

News story: Automated design for a more efficient railway: apply for funding

[Figures show that around 1.7 billion passengers](#) use the UK's railways every year. This number has more than doubled in the last 20 years – requiring innovative ways to design railway infrastructure that will support growth in future capacity.

Working with [Network Rail](#), Innovate UK has up to £300,000 for businesses with projects to fast-track automated design. The aim is to build safer and higher-capacity railway infrastructure, save money and improve services.

Long-term planning and capacity

Planning for the long-term future of the UK's railways involves navigating a complex range of systems.

As well as crossing many different types of terrain and land uses, there are underlying considerations such as stock and track maintenance, bridges and tunnels. Importantly, planning must reflect passenger need.

This competition is looking for ways to make automated design more efficient, allowing Network Rail to accelerate new designs, explore long-term performance and assess demand.

Building on existing technology

The competition is open to industrial research projects as well as experimental development projects that are closer to market.

Projects should automate the design of at least one of the following:

- track layout
- overhead line electrification
- traction power supply system
- signalling systems
- other railway infrastructure not mentioned here

All projects must show how they build on existing automated design technology and work in a simulated rail infrastructure design environment.

Competition information

- the competition opens on 22 October 2018 and the deadline for applications is at midday on 19 December 2018
- a briefing event will be held on [1 November 2018 in London](#), where you

can find out more about the competition and how to make a quality application

- total project costs must be between £50,000 and £200,000
- projects can last between 6 months and one year
- businesses could get up to 70% of their costs

[Find out more about this competition and apply.](#)

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Press release: UK-France space agreement delivers device to ocean satellite

A device built in the UK by Honeywell, which will form a vital part of the mission to make the first global survey of the world's surface waters and oceans, has been delivered to Thales Alenia Space in France.

The Surface Water and Ocean Topography, or SWOT, mission is led by CNES (the French Space Agency) and NASA with support from the UK Space Agency and the Canadian Space Agency. The UK Space Agency and CNES signed a joint statement in January 2018 during the UK-France Summit in Sandhurst to step up co-operation in space, building on 2014's Brize-Norton framework arrangement.

The warming of Earth's climate may profoundly alter the movement of freshwater resources from lakes to rivers to reservoirs, resulting in significant societal impact. The SWOT satellite will use radar technology to measure the features of oceans, coastlines, rivers and lakes across the globe to improve understanding of changes over time and their impact on farming, industry and human populations.

The UK-built device, known as a duplexer, is a vital component that routes radar signals around the satellite and can transmit at a power of 1,500W – a level never before seen in this kind of device.

Speaking in Brussels at the Committee on Earth Observation Satellites Plenary, UK Space Agency Director of Growth Catherine Mealing-Jones said:

Satellites play a major role in understanding our home – planet Earth. Using great British technology, the SWOT mission is a great example of how satellites can take measurements of our environment from the unique vantage point of space, in this case, giving us the first global survey of one of our most precious resources – water. The UK and France are leading space powers in Europe and the delivery of the duplexer for the SWOT mission is a significant milestone in our partnership, which continues to go from strength to strength.

It will now be integrated into a Radio-Frequency Unit by Thales Alenia Space before NASA engineers add it to their KaRin instrument developed at the Jet Propulsion Laboratory (JPL) in California. The satellite is due to launch 2021.

CNES is supplying the RFU (Radio-Frequency Unit), which is co-funded with the UK Space Agency UKSA. As well as the duplexer, Thales Alenia Space is developing the 'hyperbox' in Toulouse which will create the radar pulse and receive radar echoes.

Hailing this new milestone, CNES President Jean-Yves Le Gall said:

This new step forward for the SWOT mission is a product of the close relationship between our space agencies and industries. The joint statement signed by CNES and UKSA in 2018 during the UK-France Summit in Sandhurst is being effectively applied and France and the United Kingdom are pursuing their successful space cooperation.

The UK and France are also teaming up on the MicroCarb programme to monitor and map sources and sinks of carbon gases, as well as supporting the implementation of a Space Climate Observatory, which was set out in the Paris Declaration on Climate Change.

This week is [Green Great Britain Week](#), which is showcasing the leading role of the UK's academic and business communities in tackling climate change while generating economic growth.

Green GB Week celebrates the tenth anniversary of the UK's ground-breaking Climate Change Act. The UK has played a leading role in delivering clean growth – growing the economy by more than two thirds while reducing emissions by over 40% since 1990.

[Clean growth](#) is central to the Government's modern Industrial Strategy, and Green GB Week includes 100 events across the country promoting the opportunities from clean growth and raising awareness of how businesses and the public can contribute to tackling climate change.

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[News story: £2 billion of new](#)

investment opportunities launched across the UK

- New £2 billion property investment portfolio launched, creating thousands of jobs and new homes across the country
- Projects set to benefit the creative, life sciences and retail sectors – including a new 12,500 seat stadium built in Gateshead
- Minister for Investment to showcase the projects at the UK's largest property exhibition

The Department for International Trade has today (Wednesday 17 October) launched £2 billion worth of new investment opportunities which will create thousands of new homes and jobs across the UK.

The portfolio includes:

- Liverpool: The construction of more than 2,000 new homes at Festival Park and 1,000 new jobs in a new urban community at Paddington Village
- Gateshead: 5,000 new jobs at Follingsby Max, a new logistics and distribution centre in Gateshead, and a new 12,500 seater stadium at Gateshead Quays
- Edinburgh: A new world-leading bio and life sciences development at Edinburgh BioQuarter, which will make the city a leading hub for stem cell research
- Belfast: 21,000 sqm of new Grade A office space for the creative and technology sector at The Sixth, further enhancing the city's growing reputation as a production centre for film and television
- Sussex: A new science and technology park at Burgess Hill, providing more than 90,000 sq metres of commercial space

The projects will create jobs and drive prosperity in local communities whilst contributing positively to the quality of life for local people.

International Trade Secretary Dr Liam Fox MP, said

It has never been easier to find opportunities for global investment in the UK and these seven projects worth £2 billion give investors the opportunity to do just that.

Not only will these projects promote our vibrant and successful real estate industry, they also create homes and jobs across the country. As an international economic department, our message is loud and clear: the UK is open for business, and we can help find the right investment for you.

Minister for Investment, Graham Stuart MP, said:

It's a privilege for me to launch these new schemes, which will provide new homes and jobs for people across the country.

The UK is the number one destination in Europe for foreign investment, and we will continue to promote opportunities that help people find decent jobs and develop strong communities.

The 7 projects will be unveiled by the Minister for Investment at the [MIPIM UK](#) property conference being held in London this week and will include opportunities for UK and international investors in a range of sectors.

3,000 property professionals and over 300 potential investors and financial institutions from around the world will be in attendance.

Jake Berry MP, Minister for the Northern Powerhouse and Local Growth said:

From a transformed waterfront in Liverpool to rival any historic European city, to a new, state-of-the-art Quay in Gateshead, these new developments represent over £1 billion of world-class investment in the Northern Powerhouse.

With Government working hand-in-hand with business and attracting international investment from across the globe, we're delivering transformative regeneration for communities from coast to coast across the North – further evidence that the Northern Powerhouse is one of the most business-friendly regions in the UK.

The portfolio has been put together by the DIT's Capital Investment team which leads the government's drive to attract and support international investment into large scale property, regeneration, infrastructure and energy projects across the UK.

This week the department will launch the Perfect Fit Prospectus – which uses technology to create individualised reports for potential investors – based on their country of origin and the sector they operate in – to give them the information they need to make an informed investment decision.

The new tool will help the DIT as it seeks to become the most innovative investment promotion agency in the world.

Further information:

- Further information on all seven new projects can be found on [our investment website](#)
- In the first half of 2017, 14% of global commercial property investment transactions occurred in the UK, second only to the USA
- The UK is also the leading European destination for venture capital investment, helping innovative firms quickly reach their potential, providing jobs and economic benefits across the UK