

## BANE NOR (NORWAY)

# ERTMS PROGRAMME NORWAY



|                   |                   |
|-------------------|-------------------|
| Client            | Bane Nor (Norway) |
| Processing period | since 2013        |
| Project costs     | CHF 2.6 billion   |

Norway intends to replace its entire national railway signalling system by 2032 and switch to the European Train Control System (ETCS) Level 2. The program covers approximately 4'400 kilometres of track and 500 vehicles.

R+R's involvement in Norway's national ERTMS implementation programme on behalf of the Norwegian railway infrastructure operator Bane Nor started in 2013. R+R devised the programme budget, which was independently assessed and accepted without reservation by the governmental department and

parliament. In addition, R+R developed life cycle cost models and conducted cost-benefit analyses for comparing different contract strategies.

R+R managed the commercial portion of the procurement of the signalling system, traffic management system and on-board equipment. The repetitive contracts were finally awarded in 2018. R+R is keeping the estimate of final costs up-to-date and examines budget change requests.