

# AbOvo

# AbOvo

## Your IT specialist in Rail

## We support your operations



### Contact

For more information please contact us at:

#### Ab Ovo Nederland B.V.

**Rotterdam office (HQ)**  
Barbizonlaan 75  
2908 ME Capelle aan den IJssel  
The Netherlands

Tel: +31 (0)10 2861533  
Fax: +31 (0)10 2861544

**Amsterdam office**  
Burgemeester Stramanweg 102R  
1101 AA Amsterdam  
The Netherlands

#### Ab Ovo Deutschland GmbH

**Cologne office**  
Zollstockgürtel 57  
50969 Cologne  
Germany

Tel: +49 (0) 221 299 329 40  
Fax: +49 (0) 221 299 329 69

#### Ab Ovo Nordic (Aonor AB)

**Stockholm office**  
Fredrikstrandsvägen 40  
178 31 Ekerö  
Sweden

Tel: +46 (0)72-7425932

Website: [www.ab-ovo.com](http://www.ab-ovo.com)  
E-Mail: [info@ab-ovo.com](mailto:info@ab-ovo.com)

- IT-solutions
- Project Management
- Consultancy

## Rail: a dynamic market

The liberalization of the European rail market has created a variety of opportunities for both established rail operators and newcomers to the rail industry. Mergers, joint ventures, new business models for cooperation, market focus versus diversification choices and vertical integration in the supply chain are just a few examples that characterize today's European rail market. Rail operators are also being confronted with a growth in coordination agreements, EU legislation and ferocious competition, not only between operators but also with air and road transport companies. Operating in the most efficient way - while still providing a high quality of service to customers - is vital for rail operators' success. The optimum use and deployment of IT is essential if they are to stay ahead of the fierce competition. Ab Ovo supports rail operators with a range of consultancy services and rail-specific IT solutions.

### *Involved from the beginning to the end*

Our name Ab Ovo comes from the Latin phrase: "Ab ovo usque ad mala" which literally means "From the egg to the apple". The Romans used this phrase to indicate that an invitation to dinner was for the whole event. Traditionally meals started with an egg dish and ended with fruit. Later this became a more general Latin expression which reflects how we want to be involved with our clients: from the beginning to the end. We take complete responsibility for advising on process improvements and the design, development and implementation of the required IT solution to achieve these improvements. After that we also take responsibility for the roll-out.

### *Rail IT specialist*

All our rail IT specialists have extensive experience in the rail industry and in many cases a direct background in the rail sector as well. As an IT solution provider we deliver the rail industry with front and back office applications and advanced planning & scheduling solutions. We are also active in other logistics-oriented markets such as the airline industry, the maritime industry, the catering distribution industry, the public transport sector and manufacturing (logistics). Lessons learned in these sectors are often also applicable in the rail industry and vice versa.

### *Consultancy services*

We supply specific IT solutions to the European rail industry. In addition, rail operators also ask us to provide rail industry-specific consultancy services. We give advice on areas such as IT organization, business processes and strategy. Besides this we play various roles in the selection, realization and implementation of IT solutions and we can temporarily manage an IT department. All our consultants are Prince2 and/or PMI certified, have technology-specific certifications and have in-depth knowledge of the rail market.



## IT solutions for rail freight operators

Rail freight operators face a variety of challenges. These include increased competition, the move from state-owned to private operators, mergers and new cooperation models throughout the supply chain. At the same time there are various opportunities within this sector that result from issues such as an increase in volume over the longer term due to world trade growth and a changing balance between the different modes of transport, the pressure on energy consumption and the environmental need to reduce CO2.

### *IT challenges*

In order to meet today's challenges, freight operators are cooperating more and need specific IT systems to support their business processes, improve their competitiveness and optimize the utilization of their capital-intensive resources. The main IT challenges relate to the full order-to-cash processes, the planning, scheduling & optimization of all the resources and international tracking & tracing, and the improvement of asset management.

Ab Ovo offers two major solutions for the rail freight industry:

- The Rail Cargo System – a tailor-made ERP solution
- Advanced Planning & Scheduling solutions – for the optimum use of trains, locomotives and drivers

### Ab Ovo benefits:

- Expert rail knowledge
- Dedicated rail IT solutions
- In-depth IT expertise
- Excellent project management skills

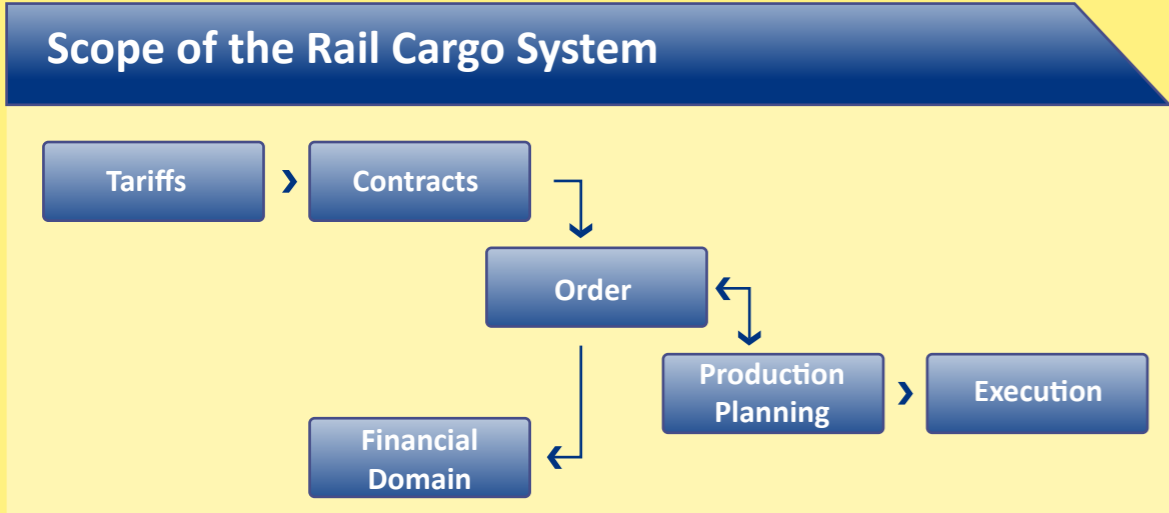


## Rail Cargo System – tailor-made ERP solution

The Rail Cargo System is a complete front/back office IT application covering the entire workflow from contracts all the way through to the actual execution and including the financial settlement. In other words the complete order to cash cycle. The Rail Cargo System supports both the ‘classic’ business models as well as the ‘new’ business models and even extends to support actual ‘door to door’ transportation.

### Get it right from the start!

The Rail Cargo System is designed with a single focus: get it right from the start! The system ensures that the customer order is valid and entered under the correct contract and terms, avoiding the need for expensive problem resolution afterwards which results in less labor-intensive financial and administrative processes.



The system can be interfaced with other IT applications such as a financial accounting system or a marketing database. All major EDI formats are supported for interfacing with foreign railways via Hermes, Orfeus and with customers and partners. Furthermore the electronic consignment note is fully supported by the Rail Cargo System. Last minute changes such as an extra wagon or extra services can easily be added to the order. You only have to alter the order dossier – which forms the core of the system. The rest is done automatically: adjustments in the production planning, recalculation of the revenue, updating the financial dossier, etcetera.

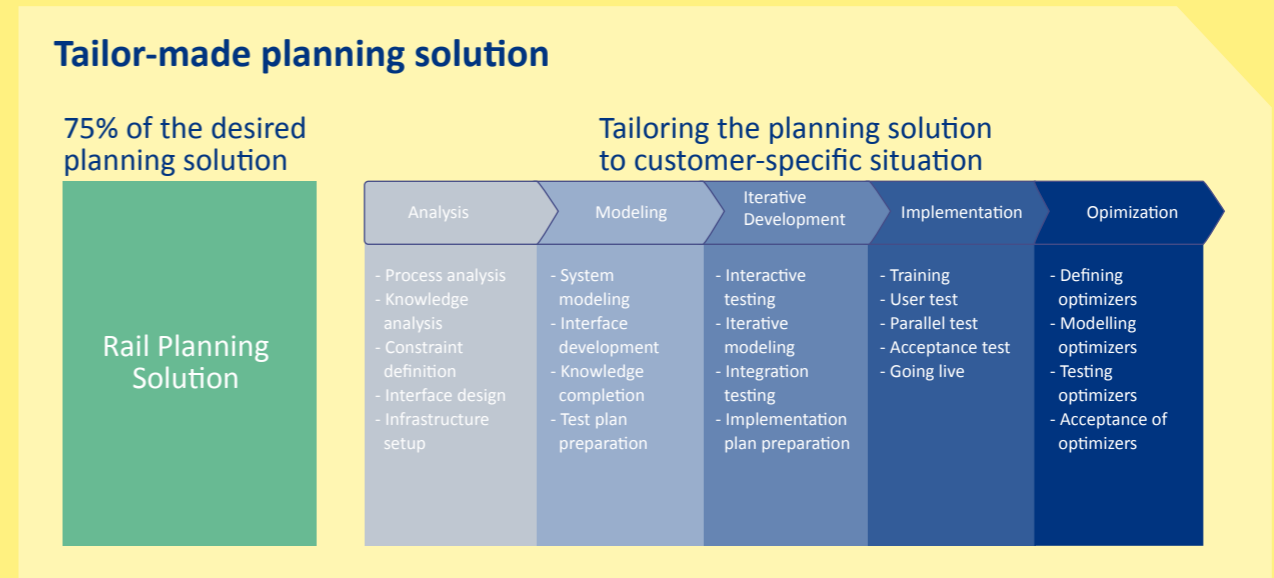
### Suitable for all freight operators

The Rail Cargo System is suitable for use by all operators, regardless of whether the processes that they operate are complex or simple. The system also offers the possibility of up-scaling the functionality to support the processes. It’s simply a question of what you need. Do you run unit cargo operations? Do you use international revenue distribution, the purchase/selling model or both? Functionality can be customized, parameterized or simply excluded.

*‘Because of increasing costs our core ICT-application had to be replaced. After a thorough selection process we decided to choose the solution of Ab Ovo; the Rail Cargo System. The competitive price, the flexibility of adding functionality and Ab Ovo’s experience in the rail industry were the main reasons behind our decision.’*  
**Stefan den Otter, Manager ICT at DB Schenker Rail Nederland N.V.**

## Advanced Planning & Scheduling – for the optimum use of trains, locomotives and drivers

A rail freight operator’s planning process is complex and features a huge number of changes (at short notice) as a result of business dynamics between customers and suppliers such as infrastructure managers and subcontractors. We provide dedicated rail planning solutions that in most cases already include around 75% of the desired solution. The other 25% is tailored to the customer-specific situation and requirements. This means we offer a planning solution with a 100% fit, short implementation times and a low payback time, resulting in a high return on investment.



### All constraints are taken into account

Our Advanced Planning & Scheduling solutions take possible business rules and constraints into account. These might include the qualifications of individual drivers, route and equipment knowledge, operational restrictions, service level commitments and employment regulations. In addition, the use of real-time data and scenario planning supports the planners in making better planning decisions.

### Driven by Key Performance Indicators

Well-defined Key Performance Indicators (KPIs) underpin the creation, execution and monitoring of the planning and execution of rail freight operations. KPI-driven planning, decision support and optimization are pivotal elements in our (multi-resource) long-term planning, short-term planning and dispatch (revision planning) solutions. Our planning solutions are also easily integrated into the existing IT landscape, be it ERP, EAM or HR systems, using a variety of mainstream middleware platforms. Employees in the field can be connected via mobile devices. The project does not stop at the end of an implementation. We also offer our customers full roll-out support (including various training and state-of-the-art e-learning concepts) and we are able to provide full maintenance and support afterwards.

### Expert rail knowledge

The development and implementation of an Advanced Planning & Scheduling solution requires expert business knowledge, specific skills in the areas of planning, econometrics and mathematics, in-depth knowledge of IT and excellent project management skills in order to deliver high quality solutions within scope and budget and on time. This combination is our unique selling point, and has helped us to establish long-term relationships with our existing customers.

*‘Ab Ovo did an excellent job in modeling and implementing the advanced planning solution to our exact needs. Their experience in the rail sector played a significant role in the success of this project.’*  
**Ali Eskandari, program manager at Green Cargo**

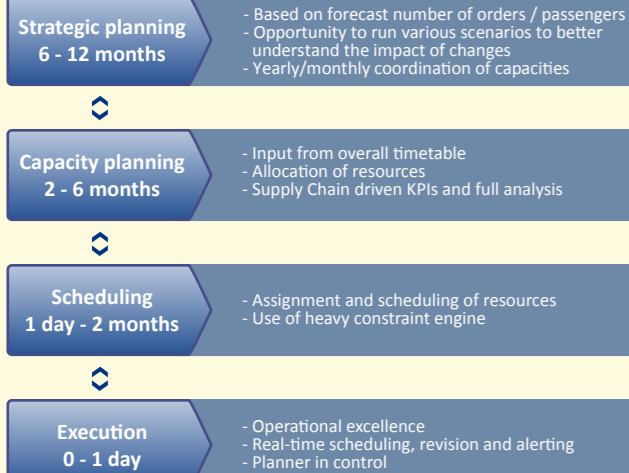
# IT solutions for rail passenger operators

Rail passenger operators are increasingly operating at an international level and offer an ever more realistic alternative to flying, particularly with the arrival of high-speed rail lines. Liberalization has also become an important factor in this market. New operators are entering the market, trying to take advantage of the opportunities offered by deregulation. Existing operators, which are very often larger, are looking for ways to protect themselves in a developing marketplace. Rail passenger operators are also being confronted with developments that force them to work more efficiently. The optimum deployment of IT plays a key role in this. Addressing the questions of how to carry more people with fewer resources and how to optimally use your train units, drivers and crew are issues on which Ab Ovo is keen to support rail passenger operators.

## Advanced Planning & Scheduling – for the optimum use of resources and crew

A rail passenger operator’s planning process has tight error margins. A small unexpected disruption in one part of the network rapidly leads to serious problems throughout the entire network, resulting in massive delays. One of the key challenges in this respect is to plan and schedule resources and crew as flexibly and efficiently as possible.

### Planning levels in the rail industry



### A winning scenario

The optimum use of Advanced Planning & Scheduling methodology is the formula for success for passenger rail operators. Ab Ovo offers planning solutions that cover the entire planning process, from strategic and long-term planning to operational planning. Our planning solutions allow train units, drivers and crew to be optimally planned and scheduled. All possible constraints such as shift patterns, driver breaks, labor regulations, route authorization and passenger capacity are taken into account. Planners are given complete control of the planning process, enabling interactive optimization and combining advanced software with planners’ own skills to allow the best possible scheduling.

### Scenario planning for better insight

‘What if’ scenarios can be used to support the planner and to gain a better insight into the consequences when changes in the (long-term) planning occur. In addition, the (short-term) planning can be managed on the basis of Key Performance Indicators such as long-term stability of the plan, punctuality, staff overtime, rolling stock and maintenance interval usage. Our planning solutions can be easily integrated into our clients’ existing IT architecture. However, developing and implementing a rail passenger planning solution is not purely a technical IT issue. Project management skills, business knowledge and experience are key success drivers on this kind of project. Ab Ovo has proven on several occasions that it can outperform competitors in this area. Our successful delivery of Advanced Planning & Scheduling projects rests on genuine rail expertise.

# About Ab Ovo

Since it was founded in 1997, Ab Ovo has helped clients to improve their competitiveness. Ab Ovo offers intelligent solutions, consultancy and high-level project management both in the field of advanced planning and scheduling and in the rail industry in general. Ab Ovo uses best of breed technology (both in-house and third party) to support its clients. Our company motto is: “With our help, it can be done”. Ab Ovo has a wide international client base within logistics, including leading names such as DB Schenker Rail, DHL, National Express Group, FirstGroup, Eesti Raudtee, Slovenian Railways, ERS, Vopak, SNCB Logistics, AirFrance-KLM, Schiphol, Port of Rotterdam, Green Cargo and many more.

