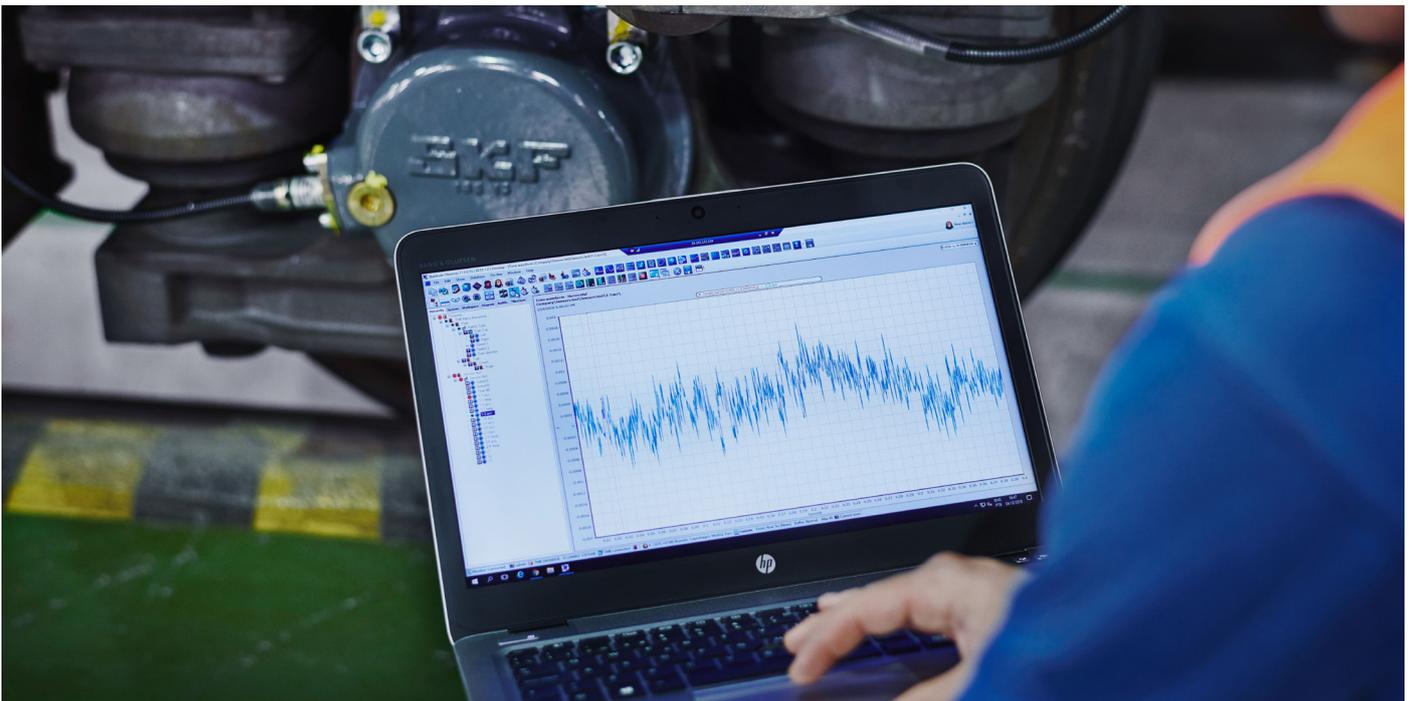




Digitalising Rail: The Best Is Yet to Come



Digitalisation of the rail industry has no end station.

It's all about the journey, and the choices made along the way can make it a successful one. What matters now is getting on the right track towards the new era of operational excellence, technological innovation and endless fleet possibilities.

The global rail industry is well on the road to recovery after the pandemic. Sustainability is taking up residency at the forefront of society's mind. Restoring the locomotive to its former glory therefore involves winning back trust and proving how safe, sustainable and fit for the future rail operations really are. After all, mobility is a very competitive market that will require big changes.

And the digitalisation of formerly manual processes is set to play a huge role in this resurgence. If rail is to unlock its maximum potential as an agent for decarbonised and socially inclusive mobility, operators and fleet owners must adopt future-proof technologies and make best use of the data that the industry provides in abundance.

Fleets of the Future

Big data has already proven immensely beneficial in many industries and rail is no exception. It is a mystery then that 80 percent of data produced worldwide is either misused or simply not understood.

Even today, most maintenance schemes and underlying processes are centred around experience, historical observations and assumptions (not to mention a

lot of paper!). These approaches are, however, time-consuming and don't allow operators to get the most out of their components' potential service life.

Terabytes of data are being generated from sensors embedded in industrial equipment, such as bearings in train bogie systems.

By basing decisions on accurate real-time condition data, rail operators can optimise maintenance scheduling and enjoy extended maintenance intervals – reducing both maintenance and life-cycle costs. The risk of experiencing unplanned stops and unwanted downtime is also significantly reduced through remote monitoring.

All for One, One for All

That said, the industry will need to move forward together – innovating beyond simply monitoring parts in application. Companies should look to form partner ecosystems and take advantage of relevant skills and drive innovation.

A lack of market share could be holding back the long-awaited widespread adoption of things such as hydrogen fuel cell technology and battery-powered traction. So, what more can be done?

A Rail-volution in Integration

If rail is to pioneer a decarbonised transport and logistics sector, the integration of strategies and systems will be a likely catalyst. SKF increasingly looks to create a digital experience which both itself and its customers can share. We call this 'Railway Business Transformation'.

A holistic solution, encompassing the entire bearing supply chain and including all sales and service data, Railway Business Transformation handles data integration, data management, data sharing and cyber security.

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All information – tracking orders, service contracts, refurbishment analytics, purchasing trends and so much more – is visualised in a shared web interface. The end goal is to create a comprehensive digital thread, controlling the whole bearing life-cycle digitally and contributing to improved bogie efficiency and operation.

Power to Act

A deep understanding of rotating equipment will be vital in creating sophisticated algorithms that allow SKF and its global rail network of customers to understand and process the data and transform it into valuable and actionable information. And our engineers and data scientists are merging new data in our rail operations every day, meaning scalable platforms for digital collaboration will continue to evolve as the industry itself does.

After all, one of the most important decarbonisation agents is digitalisation. Only by continuing to build on a digital thread, can rail companies encourage a modal shift away from cars and back to the tracks. That is how the rail industry can deliver value for cities, communities and companies.

Find more information on [digitalisation, sustainability](#) and get [Railvolutionary updates](#).

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Railvolutionary

How are you keeping up...

...with today's revolutionary and evolutionary innovations and developments – or just the big and small ideas that are changing the Railway industry? How do you get the knowledge and insights to make your job easier and more successful?

What if you could just use the Railvolutionary knowledge platform to get it all: webinars, articles, films and other updates to get relevant insights and grow your knowledge with SKF.

Curious to learn more? Go to **Railvolutionary Updates** and learn about our webinar schedule and more.

