

# PRESS RELEASE

# Solaris presents its latest battery solutions at Transexpo 2022

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Solaris Bus & Coach is presenting two electric vehicles at the 16th International Fair of Public Transport – Transexpo, to be held from 12th to 14th October 2022 in Kielce: the flagship electric model of the manufacturer – Urbino 12 electric, and the articulated Urbino 18.75 electric, both featuring new-generation batteries of very high capacity.

For many years Solaris has been one of the leading electric vehicle manufacturers in Europe. Over 2,500 battery-powered buses have already been supplied to or contracted by public transport operators in nearly 120 European towns and cities. Transforming urban transport towards sustainable and resident-friendly solutions is a priority for Solaris. By investing in battery improvements, optimising the charging systems, and intensified development of hydrogen technologies, Solaris opts for dynamic progress in technology to target various needs of urban public transport operators and to support them in their transformation efforts towards sustainable low- and zero-emission transport services.

### Two electric buses

Solaris is to present two battery-powered buses, most popular in its zero-emission portfolio at Transexpo Fair this year. The Urbino 12 electric bus is the flagship electric model by Solaris, selected most often by its customers. This very well-known vehicle is however equipped with new-generation high-capacity batteries, which means even better performance. The second model to be displayed at Solaris's stand is the Urbino 18.75 electric bus. This classic articulated model was extended to enlarge the passenger capacity.

### Urbino 12 electric - reliable technology, excellent design

The 12-metre electric Solaris bus is already very well known both in Poland and in Europe. In 2016 it was chosen the Bus of the Year, and today more than 800 vehicles of this type transport passengers in European towns and cities every day. This vehicle is locally emission-free and therefore it is an excellent choice for cities that prioritise high living standard and safety for their residents. State-of-the-art, eye-catching design and innovative equipment have been used to encourage passengers to use public transport.

The Urbino 12 electric on display stands out due to its new-generation, high-capacity batteries – of over 520 kWh. Solaris High Energy batteries with similar parameters guarantee a driving range of around 300 km in diverse road and weather conditions. The energy storage systems can be charged using one of the two plug-in sockets, one placed above the wheel arch, and another one at the front of the vehicle. The bus features an electric axle with two integrated electric motors of 125 kW each. The propulsion system was manufactured using energy-saving SiC technology.

The stylish and spacious bus interior features many comfortable solutions for urban passengers: a comprehensive passenger information system, USB charging ports and LED lamps, including elegant, blue lighting switched on at night. A comprehensive video surveillance system and solutions to assist the driver ensure the highest safety standards. The MobilEye Shield+ system warns the driver if there is a bicycle, motorcycle or a pedestrian in the driver's blind spot. Completely redesigned mirrors, or better said cameras, display the picture on the screens in the vehicle, which translates to excellent visibility, even in unfavourable weather conditions, in the rain or at dusk. The bus is also equipped with a dusk sensor.

There are 26 passengers' seats aboard the bus, and nearly half of them are accessible from the low floor.

## Urbino 18.75 electric - tried and tested quality in any conditions

The second vehicle presented by Solaris at Transexpo 2022 is the articulated electric bus that was extended to 18.75 metres. This articulated Urbino vehicle is the second most popular bus among Solaris electric solutions. The vehicle displayed in Kielce this year is the first 4<sup>th</sup> generation model with extended body of 18.75 metres.

The bus is locally emission-free, and its 240 kW central traction motor ensures smooth acceleration and silent operation. The increased bus interior provides for optimal driving range and higher passenger capacity. The vehicle is equipped with high-capacity batteries of over 520 kWh. At the same time, due to its longer body, the vehicle boasts three bays for wheelchair-bound passengers and 138 passengers, in which 41 seated aboard the bus.

Similarly to the 12-metre bus, also here the manufacturer paid attention to a very well equipped interior to ensure comfortable and safe journey for passengers. In addition to the MobilEye system and cameras that replaced classic mirrors, the driver can use wide-angle cameras that deliver the 360 degree bird's eye view. This ensures an even higher safety and comfort to the driver. Besides, the bus is equipped with the dusk and rain sensor, as well as an automatic device to detect driver's fatigue.

The bus presented this year was designed to operate in the most severe weather conditions and is equipped with a special Scandinavian thermal insulation package. It consists of such solutions as additional insulation of the side walls and roof as well as of the chassis around the wheel arches, double-glazed side windows and heating mats installed in the floor, in the door area. It improves passengers' thermal comfort and decreases energy consumption on frosty days. In addition, snow chains can be installed on the Urbino 18.75 electric bus, as these are often part of the standard equipment of city buses in Scandinavia.

It is worth mentioning that the Urbino 18.75 electric bus is one of 183 similar units ordered by carrier Unibuss AS from Oslo. This has been so far the biggest order for Solaris articulated electric buses.

# Various technologies for sustainable transport

Solaris has been committed to e-mobility for many years now, by focusing its development activities on zero-emission and city-dweller-friendly solutions. It is however worth mentioning that the manufacturer does not focus only on battery-powered buses, it also invests in the development of trolleybuses and hydrogen vehicles. The interest of transport operators in hydrogen buses is growing, as they are one of the alternative solutions in zero-emission transport. The European Union institutions also support the development of this technology, as they perceive it as an integral element of energy transformation.

### Urbino 18 hydrogen launched in 2022

Solaris has now two hydrogen buses in its portfolio: the Urbino 12 hydrogen and the articulated Urbino 18 hydrogen that was launched on 14<sup>th</sup> September 2022. This new model is equipped with the state-of-the-art hydrogen fuel cell of 100 kW and a modular drive system, i. e. a novel solution that allows for flexible component installation. This is why the articulated hydrogen bus does not feature a classic motor compartment which in turn translates to higher passenger capacity. Moreover, space saved on the roof has made it possible to install hydrogen tanks with a total capacity of 51.2 kg. This new vehicle, launched this year, will no doubt perform extremely well on longer routes. It will be able to cover about 350 km on a single refill in various weather conditions.

### After Sales – state-of-the-art tools

In addition to a wide portfolio of modern buses, Solaris is also presenting solutions to support bus servicing and maintenance at any stage of operation – starting from preparing for servicing to adding new models to the fleet.

Solaris supports and thoroughly advises its customers from the very beginning, at every stage

of alternative drive vehicles deployment. The manufacturer assists its customers for example with regard to workshop equipment or necessary skills for employees. To answer to a growing share of hydrogen drives on the market, Solaris developed a list of good practices in servicing these vehicles, published as guidelines. They are not only to assist customers in an effective deployment of hydrogen vehicles, but first and foremost to ensure their safe servicing. Solaris offers its advisory services not only to existing customers, but also to carriers which are planning to purchase Urbino buses.

Solaris supports potential customers in the servicing of vehicles by providing them with dedicated platforms, i. e. eSConnect to monitor their fleet and analyse data, eSNote to notify about defects, eSClaim to process warranty claims, and Magbus to access documents, drawings, and information on spare parts.

The portfolio of after sales tools by Solaris has been recently complemented with eSSyncroService, a new solution using the augmented reality concept for bus repairs. Using special goggles, the technician may display technical documents with a voice command and access it while having his hands free. The use of the augmented reality (AR) technology in servicing buses may be extremely beneficial, because of the possibility to contact Solaris experts remotely. They can then lead the technician step by step through the repair, shortening the time the vehicle is unavailable. Additionally, eSSyncroService makes it obligatory for the employees to confirm that they have taken all necessary precautions, which increases their safety.

What is more, Solaris is presenting its Optiline products, i. e. a range of original Solaris spare parts, at the Transexpo Fair. Customers appreciate these solutions which translates to their growing market share. In 2021 Optiline brake pads were one of the most frequently purchased spare parts in Solaris portfolio and accounted for 83% of all brake pads supplied to its customers.

The Transexpo Fair is held in Kielce on 12-14 October 2022. Solaris invites you to visit its stand No. E-24 located in Hall E.

#### Additional information

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#### About our company

Solaris Bus & Coach sp. z o.o. is one of the leading European bus and trolleybus manufacturers. Benefiting from 25 years of experience and having manufactured over 20,000 vehicles, Solaris affects the quality of city transport in hundreds of cities across Europe every day. Thinking of the future, the firm is setting new standards by dynamically developing its products, in particular in the electromobility sector. Solaris electric buses, trolleybuses and hydrogen buses are cutting-edge solutions for zero emission public transport. Solaris products have been repeatedly awarded for quality and innovation. The Solaris Urbino 12 electric won the prestigious European "Bus of the Year 2017" competition. In September 2018 Solaris Bus & Coach sp. z o.o. joined CAF Group.