



ARROL GIBB

Innovation Campus

The Arrol Gibb Innovation Campus is transforming large-scale manufacturing capability through innovation and learning.





AGIC is a global centre of excellence in large scale manufacturing, focused on serving the marine (ships and offshore), nuclear and energy transition sectors, and on building knowledge and skills.

AGIC is a collaboration between Babcock International, the University of Edinburgh, the University of Strathclyde, Fife College, Fife Council, Scottish Enterprise and Skills Development Scotland.

Together, we deliver international knowledge, skills and innovation while supporting employment, benefiting the economy and reinforcing the UK's position as a global leader in large-scale advanced manufacturing. We value curiosity and outcomes, kindness and collaboration, courage and delivery.

We are developing unrivalled expertise in five core capabilities on one site: large-scale advanced manufacturing, composites, robotics, nuclear manufacturing and digital shipbuilding. These five are supported by cross-campus skills development and an Innovation Incubator.

We expect the long-term contribution of AGIC to the UK to be measured in the billions of pounds. We will provide clients with access to competitive industrial capability, IP protection and advice on appropriate government support.



Core capabilities

LARGE SCALE ENGINEERING CENTRE

The Large Scale Engineering Centre brings together expertise and physical processing capability in the areas needed to make large-scale manufacturing competitive in Scotland and to support the UK's Green Industrial Revolution. The manufacture of large, complex, highly customised and high-value products has a series of associated challenges. For example, large size implies a requirement for specialist equipment and processes but low volumes make investments hard to justify; there are stringent product integrity requirements; and large product size makes physical prototyping impractical resulting in testing and validation challenges.

The centre addresses these challenges directly. It will support and coordinate manufacturing research programmes for the shipbuilding, offshore renewables, oil and gas, energy transition, civil nuclear power, commercial maritime and modular infrastructure sectors as an open-access capex-free facility, to de-risk investments in large-scale manufacturing.

COMPOSITES

Our composites capability at AGIC makes us the destination of choice for the design, manufacture and testing of large, lightweight composite structures, such as tidal turbine blades and bridge sections. We offer world-class innovation in processing and recycling of composites.

A key composites facility is FASTBLADE, the world's first test facility that uses regenerative hydraulic technology to offer high-quality, low-cost fatigue testing of composite structures for research and product development. FASTBLADE reduces design risks for developers by providing more and better data sets, enabling rapid evaluation, certification and deployment of new products, as well as enabling research options for new, advanced sustainable materials.



DIGITAL SHIPYARD

Babcock International has a long-established reputation for shipbuilding innovation at Rosyth.

AGIC's Digital Shipyard will use digital tools to support the repeated manufacture of vessels, where a series of digital twins of the ships, people, processes and facilities will inform and monitor activities during the build process.

A programme of projects will use cutting-edge digital technologies, from ready-to-deploy solutions to more blue-sky research, and will generate benefits across the campus.

Our pioneering use of data will deliver unprecedented efficiency and performance for the customer and a workforce skilled in the latest techniques.

The Digital Shipyard will demonstrate large-scale manufacturing of the future.

ROBOTICS

AGIC's robotics programme will find new solutions to robotics challenges facing large-scale manufacturing, shipbuilding and decommissioning. This will utilise technology in different approaches through adaptations and innovation not currently available in the market.

Robots and AUVs in these sectors need to be smaller, lighter and more manoeuvrable than currently available, so that single operators, not cranes, can put them to work and so that they can operate in confined spaces.

We are taking the field of robotics to the next stage to address current and anticipated needs. The results will increase efficiency and improve safety, and will change how engineering projects are designed, to take advantage of robotics advances.

NUCLEAR – SMALL MODULAR MANUFACTURING

Small Modular Reactors (SMRs), each capable of powering around a million homes, are a key part of the UK's Low Cost Nuclear programme within the Net Zero Strategy. The levelised cost of electricity (LCOE) for a new SMR compares well with other flexible supply options for renewable energy.

Cavendish Nuclear, a subsidiary of Babcock International, is the leading supplier to the UK nuclear industry, and is already working with Rolls-Royce on the development of SMR design and manufacturing. At Rosyth, Babcock has long experience in nuclear quality and safety management standards. When combined with the research power of the Universities of Edinburgh and Strathclyde, there is no doubting the leading position of AGIC in this globally important field of power generation. Key areas of research and innovation include through-life plant support, waste disposal and decontamination, and future reactor systems.



Cross-campus support

All five of AGIC's core capabilities are supported by skills development and our Innovation Incubator. Together this presents a unique and tailored package supporting people, innovation and learning.

SKILLS DEVELOPMENT

A key element of AGIC's offering is skills development, both for teams engaging with our core capabilities and as a service for a wider client base. AGIC will equip today's workforce with new and evolving skills in the latest techniques and equipment, and train tomorrow's workforce who are currently students in schools, colleges and universities, and individuals working towards Foundation, Modern and Graduate apprenticeships.

AGIC partners Fife College, the University of Edinburgh and University of Strathclyde are embedded on site, and students and apprentices have access to real-life datasets and state-of-the-art equipment, including the latest digital and data tools. The expertise feeding into AGIC, from world-leading researchers to the latest shopfloor developments, will ensure exceptional skills development opportunities.

INNOVATION INCUBATOR

Entrepreneurs and innovators operating within AGIC's scope can join our Innovation Incubator. Start-ups and early-stage companies will benefit from a wide range of support, from skills development, mentoring and physical office space, to access to datasets and the latest tools. AGIC partners will facilitate access to the innovation support eco-system across all the partners and major economic development organisations to provide wrap-around business support services to SMEs.

AGIC partners have a successful innovation track record, including winning the Queen's Awards for Enterprise, Scottish Engineering awards, Scottish EDGE Awards and Scottish Knowledge Exchange Awards. We can support a range of innovation routes such as open innovation, R&D tax credits or grant applications. We can advise on scale of ambition, stimulate through supply chain opportunities and offer AGIC as a lever to support your own innovation and business improvements to remain competitive and sustainable.



Get in touch

We are keen to engage with businesses including SMEs based in Scotland, across the UK and internationally. Whether you need specialised short-term industrial space, technology advice, skills development or innovation advice, contact us to discuss how AGIC can help you.

Please contact: AGIC@babcockinternational.com

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