

Ensuring safety, enhancing reliability

To help maintain rail's high safety standards, EU-Rail is taking a global approach to railway safety.



An approach that starts with understanding available risk assessment methods and how they apply to safety management.



SAFETY STARTS WITH ASSESSING THE RISKS

The developed safety risk management model is based on a risk assessment method and uses a decision support tool.

Risk assessment

EU-Rail developed a method that focusses on the human centric aspects of safety and includes system functionalities to create scenarios as close to reality as possible.

Decision support tool

By identifying risks and taking a holistic view, the decision support tool allows decision makers to quickly react to a safety situation.



Key Finding

The developed system can help improve maintenance and operation processes; increase asset health, availability, punctuality, and speed; and contribute to the objectification of safety-critical decisions.



SMART PLANNING AT THE CROSSROADS OF SAFETY AND RELIABILITY

Punctuality and Railway Operation Simulation is a macroscopic simulation tool designed to improve the planning quality of timetables.



Key Finding

The prototype solution developed in the project was able to address more than 60% of the overall delay time and is particularly well-positioned to reduce delays caused by secondary sources or planning management.



INTEGRATED MOBILITY MANAGEMENT

Integrated Mobility Management (I2M) is a key solution for rail traffic management and has the potential to increase:

- Operational reliability in freight
- Operational performance for passenger services
- Efficiency of rail freight operations
- Efficiency of passenger-focused operations

With the aim of leveraging I2M's full potential within rail, EU-Rail developed a portfolio of prototypes, each using the TMS to support high efficiency freight operations.



Key Finding

The prototypes help advance I2M's ability to reduce delays and achieve cost savings.



ADVANCED BUSINESS SERVICES

EU-Rail also developed an advanced business services (ABS) concept to increase the efficiency of passenger-focused operations.



Key Finding

With the ABS serving as the integration through data sets, business logic, and systems, a higher value can be achieved than what the individual services can provide alone

CONCLUSION

With a focus on risk management and the use of digital solutions, EU-Rail is helping ensure that Europe's railways maintain their global reputation for **safety and reliability**.



Who Benefits



Final users



Infrastructure
managers



Railway
operators



Suppliers

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Solutions developed by Shift2Rail,
Europe's Rail's predecessor programme

