Alstom in The Netherlands is one of the major suppliers of transportation solutions. The company focuses on supplying innovative rolling stock solutions such as tramways, metros, regional and high-speed trains. With its state-of-the-art signalling solutions, Alstom succeeded the first implementation of the European standard ERTMS level 2 on the BetuweRoute and Hanzelijn lines and the equipping of trains with ERTMS on-board equipment, as well as new interlocking for the ProRail network. In 2020, Alstom has supplied the latest CBTC signalling platform for the Amsterdam metro (Noord/Zuid line) in both track and metro vehicles. Alstom, as a local ECM level 1-4 certified service partner with advanced remote monitoring, is managing an increasing number of maintenance projects and long term service agreements. The company has 11 locations in the country to serve closely its customers: Ridderkerk for services, Nieuwegein depot for tram maintenance, 6 depots in Rotterdam for locomotives, urban and train maintenance and Utrecht, Duivendrecht and Amsterdam as project offices for signalling solutions.

**: ACTIVITY 1 - SERVICES**

- ECM (entity in charge of Maintenance) level 1-4 for freight locomotives
- A range of services guarantees the availability of systems: parts & repair, overhaul, modernization, renovation and support services using the latest technologies as remote monitoring.
- Fleet support center with HealthHub predictive maintenance to optimize availability of fleets of vehicles, cost & passenger satisfaction
- Provision of daily availability of fleet with execution of preventive and corrective maintenance as well as overhaul and damage repair.

**: ACTIVITY 2 – RAIL SIGNALLING SYSTEMS**

- Full-solution provider of urban and mainline signalling projects (design, delivery, installation and commissioning, maintenance)
- Improving current installed base with latest standards ERTMS Level 2, Baseline 3
- Upgrading and maintaining the full installed base of interlockings (120) and detection systems in the NL.
- Frontrunner on innovation Automatic Train Operation

**: ACTIVITY 3 – ROLLING STOCK**

- Last technologies of rolling stock solutions for urban transit, mainline travel, regional and high-speed transport and freight, such as the Coradia Stream to answer the needs of NS or the hydrogen train Coradia iLint to replace legacy diesel trains.
MAIN REFERENCES
A large presence in the public transport with over 500 vehicles in commercial service and the latest signalling and services solutions

ROLLING STOCK
- 113 tramways Citadis in Rotterdam for RET
- 72 tram-trains Regio-Citadis in The Hague for HTM
- 28 metros Metropolis in Amsterdam for GVB
- 167 metros in Rotterdam for RET
- 176 VIRM double deck trains for NS
- 100+ TRAXX Locomotives for multiple operators
- 69 Sprinter trains

SERVICES
- Preventive, corrective maintenance on rolling stock for customers such as NS, Utrecht tramway fleet and freight operators
- Modernization program for the VIRM double deck trains of NS with auxiliary IGBT power converters
- Remote monitoring, reliability and availability of rolling stock and subsystems.
- Maintenance of on-board/trackside ERTMS systems

SIGNALLING
- ERTMS safety system on tracks on the Betuweroute (130 km freight route) and on the Hanzelijn (40km)
- ERTMS on-board equipment in freight locomotives
- Interlockings & track detection systems for ProRail
- Complete CBTC (Communications-Based Train Control) signalling systems for the Amsterdam Metro network and vehicles (North South Line)
- Complete urban signalling system for the Rotterdam Metro, including Hoekse Lijn

NEW SOLUTIONS
- Development of fully compliant STM ATB NG
- After the GoA2 tests on the Betuweroute in 2018, Alstom has performed full automatic shunting tests in 2022, paving the way for Automatic Train Operation (ATO) in the Netherlands
- Alstom hydrogen train Coradia iLint was successfully tested in Groningen and Friesland in March 2020

PROJECTS ONGOING
Innovative solutions to provide a smart and sustainable mobility of tomorrow

- Production, test & homologation of 99 ICNG intercity trains to operate on the main national rail network and the high-speed line HSL-Zuid.
- Modernization of the Rotterdam Metro MG2-SG2 fleet, 81 vehicles, control platform, driver desk screen and auxiliary power supply
- Provision of daily availability of the Utrecht tram fleet (54), execution of preventive and corrective maintenance, overhaul and damage repair, including the signalling system
- Digital services for the 28 M3M6 vehicles metro fleet operating the Amsterdam North South line
- Integral maintenance on diesel and electric locomotives for operators as DB Cargo
- Each year, maintenance, overhaul and damage repairs on more than 1000 wagons
- Modernization of the diagnosis system of all 176 VIRM double deck trains for NS.
- CBTC equipment for the Amsterdam metro vehicles and trackside of the "RingLine"
- Providing ERTMS Level 2, Baseline 3 on Amsterdam-Utrecht line and Hanzelijn
- Signalling system for Hoekse Lijn from Rotterdam Centrum to the seaside, including the maintenance

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