



CASE STUDY

UWTSD and Avanade rethink manufacturing and the future of work

Uncovering the tangible benefits of integrating immersive technologies into the workplace

Business situation

Helping manufacturers take advantage of technology

University of Wales Trinity Saint David (UWTSD) has a proud tradition of teaching its students industry-relevant skills. In fact, UWTSD holds the third oldest Royal Charter in England and Wales (only Oxford and Cambridge Universities are older), and in 2020 it was voted second in the UK University Sector for teaching quality in manufacturing (by *The Times* and *Sunday Times* University Guide 2020).

To uphold this tradition, UWTSD was looking for a partner to help with its EU-funded MADE Cymru (Manufacture Advanced Design Engineering Wales) program designed to enable manufacturers to take advantage of the latest technologies. With courses focused on “Upskilling for Advanced Manufacturing” and “Innovation Management,” as well as a history of using industry partners to test solutions and with a strategic investment to maximize Microsoft technologies, UWTSD engaged Avanade on an initial proof of concept. This would potentially be a forerunner to a deeper partnership on applied industry innovation.

“UWTSD has a proud tradition of partnering with leading industry and technology companies,” says Lyndon Shirley, Executive Head of Technology Enhanced Learning at the University of Wales Trinity Saint David. “The university has invested in Microsoft technologies to support our applied industry innovation objectives and to ensure our staff and students have the best possible digital skills to support their career ambitions.”

Solution

Holographic teaching aids focus on advanced machining

Avanade’s Workplace Advisory and Digital Innovation Studios teams worked closely with the university’s manufacturing faculty. They explored potential Industry 4.0 solutions using the latest mixed reality (HoloLens 2), Microsoft Dynamics 365 Business Applications Guides, collaboration (Microsoft Teams), infrastructure (Azure Cloud Platform) and connected edge (AI/IoT) technologies.

More specifically, the joint Avanade and UWTSD team used Dynamics 365 Guides to develop holographic teaching and learning aids that focused on advanced machining skills and equipment in the university’s Robotics and Automation Lab.

“Never has it been more important for manufacturers to look at ways of embracing [Industry 4.0](#) technologies to advance their processes, systems and productivity,” says Graham Howe, Principal Research Fellow for Advanced Manufacturing Industry 4.0 at the University of Wales Trinity Saint David. “COVID-19 has accelerated both the need to look at supply chains and also understand which of the new technologies will give the most economic benefits.”

Results

Delivering solutions for the factories of the future

The proof of concept uncovered a number of use cases for the manufacturing sector, showcasing the tangible benefits of integrating immersive technologies into the workplace.

Avanade and UWTSD will now connect with a number of industry partners from the fields of industrial equipment, automotive, consumer goods manufacturing and the construction industry. The joint ambition is to help companies (large and small) explore further opportunities to rethink new ways of working, apply more resilient operations and deliver agile, innovative solutions for the factories of the future.

“Working with Avanade is super-boosting what we offer, and we are excited to partner on future applied innovation solutions for the manufacturing sector,” says Howe.

About University of Wales Trinity Saint David (UWTSD)

UWTSD is an employment-focused university, dedicated to ensuring students from diverse backgrounds develop the academic knowledge and practical skills to thrive.

MADE Cymru is one of UWTSD's initiatives that support industry (EU funded, supported by the European Structural and Investment Funds through the Welsh Government). It helps Welsh manufacturers explore technologies that have the potential to increase efficiency, maximize productivity and future-proof businesses. The project offers remote learning opportunities via “Upskilling for Industry 4.0” and “Innovation Management” courses plus expert-led collaborative R&D opportunities. For more information contact MADE@uwtsd.ac.uk.

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– **Graham Howe, Principal Research Fellow for Advanced Manufacturing Industry 4.0, University of Wales Trinity Saint David**



About Avanade

Avanade is the leading provider of innovative digital and cloud services, business solutions and design-led experiences on the Microsoft ecosystem. Our professionals bring bold, fresh thinking combined with technology, business and industry expertise to help make a human impact on our clients, their customers and their employees. We are the power behind the Accenture Microsoft Business Group, helping companies to engage customers, empower employees, optimize operations and transform products, leveraging the Microsoft platform. Avanade has 39,000 professionals in 25 countries, bringing clients our best thinking through a collaborative culture that honors diversity and reflects the communities in which we operate. Majority owned by Accenture, Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation. Learn more at www.avanade.com

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North America
Seattle
Phone +1 206 239 5600
America@avanade.com

South America
Sao Paulo
AvanadeBrasil@avanade.com

Asia-Pacific
Australia
Phone +61 2 9005 5900
AsiaPac@avanade.com

Europe
London
Phone +44 0 20 7025 1000
Europe@avanade.com