

Digital depot: Taking maintenance to the next level

Maximising efficiency,
minimising downtime

ALSTOM
• mobility by nature •



Taking maintenance to the next level

Take maintenance to the next level with Alstom's digital depot solutions. Our advanced condition-based and predictive maintenance technologies keep fleets in top condition, providing unmatched reliability, availability and efficiency. Explore how our advanced technologies and expert solutions enhance railway maintenance and performance.



ALSTOM Digital depot

Real-time fleet interface

Operational performance

Train health monitoring and predictions

Lean maintenance management

100% parts availability

Digital documentation and safety

Task assignment and execution

Digital twin

Big data analysis

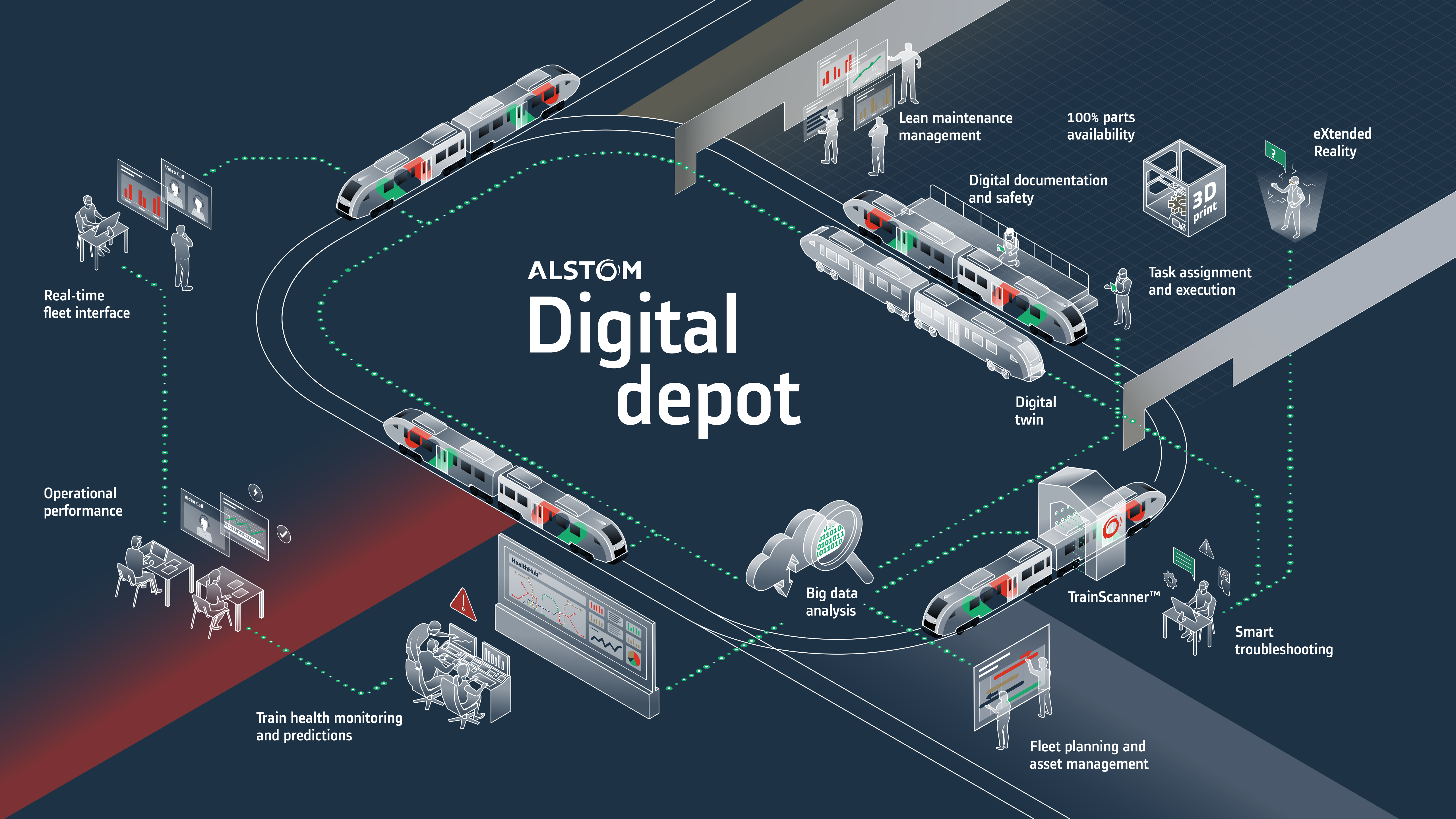
TrainScanner™

Smart troubleshooting

Fleet planning and asset management

eXtended Reality

3D print



Customer engagement

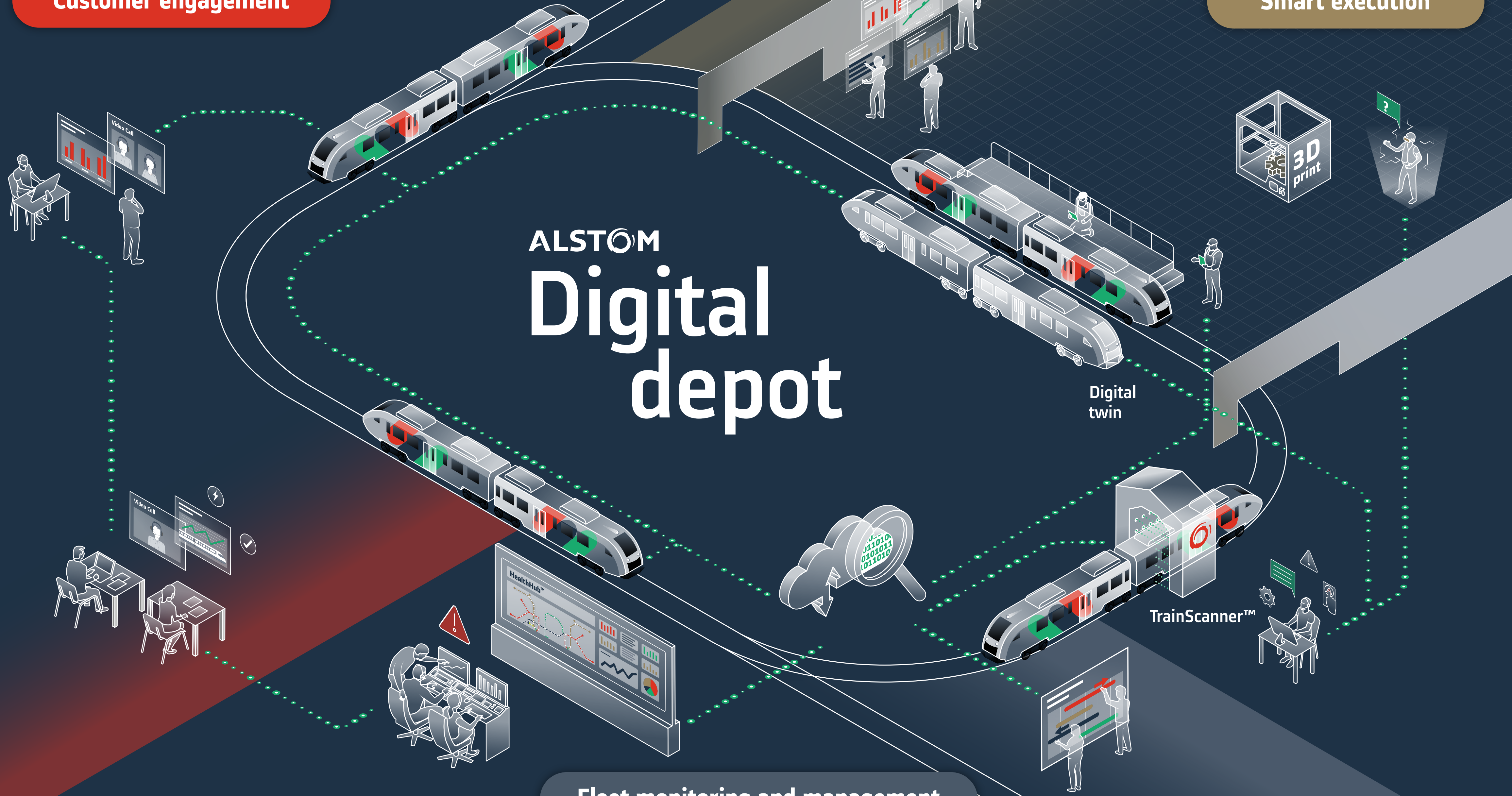
Smart execution

ALSTOM Digital depot

Digital
twin

TrainScanner™

Fleet monitoring and management



Customer benefits

Alstom's digital depot solutions greatly improve fleet reliability and operational efficiency, benefiting customers and passengers.

1 Maximised fleet availability

Reduces downtimes with real-time data acquisition and advanced analytics.

2 Reduced lifecycle costs

Increases asset usage and lifespan with smarter maintenance stops.

3 Improved passenger experience

Uses smart maintenance tools and technologies for data-driven insights, enhancing maintenance strategies and increasing onboard subsystems reliability for better passenger experience.

4 Improved punctuality

Optimises train schedules with continuous monitoring and data-driven decision-making, ensuring high reliability and timely operations.

-30%

Our customers have reported a 30% reduction in downtime.

Environmental benefits

Alstom's technological solutions promote both higher efficiency and sustainability.

1 Reducing carbon footprint

Optimised maintenance schedules and predictive analytics reduce unnecessary train movements and energy consumption, leading to lower CO₂ emissions.

2 Minimise waste

The use of 3D printing for parts production reduces the need for large inventories.

3 Maximise energy-efficiency

Our digital depots are energy-efficient and designed to minimise energy consumption during operation.

4 Enhance sustainability

Continuous monitoring and data-driven decision-making ensure that maintenance practices are sustainable and environmentally-friendly.

-20%

Our solutions have helped our customers reduce CO₂ emissions by up to 20%.

Lean maintenance

Alstom's digital depot predictive maintenance capabilities reduce operational disruptions while maintaining a focus on safety during maintenance execution.

1 Reduced maintenance needs

Predictive maintenance and real-time monitoring facilitate the identification and resolution of issues before they become severe, thereby minimising the necessity for extensive repairs and unexpected downtime.

2 Optimised resource allocation

Efficient scheduling and resource management ensure that staff, spare parts, and equipment are used effectively, minimising waste and improving inventory management.

3 Improved asset utilisation

Enhanced asset management and tracking systems enable better decision-making regarding asset utilisation, refurbishment strategies, and long-term investment planning.

4 Remote diagnostics and maintenance

Remote monitoring and control systems reduce the need for on-site interventions, leading to faster response times and more efficient maintenance processes.

-30%

Our customers reduced their maintenance costs by up to 30%.

Key references



Contact us

Embrace the evolution in railway maintenance with Alstom's digital depot solutions. Benefit from maximised fleet availability and reliability, reduced lifecycle costs, and improved passenger experience.

Alstom is the market leader in rail services, supporting customers over the entire asset lifecycle with the broadest portfolio of services solutions. Alstom's FlexCare Perform™ maintenance services are tailored to customer needs and operational requirements, from technical support with spares to fully outsourced maintenance solutions. Alstom maintains over 35,500 vehicles worldwide and is a trusted partner for servicing both Alstom and non-Alstom rail assets.

Contact us for more information on how we can support with optimising your maintenance and bringing your operational efficiency to new heights.

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[Services for railway fleets, infrastructure and signalling systems](#)