



RAILWAYS | TECHNOLOGY | SUSTAINABILITY





Downer is Australia's leading provider of rail and transit systems with expertise in delivering whole-of-life asset management support to our customers.

Downer's Rail & Transit Systems is the leading rail business in Australia, with expertise in delivering whole-of-life asset management support to their customers.

They have over 155 years' rail experience delivering innovative transport solutions, including designing and manufacturing rollingstock. Today, they leverage their capabilities to offer rolling stock, infrastructure, rail systems, operation and maintenance, system integration, engineering innovations and digital and data solutions.



ZTR has excelled for over 36 years in locomotive modernizations, rail digitalization and remote monitoring by providing control systems and telematics solutions to the railways worldwide.

They take pride in their high-tech solutions that enhance operational efficiency, maximize reliability, and promote sustainability.

Downer and ZTR partnership offering sustainable rail solutions to drive decarbonisation

The exclusive partnership between Downer and ZTR brings sustainable rail solutions to customers across Australia and New Zealand. Together, the team offer innovative products that enhance locomotive performance, extend operational lifespan, and reduce fuel consumption.

With Downer's local knowledge and ZTR's innovative railway technologies, including SmartStart, KickStart, NEXSYS, Pivot, and BOA, this partnership is perfectly aligned to meet the growing demand for modern and sustainable rail solutions.

The Downer and ZTR partnership aims to drive significant advancements in rail technology and decarbonization across the region.





ZTR NEXSYS is a great system, excellent customer service, they are there to help 24/7 with any question no matter how simple or complex.

- CLASS 1 RAILROAD, USA



NexSys

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ztr.com/NexSys

Locomotive Control Systems

Advanced, robust and flexible control system providing cost-effective modernization options that significantly extend the operational life of locomotives.

Benefits:

- Enhanced adhesion in both dry-rail and wet-rail conditions
- Advanced on-board and remote diagnostics
- Integrated with SmartStart® AESS
- User-Friendly interface
- Excellent return on investment



BoA

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ztr.com/boa-ii

Bolt-on Adhesion

Improve locomotive tractive effort, wheel slip protection and reliability for better train handling, adhesion and performance.

- Superior control with improved throttle response
- Cost-effective adhesion control to extend the locomotive life





KickStart

STARTING ASSIST

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ztr.com/KickStart

Locomotive Starting Assist

Supercapacitor technology to supplement the locomotive batteries during engine start.

Benefits:

- Extended battery life
- Increased starting reliability
- Advanced battery management & protection
- 10-year ROI of up to 650%

The image displays the ZTR KickStart and SmartStart systems. On the left, a laptop shows a dashboard with various metrics: Realized Savings of \$129,939 (12.23% A), Unrealized Savings of \$299,821 (A 11.6%), Fuel Realized Savings of \$79,992 (9.91% A), SmartStart Hours of 6,617.8 (13,341 A), Emissions Reduced of 339.7 Tonnes of CO2, and Average Realized Savings of \$748.8 Per Locomotive (25.52% (78.57%)).

On the right, there are two charts. The top one is a horizontal bar chart showing: MR Pressure (darkest bar), Reverser Initiated (medium-dark bar), Water Temperature (medium bar), and Dump Value (lightest bar). The bottom one is a donut chart showing: Shutdown Hours (blue), Working Hours (orange), and Idle Hours (dark grey).



SmartStart

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ztr.com/SmartStart

Automatic Engine Stop-Start (AESS)

The most trusted AESS system for reducing and managing locomotive idling.

Benefits:

- Savings of 30,000 litres of fuel per locomotive annually
- Remote asset management and reporting
- Extended engine life and reduced maintenance
- Investment payback in less than 1 year



Pivot

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ztr.com/pivot

Railcar Remote Monitoring

Pivot, powered by BlackBerry, is an advanced solution that delivers accurate location and asset condition to ensure safe and reliable transportation of goods. It uses a gateway and a suite of wireless sensors to remotely provide information about GPS location, impact events, door/hatch, load, and handbrake status of the railcar.

Benefits:

- **Enhanced Supply Chain Efficiency:** Reduce dwell and cycle times
- **Cargo Protection:** Prevent cargo loss from mishandling and unauthorized access
- **Optimized Asset Utilization:** Avoid overuse and underuse, and need of additional equipment
- **Minimized Downtime:** Reduce operational disruptions and maintenance costs

Vision

Intuitive web platform for asset management, remote monitoring and data visualization

Insights

Data driven customer success services to ensure maximum ROI



31,000
employees



250+
locations



\$12.6 billion
revenue in
FY2023



A network of
25,000
suppliers and
subcontractor partners



Contact Downer

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Building the railway technology of tomorrow

10K+ Systems installed globally



Pioneers of telematics & remote monitoring systems



Extensive experience working with OEMs, Rebuilders, Railroads, Shippers and Installers



Developing the next generation of hybrid locomotive technology

Contact ZTR



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