

**Media release**

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**Stadler to display UK's first independently powered electric multiple unit (IPEMU) at InnoTrans**

**An independently powered electric multiple unit (IPEMU), powered by battery, is one of seven vehicles that Stadler is displaying at InnoTrans this week in Berlin. Ordered by the Liverpool City Region, this innovative vehicle is the first of its type to operate in the UK and demonstrates Stadler's commitment to decarbonisation and achieving net zero. It enables clients to extend operations on non-electrified lines and avoid infrastructure work, promoting integrated travel and boosting patronage.**

The UK's first independently powered electrical multiple unit (IPEMU) will be exhibited at InnoTrans this week, along with six other ground-breaking Stadler vehicles. Powered by battery, the IPEMU is a testament to Stadler's pledge to help governments all over the world decarbonise the railway and provide sustainable public transport. The Liverpool City Region has ordered seven IPEMUs, as well as 46 Class 777 METRO EMUs, for the Merseyrail network in the north west of England, entirely replacing the legacy fleet.

IPEMUs have the potential to replace diesel powered units, helping clients to cut carbon emissions. They can run on non-electrified lines, enabling clients to extend operations, meaning that costly infrastructure upgrades can be prevented. Passengers are able to avoid changing modes to make travel easier, more convenient and more attractive, which in turn encourages more people to take the train.

Able to reach a speed of 80 km/h when it is fully charged and cover a distance of 55 km on one battery load, the IPEMU is based on the Class 777 and retains all its basic functionalities. It has the same interior and high levels of passenger comfort, and can carry the same number of passengers. The ride quality is smooth and passengers will not notice the transition from EMU to IPEMU mode.

The IPEMU is equipped with a battery-based energy storage system. New battery traction equipment is mounted in the underframe and the cooling system is located on the roof. While an IPEMU is running on the electrified network, the batteries can be charged from the third rail, as well as through regenerative braking. IPEMUs can be recharged in less than 15 minutes, and batteries are able to undergo more than 10,000 charge/discharge cycles.

Ralf Warwel, sales director for the UK and Ireland at Stadler, says: “This ground-breaking vehicle will be the first of its type to operate in the UK. It exemplifies Stadler’s focus on green technology, highlighting our determination to work with operators and governments all over the world to cut carbon emissions and tackle the climate crisis. It will boost the Merseyrail network, providing greater flexibility for our client and helping provide a more compelling transport offering for the residents of the Liverpool City Region.”

The Liverpool City Region Combined Authority’s Programme Director, David Powell, says: “The IPEMU concept has been an integral part of our strategy for the new fleet of trains for the Liverpool City Region. We are delighted to be one step closer to realising our vision of an expanded Merseyrail network without the need for electrification infrastructure. This will bring significantly improved, high quality service and direct connectivity to a greater proportion of the 1.6 million people in our city region. The IPEMUs will also contribute to our carbon reduction strategy by using only 20% of the energy of the diesel powered trains that they can replace.”

### **Presentation at InnoTrans**

The independently powered electric METRO vehicle (IPEMU) for the Liverpool City Region is one of seven Stadler vehicles on display at InnoTrans. It will be located in the outdoor area on track T09/60. The official presentation of the METRO vehicle, given by Stadler and the Liverpool City Region, will take place at 2 p.m. on 22 September 2022. Pictures of the vehicle presentation can be found from around 3 p.m. using this [link](#). The data sheet for the METRO vehicle (IPEMU) as well as further media material from Stadler can be found [here](#).

## **About Stadler**

*Stadler has been building trains for over 80 years. The provider of rail vehicle construction solutions has its headquarters in Bussnang in eastern Switzerland. It has a workforce of over 13,000 based in various production and engineering locations as well as more than 70 service locations. The company is conscious of its social responsibility for sustainable mobility and therefore stands for innovative, sustainable and durable quality products. The product range in the field of mainline railways and city transport includes high-speed trains, intercity trains, regional and suburban trains, metros, tramways and trams. Stadler also manufactures main-line locomotives, shunting locomotives and passenger carriages. It is the world's leading manufacturer in the rack-and-pinion rail vehicle industry.*

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Media contacts:

### **Stadler Rail Group**

Gerda Königstorfer  
Head of Communications & PR  
Phone: +41 71 626 19 19  
E-mail: [media@stadlerrail.com](mailto:media@stadlerrail.com)

### **Stadler UK**

Alice Owen  
Regional Communications Manager  
Phone: +44 (0)7523 501493  
E-mail: [alice.owen@stadlerrail.com](mailto:alice.owen@stadlerrail.com)

[www.stadlerrail.com](http://www.stadlerrail.com)