THE Awards 2025

Knowledge Exchange/Transfer Initiative of the Year

Institution Name	Lancaster University
Submission title or project name	Quantum Base Q-ID®: Setting a new global standard in anti-counterfeiting technology through physics knowledge exchange
Nominee / key personnel	Professor Robert Young (Lancaster University and Quantum Base founder and chief scientist); Dion Williams (director of research, enterprise and innovation, Lancaster); Dr Mark Rushforth (associate director of enterprise and innovation, Lancaster); Dr Alan Gilchrist (senior lecturer in marketing, Lancaster); Professor Benjamin Robinson (director of materials science, Lancaster); Gillian Whitworth (media relations manager, Lancaster)
URL	https://quantumbase.com/
Submission	Lancaster University's Quantum Base has transformed theoretical quantum research into market-leading anti-counterfeiting technology now protecting 500 million products worldwide. Its Q-ID technology creates security tags that cannot be cloned by exploiting atomic-level quantum effects, recently propelling it to become Lancaster's first spin-out to IPO on London's AIM market (April 2025), raising £4.8 million. This university-industry knowledge exchange initiative combines dual-location operations, strategic funding, infrastructure access, and shared intellectual property to bridge academic advancement and commercial application. Robert Young maintains his university position while serving as chief scientist, creating a seamless knowledge transfer pathway. The technology addresses the £2.8 trillion global counterfeiting crisis across pharmaceuticals, government security, aerospace and luxury goods. Economic impact includes high-value job creation, regional development and establishing UK quantum technology leadership. Quantum Base exemplifies how effective knowledge exchange transforms fundamental science into solutions with profound economic and social benefits.

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Knowledge Exchange/Transfer Initiative of the Year

Institution Name	University of Warwick
Submission title or project name	Waste2Race
Nominee / key personnel	Warwick Manufacturing Group
URL	https://warwick.ac.uk/fac/sci/wmg/news-and-events/news/wmgnews/waste2race_sewage_powered_car/
Submission	Waste2Race is a hydrogen-powered racing car built at the University of Warwick that redefines sustainable innovation and knowledge exchange. Fuelled by hydrogen derived from sewage and constructed using circular economy materials – such as a beetroot-waste wing mirror and a reused battery from a crashed car – this vehicle pushes the boundaries of green performance. A collaboration between students, researchers, SMEs and national partners, the project offers real-world experience to students and acts as a demonstrator platform for industry. It builds on Warwick's legacy of motorsport innovation, following the success of the 2009 WorldFirst car. Waste2Race showcases regional innovation while contributing to national net zero goals. The project has attracted new research and development funding, elevated regional manufacturing visibility, and reinforced Warwick's leadership in applied sustainable engineering. Through bold design and a commitment to impact, Waste2Race proves that waste isn't the end of the road – but rather the start of something powerful.

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Knowledge Exchange/Transfer Initiative of the Year

Institution Name	University of Huddersfield
Submission title or project name	
Nominee / key personnel	
URL	
Submission	A partnership between academics, a Yorkshire packaging firm and the national wool organisation has resulted in the launch of five new products, including a groundbreaking sustainable packaging liner – the first one of its kind to be certified for being made from 100 per cent British wool. A key strength of this collaboration was the partnership with the University of Huddersfield, which ensured that all solutions developed were grounded in rigorous academic research. This academic backing provided the business with a significant competitive advantage, enhancing the credibility and marketability of its products. The collaboration bridged the gap between theoretical research and practical application, allowing the company to bring scientifically validated, high-performance packaging solutions to market. As a direct result of the knowledge transfer partnership, five new products were successfully launched.

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Knowledge Exchange/Transfer Initiative of the Year

Institution Name	University of Reading
Submission title or project name	Collaborating with local farmers to make cocoa production in Ghana more sustainable
Nominee / key personnel	Dr Andrew Daymond (University of Reading); Professor Tom Sizmur (Reading); Dr Amos Quaye (Cocoa Research Institute of Ghana); Dr Laura Atuah (Kwame Nkrumah University of Science and Technology); Dr Dadson Awunyo-Vitor (Kwame Nkrumah University)
URL	https://research.reading.ac.uk/cocoa/soil-amendments-project/
Submission	Many cocoa farmers in West Africa face soil degradation resulting from continuous cropping. While soil amendments made from on-farm organic wastes offer a sustainable solution, many farmers lack necessary information and training. A collaboration between the University of Reading, the Cocoa Research Institute of Ghana and Kwame Nkrumah University of Science and Technology worked with farmers to test the potential of compost and biochar made from cocoa pod husks to improve yields through on-farm trials. For the 2024 season, they recorded an average yield increase of about 40 per cent with 5 tonnes per hectare compost application. Field-based collaborative workshops resulted in training more than 1,000 farmers and extension agents. Knowledge exchange materials were translated into multiple languages. The project directly impacted Emfed farms, as compost production from cocoa farm waste became their fastest growing business segment. A stakeholder workshop achieved broader industry engagement, leading to a follow-on industry-supported project.

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Knowledge Exchange/Transfer Initiative of the Year

Institution Name	University of Chester
Submission title or project name	Chester Festival of Ideas
Nominee / key personnel	
URL	
Submission	During 2023-24, the University of Chester reimagined the established Festival of Ideas model to support local needs and ambitions, alongside its own research and knowledge exchange (RKE) aspirations. The resulting Chester Festival of Ideas, a programme of free, inclusive and accessible public events, is entirely new and pioneering for the university and its communities and stakeholders, with the first-ever Chester Festival of Ideas taking place in July 2024. Working with local partners, the university established a model that encourages and facilitates university staff to engage publics and communities in their work, while also supporting those publics and communities to hold their own events as part of the festival. In 2024, the festival recorded more than 2,500 attendances at nearly 90 events. The festival planned for 2025 includes more than 90 events and has increased its engagement from university staff and local schools compared with last year.

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Knowledge Exchange/Transfer Initiative of the Year

Institution Name	University of Essex
Submission title or project name	Transforming railway safety through smart technology
Nominee / key personnel	University of Essex and Railscape
URL	https://www.youtube.com/watch?v=IguYttiL3Is
Submission	Leaves on the line, fallen trees and survey crews having to walk Britain's railway tracks cause delays, customer dissatisfaction and can create unsafe working conditions. The University of Essex and Railscape are using smart technology to spot vegetation and potential obstructions before they cause problems, and their revolutionary approach is surpassing all expectations. By deploying the latest technology in new ways, the DroneArb knowledge exchange project has delivered a faster, more efficient and safer approach that is cutting train delays for commuters and boosting safety. The groundbreaking digital surveying system combines artificial intelligence, drone imaging and remote sensing to monitor trees and undergrowth with pinpoint accuracy. This partnership is more than a project. It's a story of reinvention and real-world impact that has generated significant revenue, has positioned Railscape as a leader in sustainable railway safety and has demonstrated the power of academia and industry working together to solve complex challenges.