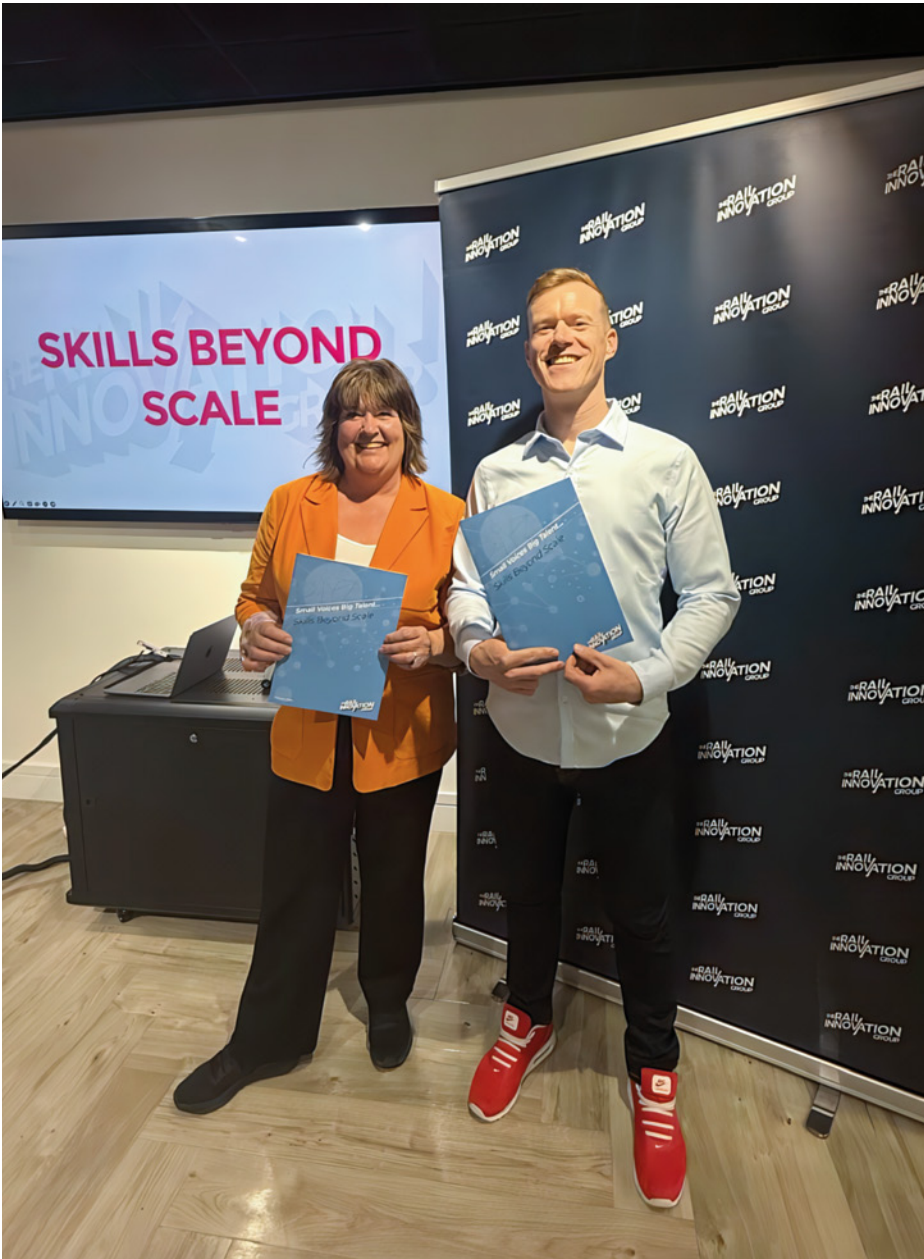


A new Rail Innovation Group (RIG) report highlights the critical role of start-ups and small digital companies in rail's digital evolution.

The group's Chair Liam Henderson explains more

# Unlocking the future of rail: SMEs, digital transformation and the role of Government



**T**he UK rail industry is undergoing a period of rapid transformation, driven by the need for greater efficiency, sustainability, and enhanced passenger experience. This transformation will continue through the period of reorganisation. At the forefront of this change are start-ups and small digital companies — these businesses are agile and innovative businesses, with the ability to bridge the gap between legacy rail systems and cutting-edge technology.

A new report from the RIG, titled Skills Beyond Scale, has found that while these companies have the skills and are pioneering solutions in data science, AI, automation, and customer-centric services, barriers remain to realising the benefits they could bring. The report was developed using the experiences and insights of RIG members.

The authors of the report call for the wider rail industry to leverage the deep expertise and diverse skill sets found within their membership, particularly in emerging technologies and digital innovation. These companies bring a wealth of diverse and innovative skills that go beyond simply building products - they are pivotal in inventing the solutions the industry needs to address its most pressing challenges.

Their ability to combine creativity with technical expertise enables them to develop groundbreaking technologies, often from the ground up, that tackle complex problems such as improving operational efficiency, enhancing passenger experience, and driving sustainability.

In short, they highlight that these capabilities position start-ups and small digital companies as invaluable partners in shaping the future of rail. With rapid technological advancements shaping the future of transport, the report shows how enabling small businesses to contribute is critical to maintaining the UK's position as a leader in rail innovation.

**SMEs: The hidden strength of the rail sector**

Rail has long been dominated by large-scale

infrastructure projects and established players but as demonstrated in the report, smaller businesses have emerged as key drivers of digital transformation. They offer:

- /// **Expertise in data science and AI** – Advanced analytics, predictive maintenance, and AI-driven optimisation tools are revolutionising rail operations.
- /// **Cross-industry innovation** – SMEs are bringing in technology from other industries - such as IoT, cloud computing, and automation - to solve long-standing rail challenges.
- /// **Customer-centric digital solutions** – Passenger expectations are shifting, and SMEs are leading the way in Mobility as a Service (MaaS), AI-powered engagement, and real-time service improvements.
- /// **Sustainability and future technologies** – Many smaller firms are at the cutting edge of AI, IoT, and quantum technologies, helping to make rail greener and more efficient.

Despite these contributions, SMEs often struggle to navigate the complexities of rail procurement, access major contracts, or scale their solutions industry-wide. The report makes it clear that without strategic support, these challenges could slow down progress in key areas of digital transformation.

**A call for action: The six priorities for Government and industry**

To ensure the UK rail sector fully benefits from SME-led innovation, the report outlines six key recommendations for government and industry leaders:

- /// **1. Support collaboration** by establishing stronger links between major projects and small suppliers that can provide specialist technical expertise.
- /// **2. Invest in future skills** by supporting AI, robotics, and customer engagement training to ensure the workforce remains future-ready.
- /// **3. Increase research and development funding**, and expand investment in AI, data analytics, and sustainable solutions to accelerate digital transformation.
- /// **4. Strengthen public-private partnerships** in a way that creates better mechanisms for knowledge-sharing, innovation funding, and the ability for small and micro businesses to be able to participate in large-scale projects.
- /// **5. Speed up regulatory reform**, and in particular address some of the key procurement and compliance hurdles in order to make it easier for small and micro businesses to work within the rail sector.
- /// **6. Prioritise customer experience** and work with the sector to develop passenger-first initiatives that align with the future of mobility.

**Industry leaders respond to the findings**

At the launch event, sponsored by technology company Ovinto, a number of industry leaders from both the rail and tech sectors called for targeted Government action to unlock SME-led innovation and keep the UK rail industry competitive.

Frederick Ronse, Founder & Executive Director of Ovinto, reinforced the importance of supporting SMEs in transforming the rail sector. He commented: "Ovinto is proud to support this vital research and the Skills Beyond Scale programme. We firmly believe that companies like ours can act as a bridge between legacy rail environments and new technologies. By working together, we improve efficiency for the whole sector."

**What this means for the future of rail innovation**

The research confirms what we have long known: start-ups and small digital suppliers are the driving force behind rail innovation. These companies don't just bring fresh ideas; they bring practical, deployable solutions that can modernise and future-proof the industry. The potential here is enormous and must be matched to the growing appetite for digital transformation to create more efficient, passenger-friendly, and sustainable rail services. The report demonstrates that these businesses bring agility, technical expertise, and creative problem-solving that large organisations often struggle to match. But without strategic Government support, much of this potential will remain untapped.

For businesses working in data science, AI, digital infrastructure, or sustainability, the opportunity to contribute to the future of rail has never been greater. By working together - through partnerships, knowledge-sharing, and collaborative innovation - there is huge potential to accelerate the UK rail sector's transition into the digital age.

With new technologies emerging at an unprecedented pace, it's those who embrace digital transformation, support SME-led innovation, and foster collaborative growth that will shape the future of rail. Collaboration will be pivotal in maintaining rail's competitiveness. These smaller tech and digital suppliers are not just implementers; they are visionaries whose ingenuity is essential for the industry's evolution. If the rail industry wants to know what products will be coming into the market in a few years' time, we would say look to what these start-ups are working on now. Equally, if rail organisations want access to more digital skills, they don't have to look far: our advice would be to look to the grass roots of the existing supply chain.

While major operators and policymakers consider their next steps, those already engaging with innovative SMEs are positioning themselves ahead of the curve. With a strong network of tech pioneers, digital specialists, and customer-focused businesses, the RIG provides a valuable forum for collaboration, insight, and industry-wide transformation. ///

 **For more information about the Rail Innovation Group, to access the full report, or to join the group, visit [www.railinnovationgroup.com](http://www.railinnovationgroup.com).**

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