



3B infra

infrastruktur management systeme GmbH

RAILWAY INFRASTRUCTURE MANAGEMENT SOLUTIONS

RAILWAY NETWORK, ASSET MANAGEMENT,
MAINTENANCE, FORECASTS AND LIFE CYCLE

INFRASTRUCTURE MANAGEMENT

FUTURE REQUIREMENTS

3B infra addresses both infrastructure managers and those with overall responsibility for the safe, punctual and cost-effective operation of the integrated enterprise.

The complex organisation of railways and the large number of facilities presents every infrastructure manager with a huge challenge, which can only be met by clearly-defined, consistent and efficient infrastructure management. But what is the situation with respect to current infrastructure?

CHALLENGES ARE INCREASING

Demands on infrastructure operators are greater than ever, and we can expect that they will only continue to increase in the future. Investments in existing and new infrastructure must be protected over the long term with a minimum of resources and tight budgets.

Solid data and facts are needed to justify these investments. This applies to the entire industry, from small tramways to national railways.

THERE IS NO SHORTAGE OF SYSTEMS. WHAT'S MISSING IS DATA – BUT WHY?

In the past, IT solutions were created for department-specific requirements. The result is a distinctive landscape characterised by a variety of isolated solutions. The information

3B infra brings railway technology and information technology together into a single interdisciplinary application.

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INFRA-LIFE



Rail know-how



IT know-how

collected is used solely for the operational activities of the departments in question. This type of information management is no longer adequate to meet future requirements, and it is costly and inefficient.

The case is different with a future-oriented solution: It can provide all of the data that an enterprise needs to manage strategic tasks.

VERTICAL SOLUTIONS WITH STANDARD SETTINGS

IT strategy has changed. The market is determinedly looking for vertical solutions with well-chosen standard settings, as well as integrated solutions for maintenance, forecasts and life-cycle management. The software of tomorrow must be flexible, extensible, freely-configurable and simple to integrate with other systems.

Software vendors of such complex solutions must consequently distinguish themselves not only through their IT know-how, but also specifically through their expertise in the railway and infrastructure sectors.

ONE SYSTEM FOR EVERYBODY

In future, infrastructure management solutions will be the central tool for technical personnel, those responsible for assets, and asset managers. Technical and organisational information is stored centrally, as well as the status of each asset. Authorised users have access to these data from anywhere, at any time.

Data repository in a single system or a coordinated system environment reduces the need for repeated data maintenance, and facilitates interdisciplinary analyses and evaluations. In future, such infrastructure management systems will consequently be the central information base for maintenance planning, forecasts and investment decisions.

INFRASTRUCTURE MANAGEMENT WITH NO IFS OR BUTS

INFRALIFE: THE VERTICAL SOLUTION FOR LINEAR ASSET MANAGEMENT

INFRALIFE is the proven one-stop-shop vertical solution for linear asset management (LAM). It links departmental information and provides a linear “route map” that answers all essential questions regarding the status, security and costs of the assets. The integrated GIS module complements the functional scope.

MODULAR SYSTEM WITH OVER 250 INFORMATION OBJECTS “OUT OF THE BOX”

The product is designed as a modular system, and currently comprises more than 250 standard information objects and 90 standard asset classes. Organisational units, data governance guidelines, processes and maintenance rules can be individually adapted to customer requirements.

REVIEW | OUTLOOK | OVERVIEW

INFRALIFE delivers real-time and historical data: What is the current status of my assets? How many assets did we have 10 years ago, how many do we have today, and how many will we have in future? Where do malfunctions occur more frequently? What maintenance measures are scheduled? Who did what most recently? What is the current book value of my asset? What costs accrue on a segment of the infrastructure?

INFRALIFE delivers an immediate and detailed overview of relevant data.

DATA AVAILABILITY: UNINTERRUPTED, FROM ANYWHERE

Although INFRALIFE is complex and sophisticated internally, the solution gives the outward impression that it's all child's play: It provides all data through an intuitive interface, in real-time, around the clock,



The master data and status data for all assets, as well as forecast data, are all accessible through a single system.

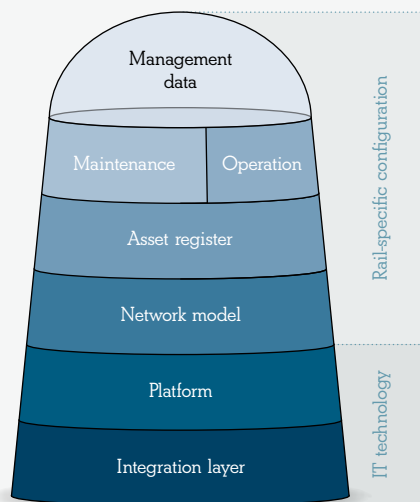
to a variety of output devices: on a PC in the office, or on a smart phone on-site. All assets and functions can be retrieved and displayed in lists, on a map, or along the route map. The system is designed for performance, so that hundreds of users can work on it simultaneously.

THE TOWER OF POWER

What makes INFRALIFE so unique are its many functions, which make it a true vertical solution rather than a conventional IT solution. However, INFRALIFE is by no means “closed” software, but offers a base solution with standard functions that can be flexibly configured according to the customer’s wishes, and can be combined with existing systems. INFRALIFE is thus just as future-proof when used by infrastructure operators of large railway enterprises as it is when used by smaller public transit systems.

INFRALIFE Tower

Schematic and simplified diagram



UNIQUE FUNCTIONS BUILT ON A STRONG FOUNDATION

INFRALIFE’s functional principle can best be represented as a tower with various layers that build on one another: Two IT layers form the foundation: the **integration layer** connects INFRALIFE to existing systems. **The INFRALIFE platform** is a state-of-the-art framework for the coordinated business modules.

What makes the tower so powerful are its modules, which build upon this foundation: The network model creates the conditions for geographic positioning and mapping of infrastructure objects, which are presented in area-specific **asset registers**. Geographical data are displayed in the GIS, and the linear route map visualises the data along axes. To ensure a smooth launch of INFRALIFE, the initial configuration is based on best practice experiences with standardised, yet individually-customisable asset classes and their attributes.

CURRENT STATUS REPORTS AND FORECASTS

The asset register forms the basis for the efficient **maintenance management** that is provided with INFRALIFE. With the information it provides, all departments are kept up-to-date about their assets, and are in a position to make forecasts, and always with precise geographic positioning.

INTEGRATION

By means of the interface engine that is provided, INFRALIFE can easily be connected to ERP, GIS, DWS, diagnostic or operational systems. For example, the measurement data from diagnostic systems can be linked to the available infrastructure data, and thereby accurately located and used as a basis for planning future actions.

THE 3B INFRA TEAM

OVER 20 YEARS OF EXPERIENCE IN IT INFRA-
STRUCTURE AND RAILWAY INFRASTRUCTURE

IT COMPETENCY AND RAILWAY EXPERTS IN ONE PLACE

The INFRALIFE product and its success in the marketplace can especially be attributed to the specialised know-how of our employees as railway experts, IT specialists and experienced technicians, who will work on an equal footing with employees from specialist departments. Standardised project management provides professional support, from the technical analysis through to the integration of existing systems into the INFRALIFE system.

OUR EMPLOYEES WILL ACCOMPANY ON THE PATH TO SUCCESS

Ensuring successful implementation of the new system takes more than management's conviction that it's the right thing to do: All involved departments must also see the necessity for changes, and support the actions that are required.

To this end, we will therefore put together an experienced project team, consisting of technicians, railway experts and project managers, who will follow and mediate the process of meeting management's requirements for strategic functions, while also meeting the technical needs of the individual departments.

As the aggregation of comprehensive employee know-how and numerous experiences with best practice, INFRALIFE is a compact infrastructure management solution which will also meet the highly specific individual requirements of infrastructure and transport companies.

The 3B infra Team has a high degree of technical competency, and is capable of pursuing and achieving a shared goal with all of the customer's departments.

SELECTED REFERENCES

CORE COMPETENCIES

Our core competencies in railway technology and in IT:

- Infrastructure management systems for small and large networks
- Infrastructure databases and facility management
- Asset management and facility management (FM)
- Definition and data modelling of railway networks
- 2D visualisation in the route diagram
- Geographic information systems (GIS)
- Condition monitoring
- Maintenance planning
- Disposition and deployment planning
- Quality and security management
- Cost planning and cost control
- Forecasts, LCC and RAMS
- Object-oriented creation of data history
- Document management
- Interfaces to ERP and diagnostic systems
- Mobile software solutions for employees on the go
- Real-time monitoring of transport services
- Infrastructure IT consulting
- Infrastructure data governance



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Wiener
Lokalbahnen AG



BLT
Baselland
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