



## LION-project S-Bahn Zurich

### Data and facts

The largest travel and transport company in Switzerland. 327.5 million passengers and nearly 50 million net tons of freight are carried each year by SBB. 9,000 trains run daily on the 3011 km network. Nearly 28,000 railway employees work round the clock for safe and punctual rail operations. This makes SSB not only the largest travel and transport company in Switzerland, but also the fourth largest employer in Switzerland.

### Requirements

Engineering services for the refit of Zurich suburban double decker trains. The trains are currently composed of an Re450 power car, a B carriage, an AB carriage and a Bt driving trailer. The B-car is being replaced by a new low-floor carriage (NDW project). The refit of the remaining carriages and the integration of the new carriage into the train set is part of this project.

### Four projects in one

- L** Lifting of Re 450, AB, B, Bt double decker trainsets (115 sets)
- I** Integration of low-floor carriage (**double decker plus**: 113 trainsets with 1 lowfloor carriage each)
- O** Optimization of double decker trainsets to double decker trainsets plus (**double decker trainsets plus**: 113 trainsets with 1 low-floor carriage each)
- N** New design of B stock as double decker peak-traffic stock (**-double decker plus**: 113 trainsets with 1 low-floor carriage each, **-peak double decker**: 13 double decker trains for **peak-time services** with 6–10 B carriages each)

The vehicles are being upgraded in stages so that they can remain in operation for another 20 years.

### Goals

- Compliance with the Disability Discrimination Act (BehiG)
- Standardization of comfort, information and safety equipment
- Equipment of double decker plus carriages with passenger compartment air conditioning
- Equipment of peak-traffic carriages with closed WCs

### Implementation

- Development and design for the renovation work on double decker plus vehicles and peak-time carriages in collaboration with technologists at SBB
- Support for production at the industrial plants
- Cooperation in the approval of the altered vehicles

### Customer benefits

Preservation of the existing rolling stock for 20 more years of operation while at the same time meeting the current requirements of passengers, operational specifications and conditions, market needs and the commercial goals of SBB.

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