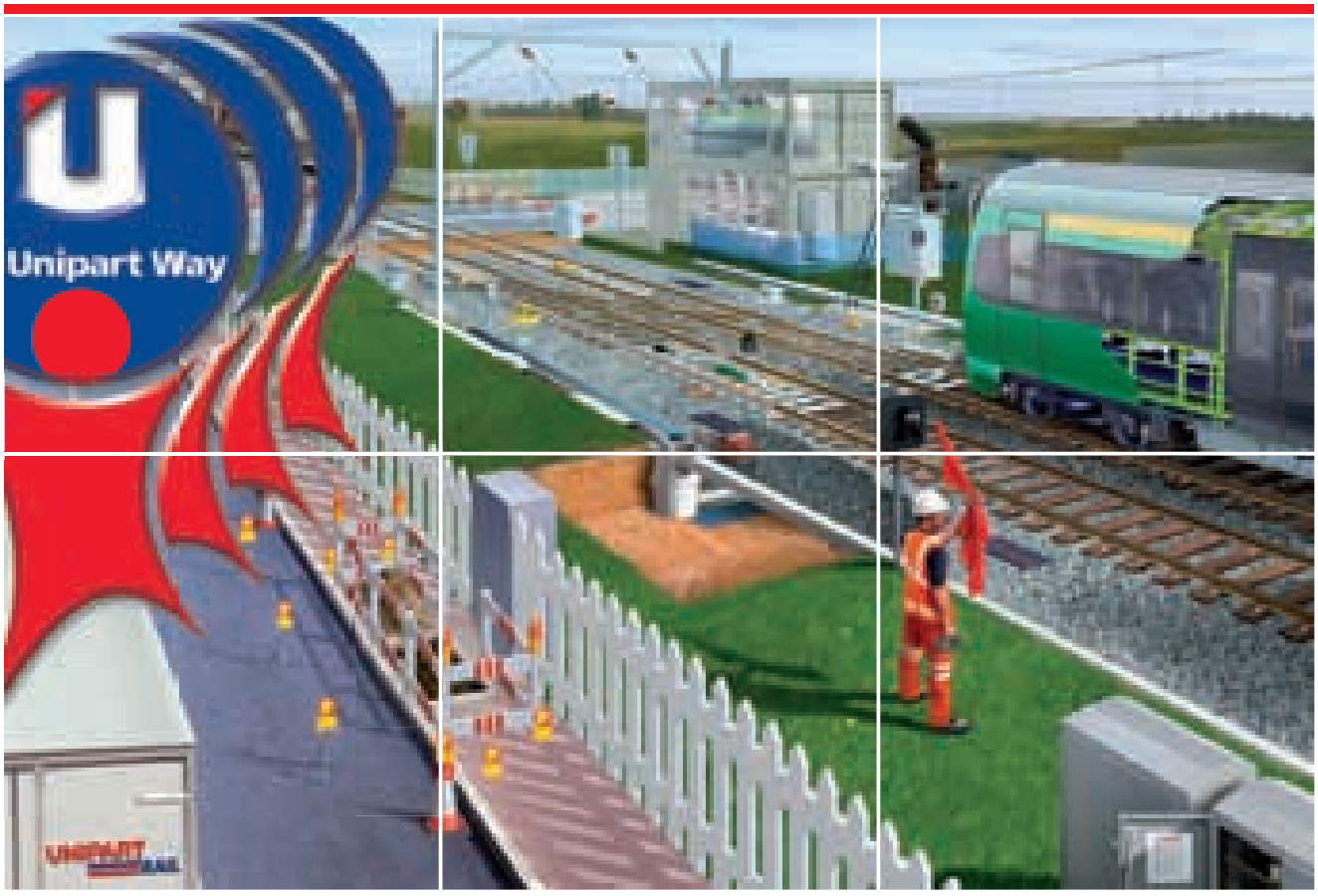
# Innovation

and using it to
**improve your business**

UNIPART RAIL

# When do I need **innovation?**




Nothing stays the same, and change is constant. When we look around our world we see that these are two of the defining features of 21st century industry.

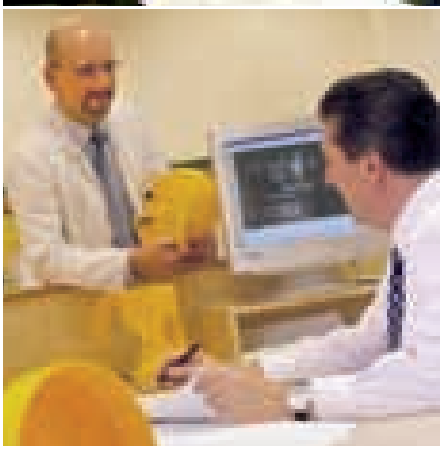
We have very real reasons for needing change and these reasons apply just as much to your business as to any other.

At Unipart Rail we understand that these factors mean that you need access to new products and not only can we develop new products for you, but we can also source the best of new technology in other industries, such as developing LED technology used in road traffic management to rail applications.

Innovative new products can deliver real benefits for you and your customers:

- Increased safety
- Better reliability
- Reduced cost
- Reduced environment impacts
- Compliant to standards
- Improved performance
- Replacing obsolescent items
- Improved passenger experience.

# What does Unipart Rail do to **innovate?**



Unipart Rail understands the railway system. This goes beyond the component level – our engineers understand the complete railway system, and the key interactions between rolling stock and the infrastructure.

This breadth of experience, together with our links to every level of the industry, enables our engineers to develop the innovation you need.

Our teams work with your engineers from the outset to understand your needs and manage the process from idea conception to manufactured item.

As well as using our own manufacturing facilities, we also work with other industry-leading companies and our wide supplier base to create the required solution.

The Unipart Rail Innovation service is comprehensive and we use our expertise to drive through projects from initial concept to finished product:

- Idea conception
- Cost/benefit analysis
- Potential solutions identified and assessed with customers
- Best solution chosen
- Devise specifications for electrical & electronic equipment, castings and housings etc
- 3D CAD modelling
- Create prototype units
- Build sample units for testing
- Undertake type testing, EMC, vibration and all necessary testing
- Undertake trials and assessment
- Seek acceptance from necessary bodies (Network Rail, VAB, Highways Agency, etc
- Manufacturing & servicing, in house or with partner suppliers.

# Unipart Rail
# **Innovation** successes

**Infrastructure:**

- Dorman LED Signalling
- Block Shelf Indicators
- Telecode TDM Systems
- Signalling Lock-out Device (LOD)
- Permanent Current Rail Indicator Device (PCRID)
- NRS1 and NRS2 Baseplates

**Traction & Rolling Stock:**

- Integrated TPWS & AWS System
- Electronic EAPC Receiver
- Electronic AWS Receiver
- Emergency LED Marker Lamp
- Fixed LED Marker/Tail Lamp
- SmartSander
- Cabcool

**Safety & Passengers:**

- Self Testing Current Rail Indicator Device (STCRID)
- Blocking-Back sign
- LED Wig Wag
- Passenger Information Systems
- Station Clocks
- LED Handlamp

# Why do I need **innovative** products?

### Existing products which need replacing

The new Block Shelf indicator replaces previous units made of bakelite which was deteriorating.

### Systems Extension

Telecode TDM Point-to-Point Data Transmission System upgraded to use Digital Transmissions System & interface with legacy signalling instruments.

### Environment

By introducing LED and other low-energy lighting products, Unipart Rail helps to extend product life and reduce energy consumption and your carbon footprint.

### New Technology from other industries

The introduction of LEDs from consumer markets is changing the way we think about lighting and Unipart Rail is working with industry leaders to bring this technology to the railways.

### "Blue Sky"

The Automatic Phase Control (APC) receiver performed well, but as it had moving parts had a limited life. The new electronic version lasts much longer.

### Safety

The Track Circuit Actuator and Track Circuit Aid work across the wheel/rail interface to increase the effectiveness of signalling and avoid accidents.

Innovation isn't just about exciting products that do something new, it can also help you deal with niggling problems which you've 'just lived with' and worked around.

Innovation can also improve the performance of existing products or systems so that they are more effective or efficient.

Recent legal changes (RoSH and WEEE) which affect the very components of equipment can also deliver headaches that seem difficult to resolve.

Environmental and safety issues also challenge us to change the way we work and to remove damaging or unsafe products from use.

For all these issues, Unipart Rail uses its own expertise drawn from a deep understanding of the rail industry and sources the best in current thinking to develop the solutions you need.

# Contact our **innovation** team

To find a solution for your product problems, contact the Innovation team:

Innovation Team
Unipart Rail
Gresty Road
Crewe
CW2 6EH
UK

e-mail: innovation@unipartrail.com

+44 (0) 1270 847 715
+44 (0) 1270 847 711
+44 (0) 1905 544 062

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