

Network Rail open for business as Innovate UK partnership creates new channel to procure innovation

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In a bid to see new ideas, greater efficiencies and more investment in the railway, Network Rail is partnering with [Innovate UK](#), the government's innovation agency that helps grow the UK economy by supporting businesses to develop and realise the potential of new ideas from the UK's world-class research base. The news comes as the railway infrastructure company says it is transforming, and increasingly opening up to new ideas that bring value for money and innovation.

Aligned to its [Open for Business](#) programme introduced following the [Hansford Review](#), the partnership illustrates Network Rail's commitment to breaking down barriers to entry, making it easier for other organisations to invest in and build on the railway.

To mark the new partnership, Innovate UK and Network Rail have [opened a competition](#) for UK businesses to win a share of up to £300,000 for projects that develop and demonstrate tools to automatically plan rail infrastructure, helping deliver the Whole System Modelling agenda to put performance at the heart of planning.

Why Innovate UK?

Vital to economic growth, the railway creates jobs, enables the building of houses, connects communities, and enhances the productive potential of the UK economy by up to £10.2 billion a year.

By working with Innovate UK, Network Rail will make it easier for other organisations – especially those not familiar with working in the railway sector – to get a foot in the door where they have not been able to before. This relationship could result in increased efficiency and reduced cost for the taxpayer-funded organisation by tapping into new suppliers as well as help UK based companies develop new products and services to export.

Impact stats



The competition; planning rail capacity through automated infrastructure design

Network Rail is seeking to stimulate development in the automated design domain. 2018 saw this area take off commercially for mechanical products; entrepreneurs and technologists are now looking for other applications. The company's ambition is to put rail in the mainstream of this domain by promoting it as the case study for use in the broader infrastructure, urban and transport planning sectors. By creating a grant

competition they're able to promote wider private investment in this area, with a view to purchase commercial solutions, rather than bearing the cost of bespoke development and upkeep. Network Rail will work with Innovate UK to invest up to £300,000 to support this development and demonstration of new capability in automated design.

The collaborative [research and development competition](#) has been funded and implemented by Network Rail's Whole System Modelling programme. The intent of this competition is to encourage the development of solutions in automated design tools where they will be market-ready in the next two to five years, and to demonstrate an open innovation procurement approach that harnesses the power of the market.

Automated design enables engineers to automatically explore a wide design space and identify the best design options quickly and in a cost-effective manner. The competition encourages the development of products and services that enable rapid automatic design of rail infrastructure. Applicants are being asked to develop solutions relevant to rail that apply automated design to track layout, overhead line electrification, traction power supply systems, and signalling systems. For Network Rail this will help with producing better designs faster, as it has in other sectors; it will also support long term service planning by allowing better assumptions about future infrastructure and associated changes to services. Network Rail says it will put performance and the customer at the heart of planning, with better predictions of how changes will affect service delivery in the long term, and creation of infrastructure that better balances design constraints to deliver better performance.

The competition is now open until 19 December 2018. [For further details visit the competition website.](#)

Ben Ford, Network Rail's innovation lead for whole system modelling said: "We want this partnership to help us be smarter in buying technology; it will help us bring new talent to bear on our problems, and even more it creates commercial benefits. Entrepreneurial companies will invest their own capital in developing solutions and produce commercially competitive products which they will maintain and export. And when they do that they create more UK tax revenue, some of which supports the railway, so we win all round, and the public win all round. It really is a better railway, for a better Britain"

[Simon Edmonds](#), deputy executive chair and director – manufacturing, materials and mobility, Innovate UK said: "We're launching this first competition with Network Rail to encourage people and businesses to apply with ideas to develop tools to help plan future infrastructure requirements. This is just the start; we want to help the railway and to help Network Rail. And we want to help the UK economy. Aligned with the government's modern industrial strategy, our purpose is to drive growth by working with companies to de-risk, enable and support innovation.

"Our message to applicants is that we're here to help you get a foot in the door – especially if you've not worked in the railway sector before. We look forward to find and drive science and technology that delivers a better railway for a better Britain."