

Siemens Mobility and Ruhrbahn digitalize Europe's largest light rail interlocking system

- **Overall contract from Ruhrbahn GmbH for renewing control and safety technology by 2031**
- **Relay interlockings in Essen and Mülheim an der Ruhr, Germany, will be replaced by electronic interlockings**
- **Total investment worth around €180 million**

Siemens Mobility and Ruhrbahn GmbH will digitalize control and safety technology dating from the 1970s in Essen and Mülheim an der Ruhr by 2031 to ensure the system is fit for the future. The contract, worth around €180 million, was signed recently by the partners and includes digitalizing Europe's largest light rail interlocking system at Essen Central Station. The modernization will make the interlocking system more reliable and energy efficient. Sixty percent of the costs for the renewal of the interlockings will be funded by the municipal rail renewal program with state and federal funds; the funding is currently expected to total around €96 million.

"After decades of wear and tear and the interim refurbishment of the relay technology in three of our five interlockings, we are now undertaking the complete renewal and digitalization of the train control and safety technology for tram and light rail transport in Essen and Mülheim an der Ruhr. Our aim is to make the existing

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network more efficient and reliable. When the renewal project is completed, there will be fewer disruptions and downtimes, making the use of public transport even more attractive for our passengers,” **explains Michael Feller, CEO of Ruhrbahn.**

Guido Rumpel, Head of Rail Infrastructure Germany at Siemens Mobility says:

“Reaching the goal of climate-neutral mobility will require a significant increase of passenger capacity in public rail transport. Smart cities are tackling and solving this challenge with modern technology. We are delighted that Ruhrbahn is converting its rail system to be fit for the future and that we have been chosen to implement this project with state-of-the-art control and safety technology by 2031. The digitalization of Europe’s largest light rail interlocking in Essen marks a great technological leap forward for rail operations. Once completed, passengers will benefit from a more reliable and punctual rail system.”

Modernization of the five interlockings with Europe’s currently largest relay interlocking for trams and metros at Essen Central Station will be carried out in five project phases by 2031. During the project, passenger services will be restricted only for short periods in individual sections of the system. The relay technology will be completely replaced, and the system’s control and safety technology will be converted to digital controls, making the infrastructure significantly more efficient. The interlocking at Central Station alone currently sets points around 5,000 times a day and switches signals to green 23,000 times. The electronic interlocking solution Trackguard from Siemens Mobility is currently installed at five interlocking locations.

One special feature of this major project will be the integration of the metropolitan region’s three and four rail systems. The challenge here is to use the different track gauges in the system and enable seamless operations using state-of-the-art technologies.

Joint press release
from **Siemens Mobility and Ruhrbahn**

As part of the project, Siemens Mobility will renew the approximately 28-kilometer-long train control section with 39 stations. The signaling system will be equipped with LEDs, the track vacancy detection system will be upgraded with an axle-counting system, and all magnetic barriers that prevent trains from passing a stop signal will be replaced.

This press release and a press photo are available at: <https://sie.ag/3ZrfmR>

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For further information about Siemens Mobility GmbH, please see:

www.siemens.com/mobility

Siemens Mobility is a separately managed company of Siemens AG. As a leader in intelligent transport solutions for more than 175 years, Siemens Mobility is constantly innovating its portfolio. Its core areas include rolling stock, rail automation and electrification, a comprehensive software portfolio, turnkey systems as well as related services. With digital products and solutions, Siemens Mobility is enabling mobility operators worldwide to make infrastructure intelligent, increase value sustainably over the entire lifecycle, enhance passenger experience and guarantee availability. In fiscal year 2023, which ended on September 30, 2023, Siemens Mobility posted revenue of €10.5 billion and employed around 39,800 people worldwide. Further information is available at: www.siemens.com/mobility

Mobility Service Provider for the Region As the largest public transport provider in the Ruhr area, **Ruhrbahn** ensures the mobility of over 100 million passengers per year. With three subway lines, eleven tram lines, 54 bus lines, and 22-night express lines, Ruhrbahn offers customer-oriented, technologically advanced, and environmentally friendly public transportation. Around 2,500 employees from 27 different nations work here. The diversity of passengers is also reflected within the Ruhrbahn workforce and is an integral part of our corporate culture.

Ruhrbahn continuously enhances the quality of public transportation in Essen and Mülheim, creating incentives for unlimited mobility through forward-looking mobility concepts. An attractive, efficient, and environmentally friendly public transport system improves the quality of life for all of us and sets important impulses for the region. Our goal is to further develop Ruhrbahn into the leading mobility provider for the region.

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