

Genoa, 08 June 2017

## **Ansaldo STS signs MoU with Metroselskabet for Proof of Concept of new Dynamic Headway Solution leveraging Hitachi technologies for Copenhagen Metro**

- **New technology to automatically adjust train frequency to best cater for change in passenger numbers**

Ansaldo STS has signed a Memorandum of Understanding (MoU) with Metroselskabet to develop a Proof of Concept for a new Dynamic Headway solution leveraging Hitachi technologies for the Copenhagen Metro M1/M2.

The new Dynamic Headway solution will be designed using both Ansaldo STS's train control systems and Hitachi's digitalization and IoT (Internet of Things) technology to detect congestion through sensors at stations in order to analyse demand. And based on the demand analysis, the number of trains can be optimized automatically, responding dynamically to sudden change in passenger numbers.

This is particularly useful during increases in demand due to events along the route. A dynamic solution will help resolve congestion before it impacts on passengers, thereby increasing passenger satisfaction. For the operator, this highly responsive solution, which adapts the number of trains to real-time demand, means saving energy and operation costs by increasing utilisation of services.

Quote from Metroselskabet spokesperson: Henrik Plougmann Olsen CEO of Metroselskabet said "Exploring ways to optimise delivered capacity to make it as efficient as possible is critical to minimising the cost of provision of public transportation. Metroselskabet is keen to encourage and participate in activities that can yield economies to our services. We are happy to contribute to this initiative with Ansaldo STS that will combine the latest advances in data management and control systems to create a solution that could improve the services we provide."

Quote from Alistair Dormer, Chairman of the Board, Ansaldo STS and Group CEO of Hitachi Rail said: "Hitachi's Dynamic Headway Solution combined with Ansaldo STS's driverless technology is developed based on our joint Digitalisation strategy by utilising Hitachi's IoT platform "Lumada". In the long term, we plan to integrate the Dynamic Headway technology in our CBTC offering. As a global technology provider, we bring innovative solutions like this to our customers, combining the world-class know-how of Ansaldo STS and its majority shareholder Hitachi."

Quote from Andy Barr, CEO of Ansaldo STS, said: "Having worked closely with Metroselskabet for 18 years now, we are delighted to sign today's MoU for the provision of a new, passenger-focused system. With automation technology such as the Dynamic Headway Solution, both passengers and operators benefit from timely

trains automatically adapting to demand. We are delighted to continue our close partnership with Metroselskabet to keep Copenhagen Metro on the forefront of passenger-friendly travel.”

A prototype solution will be available on site by the end of 2017, potentially followed by full development and implementation targeting Copenhagen M1/M2 and Cityringen project.

Copenhagen's driverless metro system became operational in October 2002, and Ansaldo STS has managed the system ever since. This partnership has been highly successful: the metro system won the awards for “Best metro in the world” and “Best metro in Europe” by the International Metrorail 2008 Conference, as well as being named “Best driverless metro” in 2009.

The Copenhagen Metro line consists of 21 km of double track (10 km underground and 11 km of elevated track) and passes through 22 stations connecting the various parts of the city centre, the area of Ørestad and the airport. Its 34 unattended trains travel at a maximum speed of 80 km/h, ensuring that passengers have two minutes to wait during peak hours, and are guaranteed a 24-hour service.

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Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.

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