

# BOOTH WELSH

Integrated Engineering Services

## Digital Transformation Capabilities



### Skilled Team & Expertise

Our Technology Development & Digitalisation team are a skilled, proactive team of engineers with expertise in:

- Software Development
- IIoT infrastructures
- Data Analytics
- VR & AR Modelling
- 3D Scanning & Printing
- Cyber Security
- Complex integration of Virtual Reality platforms such as Unity.

We have a team of 6 within the department ranging from experienced digital system consultants to graduate software development engineers, supported ably by our experienced multi-discipline engineering teams.

### Environment 4.0 - Who says there must be a trade-off between addressing the Environment and delivering measurable business results?

Emerging digital technologies provide a world of possibilities to fully align both your business and environmental goals. Booth Welsh has developed the concept Environment 4.0, utilising the latest technology and tools to deliver real results in efficiency, performance, mitigation, and waste reduction, while also delivering a positive impact on profitability.

### Energy Monitoring using IIoT - We have a proactive approach which enables us to anticipate industry changes and deliver cutting edge solutions to clients.

With our in-house digital measurement and control capabilities, complemented by live dashboarding, we offer cost-effective solutions for monitoring and optimising energy consumption. With the development of our Energy Monitoring platform, we have reduced our own energy usage, by up to 20%.

visit: [boothwelsh.com](https://www.boothwelsh.com)



**Digital Modelling – By converging AR & VR technology and experience from the gaming world with our intrinsic knowledge of Industrial Digitalisation, we have developed a solution to meet the challenges of today’s businesses.**

Leveraging innovative 3-D modelling, our team can help you visualise your project, assets or space, and optimise them through virtual designs. Using this technology for project design reviews helps prevent costly redesigns, and enhances constructability, maintainability, and plant ergonomics. **It strengthens both internal and external project bids by presenting a clear, efficient plan from the start.**

**Remote Support & Supervision - Using our mixed reality platforms, businesses can increase efficiency and productivity, reduce downtime, provide staff training and upskilling, and make significant cost and time savings and positive environmental impacts**

We have developed Mixed Reality (AR & VR) solutions to provide a range of benefits to our clients. We have delivered work instructions through AR, ensuring you can have an expert ‘by your side’ at any time, for intelligent fault finding and collaborative working, regardless of your location or availability of resources. When first developing this solution for a client during the Covid19 pandemic, **over 100k airmiles were saved, resulting in our client recovering more than £100k in staff costs, and more than £50k in travel costs.**

**AR & VR Training for Industrial Applications – training & upskilling using VR in a safe, controlled environment.**

By creating accurate CAD models of working environments and equipment, the team can offer Mixed Reality Training packages, **which allow our client’s staff to be trained in complex, hazardous procedures whilst in a safe and controlled environment with no risk to themselves or equipment.** Using custom scripting and design the equipment can be fully interactive, using step-by-step guides which create a fully immersive and realistic experience.

**Continual Plant Insights - Mobile, paperless, digital work instructions mitigating business risks by introducing a right-first-time approach**

By using AR technology and QR codes, we can embed digital windows of information into the design. These virtual windows are continuously updated as the project design develops. The QR codes become invaluable when testing and commissioning field equipment as they link every device to the correct drawing, specification and test documentation introducing commissioning efficiencies of **up to 30% faster commissioning rate.**

**Digital Process Manufacturing Centre**

Booth Welsh is an operational partner of the new Digital Process Manufacturing Centre (DPMC), an NMIS sister centre, being hosted within our Head Office facility in Irvine. The DPMC is a digital demonstrator for process and manufacturing businesses and will provide **14 stations demonstrating the capabilities of digital technology.**

The DPMC is open to both industry and academia, within North Ayrshire and beyond, and is targeted at all sizes of businesses irrespective of where they are on their digital transformation journeys. Booth Welsh is providing the digital consultancy support to NMIS for delivery of all demo stations and promoting the capabilities of the centre nationally.

Learn  
More about  
Booth Welsh



visit: [boothwelsh.com](https://www.boothwelsh.com)

