



SAP Business Transformation Study | Travel and Transportation | Trenitalia

How Does Italy's Major Rail Operator Keep 2 Million Passengers Running on Time?

As the primary train operator in Italy and the operator of one of the fastest trains in the world, Trenitalia is committed to providing excellent service to its customers. After all, 2 million passengers rely on regional, national, and international transportation services from Trenitalia's fleet of 7,000 trains, carriages, and locomotives to get them from A to B every day. With such a high-speed system and so many people depending on it, it's crucial that maintenance processes are quick, efficient, and able to react rapidly to operational stressors. That's why Trenitalia created a dynamic asset management system for every train component.

In order to stay predictive rather than reactive, so that it can improve customer service, Trenitalia has shifted from standard maintenance schedules based on distance and time to dynamic plans that reflect the specific status of each and every component of the trains. Using the SAP® Predictive Maintenance and Service solution, Trenitalia is able to extract large amounts of data on a daily basis through onboard sensors that are then transmitted over the ground network and analyzed by the information processing systems that run on the SAP HANA® platform. This enables Trenitalia to meet both customer needs and the highest technology standards.



Introducing Dynamic and Predictive Maintenance with **SAP® Solutions**

Trenitalia
Rome, Italy
www.trenitalia.com

Industry
Travel and transportation

Products and Services
Local, national, and international passenger transport services

Employees
28,000

Revenue
€5.5 billion

SAP® Solutions
SAP® Predictive Maintenance and Service solution, the SAP HANA® platform, and SAP IQ software

Trenitalia ensures its customers can rely on it to get them wherever they need to go with efficient and reliable services that run on time. By using the SAP Predictive Maintenance and Service solution, Trenitalia has created a dynamic asset system that allows it to make better decisions based on real-time information and error forecasting.

Before: Challenges and Opportunities

- Significantly increase maintenance efficiency and reduce operational costs by avoiding unnecessary maintenance activities
- Systematically plan in advance for any intervention, ensuring availability of spare parts, facilities, tools, and resources
- Prevent breakdowns while trains are in operation
- Avoid downtime due to unforeseen activities

Why SAP

- Innovative solutions and technology to improve maintenance processes based on the SAP HANA platform and Big Data analysis
- Implemented the SAP Predictive Maintenance and Service solution to support real-time monitoring of the train fleet
- Used algorithmic predictions and indicators for dynamic planning

After: Value-Driven Results

- Scaled large quantities of data in SAP IQ, reducing required in-memory storage
- Gained insight into real-time diagnostics to make better decisions
- Improved asset reliability and service, thanks to predictions and error forecasting
- Reduced maintenance costs

“The SAP Predictive Maintenance and Service solution based on SAP HANA helps us **cut costs and keep trains running smoothly.”**

Danilo Gismondi, CIO, Trenitalia



8%–10%

Reduction in maintenance costs

700 TB

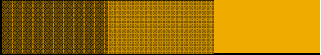
Of data managed per year through SAP HANA and SAP IQ

5,000

Signals sent per train every second, thanks to sensors on board



Watch how Trenitalia keeps passengers happy with SAP solutions.



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