

NEWS RELEASE



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Universities and industry unite in £92 million UK railway research partnership

A partnership between the rail supply industry and a consortium of eight universities has secured £92 million to fund research aimed at establishing the UK as a world-leading centre of railway excellence.

The partnership – part of the newly-created [UK Railway Research and Innovation Network \(UKRRIN\)](#) - has won £28.1 million funding from the UK Research Partnership Investment Fund (UKRPIF) managed by the [Higher Education Funding Council for England \(HEFCE\)](#). It follows a bid successfully led by the University of Birmingham. The funding will be boosted by £64 million of support from 17 industrial partners including Alstom, Siemens and Bombardier Transportation.

The UKRPIF funding will be used to create three linked world-class centres of excellence, forming the research heart of UKRRIN, which will focus on:

- Digital Systems - located at the University of Birmingham. It will focus on railway control and simulation, data integration and cybersecurity, condition monitoring and sensing, and improved methods for technology introduction.
- Rolling Stock - led by the University of Huddersfield in collaboration with the University of Newcastle and Loughborough University. It will focus on high value rolling stock systems, whole life asset optimisation and through-life management, and energy management.
- Infrastructure - led by the University of Southampton in collaboration with the University of Sheffield, Loughborough University, the University of Nottingham and Heriot-Watt University.

These centres of excellence, together with existing UK Rail Test Centres, are the foundation of UKRRIN, bringing together the UK rail supply industry and academia to undertake world-leading research and innovation in rail.

The UKRRIN will support delivery of the ambitious Rail Technical Strategy and is aligned with the aims of the Government's Industrial Strategy.

With these world class centres of excellence, the UK rail supply industry will be able to develop world-leading new technologies and products for trains, railway systems and infrastructure that will deliver a better, more reliable and efficient railway.

Passengers will directly benefit from the research leading to improved technology; a better infrastructure with increased reliability that can be more effectively managed; and new digital signalling systems that will allow additional trains to run on the network. The High Speed 2 project will also be an early beneficiary of the world-leading research.

Universities and [Science Minister Jo Johnson](#) said: "The UK's world-renowned leadership in science, research and innovation is helping to solve a range of national and global challenges, and the breadth of the projects funded today means this will continue.

"Through our Industrial Strategy and £4.7 billion investment for research and development, we're ensuring we capitalise on the great work taking place in universities across the UK and remain at the forefront of innovation."

[Professor Sir David Eastwood, Vice-Chancellor](#) at the University of Birmingham, said:

"These are exciting times for railways, which have become integral to how people live and economies grow in the 21st Century.

"UKRRIN gives British universities and rail industry partners the opportunity to shape the global future of railways.

"The University of Birmingham is renowned for its rail research, and innovations in railway control, command, and communication will be the key to significantly improve the quality of railway services.

"We're looking forward to working with research and industry partners across the world to deliver innovation that establishes the UK as a world-leading centre of rail excellence."

[Professor Bob Cryan, Vice-Chancellor at the University of Huddersfield](#), said: "I am deeply proud of the Institute of Railway Research (IRR), one of the jewels in our crown at Huddersfield.

"It has a dedicated staff of 36 expert researchers in multiple facets of rail technology, and they already have superb facilities, including a £4.5 million test rig installed last year and the only one of its type in Europe.

"Now, thanks to UKRRIN, those facilities and staffing levels are set to expand still further, with the establishment of a new Rolling Stock Innovation Centre within the IRR."

[Professor Sir Christopher Snowden, President and Vice-Chancellor at the University of Southampton](#), said: “This major funding award is excellent news for the University and

demonstrates once again how industry and academia can work in partnership for the benefit of the nation as a whole.

“Combining our specialist knowledge with that of partners at Sheffield, Loughborough, Nottingham and Heriot Watt, we will advance fundamental science to tackle the problems currently undermining the UK’s rail infrastructure and help create a sustainable network fit for the future.”

Gordon Wakeford, Divisional Managing Director for Siemens Mobility UK and Industry Chair of the Rail Supply Group, said:

“This investment brings together a range of British universities renowned for their expertise in railway research, backed by leading partners across the rail supply industry.

“UKRRIN will, undoubtedly, create important strategic partnerships and support future high speed rail programmes in the UK and around the world.”

Nick Crossfield, Managing Director at Alstom UK & Ireland, said: “UKRRIN is a fantastic initiative, bringing companies like Alstom together with universities to accelerate innovation in the railway.

“We are proud to be one of the leading private sector supporters of this project, involved right from the bid stage. With cross industry collaboration like this forging ahead, the UK railway industry is in a great position to deliver HS2 and the digital railway.”

[Richard Hunter, UK Managing Director at Bombardier Transportation](#), said: “Bombardier Transportation is thrilled to be involved in UKRRIN.

“We believe this is a significant opportunity for the UK to develop and coordinate a network of world class facilities and capabilities to further support developments within the rail industry.”

Graham Hopkins, Group Safety, Technical and Engineering Director at Network Rail and the Chair of the Industry Technical Leadership Group, said: “By working together in UKRRIN, researchers and industry partners can deliver technical transformations to help deliver a more cost effective, customer and carbon friendly railway that delivers more capacity safely.

“The development of centres of excellence will help the rail industry to accelerate the uptake of technology and innovation.”

Dr Iain Roche, Head of Innovation at HS2 Ltd., said: “HS2 will be a transformative project for the UK rail sector.

“It will require world leading innovative approaches to delivering infrastructure projects alongside cutting-edge design.

“The formation of this UK network is great news for the sector and I’m absolutely sure it will help us bring the innovation required for HS2 to become reality.”

Darren Caplan, Chief Executive at the Railway Industry Association, said: “We have been delighted to help bring our members together in an unprecedented cross industry collaboration to secure this funding which will, for the first time, provide the ‘open to all’ innovation space which our industry has lacked.

“We look forward to UKRRIN supporting suppliers, large and small, to catalyse the developments which will help secure the future of the UK rail supply chain.”

The initiative is being supported by a range of clients and stakeholders including Network Rail, HS2 Ltd, Transport for London, Rail North and the Department for Transport.

IBM, Unipart Rail, SMRT, British Steel, RSSB, Thales, Hitachi, AECOM, Aggregate Industries, Atkins, Pandrol and Progress Rail are also among the 17 industrial partners supporting the partnership over a 10-year period.

Further information can be obtained from the [UKRRIN](#) website.

Ends

For more information or to organise interviews please contact [Emma McKinney](#), Communications Manager, University of Birmingham, tel: +44 (0) 121 414 6681. For out of hours enquiries email [Press Office](#) or call +44 (0) 7789 921 165.

Notes to Editors:

- The University of Birmingham is ranked amongst the world’s top 100 institutions. Its work brings people from across the world to Birmingham, including researchers, teachers and more than 5,000 international students from over 150 countries.
- Join the conversation about this announcement on social media by using the hashtag #RevolutionisingRail.
- The UK Research Partnership Investment Fund supports higher education research in areas of research excellence to attract investment, and to strengthen the contribution of research to the economy. UKRPIF is managed by the Higher Education Funding Council for England (HEFCE), in collaboration with the other three UK higher education funding bodies, with proposals assessed by an independent assessment panel.
- The UK Railway Research and Innovation Network (UKRRIN) was established to bring together existing facilities and to create new centres of excellence in digital rail systems, rolling stock and infrastructure. RPIF funding provides the foundation infrastructure for UKRRIN, which is expected to grow over time.

- The Rail Supply Group aims to strengthen the capability and competitiveness of the UK rail supply chain to grow business at home and abroad. The establishment of centres of excellence to 'accelerate the uptake of innovation' was a key initiative in RSG's 2016 strategy 'Fast Track to the Future'.
- The Technical Leadership Group (TLG) is sponsored by its two key stakeholders: the Rail Delivery Group (RDG) which is driving the delivery of Britain's railway to customers and the Rail Supply Group (RSG) with the objective to 'enable the rail industry to efficiently and effectively deliver its agreed plans through the use of technology'. TLG are the authors of the Rail Technical Strategy and its accompanying Capability Delivery Plan.
- The Higher Education Funding Council for England (HEFCE) funds and regulates universities and colleges in England. It invests on behalf of students and the public to promote excellence and innovation in research, teaching and knowledge exchange. HEFCE aims to create and sustain the conditions for a world-leading system of higher education which transforms lives, strengthens the economy, and enriches society.

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