

IVU.rail for DB Regio

STANDARDISED  
PLANNING AND  
DISPATCH FOR ALL  
GERMAN TRANSPORT  
NETWORKS



INITIAL SITUATION

With a share of over 60% in German short-distance rail passenger transport and an operating capacity of over 670 million train kilometres per year, DB Regio AG is the clear market leader in Germany. In addition to the Interregio Express, the Regional Express, and the regional trains, DB Regio also operates 14 suburban rail systems in the cities of Munich and Berlin, as well as in further metropolitan regions such as Rhine-Main and Rhine-Neckar. In 2002, Munich and Rhine-Neckar’s suburban rail operators decided to use IVU.rail for planning and dispatch. However, other operating regions continued to use their own solutions.

OVERVIEW

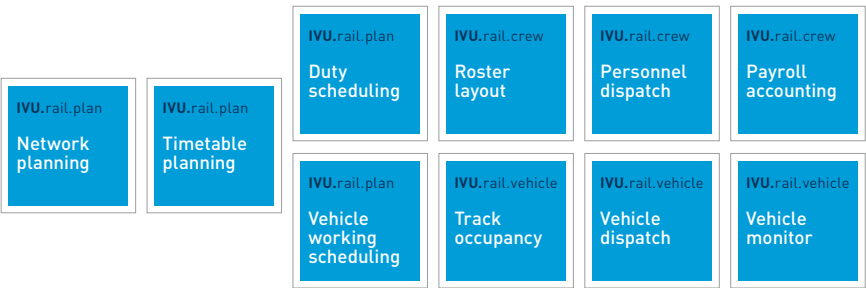
Employees	Approx. 6,300, of which 15,000 are train drivers and conductors
Vehicles	4,900 traction units
Transport services	Annually 1,930 million passengers, 673 million train kilometres on a network length of 1,682 km
Objectives	Standardised planning environment for all operational areas: Integrated and resource-spanning production planning with a single system
Specific details	Planning and dispatching of all transport networks in one system Optimisation of personnel deployment Central technical operation Central technical control

IVU.RAIL IN USE AT DB REGIO

OPTIMISING VEHICLE CIRCULATION WITH **IVU.rail.run**

MANAGING PERSONNEL DEPLOYMENT WITH **IVU.rail.crew**

PLANNING VEHICLE DEPLOYMENT WITH **IVU.rail.vehicle**



## OBJECTIVES

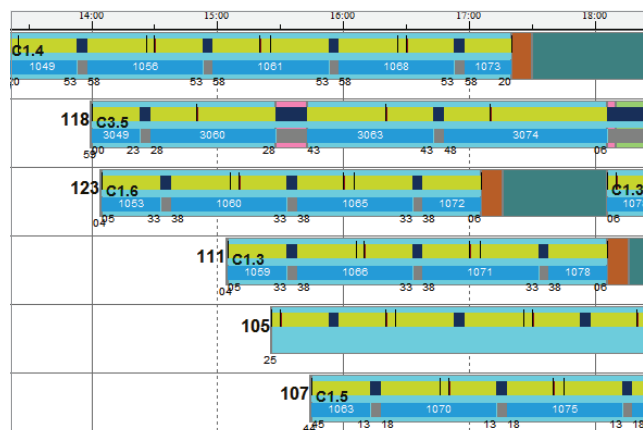
It was important for DB Regio to combine all of the transport operator's regional rail networks, including the suburban rail, into one system. Their target was to establish common planning, dispatch and settlement processes, thereby reducing the cost of technical operations, maintenance, and training.

The system objective was increasing the overall efficiency of resource planning, while helping planners and dispatchers to react quickly to last-minute timetable changes, to additional orders for special transport services, and to unscheduled roadworks.

## SOLUTION

After an international tender, DB Regio decided to use the integrated planning and dispatch system IVU.rail. The standard system is gradually replacing the various systems already used at the company. This allows DB Regio to carry out all resource planning and dispatching in the rail sector with a uniform system for all transport networks. Above all, DB Regio benefits from the **integrated process chain and standardised data storage** for planning and dispatching in the IVU software. IVU.rail's intelligent algorithms accelerate the planning process and ensure optimal use of all resources. Automatic consistency checks ensure that the stored rules are always adhered to. The **duty schedule optimisation** in IVU.rail helps DB Regio planners to optimally cover all vehicle workings and associated tasks. The flexible design of the duty schedule helps to identify potential for increasing efficiency and reducing costs quickly and easily. The **automatic personnel dispatch** optimises duty schedules and thus accelerates the allocation of personnel. The dispatchers themselves can then determine the relationship between different optimisation goals. In addition, IVU.rail makes it possible to store all legal, wage, and technical guidelines for personnel deployment in the system. The **powerful optimisation tools** help to find the best possible result and calculate different scenarios as needed. The planners in DB Regio's individual operating

regions can depend on reliable results, particularly in the case of advance planning and tenders. Numerous monitoring functions ensure that DB Regio dispatchers always have an overview of potential rule violations and important key data.



The integrated bar graph display shows the services at a glance. IVU.rail takes into account all company and industrial law matters and ensures fair, consistent and stable planning.

## OUTCOME

Thanks to a completely integrated system, all planning and dispatch data from timetable planning to dispatch can easily be viewed at any time in consistent and transparent manner. All of DB Regio's transport networks in the rail sector work with the same system after completion of the project. It has been possible to **significantly speed up planning processes**, especially with the help of the duty optimisation and the automatic personnel dispatch functions. The result: Reliable duty and vehicle working schedules as well as full transparency about all personnel and vehicle services performed.

"We were particularly impressed by the scope of services and the usability of IVU.rail. We are delighted to have IVU, an experienced partner, for this ambitious project, one of the world's largest IT projects in the rail industry".

Dr Frank Scholz  
CIO | DB Regio AG (2010-2017)