The Stockholm metro in Sweden first opened in 1950, today the system has 100 stations in use, of which 47 are underground and 53 above ground. There are seven lines going through the Stockholm City Centre. In 2013, the metro carried 328 million passengers, which corresponds to approximately 898,630 riders per day. The 105.7 kilometres (65.7 miles) long metro system is owned by the Stockholm County Council through the company Storstockholms Lokaltrafik (SL). The operation is contracted to MTR Corporation. The Stockholm metro system has been called ‘the world’s longest art gallery’ with more than 90 of the network’s 100 stations decorated with sculptures, mosaics, paintings, installations, engravings and reliefs by over 150 different artists.

THE CHALLENGE
Public transport is of huge importance to the smooth running of any major city, they play a huge role that primarily eases traffic problems and urban congestion, and this includes high levels of daily business & local commuters alongside thousands of tourists every hour of the day.

To ensure minimal disruption to the tracks, an extreme amount of planning was required. Each member of staff on the project had to pass a personal medical examination with specific interest in hearing and eyesight to even gain permission to start works along with a very detailed risk assessment and method statement relevant to ‘on track’ movement.

To minimize any business interruption to the metro the proper fire detection system has to be selected. Eng. Paul Engman of Nordiska Brand specialist fire consultant recommended the trial of Very Early Warning Aspirating Smoke Detection system (VESDA). Due to the size of the stations, multiple sampling pipe runs of up to 100 m were required along with overhead piping that requires minimal maintenance eliminating any need to distrust business operation. VESDA HLI also been used to provide engineers a central location adjacent to main fire alarm control panel to provide a safe environment for investigation and planning of works.

THE SOLUTION
A trial was organized of the VLP and VLI solution from VESDA, the VLI was quickly selected due to the harsh environmental conditions. The Industrial VESDA VLI by Xtralis is the first very early warning aspirating smoke detector purpose-built for the protection of industrial applications of up to 2,000 m² (21,520 sq. ft.). Housed in a ruggedized industrial IP66-rated enclosure and incorporating patented fail-safe intelligent filter technology along with other best-in-class VESDA features, the VLI sets a new benchmark for the protection of industrial applications. The detector showcases a host of features specifically designed to address the common challenges of industrial applications such as high background levels of airborne particles, detector longevity and deterministic maintenance.
THE OUTCOME

The design of the VESDA system was done closely with the Xtralis team from start to finish including aspire calculations.

Maintenance costs have been massively reduced due to centralized install which for the end user means there is no need for blocking tracks or switching off power.

The Hogdalspepan depot is now being protected by 3 VLIs & Rissnedepan has 12 VLIs. A further 2 sites are in the planning stages.

ABOUT THE CUSTOMER

TMP Alarm has a complete range of business alarm systems regarding the protection of everything from staff and business-critical information to premises and equipment.

With more than 20 years of experience in business alarms in most activities, they offer your business a tailored security solution.

TMP Alarm AB are certified by the Swedish Fire and Security Certification AB and is thereby authorized to install Insurance graded fire- and burglar systems to the highest standards of performance and safety. TMP Alarm AB also works with fire protection products, access control systems and CCTV everything for a complete security solution.

“Nothing else came close to the capability of the VESDA VLI”.

Kjell Stensiö, Sales Manager at TMP Alarms