

SWISS FEDERAL RAILWAYS (SBB)

## SMARTRAIL 4.0 PROGRAM MANAGEMENT SUPPORT



Client	Swiss Federal Railways (SBB)
Processing period	2019 - 2020
Project costs	4.5 billion CHF

SBB intends to modernize the railway operations with the implementation of the smartrail 4.0 program. Old systems are being replaced and the potential for automation and optimization is utilised. As a result, future train services can be operated reliably and the capacity of the existing network can be increased. Also, the employees will enjoy a safer work environment. The entire system's costs will be kept under control, ensuring that the railway remains competitive in the long term.

The smartrail 4.0 modernization program supports the railways in providing an even more attractive public transport option, with more frequent trains where necessary, lower costs, shorter travel times on main lines and faster freight traffic. More trains will require more train drivers, even if the job requirements may change. The customer's benefit will be a continuous train sequence which reduces the impact of delays and thus increases operational stability, as well as improved passenger communication. The customers will also benefit from the expected reduction in the system costs, which may have a positive impact on the ticket price. Train safety will be further improved by establishing shunting operations as fully monitored movements and the implementation of partially automated processes for setting up construction sites. The high capacity of the radio data transmission system allows efficient up-to-date communication for the passengers. Further optimization of energy consumption will be possible with scheduling processes that take power requirements into account and train operation supported by driver assistance systems.

R+R supports the smartrail 4.0 program management in the areas of business case planning, life cycle management and sub-project coordination.