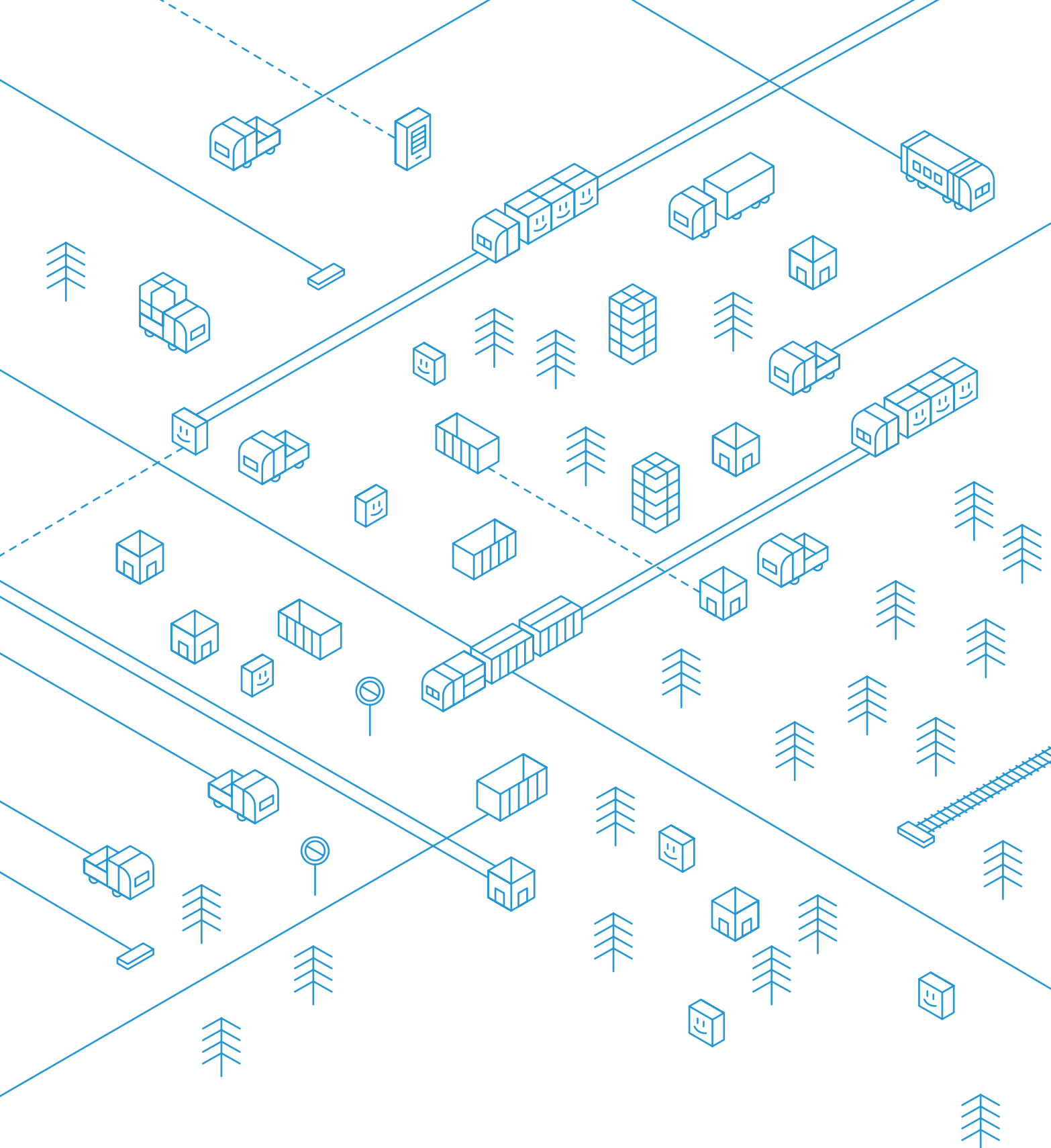

Information Systems for Transport, Forwarding and Logistics



oltis group



EUROPEAN UNION
European Regional Development Fund
Operational Programme Enterprise
and Innovations for Competitiveness

Summary

Business Group History	5
Introduction by the Statutory Director	6
Companies within OLTIS Group	8
Certificates	10
Awards	11
Social Responsibility	12
Message from the Executive Director	14
International Activities and Membership	16
International Conferences	17
Research, Development and Innovation Projects	19
Comprehensive Software Solutions	21
Custom Development, Services	41
TAF TSI Implementation	42



A Czech Company for Information Systems in Transport

History of the Group

OLTIS Group is a purely Czech business entity comprising member companies. Since 1997, it has stamped its authority on the information systems market for transport and logistics through sustained success and reliability. The associated specialized software companies within OLTIS Group work

synchronously and effectively, thereby offering complex and highly customizable information system solutions wherein several key components are tailored to the needs of the clients. This is one of the key strengths and the niche of OLTIS Group.

Overview of the Milestones

1997	Founding OLTIS s.r.o. , — focus on the development and operation of information systems supporting railway traffic management.
2004	Establishing a joint-stock company OLTIS Group a. s. with the aim to provide complex solutions for transport information systems. It is the strongest company of the group that covers and integrates development teams, provides solutions in the field of railway traffic management and freight transport, as well as outsourcing the operation of information systems for the Czech and Slovak railways.
2006	Establishing OLTIS Polska Sp. z o.o. (originally named JERID Polska) as a commercial representative of OLTIS Group in Poland.
2007	Establishing OLTIS Slovakia s.r.o. as a commercial representative of OLTIS Group in Slovakia.
2008	Acquisition of JERID, spol. s r.o. (1993) and its integration into OLTIS Group.
2013	Grand opening of new headquarters of the group on Milady Horakove street in Olomouc, heralding a new phase of company development, new quality of work environment for development teams and also a significant increase in the comfort and quality of services for customers thanks to the complex and sophisticated solutions of server technology.
2014	Establishing OLTIS Hungaria Kft. as a commercial representative of OLTIS Group in Hungary.

Štefan Mestický

STATUTORY DIRECTOR

"Since its inception, OLTIS Group has been one of the leaders of innovative information systems for transport and logistics. The OLTIS Group brand aims to present market development, highlighting specific but broad skills and bringing the ability to provide software solutions and related services to the most demanding technological processes in the field of transport and logistics. One of the OLTIS Group distinctive features is also implementing corporate social responsibility principles and optimizing the environmental impact of its operations."



Companies within OLTIS Group

› Company Profile

- A strong IT Group in Central and Eastern Europe
- A purely Czech private group of specialized software companies closely cooperating since 1997
- Development and implementation of sophisticated IT systems for transport, forwarding and logistics
- Innovative software solutions
- Implementation of railway interoperability
- IT services and consulting
- European research and innovation projects
- A significant member and partner of international organizations

› Subsidiaries and Members

The main development base and headquarters is located in Olomouc, Czech Republic.

OLTIS Group has its own subsidiaries in Slovakia, Poland and Hungary.

The Group companies are socially responsible for the region, environment, employees and customers. The whole Group is composed of more than 250 employees.

oltis group

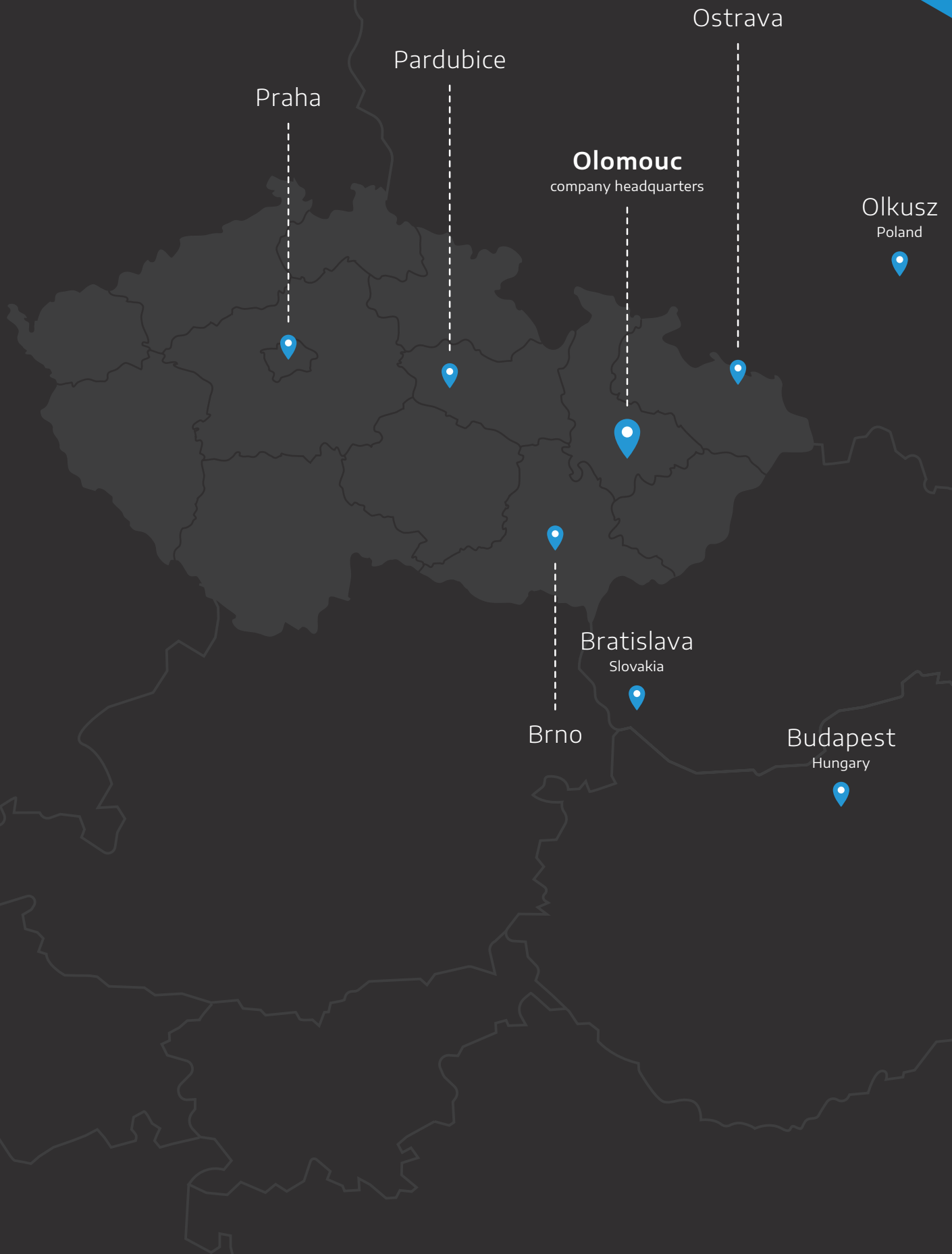
oltis

oltis slovakia

oltis polska

oltis hungaria

JERID



Holder of Attestations and Certificates

The members of the business entity **OLTIS Group** are holders of attestations and management system certificates that have been introduced in the scope of "Software Development and Information Technology Services" certification as an integrated management system meeting the requirements of international standards **ČSN ISO 10006, ČSN EN ISO 9001, ČSN EN ISO 14001 and ČSN ISO / IEC 27001**.

The integrated management system also incorporates the **ISO / IEC 20000** norm, which is subject to certification of "Support for the operation of information systems" and "Ensuring the operation of information systems".



Awards



Award for the solution in "Independent Monitoring of Railcars" within the call "3rd Open Innovation Challenge"

Authority: Rail Cargo Group, Member of ÖBB / 2017



Award for 3rd place in the Vodafone competition "Company of the Year 2016 in Olomouc region"

Authority: Hospodářské noviny ("Economic Newspaper") / 2016



The Golden Chariot 2013 INTERNATIONAL TRANSPORT AWARD in the category "Achievements in Strengthening of International Relationships in the Transport Sector"

Authority: Organizing Committee of The Golden Chariot Award / 2013



The annual ACRI award for successful organization of IRIC conferences 2011, 2012 and IRFC conference 2013

Authority: ACRI / 2012 / 2013 / 2014



Award "Leader of the Railway Transport in the category Telematics" for the project KONTI

Authority: Transport i Komunikacja and Forum Transportu Szynowego / 2010



2nd place in the competition "INNOVATION AWARD 2009" for the product RailMap — Digital Railway Map of Europe and Asia

Authority: Association of Innovative Entrepreneurship, Czech Republic / 2009



"EUREKA INNOVATION DAYS AWARD 2009" for the Project E!3161 LOGCHAIN+ E-RAILMAP in the category "The best EUREKA project of 2009"

Authority: EUREKA / 2009

OLTIS Group acts ethically, sustainably and puts emphasis on healthy lifestyle and good social environment

› Coexistence with the Local Community

The companies of OLTIS Group are actively engaged with the concerned community through supporting and fostering healthy social life in a number of ways:

- For many years, OLTIS Group has supported Charity Šternberk, the Children's Home of Dagmar in Brno and the S.O.S family house for temporary stay "Sindbad".
- In 2018, the profit from the Systemy kolejowe conference has been dedicated to Children's Villages in Ustron, Poland, for rehabilitation of Terežka Hoňková, and for many other charity projects.
- Corporate promotional items are mostly purchased from sheltered workshops.
- Financial contributions are dispersed among smaller sports clubs and interest organizations in the areas of operation of the companies.
- Every year, the "Kokina running" of TJ League of hundreds is supported in the Olomouc region.
- In 2018, the European Grand Prix Final in the Go board game was supported.



Employees

Despite its size, OLTIS Group still maintains its family character. The team consists mainly of long-term employees (dozens of colleagues have been working in the companies for more than 20 years) and all team members are recruited from our branch offices or from nearby. Therefore, the group is a stable employer supporting the local labour market.

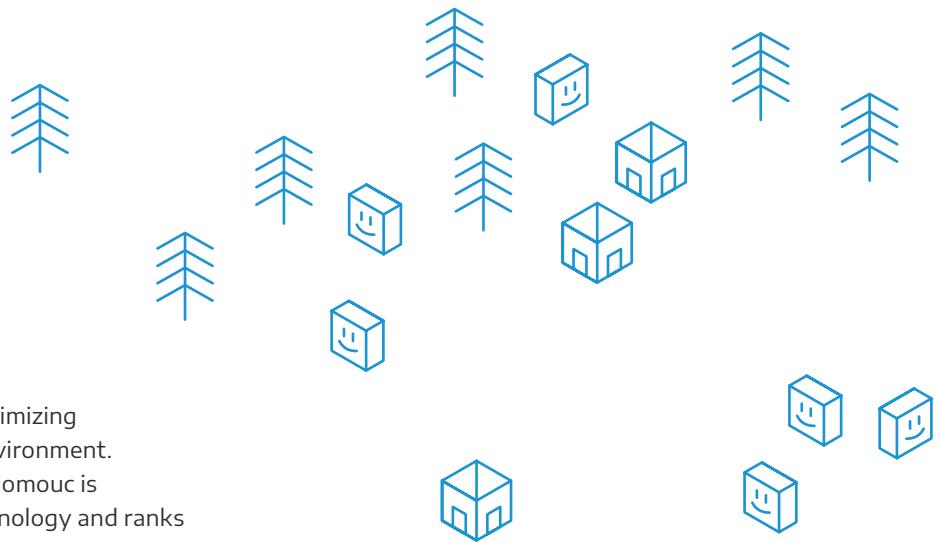
We have a wide range of corporate benefits for our employees. OLTIS Group focuses on corporate and vocational training along with language training.

Twice a year, a team of about 250 staff members meet at a teambuilding event. For many years, we have been organizing Children's Day for the company employees with the aim of developing and supporting extracurricular and informal interpersonal relationships between the workers and their families. One of the benefits of such activities is seen in our employees who are motivated and inspired to take care of their health and the environment.

Ecology

OLTIS Group places emphasis on minimizing the impact of its activities on the environment. The modern HQ of OLTIS Group in Olomouc is equipped with state-of-the-art technology and ranks among the energy-saving constructions.

For both heating and cooling, the air-to-air heat pump technology is utilized. Furthermore, rainwater from the building is collected in special tanks and distributed through separate piping to lavatories. Cleaning of the premises is done by using environmentally friendly cleansing agents. Employees follow the company instructions on minimizing waste, sorting waste into categories, reducing paper consumption and the application of these principles in the maximum possible extent in their respective units. Over the past ten years, our employees have been informed and educated through our corporate magazine on ecology, healthy lifestyle and nourishing food.



Miroslav Fukan

 EXECUTIVE DIRECTOR

"OLTIS Group is a stable and strong IT corporate group within the European railway industry holding a dominant position in Central and Eastern Europe. Currently, the strong focus of our company puts emphasis on international cooperation that we implement through research, development and innovative projects. These are one of the pillars of the OLTIS Group development strategy. Within the projects, we have developed long-term partnerships with various European partners such as international railway organizations, major IT companies, universities, research organizations and with customers such as infrastructure managers, railway undertakings, forwarders and logistics companies. In terms of important OLTIS Group events, international conferences with the participation of European and world leaders in the field of transport are regularly organized. These important events help to determine the trends and future directions of the development of rail transport."



International Activities and Membership

▶ Since 2009, OLTIS Group Has Been Active Abroad, Especially with European Institutions and Organizations



Association of the European Rail Industry (UNIFE) — active work in committees and working groups of the SME Committee, Freight Committee, Digital Platform, Cyber Security and Communication.

Representation of UNIFE in the TAF / TAP TSI change management process at the European Union Agency for Railways (EUAR).

Digital Transport and Logistics Forum (DTLF) — the advisory body of the European Commission.

European Commission's Expert Group on Competitiveness of the European Railway Supply Industry.

Organization for Cooperation of Railways (OSJD) — Freight Transport and Infrastructure Committees.

International Rail Freight Business Association (IBS).



International Conferences

International Conferences Regularly Organized by OLTIS Group Help Define the Trends and Directions of the Future Developments in Rail Transport



International Rail Forum & Conference (IRFC) is the largest professional railway conference in Central Europe. Since 2008, it has been organized by OLTIS Group in Prague every two years.

It is an opportunity for exchanging information and experience between companies involved in new innovative solutions concerning railways, together with the introduction of novelties in the implementation of rail transport. There is participation of top representatives of European and world railway

organizations, top representatives of major carriers, infrastructure managers, railway companies, railway system suppliers, customers and freight forwarders that have decided to keep track with the rapid pace of development in the transport market.

The conference is traditionally supported by major international organizations and national institutions.

Systemy kolejowe



Every year, OLTIS Polska organizes the international expert conference Systemy kolejowe in Ustron, and since 2018, in Wisla. This is mainly a meeting of leading managers and specialists of railway institutions and companies from Poland, Czechia and Slovakia. The conference has already gained a stable position in the calendars of transport — forwarding — logistics sector.





Research, Development and Innovation Projects



› OLTIS Group Is a Partner in the Following Shift2Rail Projects

SPRINT — Semantics for Performant and Scalable Interoperability of Multimodal Transport.

S2MaaS — Shift2Rail IP4 Enabling Mobility as a Service and Seamless Passenger Experience.

ASSETS4RAIL — Measuring, Monitoring and Data Handling for Railway Assets: Bridges, Tunnels, Tracks and Safety Systems.

OPTIYARD — Optimised Real-time Yard and Network Management.

ST4RT — Semantic Transformations for Rail Transportation.

GOF4R — Governance of the Interoperability Framework for Rail and Intermodal Mobility.

VITE — Virtualization of Testing Environment.

IT2Rail — Information Technologies for Shift2Rail.

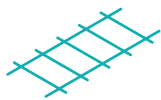
› OLTIS GROUP Has Been Collaborating on Long-Term Basis in European Research and Innovation Projects with the Following Major Organization and Companies

International organizations and institutions
UIC, EUAR, UNIFE, Shift2Rail JU, FTE, UITP, UIRR, RNE, RAILDATA, HITrail

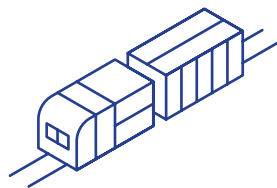
Railway undertakings and infrastructure managers
SNCF, DB, Network Rail, RENFE, FS/Trenitalia, SBB, Trafikverket, ÖBB Infra, ČD Cargo, AWT, SŽDC

Railway industry
Alstom, Siemens, THALES, CAF, Ansaldo, Amadeus, MerMec, HaCon, Vossloh, Knorr-Bremse, AŽD Praha, VÚŽ and many others

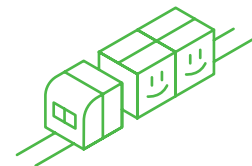
Comprehensive Software Solutions for Transport, Forwarding and Logistics



RAIL INFRASTRUCTURE
MANAGER



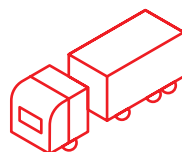
RAIL FREIGHT
TRANSPORT



PASSENGER RAIL
TRANSPORT



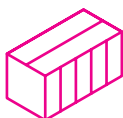
FORWARDING



ROAD FREIGHT
TRANSPORT



FACTORY
TRANSPORT



CONTAINER
TERMINALS



WAREHOUSES



MOBILE
TECHNOLOGIES



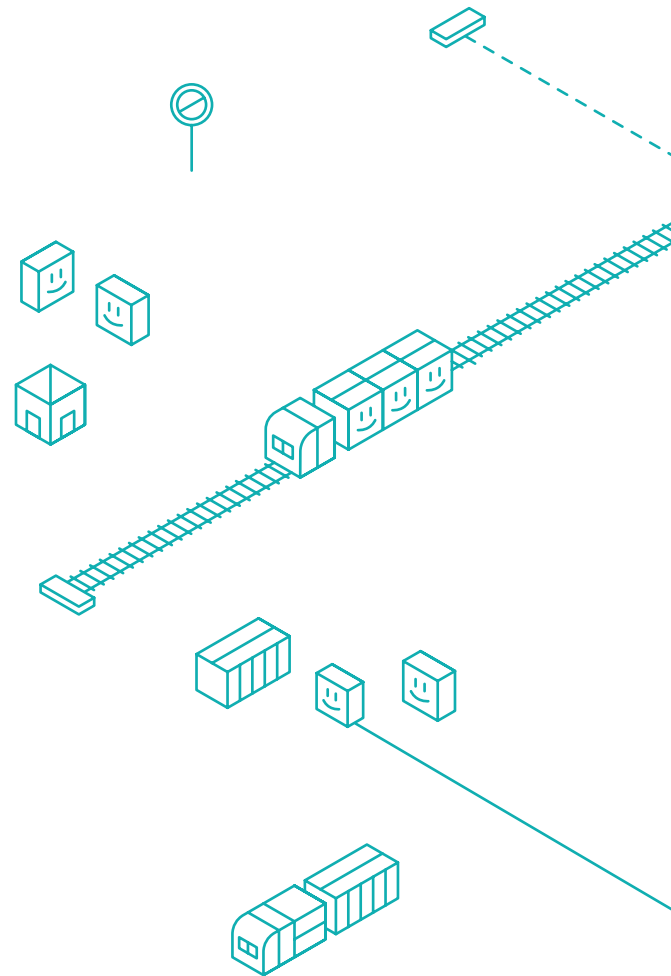
Infrastructure Manager

OLTIS Group information systems for infrastructure managers constitute complex IT support solutions for ensuring railway operation during the entire life cycle of a train.

The advantages include highly interconnected data, consolidated and comprehensive solutions, including data communication with information systems of railway undertakings as per TAF TSI.

➤ Overview of Topics Addressed

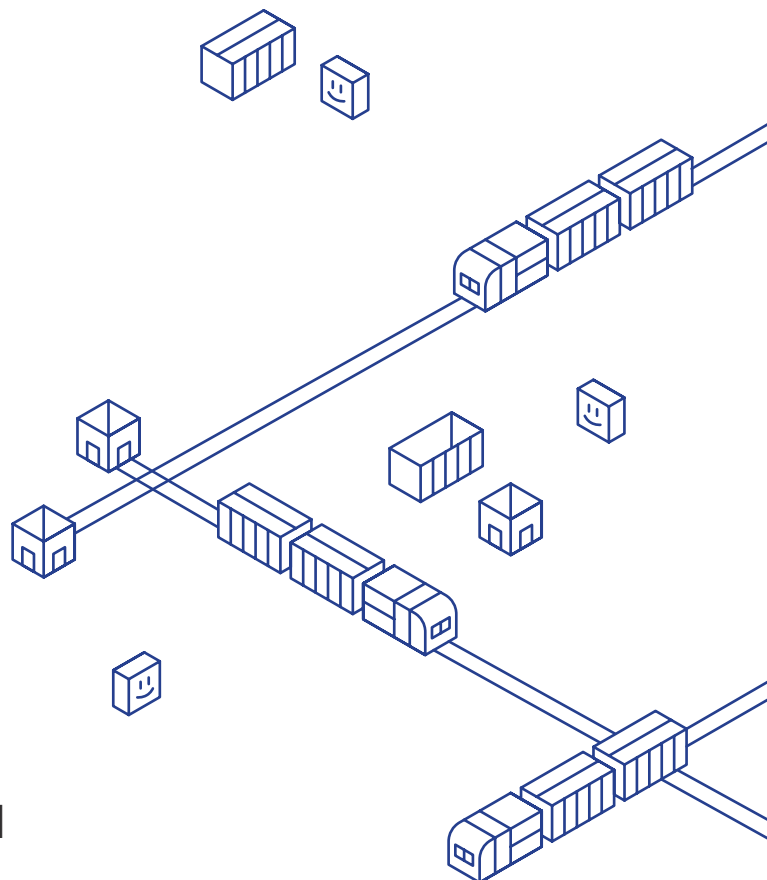
- Registers and maps
- Planning and publishing closures and restrictions
- Publishing IM's information
- Ordering and allocating capacity
- Transport of exceptional consignments
- Train preparation before departure
- Operation / dispatch management
- Train run information
- Supporting of station master's work
- Arranging human resources management
- Access fee calculation
- Data marketplace



Freight Railway Undertakings

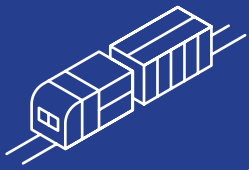
Our information systems offer complex solutions for both small and large railway undertakings such as process support from long-term planning, evaluating business cases, operational management, monitoring transportation progress to assessing performed tasks with the goal of efficient process management and cost optimization.

The solution includes ensuring standardised data communication between infrastructure managers and other partners in processes and activities of operational planning and management. The solution offers the railway undertakings an increase in efficiency of internal processes, better fleet use, traction vehicles use, and an increase in driver productivity. Our solution allows easy system integration in the environment of a freight railway undertaking.



› Overview of Topics Addressed

- Requirements
- Planning
- Dispatching management
- Traction and non-traction vehicles
- Mobile application
- Personnel
- Data interface
- Controlling
- Invoicing
- Single wagon loads
- Pricing
- Wagon loading





Passenger Railway Undertaking



OLTIS Group provides complex solutions for both small and large passenger railway undertakings that need to effectively perform their operation in the areas of performance planning and operational management.

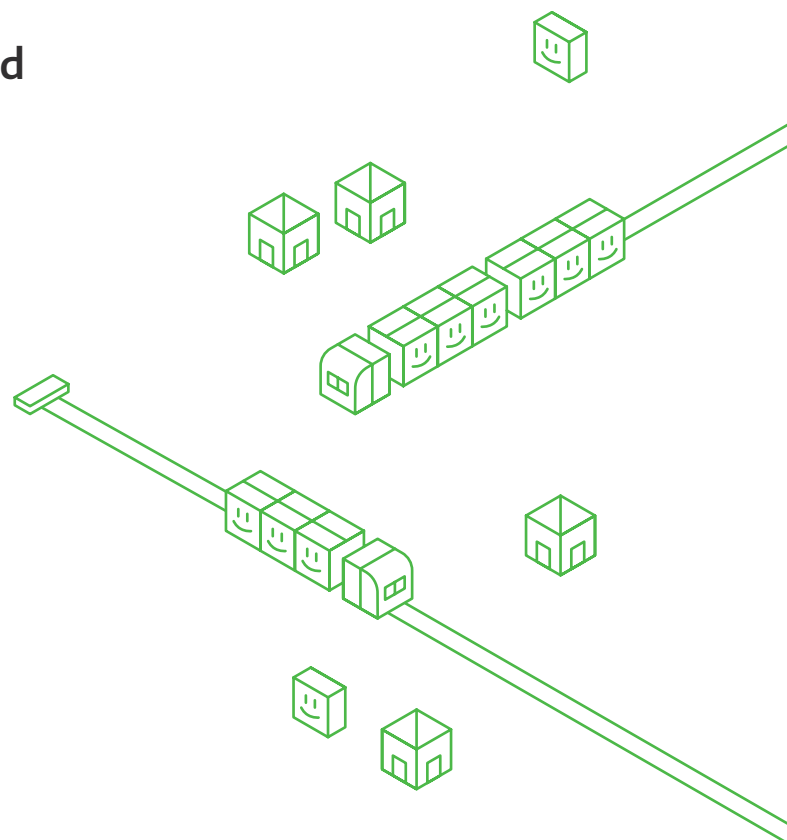
OLTIS Group systems support long-term offering modeling processes, creating both annual and short-term timetables, optimal use of resources and their assignment and deployment to transport tasks, including real-time tracking trains and moving objects (locomotives, train sets, train staff). At the same time, the systems provide the users with the

necessary visualization of current and expected traffic situations in required graphical views to provide support for operation management related to the correction of operating irregularities.

The solution in individual processes and operation planning and management activities includes cross-references, consolidated solution, data communication with IS of infrastructure managers (according to TAP TSI) and other partners in individual processes and activities of operational planning and management.

➤ Overview of Topics Addressed

- Train path modeling in variants
- Timetable compilation
- Change requests planning
- Vehicle and personnel circulation
- Allocation of vehicles and personnel to operation
- Visualization, tracking of trains and managed objects
- Management of monitored objects
- Standardized data communication
- Communication with RU operations division
- Evaluation of quality performance



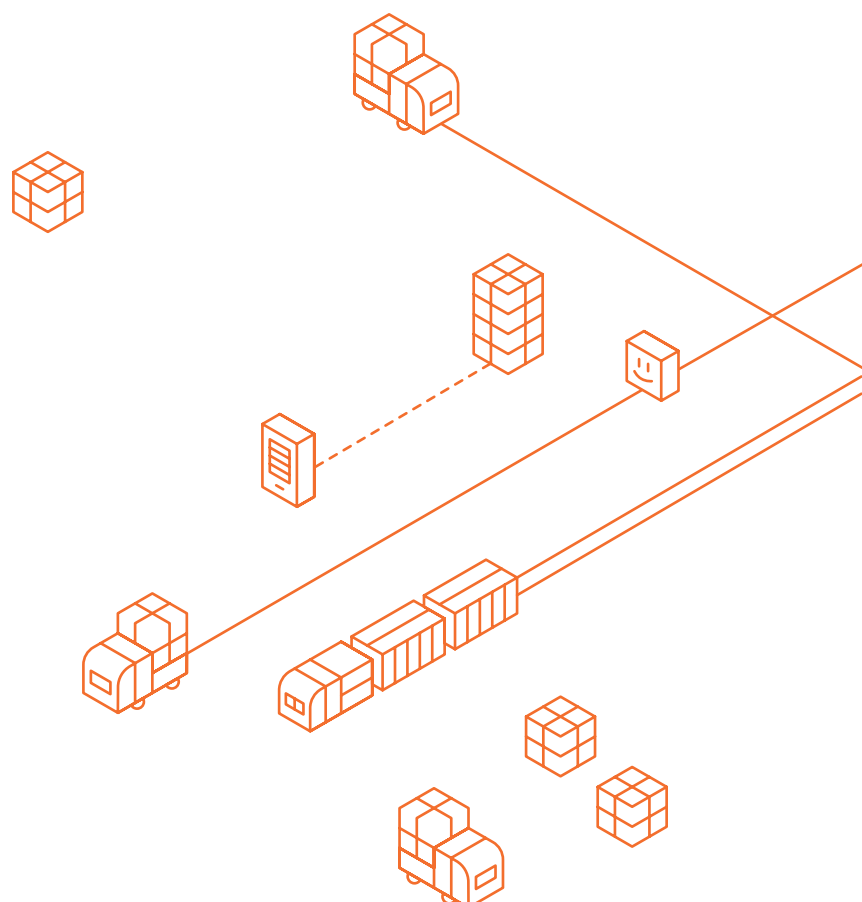
Road and Rail Forwarding

The OLTIS Group forwarding information system is a sophisticated solution for road, rail or collection service companies. The system is characterized by complexity, flexibility and a high degree of automation. One of its benefits is for example

detailed information from individual rail freight areas in Europe and Asia. System openness allows an easy system integration with in-house and customer systems, which greatly enhances the benefits of the entire solution.

› Overview of Topics Addressed

- Business case
- Orders
- Transport
- Pricelists and calculations
- Invoicing
- Transshipping
- Code lists
- Railway infrastructure
- Web Service
- Mobile application
- Controlling
- Web portal





**FREIGHT
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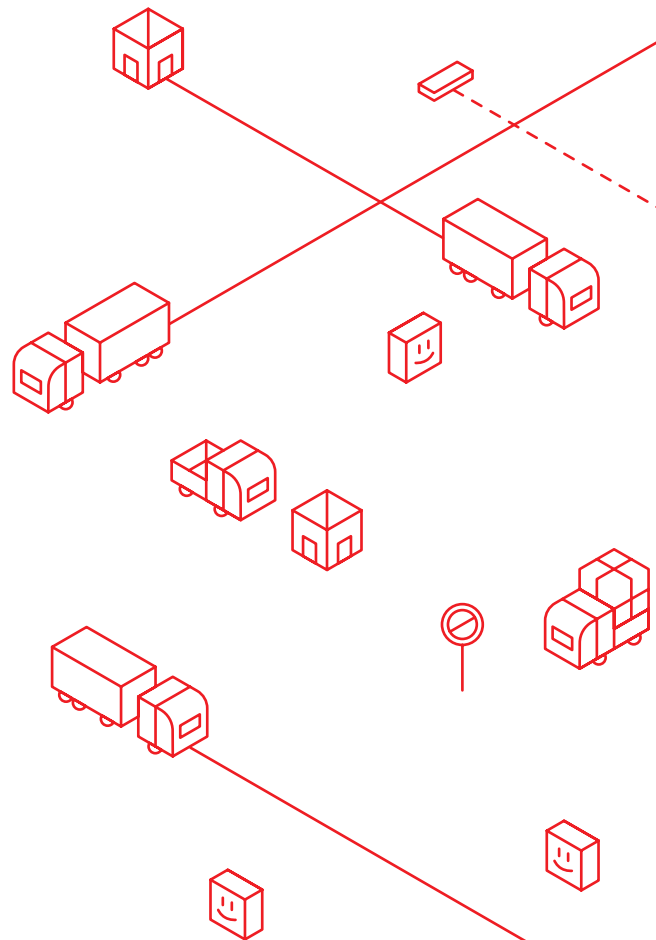
Road Freight Hauliers

The OLTIS Group TMS (Transportation Management System) offers a comprehensive solution for road freight hauliers who need to streamline their in-house processes, make better use of fleets and increase driver productivity.

It also provides a specialized solution for tanks. The advantage of this solution is the openness and flexibility of the system that allows an easy system integration in transport companies.

➤ Overview of Topics Addressed

- Orders
- Transport
- Pricelists and calculations
- Invoicing
- Drivers
- Fleet park
- Vehicle operation records
- Subsistence allowance and wages
- Servicing
- Mobile application
- Controlling
- Web portal

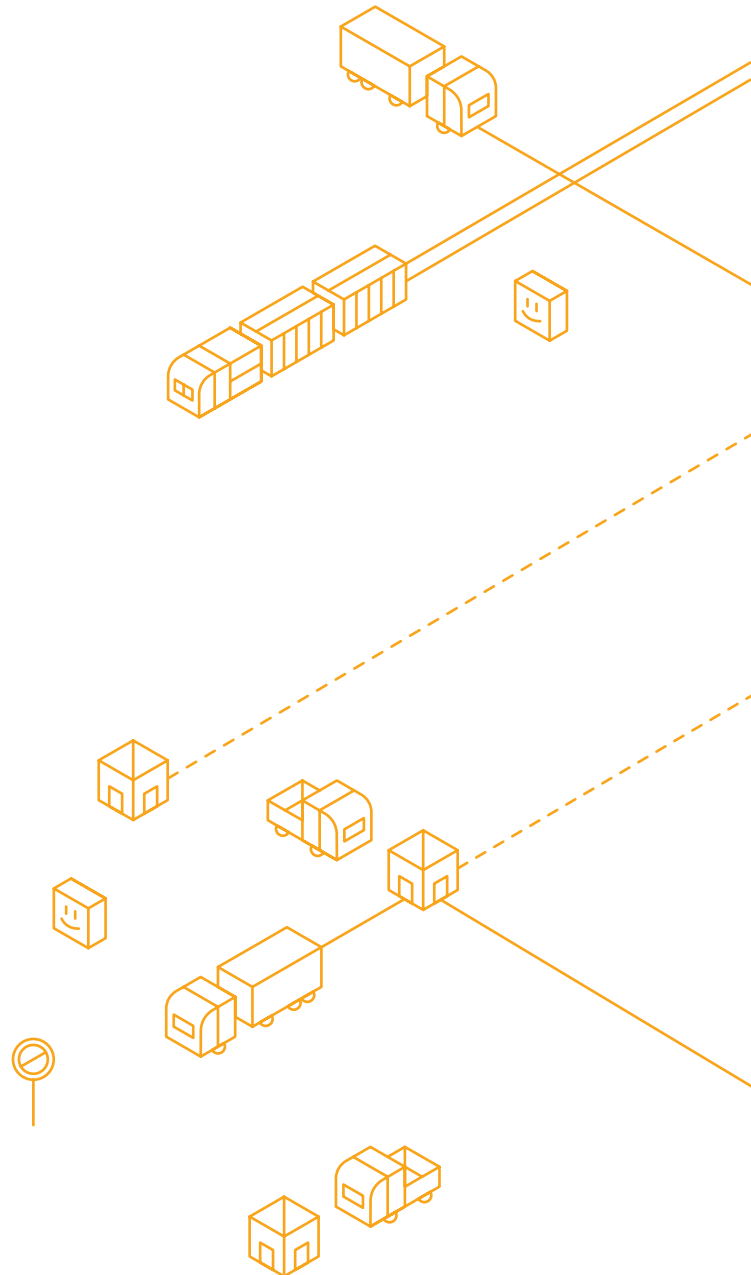


Factory Transport

The OLTIS Group information system offers a comprehensive solution for factory transport and logistics. It is designed primarily for manufacturing companies that need to streamline both internal and external logistics processes, especially in terms of raw materials import and product dispatching by rail and road. Of course, there is the openness and flexibility of the system that allows an easy system integration with both internal systems and operators' systems.

Overview of Topics Addressed

- Shipments
- Handling
- Expedition
- Catalog of locomotives and wagons
- System integration
- Operational control of a siding
- Gatehouse
- Invoicing
- Controlling







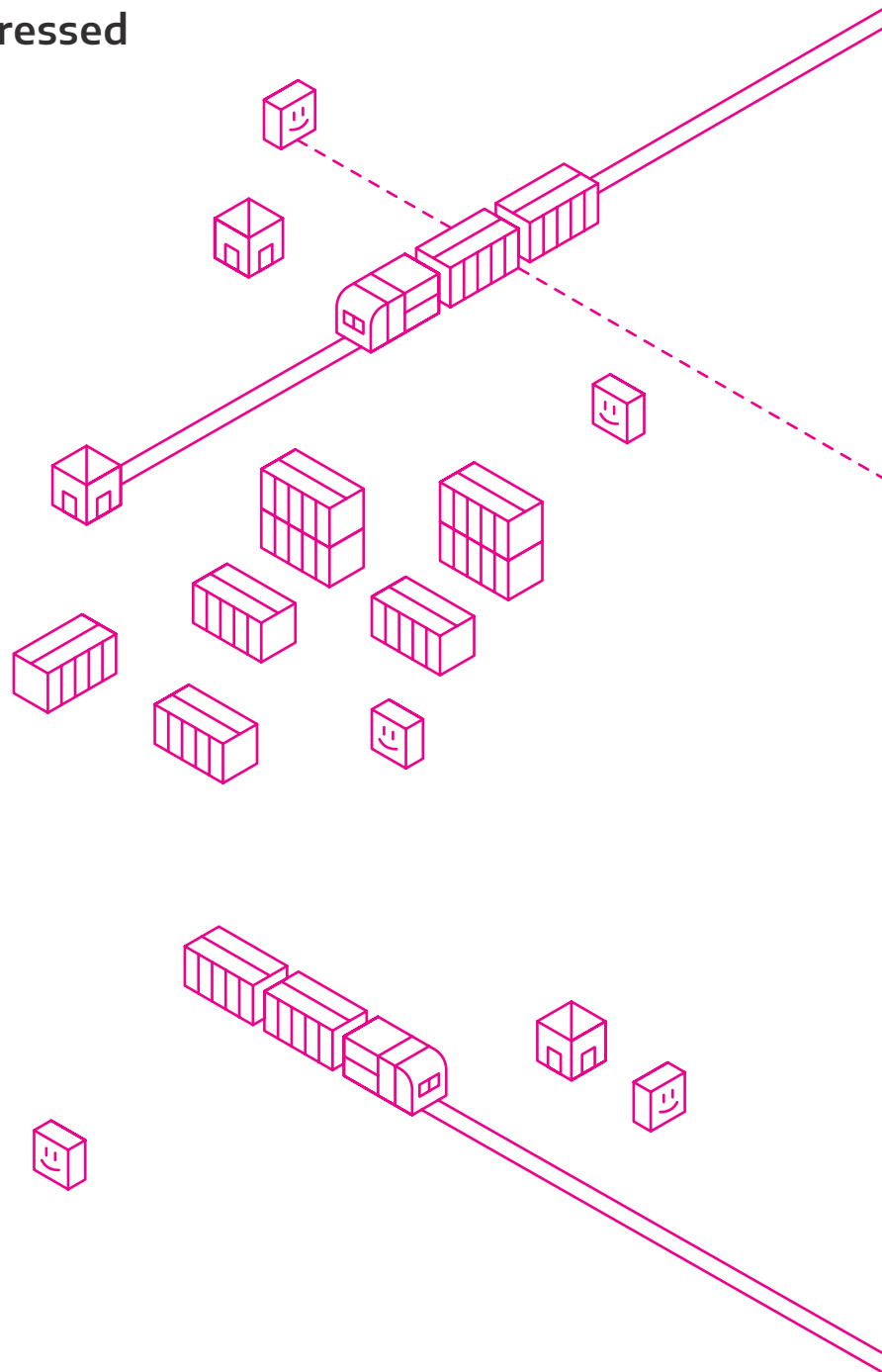
Container Terminals

The OLTIS Group information system offers a comprehensive solution for container terminals. Its focus is primarily on national operators who can also use the transport planning function. It is a flexible,

open system with a high proportion of automated functions that supports the work with containers and semi-trailers. The openness and flexibility of the system allow an easy system integration.

➤ Overview of Topics Addressed

- Order notification
- Transportation
- Handling
- Terminal control
- Map of the terminal
- Container cards
- Pricelists and calculations
- Time windows
- Car parking service
- Mobile terminals
- Controlling
- Web portal



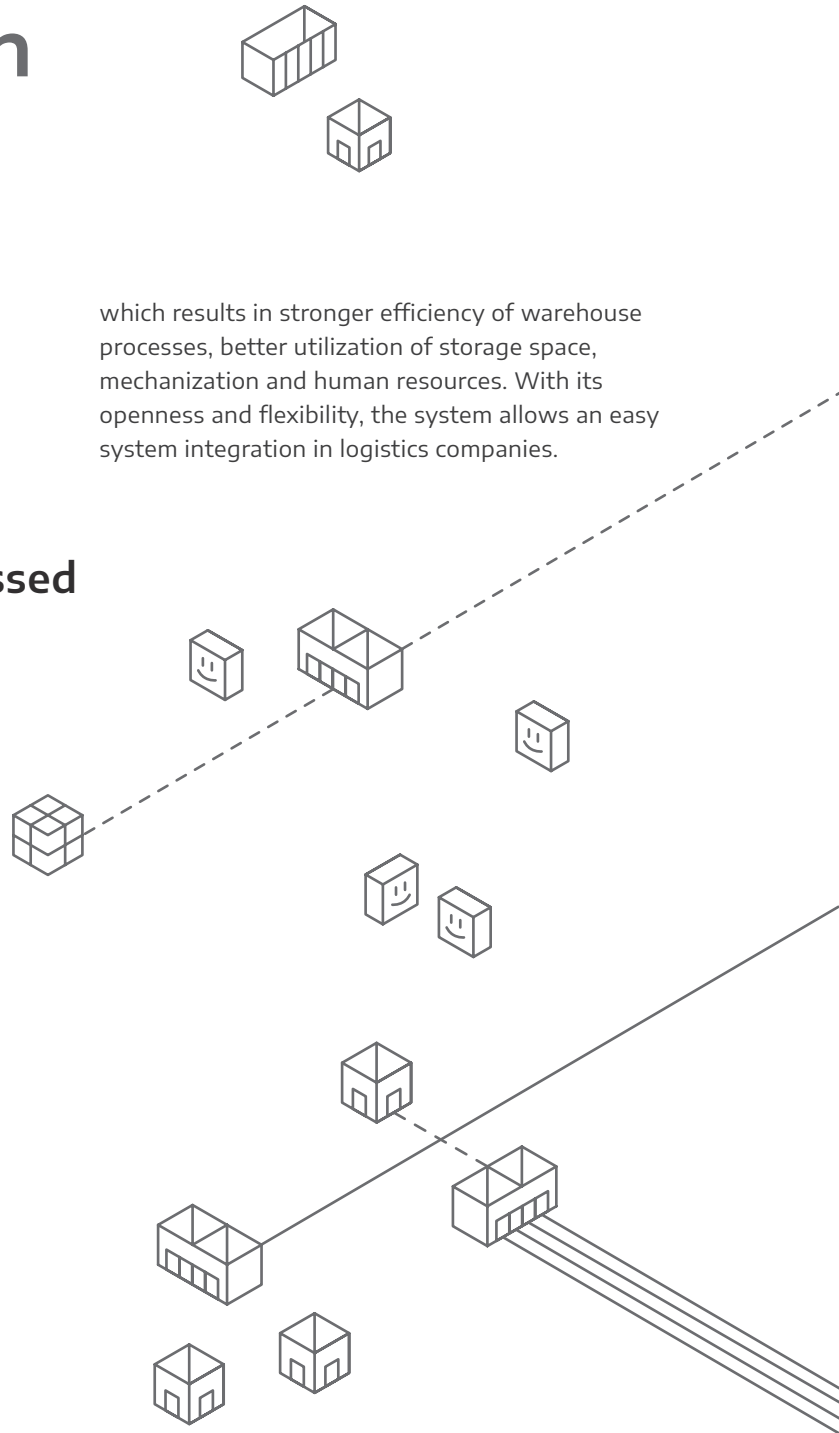
Logistics and Production Warehouses

The OLTIS Group WMS (Warehouse Management System) offers a comprehensive solution for managed warehouses, especially in logistics and distribution. It is a sophisticated system with a high degree of optimization and automation,

which results in stronger efficiency of warehouse processes, better utilization of storage space, mechanization and human resources. With its openness and flexibility, the system allows an easy system integration in logistics companies.

› Overview of Topics Addressed

- Admission of goods
- Goods dispensing
- Handling
- Stocktaking
- Warehouse management
- Warehouse map
- Stock cards
- Pricelists and calculations
- Time windows
- Mobile terminals
- Controlling
- Web portal





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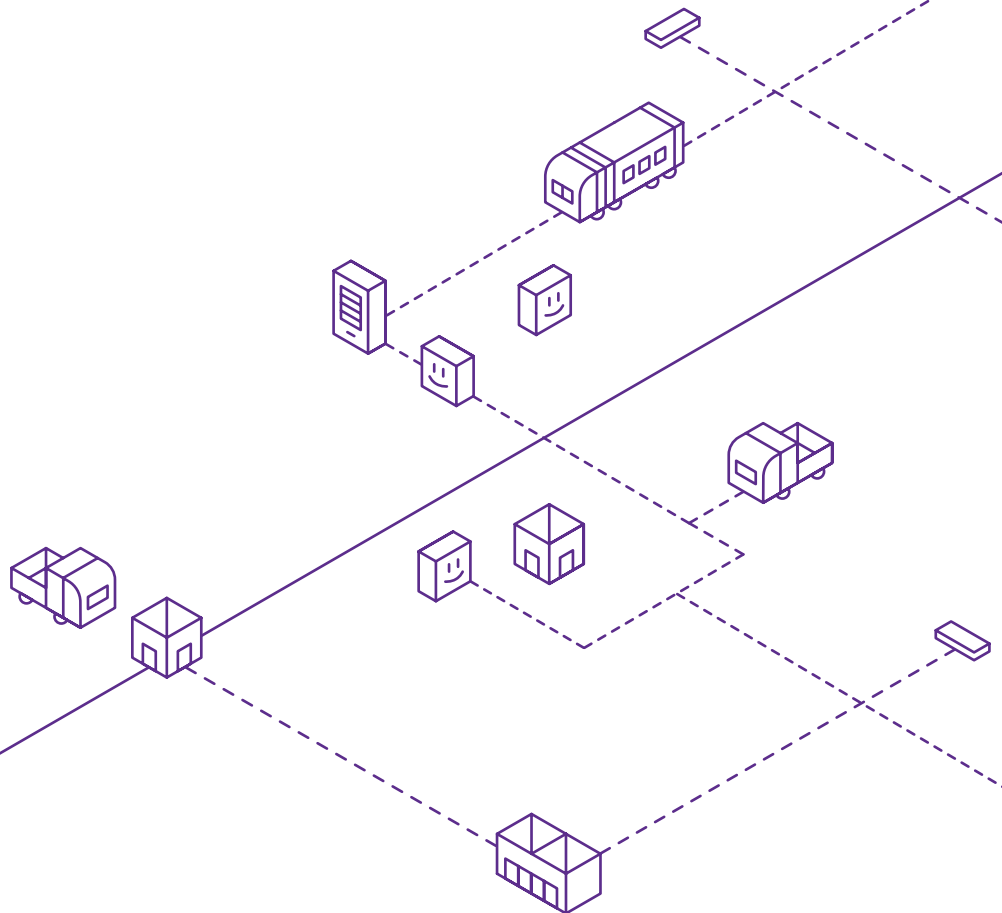
Mobile Technologies in Transport and Storage

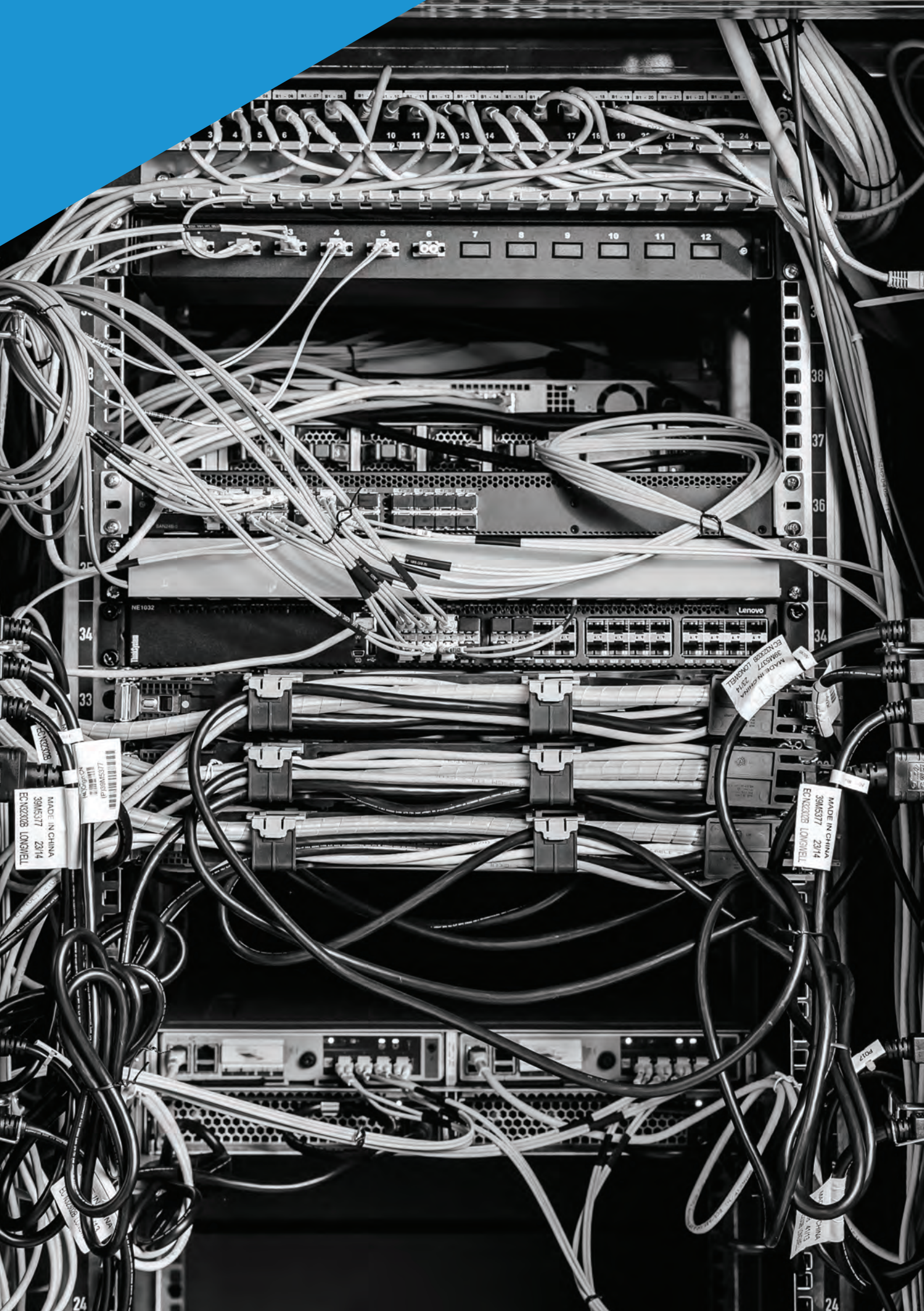
OLTIS Group mobile applications offer solutions for drivers, engine drivers, machinists, warehouse operators, and other operation employees who acquire data outside the office. The applications are

designed for mobile terminals, smart phones and tablets and allow operation employees to acquire data online during operation, with the data then being transferred to the company information system.

› Overview of Topics Addressed

- Driver
- Engine driver
- Warehouse manager
- Warehouse
- Cross dock
- Intermodal





Custom Development, Services

OLTIS Group has over 20 years of experience in implementing bespoke information systems. This is a complex solution that is connected to the existing corporate systems and applications. A team of fully qualified personnel support customers from the analysis and information system design to the final implementation and staff training.

All these steps are followed by complete technical support and service after full handover. The emphasis is placed on data security and on the systems itself. Additional services include consulting, advisory and cloud services in the field of information systems and information technologies for transport, forwarding and logistics.

› OLTIS Group Offers

- Development of customized information systems
- Cloud Service — Data Centre
- Implementation of the TAF TSI
- Technical support and application management
- Consultancy
- European project consultancy

› Our Main Development Tools

ORACLE	CSS	C#
.NET	ENTERPRISE ARCHITECT	ASP.NET
MS SQL	SQL	JAVASCRIPT

TAF TSI Implementation

▶ OLTIS Group Products Are Verified as Compliant with TSI



Railway regulatory interoperability as a EU priority requires compliance with the regulatory, technical and operational conditions contained in the European Parliament and European Council directives. The requirements for mutual data communication are set in the Regulation on Technical Specification for Interoperability of the Telematics Applications Subsystem for Freight of the Trans-European Conventional Rail System (TAF TSI).

The European Union Agency for Railways (EUA) has verified the OLTIS Group software products with TAF TSI implementations as compliant with Regulation No. 1305/2014 / EC and its technical document.

The verification process includes products for both railway undertakings and infrastructure managers.

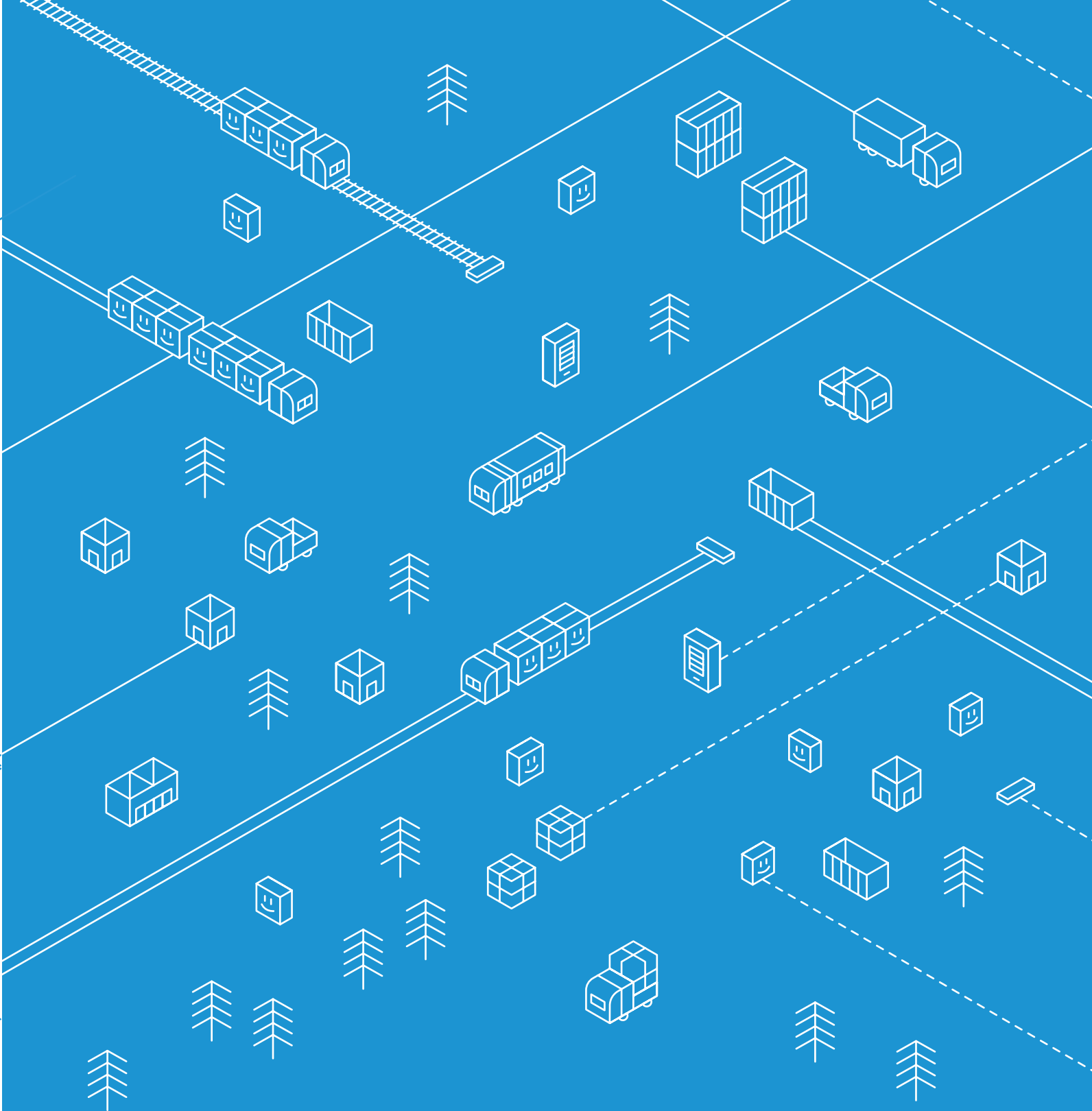
▶ TAF TSI Implementation Projects

OLTIS Group coordinates rail interoperability projects funded by the **Cohesion Fund of the Connecting Europe Facility (CEF)** program:



Project title	Implementation of TAF TSI at 10 private railway undertakings in the Czech Republic and Slovakia (2017–2019)	Implementation of TAF TSI at two Hungarian private railway undertakings (2018–2020)
Number of the GA	INEA/CEF/TRAN/M2015/1137518	INEA/CEF/TRAN/M2016/1361703
Number of the Action	2015-CZ-TM-0056-W	2016-EU-TMC-0134-W





oltis group

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