



Press Release

HIMA-based signaling technology keeps the Luxembourg City trams on track

(Bruehl, 3 July 2018)

After more than a 50-year break, Luxtram reopened the Luxembourg City tram, which will eventually run from the city airport to Cloche d'Or business district. For the first phase of the project, the original signaling systems on the 3.5 km stretch between the Luxexpo conference and exhibition center and Pont Rouge were also renewed. But instead of using conventional N.S1 relays, a new concept was deployed using HIMA's commercial-off-the-shelf (COTS) PLCs to meet the highest safety requirements and greatly increase the tram frequency.

As buses became increasingly popular in the 1960s, they replaced trams, and the lines of Luxembourg City tram gradually closed in 1964. The reactivation of the network is a measure intended to cope with the high volume of professional commuters within the city, which experts estimate will double by 2030. While safety is of paramount importance to the project, system reliability comes a close second with frequent trams and fast journey times required to maximize capacity.

More and more system integrators and railway operators worldwide rely on standardized, open safety systems to meet these requirements for urban transport. The experts from French rail specialist Mobility worked closely together with the German safety expert specialist HIMA on the design of the technology. By using modern COTS controllers, the resulting signaling system meets the high safety requirements.

One of the major benefits of using HIMA controllers is that the signaling system can be monitored centrally. Compared to conventional relays, they make Luxembourg's tram traffic not only safer but much faster. This is because their high performance enables the time intervals between two trams to be considerably shorter. According to the Luxembourg Ministry of Sustainable Development and Infrastructure, the average number of tram

passengers on weekdays during the first two months of operation was some 17,000 – more than twice as many as it had originally forecast (8,400).

Another important aspect to the project was to maintain the city's architectural aesthetic. By using the compact HIMA technology, Luxtram was able to save substantial space in the track area: the new control cabinets were integrated into the architecture of the stops and transfer platforms. At the LuxExpo stop, for instance, the control cabinet is installed directly on the track. This saved the substantial costs and issues often incurred when using conventional technology which would require building of an entire technical room. This poses a major challenge for city planners and so, in densely built-up areas, are often laid underground near the tracks.

“The Luxtram project is the first time we used HIMA safety controllers,” says Stéphane Berthet, Business Unit Manager Light Rail Signaling at Mobility. “We chose them because they comply with the highest safety levels and have already proven themselves in numerous safety-critical applications.”

Luxtram completed the project six months ahead of schedule during its anticipated two-year timeframe. The open, modular COTS components helped reduce lifecycle costs – they were easy to install, and in-service updates ensure they are kept in sync with the latest technology. “Thanks to the good cooperation with HIMA's safety specialists, we were able to complete the project faster than planned and implement a signaling system that's future-proof and offers easy handling,” confirms Berthet.

Read the full story here: <https://www.hima.com/en/industries-solutions/success-stories/success-stories-detail/after-more-than-a-50-year-break-the-tram-is-running-again-with-mobility-hima/>



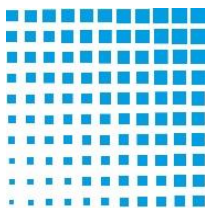
Caption image 1: The tram at its inauguration on December 10, 2017. The Tram is once again travelling through the Luxembourg capital.

Image © Luxtram / Henri Goergen



Caption image 2: Compact control cabinets can replace oversized technical rooms and can be handily integrated into the architecture at the stops and transfer platforms.

Image © Mobility



110 Years
Transforming
Safety

2018 is a special anniversary year for HIMA. For many decades, the safety specialist – founded in 1908 – has played a major role in shaping safety standards and has driven innovations to develop the market for industrial safety. Drawing on 110 years of experience, HIMA develops solutions for the digital industrial age and is ready for the challenges of the future.

About HIMA

The HIMA Group is the world's leading independent provider of smart safety solutions for industrial applications. With more than 35,000 installed TÜV-certified safety systems worldwide, HIMA qualifies as the technology leader in this sector. Its expert engineers develop customized solutions that help increase safety, cyber security and profitability of plants and factories in the digital age. For over 45 years, HIMA has been a trusted partner to the world's largest oil, gas, chemical, and energy-producing companies. These rely on HIMA solutions, services and consultancy for uninterrupted plant operation and protection of assets, people and the environment. HIMA's offering includes smart safety solutions that help increase safety and uptime by turning data into business-relevant information. HIMA also provides comprehensive solutions for the efficient control and monitoring of turbomachinery (TMC), burners and boilers (BMC) and pipelines (PMC). In the global rail industry, HIMA's CENELEC-certified SIL4 COTS safety controllers are leading the way to increased safety, security and profitability. Founded in 1908, the family-owned company operates from over 50 locations worldwide with its headquarters in Bruehl, Germany. With a workforce of approximately 800 employees, HIMA generated a turnover of approximately €126 million in 2016. For more information, please visit: www.hima.com

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