

16-year IFS partnership boosts agility and competitiveness for Portsmouth Aviation, a defense engineering services company



Unified real-time data visibility business-wide, powerful Material Requirements Planning (MRP), and end-to-end Product Data Management with IFS have enabled Portsmouth Aviation to enter new markets whilst growing turnover to £40m - a 53% rise since 2018.

Portsmouth Aviation (PA) is a leading UK-based mechanical and aeronautical engineering company with over 95 years of experience, providing technical and manufacturing services a wide variety of sectors including the major UK civil and military aircraft constructors, in addition to offering environmental and packaging solutions.

The company has been using IFS since 2006 and has now fully integrated the system across the business. IFS modules include Manufacturing, Project Management, Human Capital Management, Quality Management and Enterprise Asset Management. Explains Ben Baker, Systems Manager for Portsmouth Aviation, “IFS for us is the heartbeat of the company. Virtually all functions across the business run through IFS: all our Manufacturing processes, Project management, Quality, Document Control, Finances and Human Resources. In particular, daily access to Material Requirements Planning functionality is business-critical,” he says.

Diversification agility

Baker is mindful of the increased competition for defense and MOD projects in recent years and sees IFS as a strategic tool to help the company diversify. “As a lot of our business comes from manufacturing projects for Defense Primes, we’re always looking at ways to streamline our practices to be more cost efficient and also agile,” he explains. “And whilst defense is absolutely our core business, we’re also looking at opportunities in other sectors to apply our engineering skills and capabilities, including joint ventures,” he says.

About Portsmouth Aviation

Based in the UK with sites in Portsmouth and Dereham, Portsmouth Aviation was founded in 1929 as a flying service. The business has evolved several times—from aircraft and engine overhaul and servicing; to issuing of Certificates of Air Worthiness; and then repairing, refurbishing and flight testing damaged service aircraft during World War II. In recent years, the business has extended its diversification to encompass a comprehensive range of engineering services catering to diverse industries. Their proficiency in overseeing the entire manufacturing cycle, from inception through design to rigorous testing, has not only broadened their client base but also spanned industries from commercial ventures to defense sectors. Portsmouth Aviation currently has approximately 170 employees, of which 100 use IFS full time, with 70 accessing the system on the shop floor.

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One of the areas the company is now investing in is solutions for the healthcare sector. “During the first months of the COVID pandemic, as a defense contractor we were working and could support the pandemic effort,” says Baker. “University Hospital Southampton Trust approached us to help them urgently equip Nightingale hospitals with patient chart trolleys for medical records.” Since IFS instantly adapts to any manufacturing process, the company was able to rapidly produce 70 units for Nightingale facilities. “Our subsidiary company Illustrious Healthcare is now exploring other medical device and storage opportunities in the healthcare sector,” Baker observes.

Another new sector opportunity the company has embraced, through their subsidiary Paqua, is engineering water purification systems that can instantly provide filtered potable drinking water from poor quality sources like dirty lakes and rivers in disaster relief areas. “The global problem resonated with our MD in a conversation one day, and we got to work. IFS has helped us offer a relatively low-cost solution that can be deployed quickly in remote areas as part of humanitarian aid efforts. As part of that we’re also looking at disinfecting agents and sterilization,” says Baker. Further current manufacturing opportunities include military vehicle production and surface treatments for exterior playground equipment.

Quality assurance

Baker is clear that having a robust ERP system in IFS has undoubtedly supported this rapid diversification. “We have all the core practices we need to pivot in place. The hard stuff such as batch traceability, control over manufacturing processes, quality and resources, plus seamless financial and project management capabilities, are already working for us,” he says. “We can offer full accountability and quality assurance in the most regulated environments with confidence.”

Multiple accreditation agencies and approval bodies working with the business have stated how much they like the integrated operation provided by IFS. “As part of our AS9100 quality certification we have an annual surveillance audit. Each time inspectors reference how well they see the IFS system working for us,” says Baker.

Driving cost and performance efficiencies

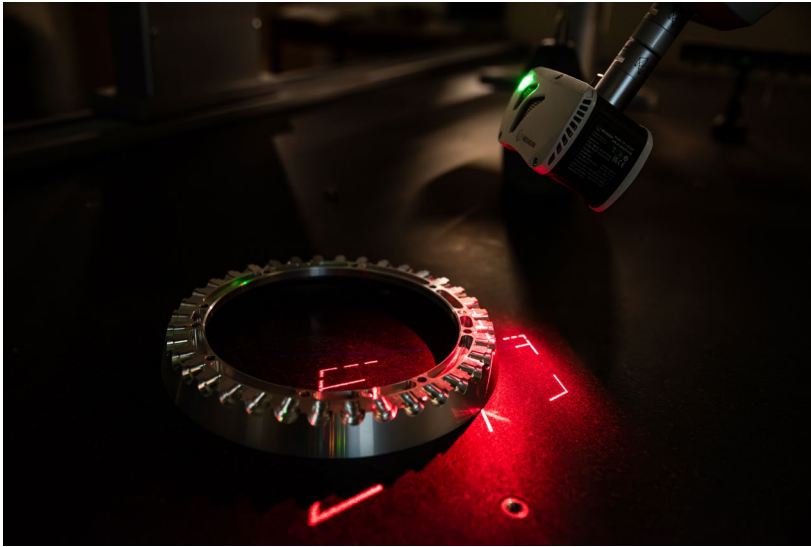
By making full use of every module available in the system, the company has eliminated overheads to drive cost efficiency. “We’ve embraced the full suite of IFS with full integrated MRP and project-driven MRP so that we can accurately forecast our full manufacturing plan,” says Baker. “For example, finance are using the same system and data as our shop floor, so we streamline all our project projections and costings.”

Recent improvements in delivery performance and right-first-time metrics stem from the system’s ability to inform MRP routing, driving more effective manufacturing throughput on the shop floor. “Over the last three years we’ve seen a 16% improvement in delivery performance using MRP with IFS, with a 99% standard for delivery on time. Quality management and ‘lessons learnt’ data is scrutinized quarterly by our Management Review Board from within IFS to see where we can improve further,” says Baker.

Benefits achieved with IFS

- Powerful project management and requirements planning capabilities
- Granular business-wide visibility of manufacturing processes and performance
- Business agility to diversify
- Cost and performance efficiencies





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The business is also using reporting out of IFS to examine labor efficiency. “We’ve been able to readjust our labor classes and manufacturing work centers to ensure that the structures and routings that we’ve got alongside our products are truly reflective of how we’re operating on the shop floor,” says Baker. “The system reporting also means we’re able to review all of our processes systematically to improve and feed into efficiency savings across the business.”

Service and asset management

Currently, for products in service, IFS is used to manage workshop repair and maintenance orders. For the company’s in-house plant and assets such as machining, welding and calibration tools, IFS Enterprise Asset Management (EAM) provides the asset information to plan and manage preventative maintenance schedules. Explains Baker, “We use IFS to run our plant asset list across the system. We also use it for our fault reporting, so if a user has an issue with production hardware or an IT asset, both our maintenance and IT teams can use the fault report to raise a help desk ticket.”

User experience and adoption

In terms of training, the company has a series of super users across the site in different departments acting as ambassadors for IFS. “I think the usability is good,” says Baker. “The more you use IFS, the more intuitive it becomes. I particularly like the consistency across modules. If you know how to use Shop Orders for example, you’ll be able to work your way through dealing with customer orders or project management in other modules.”

Digitalization and IFS Cloud

The Document Management capabilities in IFS are an important part of the company's digitalization. "As a 95-year-old business with an aviation and military background, the company was heavily paper based until 20 years ago," explains Baker. "All our records are now fully digitized and centralized in IFS using the Document Management structure. Our company repository for documents is held within a central IFS database, giving us full control over our templates and approval routes."

The company is now starting the journey to IFS Cloud. "One of the main drivers, aside of approaching end of life for our current version, is the new user interface, coupled with the accessibility on mobile devices," says Baker. "As we'll also be re-engineering multiple processes across the site, we have key users across every department in the business coming together on a monthly basis to discuss innovation and opportunities within both our current and new Cloud system."

Integration projects with IFS

Portsmouth Aviation is also in the process of embarking on two key integration projects with IFS. The first will see the business transitioning to Criterion Payroll by April 2024. The second is a CAD integration to CADLink software by QBuild. "The project will take our design structures and Academy environment and use it to translate it into IFS products and product structures," says Baker. "It will extract the building materials from design and bring it into IFS using matching to prevent the administrative burden of entering part records," he says.

Implementation advice

What advice would Baker offer other manufacturers who might be considering IFS? "Understand how the system works, how you want it to work, and then move forward with it. Embrace as much cross modular IFS functionality as possible because that is what has transformed our business operation. Keep the ERP core standard and use non-invasive configurations to provide any tailoring you need for processes," he observes.

Moment of Service™

Baker sees the agility IFS provides as the biggest factor enabling Portsmouth Aviation to deliver at its moment of service to customers. "Being able to diversify based on our customer's needs is what will drive us to succeed. IFS helps us provide the most cost-effective solution, at the highest value and the highest possible quality," he says.



Find out more

Further information contact your local IFS office or visit our web site, ifs.com

