Lang Technik GmbH and Hexagon Manufacturing Intelligence.

Quality is at the core in all that we do as a business, benefiting from a newly installed temperature controlled inspection facility, equipped with a Hexagon Global S Chrome CMM for high speed, high accuracy inspection with the latest in PC Dimis software.

areas of expertise

- Prototyping
- 3D Design
- Component manufacture
- 3 axis machining up to 3000mm x 1016mm
- 4 and 5 axis machining
- CMM inspection of components up to 3000mm x 1000mm x 1200mm
- Treatments
- Ultrasonic cleaning and heated parts washing
- Aqua/Vapour blasting

certifications

- AS9100D
- ISO 9001:2015



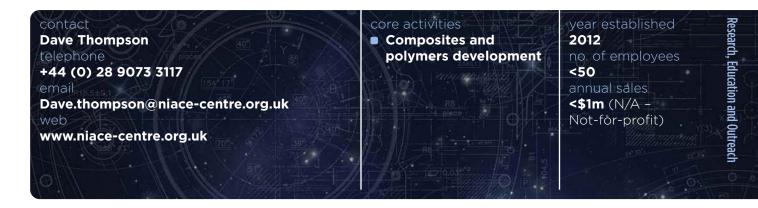




Northern Ireland Advanced Composites & Engineering (NIACE)

Airport Road Belfast BT3 9EF





overview

NIACE provides a unique collaborative openinnovation environment for the development of advanced materials and processes, including composites, polymers and 3D printing. It is member based hosting such companies as Bombardier, Collins Aerospace and Thales. NIACE is owned jointly by QUB and UU.

- Composites and polymer materials development
- Collaborative Research
- R&D manufacturing facilities
- Test Facilities











Northern Ireland Space Office 18 Carol Park Newtownabbey County Antrim **BT36 6SF**

core activities contact year established **Robert Hill** Development of programs and workshops 2011 to develop regional space skills, capabilities no. of employees telephone +44 (0) 79 2927 8501 and activities. 'Access to space' events <50 Facilitation and initial point of contact for annual sales space inward investment rabhill@hotmail.com \$1m Space competency match making service to explore opportunities for Northern Ireland www.nispaceoffice.org.uk Space / European and Global Space Stakeholder engagement

overview

The Northern Ireland Space Office (NISO) acts as a facilitator for the development of the space cluster and capabilities in Northern Ireland. NISO creates opportunities for regional industry, research institutions and government to engage with and benefit from space sector programs with space sector stakeholders across UK, Europe and globally.

areas of expertise

- Consultancy and advise on how to engage, partnering and existing opportunities.
- Facilitation of knowledge exchange with industry and research partners across UK, Ireland, Europe and globally.
- Proposal support and advice.
- Creation of themed workshops relevant to commercial development in the sector.

- Invest Northern Ireland
- ADS

PING Handling Limited

Transit Shed 4 - Cargo Terminal Belfast International Airport Aldergrove **BT29 4AB**



core activities contact year established Aircraft and Cargo **Jonny McKinney** 2016 Handling no. of employees telephone +44 (0) 74 0725 7218 IMPORT / EXPORT <50 **Customs capabilities** annual sales Jonny.mckinney@pinghandling.com \$1-\$5m CAA (Dft) Approved www.pinggroup.co.uk Facility with x-ray screening capabilities Storage and Transport Charters (end to end)

overview

PING Handling are a bespoke aircraft and cargo handling company, based at Belfast International Airport. PING Handling offer high profile and tailored services, specific to customers exact requirements. 'Professional', 'Innovative', 'Neutral', are all core competencies.

We can offer 'end to end' services through our sister company 'PING Aviation' giving you the comfort that your service requirements are managed from start to finish.

PING Handling are a young and enthusiastic company and pride themselves in fresh approach to all handling and logistical requirements.

areas of expertise

- Aircraft and Cargo Handling All types of aircraft and cargo handled (including Dangerous Goods)
- Customs Import and Export
- Security X-ray screening of cargo making good for air travel
- General Storage and Final mile delivery
- Parcel Services Global, EU and Domestic

certifications

- ISO9001
- AEO Due to complete quarter 1, 2020

- CAA secured (Dft listed) facility
- CAA Approvals to handle all classes of **Dangerous Goods**
- Authorised Consignee / Consignor with Customs Guarantees
- ITSF Internal Transit Shed Facility







core activities contact year established **Dr. Adrian Gundy** The provision of 2018 **Auditing, Training and** no. of employees telephone +44 (0) 77 2338 2513 **Consultancy in Quality** <50 **Management and LEAN** annual sales adrian@qualityblue.uk Systems, to drive and \$1m continually improve www.qualityblue.uk process and business performance

overview

Quality Blue was formed in 2018 with a focus on using ISO-based QMS and LEAN methods to drive process performance.

Quality Blue operates throughout Northern Ireland, Ireland, UK and Europe, in the following sectors: Aerospace, Defence, Space, Auto, Rail, IT, MedTec, Food Proc. and Business Services.

areas of expertise

- SC21 OE Strategic Partner and Training Partner providing a complete SC21 service
- CQI-IRCA Certified Principal Aerospace Auditor, providing a range of audit and training services
- Delivering a range of QMS support services, supplier audits, Internal audits
- Delivering a range of training courses, tools and methods to drive process performance

 Training and project delivery in LEAN tools and methods, SPC, MSA, FMEA

certifications

- Certified QMS to ISO9001:2015
- CQI-IRCA Certified Principal Aerospace Auditor
- CQI-IRCA Certified Principal QMS Auditor
- CQI-IRCA Certified ISO27001 Auditor

- SC21 OE Strategic Partner
- SC21 OE Training Partner
- Approved service provider to Bombardier, Collins Aerospace and Thales
- Approved SC21 and ISO / AS91XX service provider for Invest NI
- Approved Practitioner for Benchmark Index®
- NQA Approved Associate Consultant program
- BSI Approved Associate Consultant program



Queen's University Belfast

Centre for Wireless Innovation ECIT, Queen's Road Belfast **BT3 9DT**





overview

Over the past 20 years, our research engineers have developed space qualified Frequency Selective Surfaces (20-700 GHz) and electronic radiometer calibration switches for remote sensing instruments on EO satellites, Liquid Crystal and Electrochromic based electronically tunable phase shifters and antennas, and thin microwave absorbers suitable for integration into thermal blankets.

areas of expertise

- Retrodirective antennas for satellite broadband ground terminals (L and Ka bands) and for space launch vehicles;
- Liquid Crystal and Electrochromic based electronically tunable phase shifters and antennas;

- Micro-machined Frequency Selective Surfaces (FSS) for space borne remote sensing instruments;
- Electromagnetic absorbers based on resistively loaded FSS (e.g. for suppression of antenna backscatter on a nanosat);
- FSS design and manufacturing challenges for future space science missions.

certifications

 Dr Robert Cahill, Best Innovation Award at the 36th ESA Antenna workshop (2015) and at the 39th ESA Antenna workshop (2018); Dr Neil Buchanan, GSMA Mobile World Scholar 2018, Gold Winner for a flat self-steered high gain beam antenna, originally developed to track satellites in real-time, adapted to 5G mm-Wave networks.









overview

A leading developer and supplier of next generation, high-performance digital night vision solutions for land, airborne, and space markets. Raptor offers a range of CCD, EMCCD and SWIR based camera solutions. As well as standard products, Raptor provides custom camera cores and solutions to worldwide Electro-Optics integrators and primes.

Raptor has been involved in several space related projects both on LEO Cubesats and earth-based ground stations for Earth Observation and for laser based data communications. Raptor cameras are currently in payloads on live missions.

areas of expertise

- Experience and knowhow of sensor technologies. electronics, optics, firmware;
- Complete Turnkey manufacturing to match OEM custom camera requirements;
- SWaP reductions while maintaining highest quality images in terms of contrast and sensitivity;
- Rugged and compact: Designed for EMC and Environmental stress, shock and vibration:
- Cameras designed & manufactured in Northern Ireland, UK).

certifications

- High Quality: BS EN ISO 9001:2015;
- MilSpec standards: MIL-STD-810F & MIL-STD-
- Quality Workmanship: Class IPCa610, ESD & RoHS Compliant;
- Committed to preventing the use of grey / counterfeit goods as components within our products. All suppliers monitored for compliance with the Conflict Minerals rule, section 1502 of the Dodd-Frank Act (2010).









Resonate Testing Ltd

Unit 1 - Bridge Technology Park Carnagat Lane **Chancellors Road** Newry **BT35 8XF**



A NACELLE GROUP COMPANY



overview

Resonate Testing provides the aerospace and space industries with a unique offering, combining experience, engineering, in house design and fabrication to provide world-class mechanical and environmental testing where bespoke solutions to extreme requirements can be demonstrated.

UKAS accreditation to ISO17025 assures customers that testing is performed to the highest quality standards.

areas of expertise

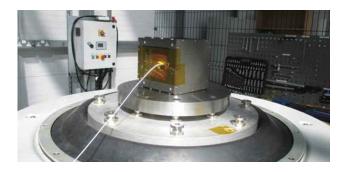
- Vibration testing
- Environmental testing
- Fire and flammability
- Bespoke test solutions to extreme conditions
- Expert validation and verification, demonstrating compliance with customer requirements

certifications

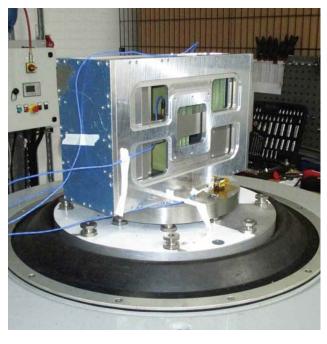
- ISO17025
- ISO9001

approvals

Bombardier, Collins Aerospace, BAE Systems, Rolls-Royce, UK's National Composite Centre, Meggitt, Icon Polymers, Zodiac and UEC.









RTA Ireland Ltd.

Unit 2, Kilkeel Business Park 3 Moor Road Kilkeel County Down BT34 4NG

core activity contact **Richard Hennity** telephone +44 (0) 28 4176 9800 rhennity@rtaintl.com www.rtaintl.com

Sourcing, procurement, warehousing, kitting, and distribution of hardware and components. 3PL/SMI final mile solutions. Mechanical assembly.

year established 1988 no. of employees <50 annual sales \$5-\$10m

overview

RTA provides harmonised hardware, COTS, component, and SMI supply chain solutions, that consolidate supply chains and bills of material to reduce total procurement costs. Component (machined and sheet metal) manufacture is subcontracted to provide extended capacity to cater for quick reaction requirements. Full lot traceability maintained throughout.

areas of expertise

- Sourcing, procurement, warehousing, and stock management of hardware, COTS, and components (including SMI and CFE)
- Supply chain management and sub-contracted manufacturing capabilities including CNC milling, turning, forming and laser cutting

- Kitting to operation sequence using customer BoMs, and delivering just in time to build schedule
- Inspection and first article inspection reporting (FAIRs meet AS9102 requirements)
- Mechanical assembly, including helical wire inserts (Official aerospace distributor for Bollhoff)

certifications

- AS9100
- AS9120
- ISO9001
- SC21 Silver (3years)

approvals

Bombardier Cat D







RW Powder Coatings Ltd

46 Hillsborough Road Comber Newtownards **BT23 5PW**





overview

RW Coatings are a family run leading provider of Aerospace, Automotive, Defence and Architectural Powder Coating and Anodising.

They work to Rapid-Response on a daily basis and pride themselves on quality of product and service.

areas of expertise

- Anodising Clear / Black / Bright
- Bead blasting, Buffing and Tumbling
- Passivation
- Powder coating textured / smooth / anti-bacterial / bespoke colour matching
- Environmentally friendly paint removal

certifications

- AS 9100:2016 Rev D
- 9001:2015
- SC21 Bronze

- Thompson Aeroseating
- IGP Pulvertechnik
- Sherwin Williams
- Akzo Nobel









SAM Northern Ireland

1 Charlestown Crescent Charlestown Road, Portadown Co. Armagh BT63 5ZE



overview

SAM Northern Ireland is one of the leading players in Northern Ireland, offering competitive manufactured solutions thanks to our unique knowhow, advanced machining capabilities and proven track record delivering complex work packages to major Tier 1 players. SAM Northern Ireland has recently been acquired by Singapore Aerospace Manufacture PTE, a large multinational with 2250 employees and turnover of circa £400M.

areas of expertise

- Complex Machining of large aero structures up to 5m in length
- Machining of hard metal components
- Special Processes and surface treatments
- Six sigma process variation reduction studies
- Lean manufacturing

certifications

- AS 9100
- ISO 14001
- OHSAS 18001
- SC21 Silver Award

approvals

Bombardier, Safran, GE Aviation, Airbus and Premium Aerotech.

Secure Broadcast Ltd

Callender Buildings Callender Street **Belfast** BT15HX





overview

Secure Broadcast has developed a world first video technology, which combines multiple layers of data in real-time, enabling individualised videos for each viewer.

Your teams can securely create, upload, distribute and retract on-brand videos to dynamically communicate with internal and external audiences.

A full digital audit ensures the video process is completely compliant with regulation such as GDPR.

areas of expertise

- Video technology R&D and engineering
- New forms of internal and external engagement with hyper-personalisation at scale
- Ensuring regulatory compliance, including GDPR
- Video storage, management and security.

certification

ISO 27001 certified company









Sirius Science Ltd 18 Carol Park Newtownabbey County Antrim **BT36 6SF**



overview

Sirius Science specialises in providing high-quality STEM education and outreach services. Focussing on space science and technology, and working in conjunction with Northern Ireland Space Office, we bring our unique 3D shows to schools, festivals and community events, enthusing and inspiring audiences of all ages to explore the universe.

areas of expertise

Outreach: Utilising stealth learning to entertain audiences, making space science and technology accessible to all

- Public Engagement: Stimulating interest in the space sector and related industries across the island of Ireland
- Bespoke Outreach Design: Developing novel outreach tools to support meaningful CSR deliverables for companies
- STEM Career Opportunities: Profiling and promoting the wide range of STEM careers in the space sector

approvals

Supported by Invest NI and the European Regional **Development Fund**





SPRINGCO (N.I.) LTD

21 Carn Road Carn Industrial Estate Portadown **BT635WG**





overview

Springco are a leading manufacturer in the UK of specialist springs for supply into Space and the Aerospace Sectors. Specialising in Nickel and Cobalt alloys for demanding applications including high temperature and cryogenics, Springco offer design, prototyping and production in any quantity required with a reliable delivery service.

areas of expertise

- Nickel and Cobalt Alloy specialists
- Specialist Spring Manufacturer for all types of application
- Full Design facility to develop a cost effective solution

- Quality products that include in-house PMI
- Exporting experience worldwide

certifications

- SC21 Silver
- AS9100
- ISO 9001
- EFQM

approvals

Wide range of customer approvals to include Aerospace, Space and Defence Industries.









THALES

Thales UK Ltd Alanbrooke Road Castlereagh **Belfast BT6 9HB**



overview

Thales is a global technology leader for the Aerospace, Transport, Defence, Digital Security and Space market sectors. We employ over 80,000 people in 68 countries and in 2017 reported revenues of £14 billion. Roughly 25,000 Thales employees are involved in the Group's technical operations from research to engineering, giving Thales a unique ability to design and deploy equipment, systems and services to meet the most complex requirements. Thales invests in growth through R&D and acquisitions, which saw Thales Group spend €730 million on Self-funded Research & Development in 2016.

In the UK, Thales employs 6,500 people and reported revenues of £1.3bn in 2017. We invest up to £720m in our supply chain, 75% (£575m) of which is sourced from the UK, supporting circa 20,000 jobs across Great Britain and Northern Ireland. As part of our focus on innovation and the

development of new technology, we spend over £70m per year in the UK on research and technology. In 2017 Thales in the UK delivered over £560m worth of exports which represented growth of ~120% over four years.

Thales is dedicated to investing in our people and continues to create highly skilled jobs across the UK. We currently employ over 3,500 engineers and circa 350 graduates and apprentices across our 10 key sites. Ensuring continuous development and retention of young members of our workforce is one of our key priorities, as we continue to see an increase our intake each year.

- Manufacture, Assembly, Integration & Test of Satellite Electric Propulsion Systems
- Manufacture Assembly Integration & Test of Satellite chemical propulsion systems
- Assembly and Test of space mechanisms



Ulster University Jordanstown Campus **Shore Road** Newtownabbey **BT37 OQB**

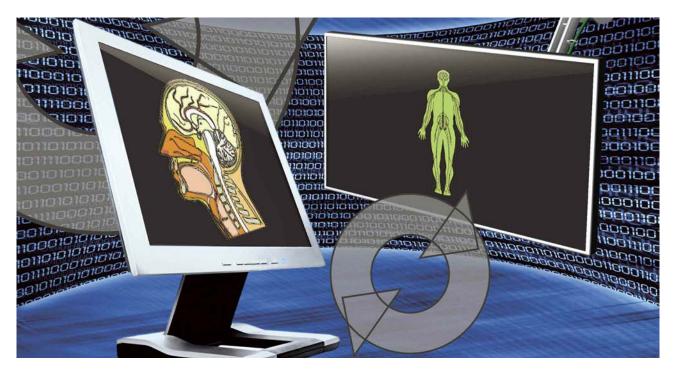




overview

Ulster's Vision is a university with an international reputation for excellence, innovation and regional engagement. Through our core business activities teaching and learning, widening access, research and technology and knowledge transfer - we have achieved a reputation for developing and sustaining high-quality, regionally relevant provision, with particular emphasis on professional education for professional life.

- Autonomous Software-Based Systems / Al
- Autonomic Computing (self-managing systems)
- Apoptotic Computing (pre-programmed selfdeath e.g. avoiding becoming space junk)
- Software Engineering / Reliable / Fault-tolerant / Dependable Systems
- Research / Academic Enterprise / Consultancy / Short Courses / Funding Proposal Development





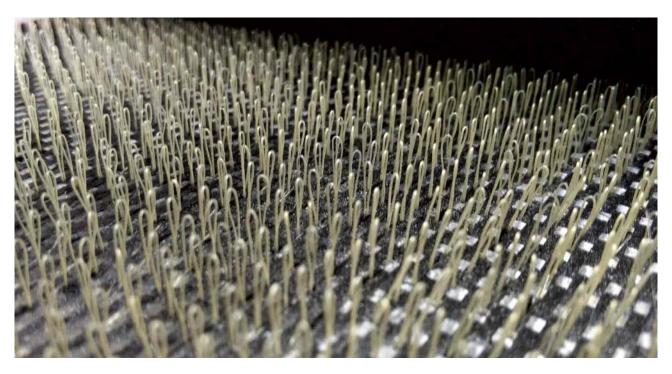
Ulster University Jordanstown Campus **Shore Road** Newtownabbey **BT37 OQB**

core activity year established Research, Education and Outreach contact Ulster University carries **Dr Paul Beaney** 1984 telephone out a range of teaching no. of employees +44 (0) 28 9036 8903 and research activity of 250+ relevance to the space annual sales p.beaney@ulster.ac.uk \$10m + sector www.ulster.ac.uk

overview

Ulster University is Northern Ireland's civic university grounded in the heart of the community and makes a lasting contribution to society as a whole. We carry out world leading space industry relevant research and will play a key role in driving the space sector forward in Northern Ireland and globally.

- Advanced materials in particular composites
- Sensing / Internet of things platforms
- Computing / Artificial Intelligence
- Robotics
- Wearable technology



Valuechain Technology Ltd

Innovation Centre Keckwick Lane Daresbury Warrington England WA44FS





overview

Valuechain Technologies is a global enterprise software business, which provides modular ERP solutions for advanced manufacturing sectors, and supply chain intelligence solutions. Valuechain's solutions are developed in collaboration with our 500+ SME clients and leading manufacturing companies including Airbus, Bentley Motors and Rolls-Royce, to provide scalable solutions for companies of all sizes.

areas of expertise

 Aerospace Manufacturing Software to digitalise business operations and ensure compliance with AS9100 and NADCAP

- Modular ERP systems for advanced manufacturing companies, to digitalise processes and help companies scale
- Supply chain intelligence software, including supply chain mapping, supplier performance management and supply chain collaboration
- Additive Manufacturing Software to provide full traceability of materials through multiple builds and powder recovery management
- Business Intelligence Software capturing, analyse and present key business information across







Moira Road Lisburn Co Antrim **BT28 2RF**



overview

Warmflow specialise in design, manufacturing, fabrication, sub assembly and kitting solutions. Based just outside Belfast in their modern 15,000m2 facility Warmflow utilises state-of-the-art manufacturing technologies including PrimaPower punching, sheering, laser cutting, Salvagini automated panel benders and ABB robotic welding enabling flexible, intelligent, repeatable lights-out production, enhanced efficiencies and reduced lead-times.

areas of expertise

- Medium to large production volumes
- Welding Mig/Tig/Plasma/Seam
- Automated Precision CNC punching/shearing/Laser
- Assembly of parts, components and kits
- Salvagnini Panel Bender

certifications

- ISO9001:2015
- ASME -Section H







Whiskin Precision Engineering Ltd

67B Upper Braniel Road Belfast Co Antrim BT5 7TX





overview

Whiskin Precision Engineering Ltd provides a component manufacturing service and is a trusted partner to the Aerospace, Medical, Defence, Marine and Automotive Sectors, both locally and globally. We combine the strength of traditional Engineering knowledge with the flexibility of the latest CNC technology, delivering high quality components and service.

areas of expertise

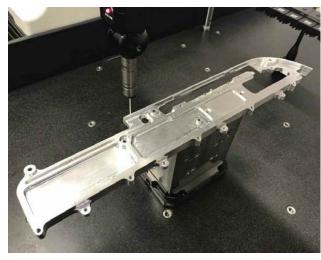
- Precision Machining Turning, Turn / Mill and 3, 4, 5 Axis Milling
- Design and Manufacture of Bespoke Tools, Jigs and Fixtures to the Aerospace Sector
- R&D Projects working as a trusted partner providing a complete solution from Design to Manufacture
- Reverse Engineering using latest CMM technology

certifications

- ISO 9001-2015
- AS9100 Rev D Pending







Notes		



"Northern Ireland is already a dynamic and innovative part of the space sector in the UK. Today, more than at any time in the past, there is a great opportunity for companies in Northern Ireland to leverage their capabilities, processes, technology and applications into a vibrant national and global space sector. This will play an increasingly important part in helping the UK achieve its targets for the growth of the sector over the next ten years."

Stuart MartinCEO of the Satellite Applications Catapult



NORTHERN IRELAND SPACE DIRECTORY