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Farnborough, the home of UK Aerospace

December 2023 Edition

interFACe

The magazine of the Farnborough Aerospace Consortium



A VERY MERRY CHRISTMAS AND A PROPSPEROUS NEW YEAR TO ALL OUR MEMBERS

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FAC WISH ALL
OUR MEMBERS A
VERY MERRY
CHRISTMAS AND
A PROPERSOUS
NEW YEAR

Member Introduction by Alan Fisher, CEO



We had a very successful Advanced Engineering Show in at the NEC. We also had two of our members to exhibit at the ATI Annual Conference, one of which (TISICS Ltd), was awarded the Innovation Award by the ATI in recognition of their technology and its impact to developing sustainable aviation.

As we race towards Christmas, the team are finalising dates for future "meet the customer" visits; to date we have a visit to the GKN Global Technology Centre as part of our hydrogen technology strategy, BAE Systems in Rochester, QinetiQ in Farnborough and Surrey Satellites in Guildford, dates to follow but not to be missed. If you are interested, please notify us and we can register you for the visits.

As always, we welcome suggestions from our member if there is an event, they would like to see us to deliver, please contact the membership team to discuss content. FAC will continue talking to international aerospace, space, and defence organisations to organise events/missions and deliver opportunities for our members, the plan is to increase these discussions to other international bodies as FAC goes forward.

We will be exhibiting at the Southern Manufacturing show so if you are interested in joining us then contact the membership team and we will register your interest. The countdown to the Farnborough Airshow next year continues and we only have a few spaces left on our stand so don't delay and contact the membership team if you wish to attend either this event or host a reception or exhibit with us at FIA 2024.

The membership team is always here and should you need any support or help in anyway, please do not hesitate to contact us direct.

If you wish to contact Alan Fisher, please email him **HERE**

FAC continues to identify topics that that are of interest, but if you have a particular topic you wish to be shared, please email **kim.yeomans@fac.org.uk**

Finally, may I and the whole FAC team wish you a very Merry Christmas and a prosperous New Year,
see you all in 2024.

Together Towards Tomorrow

The FAC Team

Together Towards Tomorrow

European Aerospace Cluster Partnership (EACP) Summit 2023



EACP Member companies attending the Summit

On the 6th through to the 8th November I attended the EACP General Assembly hosted by the Shannon Airport Group and Enterprise Ireland. We had two days of intense discussion and insightful presentations.



A key discussion point was around Advanced Air Mobility which is becoming more and more important for EACP cluster members around Europe. This was emphasized by the site visit of Manna Drone Delivery and the presentation of Russell Vickers from Future Mobility Campus Ireland. The latter also introduced EACP cluster managers to flying an E-VTOL over the Shannon region in their Mobile Control Unit!

The strategy is for FAC and the EACP to become even more present with EU policy makers in 2024! We developed actions to contribute to European aerospace policy in an important election year and continue to support innovative projects like the ECARE Project of Clean Aviation, opportunities that may well lead to projects for FAC members.
It was also agreed that EACP will organise more coordinated business missions across Europe to take advantage of its enormous network of 5000 member companies, so watch this space.

For more information on EACP: EACP | EUROPEAN AEROSPACE CLUSTER PARTNERSHIP (eacp-aero.eu)

See FAC on the EACP website HERE

Together Towards Tomorrow

AUTUMN STATEMENT - reaction.

Here is our initial reaction to the Chancellor's autumn statement...



Alan Fisher, CEO of Farnborough Aerospace Consortium (FAC), which represents hundreds of businesses in the aerospace, aviation, defence and space sectors, gave a cautious welcome to the Chancellor's autumn statement.

He said: "There were some announcements that will assist the sector, but we'll have to see exactly what the details are to assess the overall impact.

"SMEs will be pleased that late-payments are being addressed. Many of our smaller members have told us that they can wait a great deal of time before invoices are paid and this has a very negative knock-on effect.
"The Chancellor said that in future businesses will have to show how long they take to pay invoices when applying for government work, with those taking longer than 30 days being denied contracts.

"Nearly £1bn was announced to encourage investment into the aerospace sector 'building on decades of success for firms like Airbus and Rolls-Royce'.
"This recognises the importance of the sector, particularly in the south-east, and it is something we very much welcome.
"The UK's aerospace sector is genuinely world-leading and we must stay in that position, so any increase in investment is to be welcomed.
"One reason we are world leaders is due to the innovations our companies make, so we need research and development incentives.

"The Chancellor announced that full expensing will become permanent – so for every £1m a company invests they will get £250,000 off the next tax bill. This will hopefully incentivise businesses to look at their R&D in the longer term.
"While welcome, the full expensing only partly makes up for the increase in corporation tax to 25 per cent."

Together Towards Tomorrow



Recently FAC welcomed these new members:

Valuechain

Marshalls Aerospace

Resilient Edge

Cre8tive Space Ltd

South West Metal Finishing

Allmatics (BTC World Ltd)

AviationForex Ltd

Gertsburg Licata

Vendigital

SMR UK

Vision Intelligence

Welcome to our new members

fac
Farnborough, the home of UK Aerospace

valuechain

cre8tivespace

MARSHALL
AEROSPACE

RESILIENT EDGE

South West
Metal Finishing

GERTSBURG LICATA

Ymatics

motherson

Blue Abyss

bloc digital

FAIRFAX COUNTY
ECONOMIC DEVELOPMENT AUTHORITY

VENDIGITAL
A Siemens Business

Jergens
MANUFACTURING EFFICIENCY

AFX
AviationForex.com
Specialised Global Transaction & Payment Platform
Designed For Aviation

CRITICALOUTCOMES

Bodycote

Amethyst
Making Cyber Secure

CLEAN
LINEN & WORKWEAR

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MEMBER SPOTLIGHT

Gulfstream™

A GENERAL DYNAMICS COMPANY

Gulfstream Aerospace Corporation designs, develops, manufactures, markets, services and supports the world's most technologically advanced business jet.
Creating and delivering the world's finest aviation experience.

Inspired by the belief that aviation could fuel business growth, Gulfstream Aerospace Corp. invented the first purpose-built business aircraft, the Gulfstream I, which first flew in 1958. Today, more than 3,000 aircraft are in service around the world. Together with parent company General Dynamics, Gulfstream consistently invests in the future, dedicating resources to researching and developing innovative new aircraft, technologies and services. With a fleet that includes the super-midsize Gulfstream G280, the high-performing Gulfstream G650 and Gulfstream G650ER, and a next-generation family of aircraft including the all-new Gulfstream G400, the award-winning Gulfstream G500 and Gulfstream G600, the flagship Gulfstream G700 and the ultralong-range Gulfstream G800, Gulfstream offers an aircraft for every mission. All are backed by Gulfstream's Customer Support network and its worldwide team.

Visit our website at gulfstream.com.

THE FUTURE HAS LANDED

Gulfstream heralds opening of 142,000-square-foot manufacturing facility in Savannah

AMY PAIGE CONDON
Savannah Morning News



On Tuesday morning, President of Gulfstream Aerospace Corp. Mark Burns announced the completion of a 142,000-square-foot manufacturing facility at the company's headquarters in Savannah, but the soon-to-be certified G700 received much of the crowd's attention.

Burns said the G700 likely would receive final Federal Aviation Administration (FAA) approval by the end of the year, and the first 20 to roll off the production line would be delivered soon thereafter.

Together Towards Tomorrow

MEMBER SPOTLIGHT

A quick tour of the high-speed aircraft (it reaches a maximum mach of 0.935) allowed attendees a peek into how the One Percent travel. Book-matched wood polished to a high sheen covers surfaces, while diamond-stitched white leather seating wraps passengers in cool comfort. A full-size bed makes for a peaceful sleep in a cabin purported to be the most spacious in the industry.

Mark Burns



Also on display, the G400, Gulfstream's first foray into smaller jets in 20 years, according to Burns. The G400, which will begin flight tests during the second quarter of 2024, is targeted toward small companies and high-wealth individuals, joining — not supplanting — the G280 in this market segment.

"We wanted to make sure we create an aircraft for every customer mission," Burns said, adding that a new aircraft is typically seven years in the making from design and production to testing and certification to delivery.

Burns, a native Savannahian who started with the company nearly 40 years ago when Gulfstream produced only the G3, heralded the company's most recent investments, totaling more than $150 million in production, service and design facilities in and around the Savannah-Hilton Head International Airport, and adding 1,600 new jobs to the Savannah area's already 12,000-plus workforce.



Many of those employees, Burns affirmed, will come through education and workforce development partnerships at Georgia Tech, Georgia Southern University, Savannah Technical College and Savannah-Chatham County Public Schools' aviation program at Groves High School.

The new precision manufacturing facility produces the Gulfstream G400, G500 and G600 aircraft, according to a press release provided at the event. Burns added that the G650 got a boost in production when the G700 was announced and that there is a backlog of $20 billion in orders.

The G800, unveiled in 2021 along with the G400, was designed to replace the G650, said Burns, *"But, so far, the 650 has been popular enough, we're gonna build it a little longer than we originally anticipated."*

Visit our website at gulfstream.com.

EVENTS

Together Towards Tomorrow

FAC EVENTS SCHEDULE 2023

Contact rachel.abethell@fac.org.uk to register or for more information.

FAC EVENTS SCHEDULE 2023/2024		
PLANNED EVENTS		
BAE Systems Rochester Site	Early 2024	To book your place email rachel.abethell@fac.org.uk
GKN Hydrogen event	23rd January 2024	To book your place email rachel.abethell@fac.org.uk
Colour Me Social Webinar	25th January 2024	To register your interest email rachel.abethell@fac.org.uk
SCS - SC21 Information event	30th January 2024	To register your interest email rachel.abethell@fac.org.uk
Southern Manufacturing 2024	6th to 8th February 2024	Register your interest to exhibit with FAC email rachel.abethell@fac.org.uk
RandD UK Ltd Webinar #1	20th February 2024	To register your interest email rachel.abethell@fac.org.uk
Qinetiq Visit	27th February 2024	To book your place email rachel.abethell@fac.org.uk
Member Event	29th February 2024	To register your interest email rachel.abethell@fac.org.uk
RandD UK Ltd Webinar #2	13th March 2024	To register your interest email rachel.abethell@fac.org.uk
FIA 2024	22nd to 26th July 2024	All enquiries email kim.yeomans@fac.org.uk
EVENTS PLANNED - DATES TO BE CONFIRMED		
Valuechain Webinar	2024	To register your interest email rachel.abethell@fac.org.uk
Find out about FAC	2024	To register your interest email rachel.abethell@fac.org.uk
SSTL Site Visit	TBC	To register your interest email rachel.abethell@fac.org.uk
Gulfstream Site Visit	TBC	To register your interest email rachel.abethell@fac.org.uk
Team Tempest Event	TBC	To register your interest email rachel.abethell@fac.org.uk
CGTech in person event	TBC	To register your interest email rachel.abethell@fac.org.uk
FAC Annual Dinner	TBC	To register your interest email rachel.abethell@fac.org.uk





Together Towards Tomorrow

Exhibit with FAC at the Farnborough Airshow 24

VERY limited spaces available

Contact FAC (rachel.abethell@fac.org.uk) to find out more



Packages Available

We have a package to suit **all** our Members needs so whatever your budget we have a solution for you.

- Booth – SOLD OUT!
- POD – 50% sold
- Graphics
- Reception Sponsorship

Why should you attend?

- Farnborough Air Show connects the global aerospace and defence industries at a world leading show
- Place your business at the forefront of a global audience through the FAC exhibiting options
- Represents a unique opportunity to showcase products and capabilities to a truly international audience
- As an exhibitor at Farnborough International Airshow, you will have access to numerous opportunities to connect and network with clients from around the world
- FIA have a dedicated Delegations Programme, providing access to senior international commercial and military delegations
- Access to the Business Connections Exchange Programme
- Ability to purchase tickets to the FIA Welcome Reception which is not open to visitors
- The Farnborough International Airshow is the ultimate networking hub, providing invaluable opportunities to connect with industry leaders.

If you are thinking of attending FIA24 and you need to book a hotel it has come to our attention that hotels are already being booked up due to the Paris Olympics that start on Friday 26th July 2024.

Together Towards Tomorrow



POD Package

- Lockable Cupboard
- 1 x Bar Stool
- Access to meeting tables in main stand area.
- 1 x 42" TV Screen
- Lighting
- Socket
- 2 x Company Logos
- Exhibitor Tickets into the Show
- Daily Visitor Passes
- Reception area staffed by FAC
- Access to main networking area
- Tea & Coffee throughout the 5 days
- Access to space on a shelf within storage cupboard
- Access to delegations
- Access to receptions held on the FAC Stand
- Entry into the Trade Show Catalogue
- Entry in the UK Pavilion focussed directory
- Inclusion on the FAC Website & InterFACe
- Excellent location within the UK Pavilion Hall 1
- Transport of items into the show if delivered to FAC
- Transport of items back to the FAC

Graphics Package

- A0 graphic to be erected on wall in main networking area of the stand.
- Access to meeting tables in main stand area.
- 1 x Exhibitor Ticket into the Show
- Reception area staffed by FAC
- Tea & Coffee throughout the 5 days
- Access to space on a shelf within storage cupboard
- Access to delegations
- Access to receptions held on the FAC Stand
- Entry into the Trade Show Catalogue
- Entry in the UK Pavilion focussed directory
- Inclusion on the FAC Website & InterFACe
- Excellent location within the UK Pavilion Hall 1

Contact
kim.yeomans@fac.org.uk alan.fisher@fac.org.uk
rachel.abethell@fac.org.uk

Reception Packages

Morning Reception 10-11.00am

- Erection of 2 x 1m banners in the main networking area
- Orange Juice, Tea or Coffee, pastries
- Staffed by FAC
- Promotion of the event
- Access to space on a shelf within storage cupboard for marketing material
- Entry into the Trade Show Catalogue
- Entry into the UK Pavilion focussed directory
- Inclusion on FAC Website & InterFACe
- Excellent location within the UK Pavilion Hall

Afternoon Reception

- Erection of 2 x 1m banners in the main networking area
- Alcoholic Beverages, & Hors D'Oeuvres
- Staffed by FAC
- Promotion of the event
- Access to space on a shelf within storage cupboard for marketing material
- Entry into the Trade Show Catalogue
- Entry into the UK Pavilion focussed directory
- Inclusion on FAC Website & InterFACe
- Excellent location within the UK Pavilion Hall

Don't Miss Out!
More than 85% of FAC Stand Booked for Farnborough Airshow 2024

The FAC Stand
Space Sold/Available
3 x Pods, Graphics and Reception Packages



Together Towards Tomorrow

FAC Visit to GKN Aerospace Global Technology Centre, Bristol.

'Leading the Hydrogen Revolution' with GKN Aerospace

Tuesday 23rd January 2024

10am to 2pm

- **Do you want to understand how GKN Aerospace operates and what their Hydrogen strategy is?**
- **Do you want the answer to the question 'How do I do Business with GKN Aerospace'?**
- **Do you want to know how you can engage with GKN Aerospace?**
- **If you are interested in a pre-arranged 10 minute 1-2-1 with GKN register your interest today**

See the GKN Aerospace flyer attached for all the information on what GKN Aerospace are looking for.

This event comes with real opportunities and possible funding.

If your answer is yes to any of their requirements, then you need to join FAC on their visit to GKN Aerospace.

The visit will give you the following:

- **Overview of GKN Aerospace**
- **GKN Hydrogen strategy and technology needs.**
- **Opportunities to work together**
- **Tour of the GKN Aerospace facility**
- **One-to-one discussions**
- **Networking Breaks**
- **Lunch**

	Attendee	Additional Attendee
FAC Member	£175.00 + VAT	£150 + VAT***
Affiliate	£250.00 + VAT	£200.00 + VAT***
Non-Member	£300.00 + VAT	N/A

***Numbers permitting for additional person

Places are limited (and FAC members will be given priority) so register to attend now and we will advise you if you are successful.

Closing date for registration is 8th January 2024

At GKN Aerospace Global Technology Centre, Taurus Road, Patchway, Bristol, BS34 6FB

Contact Rachel Abethell (rachel.abethell@fac.org.co.uk)

GKN AEROSPACE

Leading the Hydrogen Revolution

At GKN Aerospace we are on a mission to be the most sustainable partner in the sky. We are leading the way in the drive for zero-emission flight, developing system-level capability in hydrogen electric including:

- **Hydrogen Fuel Cell Power Generation and Distribution System (H2GEAR)**: £54m collaboration project led by our UK Global Technology Centre bringing hydrogen electric propulsion systems from concept to reality
- **Hydrogen Fuel System**: Working on hydrogen storage, and looking at the requirements of the wider fuel system

H2GEAR

Components

- Cryogenic motor and drive system
- Air compressors
- Hydrogen regulators
- Gaseous hydrogen pumps

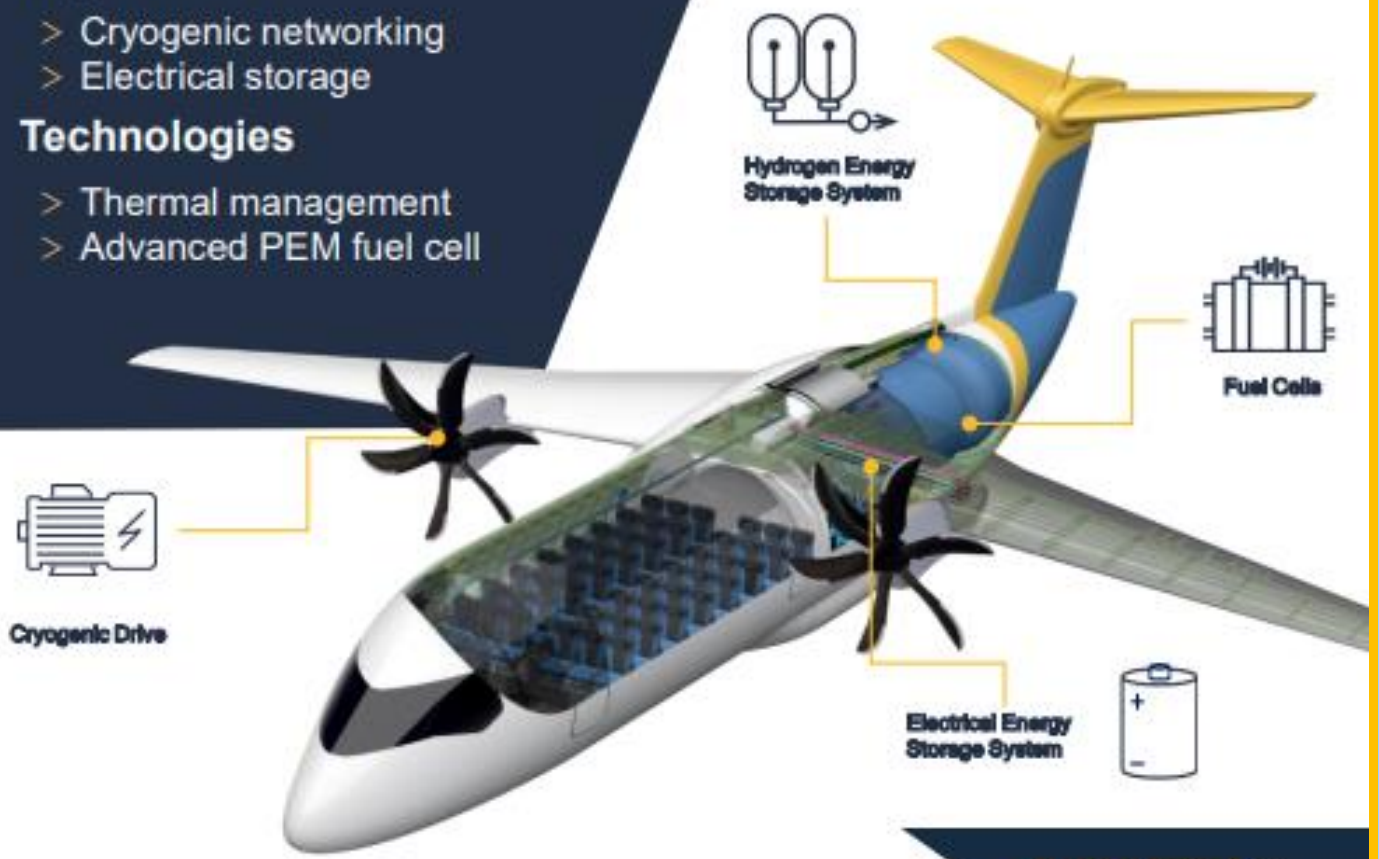
Capabilities

- Cryogenic networking
- Electrical storage

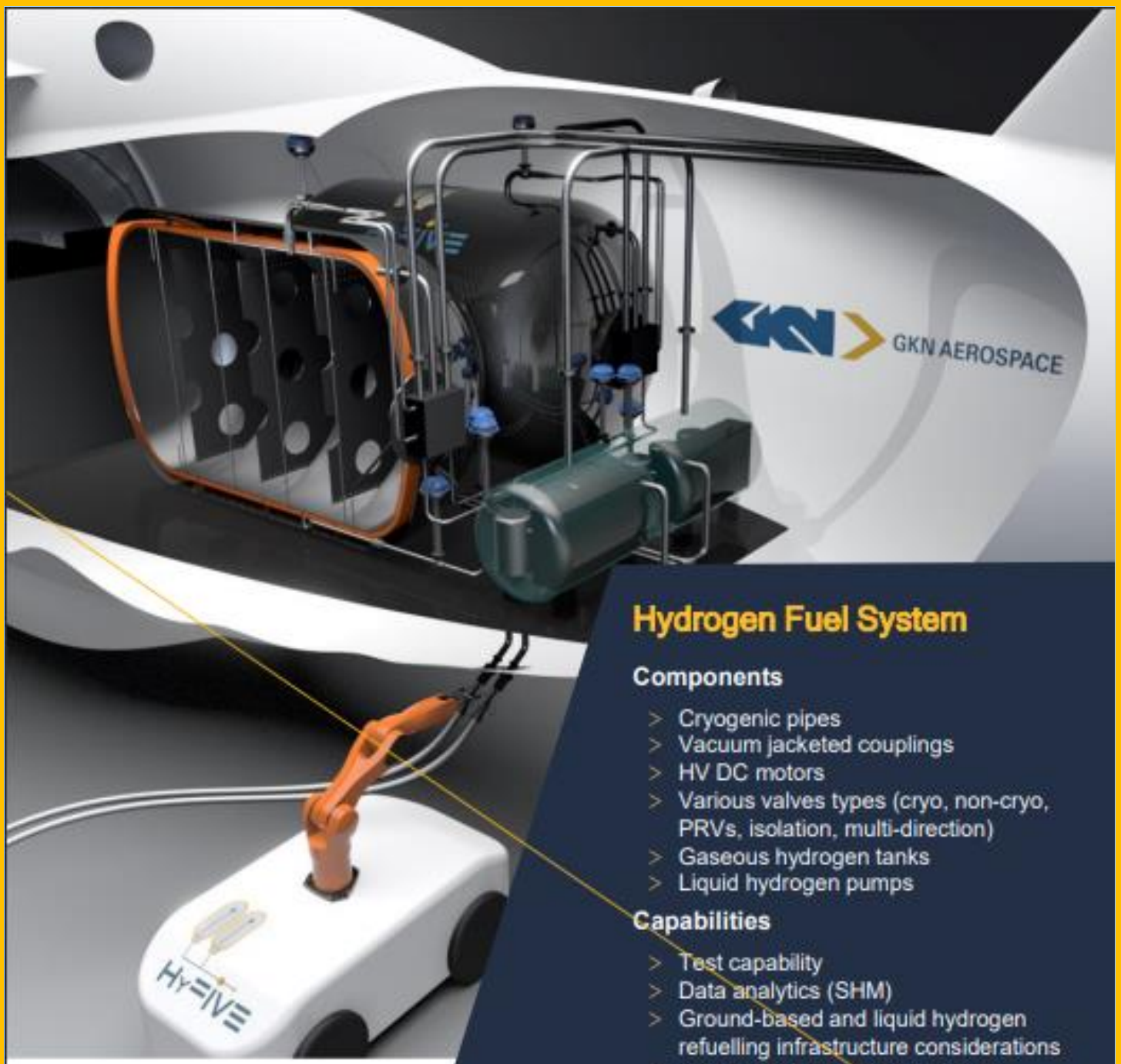
Technologies

- Thermal management
- Advanced PEM fuel cell





MAKING THINGS FLY



Hydrogen Fuel System

Components

- Cryogenic pipes
- Vacuum jacketed couplings
- HV DC motors
- Various valves types (cryo, non-cryo, PRVs, isolation, multi-direction)
- Gaseous hydrogen tanks
- Liquid hydrogen pumps

Capabilities

- Test capability
- Data analytics (SHM)
- Ground-based and liquid hydrogen refuelling infrastructure considerations
- Control and simulation capability

Technologies

- Non-intrusive cryogenic sensing (flow, quantity, temp., pressure, vacuum + hydrogen detection)
- Insulation
- High speed cryogenic bearings
- Sealing (for cryogenic hydrogen)
- Material candidates (metallic and composites)
- Cryogenic heat exchange
- Vacuum
- Manufacturing / assembly

If you are an SME innovating in any of these areas, we'd very much like to meet and talk with you at the upcoming FAC workshop event...

fac

Farnborough, the home of UK Aerospace

GKN AEROSPACE

Our Mission:
To be the most
TRUSTED and **SUSTAINABLE**
partner in the sky

Together Towards Tomorrow

FAC and RandD UK Ltd Webinars

R&D Tax Credit: Do you Still Qualify for Funding?
HMRC has raised the bar on R&D definitions and what qualifies as valid R&D costs.
Learn how to maintain a high level of HMRC R&D funding while remaining compliant.

Join FAC and RandD UK Ltd for two webinars.

R&D Tax Health check and R&D Planning
Tuesday 20th February 2024
10am to 11am

Decarbonization of Metal Supply Chains
Wednesday 13th March 2024
10am to 11am

Please see the following flyers for more information.

To register email rachel.abethell@fac.org.uk



Unsure of Your Future R&D Tax Funding?

FREE R&D Tax Health Check
R&D Pre-Project Planning Service

Gain Current and Future R&D Funding Assurance

In 2023, HMRC has raised the R&D bar with new tighter tax guidelines and definitions. Are you aware of the impacts on your business? Do your past claims still comply? Do projects currently running still qualify? How sure are you of your future R&D funding?

What's in the R&D Health-Check for You?

- Help mitigate potential HMRC claw-backs on past claims
- Highlight your HMRC R&D Tax risk profile when qualifying your past and current claims

Explain impacts of Old vs New HMRC Guidelines:

- Sub contracted R&D
- Newly out of scope R&D activities
- High risk SIC codes
- R&D vs Innovation definition impacts
- Illustrate opportunities for additional R&D funds and highlight financial risks that can be avoided now and in future claims

We benchmark your claims across your industry and technology field

- Have past claims been aggressive and so high risk?

Identify gaps and opportunities to (re)claim more R&D funds

- Common when performing in house or with an accountant
- Can be applied to past, current and future claims

Why Should You Pre-plan your R&D projects?

Gain certainty when claiming current and future R&D funds, ideally prior to project kick off. So Tax credits can be budgeted and planned for with confidence

- We Define and confirm the Technical Gap and Advancement planned, to comply new HMRC R&D guidelines, prior to kick off
- Avoid previous concerns of removing project costs, for non R&D compliance, after the project is complete (claim reduced)
- Validate contracts with R&D business partners to confirm you own the IP and development process
- Maximize your next R&D claim size by optimizing cost structures to comply with new R&D guidelines

Lets kick off a On-Site R&D Tax Health Check now to see where you stand. We can start our collaborative R&D planning at the same time.

Start enjoying the benefits of randd uk's comprehensive R&D Tax service.

randd
rewarding innovation

paul.grabham@randduk.com
01332 409 715
randduk.com

auditel

Unsure of your Future Decarbonisation Strategy?

Free of Charge Carbon Hotspots & Recommendations Report

How to rapidly decarbonise the 80% of carbon emissions in your supply chain, and obtain market leadership with Carbon Neutral products and services which will increase your sales and margins

Strategies for decarbonising your supply chain

- Free of Charge - we will identify your carbon hotspots for decarbonisation
- Help you implement robust carbon measurement and monitoring across your business
- Help you discover and source from low-carbon suppliers
- Make the business case for the transition to renewables
- Make the business case for investing in energy efficiency
- Make the business case for transitioning to lower carbon alternatives

Key recommendations

- Position you as a sustainability leader in your industry
- Help you meet demand for sustainable goods
- Set Science Based emissions reduction targets of 50% by 2030 for Scope 1, 2 and 3
- Focus on decarbonising your supply chain (80% of your carbon emissions!)
- Help you appoint dedicated Supply Chain Manager, and provide learning and capability build
- Help you switch 60% of fleet vehicles and 80% of facilities to renewable electricity by 2025
- Help you implement Supplier Carbon Disclosure Programme by 2024 to track emissions
- Obtain 3rd party verification/certification from UKAS accredited bodies for EVIDENCE

Benefits

- This will increase your sales and profitability
- Reduce operating costs through energy efficiency and renewables
- Make you more resilient against future climate change impacts, policy changes and taxes
- Help you to attract and retain top talent who value sustainability

@ paul.foster@auditel.co.uk www.auditel.co.uk M: 07964 623920

nqa.app Associate Partner | bsi. Associate Consultant | IEMA Transforming the world to sustainability

Together Towards Tomorrow



FAC have worked hard to reduce the cost of exhibiting with FAC at Southern Manufacturing and we are happy to advise we will be jointly exhibiting with ADS, which has enabled us to reduce to cost to **£999.00 plus VAT**.

Exhibiting with FAC will enable you to:

- Your Logo as part of the wall graphics
- Facility to display A4 brochures
- There will be a reception desk manned by FAC
- FAC managed stand.
- Arrange meetings with your customers and host them on the FAC stand by booking a slot
- Use it as a base for your visit
- Walk the show
  Please note there will be no pop-ups on the stand.

The stand is in the Aerospace Section of the show and places are limited so we will therefore need your commitment ASAP to secure your place.

If you are interested please contact FAC ASAP.

Together Towards Tomorrow

Supply Chain Solutions FRAMEWORK

ARE YOU READY TO BEGIN YOUR SC21 JOURNEY WITH FAC?



THE NEWLY-LAUNCHED SUPPLY CHAIN SOLUTIONS (SCS) FRAMEWORK IS A SINGLE, SIMPLE ACCESS, CROSS SECTOR PROGRAMME LED BY INDUSTRY THROUGH A PARTNERSHIP DELIVERY MODEL. AND YOU CAN BE PART OF THIS WITH FAC.

JOIN FAC ON 30TH JANUARY 2024 FROM 10AM TO 12 PM TO FIND OUT MORE ABOUT SC21 POSSIBILITIES

FIND OUT MORE ON OUR NEW SC21 PAGE ON THE FAC WEBSITE

WWW.FAC.ORG.UK

EMAIL RACHEL.ABETHELL@FAC.ORG.UK FOR MORE DETAILS

Together Towards Tomorrow

MEMBER SPOTLIGHT

Cascade Engineering

Home - Cascade Engineering (cascade-engineering.co.uk)



Cascade Engineering was founded in 2006 by experienced structural design engineers Ben Barrass and Rob Harborne. Now based in Camberley, Surrey, the company has grown through involvement on a range of aerospace and marine projects, providing a unique service that combines structural and certification expertise.

Cascade Engineering typically works with clients that need help to define a clear route to solve a structural engineering problem within constraints placed on them by regulatory authorities. The feeling of restraint causes frustration and can make project teams shy away from the novel concepts and innovative thinking that would otherwise enhance their position in the market. Cascade helps in three main ways: Collaborative Working, Certified Solutions and Dependable Delivery.

Collaborative Working

For us, Collaborative Working is a key principle. Usually, we are brought in to help clarify a route to success for a complex project, so we need to understand the initial problem in detail and be able to react quickly to change as complex projects develop and mature.

For example, when we were helping **BAE Systems** to design cutting-edge composite structures, we had members of our team based on-site embedded within the client team to become an extension of their office and ensure the most effective communication back to Cascade. We accompanied them on supplier visits as Subject Matter Experts to ensure the design intent was achieved in the manufactured products, as well as liaising directly with the regulatory authorities to ensure mutual understanding of rule interpretations. This allowed us to react together as a team, rather than through an inefficient waterfall of protocols.

Certified Solutions

Innovation to improve performance often means the route to certification is not straightforward and this can cause excessive caution or anxiety about project failure. We ensure regular dialogue and reviews with the regulators to keep the focus on the path to success.

Together Towards Tomorrow

MEMBER SPOTLIGHT

Pall Aerospace asked us to help certify a new silicone rubber duct for installation on an Airbus A320. Pall is an expert in filtration but needed help finding a route to structural certification. We determined a route covering all the salient technical domains minimising the need for test (this material requiring many unusual aspects such as ageing in UV light, thermal fatigue, creep and oxygen exposure). We then identified a test house that offered the necessary characterisation services and worked with them to get data we could then use in our mathematical models to assess the design. Finally, we compiled the final reports for Airbus and the authorities that were the basis for the granted certification.

Sometimes clients perceive that the regulators are stretched and blinkered in their outlook, especially for unusual concepts, but we have found that early and regular dialogue helps get them onboard with the project and they become an asset to the team.

Dependable Delivery

This may all sound like a lot of work, but it needn't be. By collaborative working and focusing on a certifiable solution you limit waste and mitigate risk so give yourself the best chance of meeting budget and schedule with a solution you can be proud of. It is this dependable delivery that means our clients return to us again and again.

"With Cascade Engineering, customers know that their complex projects are in safe hands. Our expertise, ability to think differently, and collaborative approach mean that after customers work with us once, they come back to us as a trusted partner."

Ben Barrass: Managing Director of Cascade Engineering



A350 wing loaded into an Airbus Beluga on its way to Toulouse to join the rest of the aircraft. Cascade Engineering led the teams developing the A350 wing trailing edge.

Contact us

Email: info@cascade-engineering.co.uk
Telephone: +44 1252 594121
Website: Home - Cascade Engineering (cascade-engineering.co.uk)

Together Towards Tomorrow

MEMBER SPOTLIGHT

Fitfactory's Monumental 2023

As we stand on the brink of a new chapter, it's time to reflect on the extraordinary journey that was 2023. Fitfactory has seen monumental growth, marked by significant milestones that have shaped our trajectory. Here's a glimpse of Fitfactory's 2023 Year in Review

In June we were thrilled to announce our strategic acquisition by the esteemed American investment firm, Everfield. This alliance opened new doors, propelling us to greater heights and providing enhanced opportunities for collaboration and innovation.



Fitfactory also proudly won the Tees Tech Company of the Year award, a testament to our local impact. Additionally, clinching the MakeUK Innovation Winner title further reinforces our position as pioneers in manufacturing technology through the development of our new MES solution.

Our revolutionary Manufacturing Execution System (MES) has seen widespread interested and recognition during its development throughout 2023. Seamlessly integrating Machine Monitoring, Scheduling, and Shop Floor Data Capture (SFDC) on the go, MES is set to redefine how manufacturers manage their processes in real-time.

Finally, 2023 also saw the introduction of our new RewardFactory referral scheme! We believe in sharing success, and now, when you refer Fitfactory's services successfully, you earn a selection of rewards. From holidays to vouchers and donations, it's our way of expressing gratitude for being part of the Fitfactory family.

As we move to 2024, Fitfactory remains committed to manufacturing innovation. With eyes on a national award and the inclusion in the Innovate UK ECO-Sprint project we will continue to keep delivering on manufacturing innovation.

Fitfactory Website

Together Towards Tomorrow

MEMBER SPOTLIGHT

Bishop GmbH

After more than 26 years successful years in Germany, Bishop GmbH is is expanding by establishing a entity in UK covering the following business models:

- **Work packages (multi disciplined) as we delivered to Airbus Germany**
- **Research to EASA, German Government, Embraer etc**
- **Own Engineering and Innovations (see below)**
- **Think-Tank (Nothern Aeronautical Think-Tank) Natt GmbH & Co KG**
- **Recruitment (head-hunt, leased, payroll etc – unlimited AÜG certif**

Peter Bishop holds a degree in Aeronautical Engineering, and has worked in diverse defence companies in UK, and was a trainee at ML Aviation in the Technical Department. He worked with LearFan Inc on the 1st 100% composite aircraft as a Stress Engineer, before switching to Germany, where his background was 21 years onsite as an Airbus Stress Engineer (Bremen / Hamburg).

Bishop GmbH was founded on 17. July 1997 in Hamburg, and at one time, we were a market leader for innovation and invention. Some of our achievements include:

- World's 1st automatic cabin interior seating system "FSAS". (Flexible Seat Arrangement System)
- World's first commercial jet ½" Front Seat Fitting (allows great density of seating)
- Micro attachment system (applied using lasers) (in future, manufacturers will need to recycle all vehicles, good etc)
- World's First Carbon Fibre Fastener (Ugly prototype manufactured)
- Quantum Sensor (IED Systems Sensor works with one single photo detection)
- Compound Drone Aircraft (10 drones coupled at the wing tip, for to 10 different missions and survivability)
- Other Innovations on request

From very modest beginnings, the company in 2004 was selected a 1st Tier E2S supplier with Airbus, Serving Germany, France, Spain and UK for large multi – discipline work packages (for all major aircraft development programs A320, A400M, A380, A350 etc). Bishop Aeronautics Inc was the first Hamburg company to work in Mobile-AL on Cabin Interior work.

The company was the first to work on large research projects with the German authorities (Lufo), and was very successful with EASA Research working on COADMEIN. We rapidly built up to 200 staff, with business additionally with CRC-ACS in Melbourne, and in Leighton Buzzard with B/E Aerospace UK.

Our customers include Airbus (all sites), Premium Aerotech, Ariane. Lufthansa Technik, Aerodata AG, EASA, SABCA and others.

Completion of new aircraft programs, and the COVID pandemic, brought a rash consolidation of Bishop GmbH (with 50 sets of office tables, cabinets, chairs, roll containers and equipment in storage in Hamburg). Today, the Bishop GmbH is rebuilding its company and looking for new opportunities.

Together Towards Tomorrow

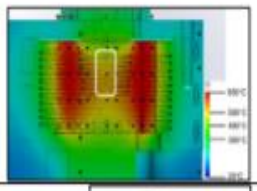
MEMBER SPOTLIGHT

Peter Bishop has been a been a member of the Crystal Cabin Award judging panel award competition, in Hamburg, for aircraft interiors since the start
Crystal Cabin Award Association | CRYSTAL CABIN AWARD (crystal-cabin-award.com)
His company won an award for the 1 cm seat rail, and fittings concept

Bishop GmbH	Contact: Peter Bishop Title: CEO Email: bishop.peter@bishop-gbh.com Cell: 0044 1794 341184 Supplier Code: N/A www.bishop-gmbh.com Office 0049 40 866 258 10	**100 WORDS IN THIS SECTION** Established 26 years, the company has circa 40 staff, and has immediate capacity, with a turnover of circa €5M. Former Airbus E2S First Tier, trying to rebuild after a 90% reduction in business due to Covid (and loss of EN9100). Lufo and EASA / FAA Research consecutively won, Airbus Germany partner, Aerodata AG, SABCA, PAG, SAAB supplier. Helping Munch Quantum Instruments with Quantum Sensor and Alphalink with compound aircraft marketing. Dynamic, flexible quick risk taker, identifying new innovations bringing to market. Have already invested €1M and years of work, so keen to make a success having worked collaborated internationally.	**Partnerships** Airbus, Airbus D&S, SABCA Ariane 6, EASA, Alphalink Engineering, Munich Quantum Instruments **Certif. and Approvals** ISO9001 (Aiming for EN9011)

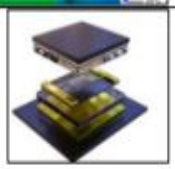
Service #1: World's FIRST Carbon Fibre Fasteners (TRL 4 "Ugly prototype"

I am offering, carbon fibre fasteners with more than 60% lighter (based on PEEK), massive improvement in stealth characteristics, unlimited life, no corrosion, no fuel tank arching, stronger that existing bolts and rivets. This technology is needed by all aerospace vehicles/systems, can be retrofitted to existing designs (using same hole) to increase performance. immense military strategic value (akin to jet engine). Having spent nearly €1M and years of research, know *"how not to manufacture"*, have ideas how to manufacture. Prototype bolt available for inspection, and patented. Basis of a whole new



Service #2: Quantum Sensor (TRL 6 – 7)

This new sensor uses supercomputing nanowire photon single photon detector (SNSPD) technology, which can detect single photons of light, making it well suited for laser-based techniques such as Laser Induced Breakdown Spectroscopy (LIBS) and Raman spectroscopy, which are typically used for optical IED technologies. SNSPDs offer the fastest response times and lowest noise levels compared to other detection technologies used in IED dedection systemsSensor works with one single photo detection efficiency >90%, timing resolution (jitter) < 25 ps, dark counts (noise) <10 Hz, wavelength sensitivity 300 nm – 1700 nm, count rate <100 MHz



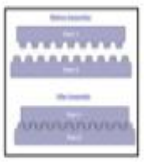
Service #3: Compound Aircraft (TRL 3)

The idea with the compound aircraft is to use effectively 10 x drones, to form one vehicle of very high wing aspect ratio, and therefore efficiency for loitering at high altitude. At the same time, the Compound Aircraft could be used as a military zone, and could break into 10 separate and completely autonomous attack / defence drones, to attack 10 different targets, simultaneously or sequenced according to priority. Secondly, such a compound aircraft, could suffer damage, and break off those parts which are fatally damaged to continue a mission.



Service #4: Micro-attachment System (TRL 4 "Ugly prototypes / demonstrators)

The EU decreed future products must be recyclable. The Micro-attachment System, like a "regulated Velcro", except that the in plane joint strength is the same as the base material, whereas, the tensile force (to separate components, can be specially calculated depending upon the actual application. It is possible to avoid the use of welding, bonding, riveting, bolts etc. The special micro attachment profile, is applied via laser which cuts a special patented profile onto any surface, Judicious application, can help align parts and speed up manufacture.



Together Towards Tomorrow

NATEP

SME FUNDING FOR AEROSPACE DEVELOPMENT

The National Aerospace Technology Exploitation Programme (NATEP) is aimed at small and medium sized suppliers to help them develop their own innovative technologies to enhance their capabilities and increase their ability to win new business with higher tier companies.



- Supported by Major Aerospace Primes
- Programme delivered in 18 months
- Mentored by a Technology Manager

Over the course of the NATEP programme over 40 SMEs in the region have been funded

The projects have been supported by all the major regional primes including Airbus, BAE Systems, GKN, Leonardo and Safran

Up to £300k is available to cover total project costs and SMEs can claim 70% of their costs as a grant.

NATEP is unique in that every applicant is supported by a Technology Manager who provides help throughout the application and delivery phases and is a free resource.

Applications now being accepted for future calls.

For more information contact FAC's NATEP Technology Manager:
kim.yeomans@fac.org.uk

Together Towards Tomorrow

MEMBER SPOTLIGHT

Executive Freight Services LTD

Professional Global Freight Forwarders

Executive Freight Services Ltd is a multimodal global freight forwarding, shipping and logistics provider. HQ Farnborough (next to airport). Bonded warehouse. Member of FAC. 5 UK locations. Worldwide global network of offices (FORCE network – exclusive agents' network with synergy). Besides general forwarding we have specialisms in Pharmaceutical and temp control, broadcast, defence & aerospace, space & telecoms, audio manufacturing & component supply chain, vehicle shipping and a projects dept.

Customs brokerage and entries; marine insurance; licenced exports; lithium battery specialist (UAV's defibs, ECM). AOG. OBC.

We are a full IATA agent for airfreight with direct access to all airlines on export ex the UK and a customs badge for Heathrow import clearances with an ERTS facility.

Our ocean container operation is near London Gateway port for consolidating and loading FCL export movements and project cargoes.

We boast an import supply chain service from across the Far East by air and sea – well established, weekly LCL services from the major China origin points with protected space to the UK even for non-stackable cargo. Airfreight and FCL pricing on demand.

We are well versed in the requirements for shipping across all the Middle East and Africa.

The USA is also a big destination for us by AIR & SEA export/import.

Intra UK / European express vehicles and distribution.
Our customs brokerage dept keeps vehicle moving between the UK and Europe issuing T1s (TADs) and export entries (including assistance with GVMS if required). We can provide full spectrum EU services, including intra-European.

On top of this we also use a specific range of preferred suppliers where necessary to arrange transport solutions with a vast coverage of Europe, able to move free circulation as well as goods under bond or export licenced cargo requiring a customs presentation at Dover.

Warehousing and consolidation for export available in Holland, Germany, Austria, Spain, Italy and France.

UK – Warehousing, fulfilment, distribution.
Available at the Farnborough facility. Airfreight consolidation point. Bonded warehouse. We also manage IP authorised accounts for clients if and as required as a value added brokerage service.

Together Towards Tomorrow

MEMBER SPOTLIGHT

Space & Telecoms
Worldwide shipping by sea and freighter main deck airfreight of ground system satellite antennas to support satellite constellations with final mile delivery solutions and provision of telehandlers to remote and non-tar sealed locations at a variety of altitudes.





Defence & Aerospace specialist – AOG, Jet engines, Helicopters*. Sensitive electronics, C-IED, EOD, ROVs, UAVs, C-UAV, section 1 lithium batteries (ions & metals) and hazardous packing for airfreight (UN3480, 3481, 3090, 3091) arranging/discussing consular documents for export, freight planning against tight timeframes, attention to detail (ATD), expeditionary forwarding to difficult places, working out of hours to make sure things happen with a small dedicated and professional team, used to letters of credit for export orders, arranging ATA CARNETS for temporary demonstration shipments (whether you hand carry or send as cargo). Export licenced cargoes. Previous exhibitor at DPRTE and ISE – visitor to clients at DSEI.





*Faced with a Challenge of moving a helicopter to Chile from Barcelona at very short notice- client turned to EFS to find a solution. Asked on a Friday, EFS reverted on the Monday with a workable answer. The helicopter size and specs required a freighter solution, resulting in 2 x 20' aircraft pallets, with helicopter disassembled. Then came the challenges for EFS- locating pallets in Barcelona, arranging trucking from Barcelona, and working with Customs agents to transit to Amsterdam. Truck requirement. ADR trained. Roller bed floor. Removeable telescopic roof. In current market conditions if the flight was not met the space had been paid for without refund so the pressure was on. The helicopter made it to the vessel which departed on schedule for **Antarctica**.

Contact Executive Freight:
Executive Freight Services Ltd, Unit 7, Arrow Industrial Estate, Farnborough Hampshire, GU14 7QH, ,
Telephone: +44 (0)1252 513300
Email: sales@executivefreightservices.co.uk
Web: www.executivefreightservices.co.uk

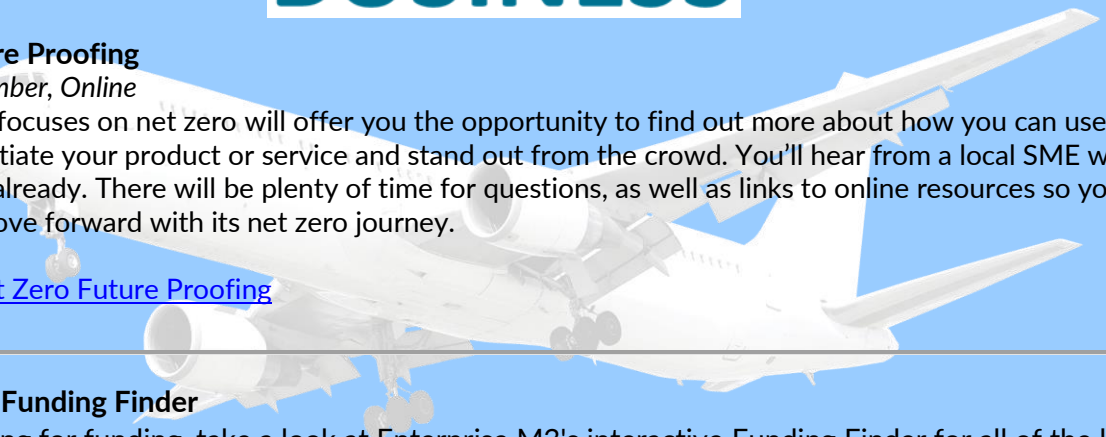
Together Towards Tomorrow

In our support for institutions, companies and individuals in the aerospace sector, FAC is delighted to announce a collaborative partnership with GTM Global on helping members expand internationally.

This is a great opportunity to hear and be part of the discussion around how you can develop your global footprint without the added travel costs, before making the costly decisions to expand.

For more information on GTM Global please visit their website here.

RUSHMOOR FOR BUSINESS



Net Zero Future Proofing
10am, 13 December, Online
A webinar that focuses on net zero will offer you the opportunity to find out more about how you can use net zero to differentiate your product or service and stand out from the crowd. You'll hear from a local SME who's doing just that already. There will be plenty of time for questions, as well as links to online resources so your business can move forward with its net zero journey.

Register for Net Zero Future Proofing

Enterprise M3 Funding Finder
If you are looking for funding, take a look at Enterprise M3's interactive Funding Finder for all of the latest Government funding distilled into a single, searchable tool.
Find out more about Funding Finder

£750,000 competition launched to find disruptive ideas for the future of defence
The Defence and Security Accelerator (DASA) is pleased to launch a new Themed Competition: Novel Disruptive Science Impacting Future Defence and Security. Run on behalf of the Defence Science and Technology Laboratory (Dstl), this competition seeks exciting concepts, technologies or ideas that may disrupt the future of defence.
Find our more about the Future of Defence Fund

Save the Date: The Future World of Work conference
9 January, University of Winchester, West Downs Centre, Winchester
The University of Winchester is hosting The Future World of Work conference on 9 January 2024. They are inviting businesses from across the region to explore the changing world of work and implications of new technology, including the impacts of AI on the way we work and how to make the best of early talent.

Together Towards Tomorrow

The largest regional space cluster in the UK

Maximising our collective regional strengths in space for the benefit of the UK

- Catalysing investment
- Delivering missions and capability
- Championing space

About Us

Space South Central is the largest regional space cluster in the UK covering Surrey, Hampshire and the Isle of Wight. We are a partnership between industry and academia accelerating space business growth and contributing to national prosperity.

We are a partnership between industry and academia, designed to; accelerate space business growth, foster an environment of innovation, grow the reputation of the south-central region and contribute to national prosperity.

Working closely with our partners, we help, support and guide, both those looking to break into the space industry and those already established within it.

We are able to

- Develop collaborative projects
- Link expertise,
- Identify and attract funding,
- Share information and;
- Provide network opportunities

Whatever the challenges or opportunities ahead for your organisation, we can help.

Click HERE for upcoming events

The Space South Central Website

Together Towards Tomorrow



With just over 1 week to go until our flagship event, the Aerospace Wales Showcase Expo, we are thrilled by the response from the sector, with just 2 exhibition spaces remaining it is shaping up to be our largest one to date. You can find more details here: https://www.aerospaceexhibitions.com/AerospaceWalesExpo/

If you have not secured exhibition space, now is the time to secure your delegate pass, this gives access to the 1 hour conference, to learn more about the supply chain opportunities, to walk the Expo meeting the 100 exhibitors, and to book your 1:1 appointments with our partner organisations – Airbus Commercial, Airbus Defence & Space, Airbus Helicopters, AWE, BAE Air, BAE Land, DASA and DE&S Deca.

Please don't delay in booking your pass, the team at Aerospace Wales are very much looking forward to seeing you on the day https://www.aerospaceexhibitions.com/AerospaceWalesExpo/book-online/

BBGA EVENTS 2023/2024

- **BBGA/Close Brothers Christmas 2023 Drinks Reception**
  7th December 2023 – London

CLICK HERE TO BOOK

BBGA Annual Conference & AGM 2024 - Look Back to See the Future.
7th March – London

House of Commons Reception 2024
Thursday 24th July

Christmas Drinks Reception 2024
December, London

For more information on all BBGA Events go to www.bbga.aero or email rachael@bbga.aero

Together Towards Tomorrow



The largest gathering of international aerospace decision-makers in Canada

The International Aerospace Innovation Forum, organized by Aéro Montréal, will be held on May 21 and 22, 2024 at the Palais des congrès de Montréal.

Around a hundred experts and professionals from the aerospace industry will share their vision and expertise during the thirty or so innovation panels and presentations organized by Aéro Montréal's team. More than 1,200 Canadian and international decision-makers, professionals, media and students from the aerospace and information technology sector are expected to attend.

A must-attend event for players in the aerospace industry to…

- Underscore the importance of the link between environmental innovation, inclusion, and sustainability for the future of the aerospace industry
- Present key technological advances in global aerospace
- Stimulate aerospace innovation in Québec by sharing strategic issues and best practices and tactics related to aerospace innovation chain management
- Increase business opportunities in aerospace technology
- Strengthen links between global aerospace leaders and the entire Quebec aerospace industry
- Attract the next generation of workers to the sector to retain our talent and have the resources needed for the future of the industry.
- Invite foreign companies to participate in Québec's collaborative innovation model to meet the needs of tomorrow.

Click HERE for all the information

Together Towards Tomorrow

midlands aerospace alliance

This is the latest in our series of special in-depth MAA visits to major aerospace companies in the Midlands hosted by an MAA director.

The MAA believes in-depth events with major aerospace companies provide invaluable knowledge for aerospace suppliers. As one of the newest -- and already a leading -- member of MAA, ITP Aero UK is kindly sponsoring this event, just as Collins Aerospace, Meggitt, Moog and Rolls-Royce have done before. Here we'll be hosted by ITP Aero UK Head of Manufacturing Lisa Charlesworth -- also an MAA director.



Click here for more information and to book your place.

UKRI Innovate UK KTN

Travel Support available from Innovate UK for UK-based R&D SMEs within the advanced manufacturing sector to attend European events under the EUREKA programme. Up to £700 is available to help cover travel and subsistence costs needed to attend the following events:

- SMART PO Proposers' Day
- European ManuFUTURE Conference 2023

EUREKA is an intergovernmental network that includes 47 countries providing a joint platform for international cooperation in innovation. Organisations and companies applying through EUREKA programmes can access funding and support from national and regional ministries or agencies for their international R&D projects.

Together Towards Tomorrow

MEMBER SPOTLIGHT

Smart Manufacture receives SME News Award for second year in a row



Smart Manufacture, based in Bournemouth, has been awarded for the second year in a row the SME News Southern Enterprise Award for "Best Manufacturing ERP Solutions Provider 2023".

We are thrilled to get this award in recognition of the work we do helping to make a difference to small manufacturers in enabling them to streamline and automate their processes to drive improved efficiencies across their end to end operations.

www.smartmanufacture.co.uk

Want to take your Manufacturing business to the cloud and save time and cost?

If you would like to find out how cloud-based software could benefit your business or to hear how we could help you work smarter, please give us a call or drop us an email.

We look forward to speaking with you.

Get In Touch

Together Towards Tomorrow

Improve your experience with us!

TRY THE FAC APP!

HAVE YOU DOWNLOADED IT YET?

Featuring FAC Member Profiles and their Capabilities

Click HERE to see how to download it to your phone

Your business profiling is **key** to enabling FAC's support for you and allowing It is therefore crucial that you use the link **HERE** to update your details and capabilities.



We would like to refresh the membership capabilities to ensure that they are up to date. This will enable other members, customers and suppliers to quickly search for and find you on the system.
If you are an FAC member please click HERE to go to the form to update your skills and capabilities – select ONE key capability and multiple capabilities **– then submit to email FAC with the results.**

There are four exciting new sections:

- Membership
- New Members
- Events
- About FAC

JOIN TODAY TO BENEFIT YOUR EXPERIENCE AS OUR MEMBER

Please click HERE for more information.

Together Towards Tomorrow

Women in Aviation & Aerospace Charter

Women in Aviation
& Aerospace Charter

The UK's aerospace and aviation sectors have come together to work towards gender equality in the industry through the Women in Aviation and Aerospace Charter.

Members of the Charter include aerospace manufacturers, airlines, airports, trade bodies and others. The Women in Aviation and Aerospace Charter reflects the aspiration of the industry to see gender balance across all levels.

FAC are proud to not only be signatories of this Charter from the beginning but, our Operations Manager Kim is part of the Charter's leadership.

What is the Charter?

- A commitment for organisations to support the progression of women into senior roles in the aviation and aerospace sectors by focusing on the executive pipeline and the mid-tier level;
- A recognition of the diversity of the sector and that organisations will have different starting points – each organisation should therefore set its own targets, where appropriate, and implement the right strategy for their organisation; and
- A requirement for organisations to publicly report on progress to deliver against any internal targets to support the transparency and accountability needed to drive change.

For more information or if you wish to become a signatory email kim.yeomans@fac.org.uk

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Get in touch with FAC HERE at any time, for any reason.

Farnborough, the home of UK Aerospace

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