

MINISTRY OF TRANSPORT, CONSTRUCTION AND HOUSING (DENMARK)

## CPH S-BANE UTO STUDY



Client	TRM (Denmark)
Processing period	2016 - 2017
Contract value	CHF 44'500

On urban and suburban train lines, driverless train service allows for the operation of a substantially increased number of trains at moderate operational costs. An increased service frequency of trains reduces waiting times for passengers. To achieve this benefit, station platforms and tracks have to be modified.

The Copenhagen Suburban Railway implements the communication-based train control system CBTC as the new signalling system. Cab signalling improves semi-automated train operation (STO), where the driver monitors the train

operations. With some additional investments, fully automated unattended train operation (UTO) would also be possible, as is already done on the Copenhagen Metro. The Danish Ministry of Transport commissioned a study on the necessary conditions for the implementation of UTO on the suburban railway. It further ordered the development of Business Cases for various alternatives of unattended train operation (conventional with use of timetable or metro-like with short headways). R+R was involved in this analysis, which provided a thorough insight into the necessary prerequisites for the introduction of a groundbreaking new technology. It also showed the commercial opportunities that open up with new modes of operation associated with the new technology.