

Hitachi Rail to deliver HMAX digital asset management on The Copenhagen Metro, optimising services and cutting maintenance costs



- Hitachi Rail signs contract with The Copenhagen Metro to deliver a bespoke model of its HMAX digital asset management solution for parts of Copenhagen metro network
- Solution includes installation of sensors and monitoring tools on trains which feed data into integrated platform to provide live assessment of train and track health
- HMAX can help optimise service performance and support transition from time-based to condition-based maintenance, reducing costs and boosting service lifecycle.

London, September 26, 2024 – Hitachi Rail has signed a contract with The Copenhagen Metro to deliver a bespoke model of [HMAX](#) (or Hyper Mobility Asset Expert), its digital asset management suite, on the Copenhagen metro network. The solution, accelerated by Nvidia, will feed live-time data from track and train into an integrated infrastructure monitoring platform, enabling the optimisation of both operations and maintenance.

The new multi-year programme will be delivered on metro trains on the M3 and M4 lines.

The deal follows more than two decades of partnership on the Copenhagen metro.

The contract will see Hitachi Rail install sensors on the metro trains and integrate the live-time data into a bespoke version of its HMAX infrastructure monitoring platform. The sensors will include a vibration monitoring system and will produce data on the performance of vehicles subsystems, its bogie and wheelset health, and the condition of the track. The HMAX platform enables live data collection to be combined with powerful AI technology to dramatically enhance the speed, ease and depth of analysis. The solution can provide early identification of any maintenance issues and highlight opportunities for service optimisation. An objective of HMAX for The Copenhagen Metro will be to enable the company to shift from a time-based to a condition-based maintenance system. For example, using the sensors to detect shifts in patterns in the train's bogies, will enable earlier, lower cost, interventions to maintain the wheelset health. Equally, removing the need for scheduled maintenance can enable the service to run for longer without intervention and increase the overall lifecycle of the wheelsets. The live-time data will also enable the HMAX platform to identify data driven

optimizations that can improve reliability, for example assessing optimum running speeds throughout journeys.

Edoardo La Ficara, Hitachi Rail, said:

“Delivering our cutting-edge digital asset management programme marks an important evolution in our long running partnership with The Copenhagen metro. The programme will see us install sensors on the metro trains to provide live-time data into a bespoke and integrated version of our HMAX infrastructure monitoring platform. Our pioneering HMAX solution will use machine learning to deliver an even more reliable service, while shifting the fleet from a time-based to a condition-based maintenance approach.”

Søren Boysen, Executive Director at The Copenhagen Metro, said: “Our co-creation process with Hitachi Rail on the HMAX technology will give us a new understanding and insight for evolving condition-based maintenance on our transport systems. With service availability higher than 99 % in 2023, we aim to keep that level by continuing exploring new ways to conduct maintenance together with our current and future suppliers and thus maintaining high passenger satisfaction in The Copenhagen Metro”.

Earlier this week, Hitachi Rail unveiled [HMAX](#), its new digital asset management suite at global rail conference InnoTrans, in Berlin. HMAX is a one-stop digital platform that provides transport operators solutions to enhance the train services they run. The HMAX solution is accelerated by NVIDIA’s AI technology and is helping Hitachi Rail’s customers around the world improve the reliability, cost and availability of railways.

The HMAX bespoke version for The Copenhagen Metro is expected to be delivered before the end of 2025 under the current O&M-agreement for the M3/M4 lines with Hitachi.

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Note to the editors:

To find out more about HMAX, please see here: [Digital Asset Management | Hitachi Rail](#)

About Hitachi Rail

Hitachi Rail is committed to driving the sustainable mobility transition and has a clear focus on partnering with customers to rethink mobility. Its mission is to help every passenger, customer and community enjoy the benefits of more connected, seamless and sustainable transport.

With revenues of over €7bn and 24,000 employees across more than 50 countries, Hitachi Rail is a trusted partner to the world’s best transport organisations. The company’s reach is global, but the business is local - with success built on developing local talent and investing in people and communities.

Its international capabilities and expertise span every part of the urban, mainline and freight rail ecosystems – from high quality manufacturing and maintenance of rolling stock to secure digital signaling, smart operations and payment systems.

About The Copenhagen Metro

Every week, more than 2 million passengers use the Copenhagen Metro, and the number is increasing day by day. The Copenhagen Metro has a service availability of more than 99% and a very high customer satisfaction with a +64 NPS score.

The Copenhagen Metro develops, plans, constructs, and operates new and existing lines. Currently the network consists of four lines with 44 stations and 43 km of track. An extension of the M4 line northbound is under way, and a new line, M5, is currently under planning.

The Copenhagen Metro has an ambition to reduce the climate impact from new metro lines and reinvestment projects by 50 % compared to previous lines.

For more information, visit [m.dk](#)

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.
