

Knowledge Transfer Partnerships

Innovating new interior design and build solutions for the global cruise and ferry industry

MJM Group

- Location:** Newry, Co. Down
- Project length:** 2 years
- University School:** School of Engineering, Ulster University
- Academic Team:** Dr Alistair McIlhagger and Dr Edward Archer



Oasis of the Seas in dry dock

The Company

MJM Group is an international specialist in new build, refurbishment and fit-out services to the marine, commercial and private sectors. The company combines the traditional skills of expert craftsmen with the latest technology employed at its state-of-the-art production plant in Newry. Counting some of the world's largest cruise line and ferry companies as customers, MJM Group joined forces with Ulster University through a KTP to access leading engineering research expertise.

The Challenge

To capitalise on expanding global markets in the marine interior build industry in Asia and the Southern Hemisphere, MJM Group had an urgent need to develop a more comprehensive understanding of the performance of products and installations for marine interiors in adverse temperature and relative humidity climates.

The KTP

The KTP placed a highly-skilled graduate (KTP Associate) into the business to drive innovations in the interior design and build solutions for the global cruise and ferry industry. The project developed advanced, lighter materials for extreme environmental conditions and reduced the weight of a ship's interior fit out by a staggering 50%. This achieved considerable fuel savings and reduced the carbon footprint of cruise ships.

As a result of the KTP, MJM Group has established an R&D Department for its product development which has led to continuous improvement in manufacturing, on-site installation and waste management. The company's focus on research and development led to the appointment of the KTP Associate as R&D Manager to drive overall R&D activity and future growth.

Company benefits

- The KTP exceeded company expectations, delivering success in terms of quality improvement, market expansion, increased turnover and profits, as well as influencing the company's long term strategy.
- The company enhanced its science and engineering knowledge base, particularly with regard to existing bonding and lamination processes to improve the quality and performance of products and services.
- Competitiveness has significantly improved, particularly in export markets, with novel, higher performance products being used and sought in marine interiors.
- MJM is now established as a global technology leader able to successfully tender for more lucrative contracts in new markets in Asia and beyond.
- MJM Group has joined the Northern Ireland Advanced Composites and Engineering Centre (NIACE), an industry-led university-hosted centre engaging in collaborative R&D projects.

"The financial gains, quality improvements and innovations as a result of the KTP have not gone unnoticed by customers and this is helping MJM Group achieve preferred partner status."

Edward Fitzpatrick,
KTP Associate and R&D Manager
MJM Group

University benefits

- The KTP with MJM Group has accelerated collaboration with industry and driven impactful applied research in a very short period.
- University technicians have developed new skills in adhesive bonding and testing and the academics have gained a new understanding of the application of composite materials in marine situations.
- This new knowledge has led to the University winning several competitive competence centre project bids in composite joining techniques and recycling of composites.
- The KTP has contributed to the MSc course in Advanced Composites and Polymers and industrial case studies for undergraduates in related disciplines.

"The MJM Group KTP shows how university research and knowledge can help drive innovation and growth in industry. The KTP associate has worked with the University to develop a long-term approach to R&D for the company."

Dr Edward Archer
Ulster University Engineering Research Institute



How to apply for a KTP

Contacts

Check the feasibility of your idea with your University Programme Manager.

Ulster University Programme Manager
Ms Amanda Fullerton
E: a.fullerton@ulster.ac.uk

Or you can call Ulster University
on **028 7167 5236** or go
to www.ulster.ac.uk/ktp



Or with an Invest Northern Ireland executive.

Contact the Invest NI Programme Manager
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Or you can call Invest NI
on **0800 181 4422** or go
to www.investni.com/ktp