



HASTUS

# SOFTWARE SOLUTION FOR PASSENGER RAIL

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Delivering more flexible,  
resilient and efficient  
mobility



G:RO





The passenger rail industry faces an increasing number of challenges to plan and deliver services in a mobility landscape that is complex and ever-changing. Greater flexibility, resilience and efficiency are the keys to ensuring passenger rail remains the backbone of mobility as it integrates more than ever with other modes. Operators now rely on innovative solutions harnessing artificial intelligence to not only implement key strategies and gain a holistic view of resources, but also to manage these resources as efficiently as possible to increase rail resilience.

The HASTUS software solution optimizes rail planning and operations by exploiting the full potential of data. It helps you implement innovative strategies such as integrated planning, digitalized crew scheduling and dynamic resource management so that you can deliver the highest-quality service while controlling costs.

### Key benefits

- + More flexible rail services, with no compromise on robustness and compliance
- + Improved control over operation costs and resource allocation, supported by proven optimization solutions
- + Enhanced quality of service for passengers
- + Streamlined planning, operations processes and decision-making
- + Staff empowerment and improved work-life balance
- + Seamless data exchanges and IT integration
- + Evolutive platform, in sync with industry challenges and technical innovations such as cloud hosting



## OVERVIEW

GIRO supports more than 100 rail operations worldwide, including urban (metro, LRT, tram) regional, commuter and national, long-distance operators.

Our rail clients include:

- SNCF (France)
- RATP Group (Paris)
- Eurobahn (Germany)
- MTA (New York)
- LACMTA (Los Angeles)
- SMRT Trains (Singapore)
- Queensland Rail (Australia)
- Yarra Trams (Australia)
- METRO S.A. (Santiago, Chile)

Rail infrastructure modeling and track access

Timetabling and train scheduling

Workforce management and daily dispatch

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## Key features

- + Fully integrated, modular solution – from planning to operations – for timetables, track access, rolling stock and workforce
- + Industry-recognized optimization engine that ensures robust, efficient deployment of resources and adapts to changing business goals and constraints
- + Flexible rules-and-validations engine that ensures compliance with complex processes, work agreements and rail regulations such as workforce qualifications and fatigue management
- + Seamless real-time interface with systems such as train control, maintenance, HR, payroll and passenger information (from standard or custom formats)
- + Available in different architectures, in the cloud or on-premises

### PLANNING

Infrastructure modeling  
Routes and stations definition  
Track access management  
Capacity planning  
Replacement bus services planning  
Manpower planning

### SCHEDULING

Timetabling & conflicts validation  
Track occupations  
Service adaptations  
Track works management  
Train plans optimization  
Maintenance scheduling  
Workforce duties and rosters optimization

### OPERATIONS

Trains & units assignment  
Workforce management  
Personalized rostering  
Qualifications control  
Leave management  
Automatic work distribution  
Dispatching & Time attendance  
Payroll pre-processing  
Web portal & Mobile communications  
Disruption-management support

### OPTIMIZATION

Resource-specific algorithms  
Flexible rules modeling  
From planning to operations  
Scenarios comparison  
Multiple-level KPIs

### INTEGRATION

Modular architecture  
Centralized database  
Open data model  
Dynamic integration tools  
Cloud-compatible

### ANALYSIS

On-time performance  
Ridership analysis  
Multimodal synchronization

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