



# Noord/Zuidlijn: from the north to the south of Amsterdam in a mere 16 minutes by underground railway

The Amsterdam Noord/Zuidlijn is a 9.7 kilometre underground railway connection that cuts the travel time from the north to the south of Amsterdam in half. The prestigious and ambitious project involved drilling and construction beneath the busy city, in which people live and work. A widely discussed project, which received a huge amount of publicity, both in Amsterdam and beyond.

It was way back in 1968 when the Amsterdam City Council proposed a plan that defined a phased approach to creating an underground railway network that would connect all areas of the city of Amsterdam. The north-south connection is part of this plan. The construction started in 2002, following the completion of the east-west connection at the end of the seventies. However, it was not until 22 July 2018

that the first travellers could make use of the fast connection. Line 52, better known as the Noord/Zuidlijn, covers the distance from north to south in a mere 16 minutes, making stops at Noorderpark, Central Station, Rokin, Vijzelgracht, De Pijp and Europaplein. It is expected that some 121,000 people will be using the new underground railway line every day.

## Collaboration

The Noord/Zuidlijn is a project commissioned by the Amsterdam City Council. The Council signed a contract with Siemens for the realisation of the tunnel-technical installation. Siemens is a reputable party in the domain of system integration and optimisation, and has the required expertise and experience when it comes to infrastructure projects. In its turn, Siemens contacted ICT Group to obtain their assistance and advice required for connecting the station systems and central control systems with the current network.



## Connectivity

The station system consists of the camera monitoring system, the Dynamic Route Information System (DRIS) and the PA systems. These systems, as well as the escalators, elevators, burglar alarms on the ticket machines and the fire alarm system, had to be interconnected with the underground railway tracking system. Together with the hardware supplier we developed a lay-out on an industrial mini pc with Windows Embedded. This became the

foundation for building a .net application with a web-based user interface." We also used .net for creating a user interface for the camera system and the DRIS.

## Smart technology

The delay of the project is the reason that a number of technical solutions were outdated by the time of their implementation. However, excellent collaboration and communication with the client have enabled us to implement the most recent technological developments wherever this was possible. As a result, the Amsterdam City council received the best solutions. Safety always had top priority during the entire project. An example of the safety features is the gate detection functionality, which allows for prompt detection of intruders and the necessary subsequent actions. In addition, smart technology has achieved substantial savings in terms of time and manpower. For instance, it means that after a gate is closed, we don't need to travel to the actual location and check whether everyone has left.

**"It's a challenge to put a project in motion. But I've managed to do this with the Noord/Zuidlijn, both literally and figuratively."**

**Victor Sikkel, technical project manager ICT Group for the Noord/Zuidlijn**

## Ready for the future

The Noord/Zuidlijn was officially opened and put into operation on 22 July 2018, a moment that residents, commuters and local business owners had been looking forward to for years. Line 52 has provided Amsterdam with facilities for passengers wanting fast as well as safe cross-city travel. A great project to look back on.

For more information about the role ICT Group played in the Noord/Zuidlijn project, please contact Victor Sikkel, Technical Project manager at ICT Group: [Victor.Sikkel@ict.nl](mailto:Victor.Sikkel@ict.nl)