With reference to HOF, DITS has developed the SEW protocol (Sharing Enterprise Wellbeing), which integrates a technical and engineering framework with psychological features in order to support SMS processes. In 2024, SEW was approved by ERA as part of its pilot qualification programme:

https://www.era.europa.eu/content/i-am-interested-third-party-safety-training-era-pilot-qualification-scheme

European Projects

DITS actively participates in European projects funded under the Horizon Europe programme. We are partners of



https://www.rfi.it/en/Network/in-europe/MaDe4Rail.html



https://overheat-project.eu/



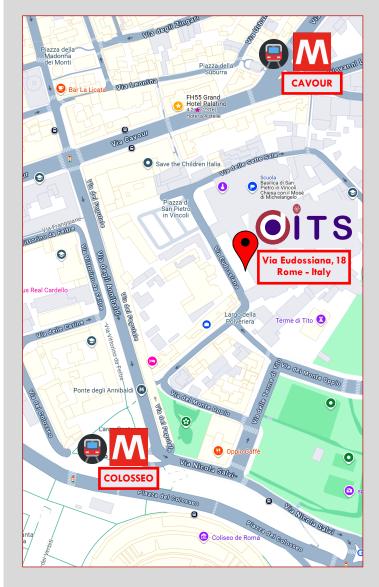
https://automotif-project.eu/

Our Customers

DITS works closely with its customers to provide services and develop products tailored to specific needs.

DITS counts among its customers some of the leading companies in the Italian and European railway industry, including Alstom Ferroviaria, ATAC, Ferrovie Emilia Romagna (FER), Hitachi Rail STS, Italferr, Italo - NTV, Rete Ferroviaria Italiana (RFI), Trenitalia, Trenitalia TPER.

DITS is also a partner in several European projects financed by Europe's Rail and Horizon Europe



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DITS

Spin-off Sapienza Università di Roma

Engineering

The Company

DITS is a spin-off of Sapienza University of Rome, stemming from the 20 year experience of a large research group in Railway Engineering. It was established within DICEA (Department of Civil, Construction and Environmental Engineering) and on the experience of the PhD school in Infrastructure and Transport.

The company is made up of 15 professors and PhDs along with the Sapienza University of Rome and Hitachi Rail STS, one of the world's most important companies in the railway field.



Operating Sectors

DITS's mission is to create a bridge between research and its application in the railway world, to improve the quality of the railway system in terms of safety, reliability, sustainability and economic efficiency. DITS transforms academic research into high-tech products and services to support authorities, infrastructure managers, railway companies and industries operating in the railway sector.

Multi-disciplinarity is a key aspect of the company, which employs 15 engineers with expertise in the mechanical, electrical, civil, transport and environmental fields.

DITS supports the railway industry in the following areas:

- Rail safety
- Transport engineering
- Railway mechanics

In addition, thanks to many years of experience in university teaching, DITS designs and implements training and further education courses at all levels.



Railway safety

In the field of railway safety, the company defines and verifies the system logic and safety level of operation in its human, technological and regulatory components and to perform risk analyses on the railway system.

DITS supports Infrastructure Managers and Railway Undertakings in the construction and continuous improvement of their Safety Management System (SMS), integrating Human and Organisational Factors (HOF).

Furthermore, the Company provides courses for the training of the Safety Management System Manager (RSGS) and courses on risk assessment in the railway sector.



Transport engineering

In the field of railway operations and combined transport systems, the company offers design and analysis services for railway lines and nodes, in particular by assessing the regularity of operation, the capacity of the infrastructure, and the stability of railway timetables in order to resolve traffic conflicts.

DITS also conducts studies aimed at identifying energy-saving strategies

both in terms of infrastructure (through the optimisation of electricity distribution schemes) and of train power consumption (through driving simulation software).

The company also provides support for the management of ports and intermodal facilities through the use of synthetic and micro-simulation methods for evaluating capacity and optimising the loading/unloading of goods at terminals.



Railway mechanics

In the railway mechanics sector, the company supplies measuring systems with the aid of hardware and software for data processing and analysis, developed according to functional/performance requirements specified by the customer.

DITS uses computer simulation procedures and methodologies for the design, construction, validation, monitoring and maintenance of rolling stock and track components.

The company also provides training courses on the design, construction and maintenance of railway equipment.

