POLAND

CAPITAL	POPULATION	TOTAL PT JOURNEYS IN 2015
Warsaw	38 476 269	4bn

National

> Electromobility Strategy 2.0

STRATEGY | SUSTAINABILITY

Poland is taking a decisive step towards clean public transport, as 41 municipalities and three ministries have signed up for an electromobility program, in early 2017, involving close to half of Poland's total bus fleet.

This strategy is not only expected to improve the country's air quality, but also boost its economy by creating jobs in this innovative electromobility sector and increasing Poland's export capacity, as electric vehicles are being purchased all over Europe.

In order to bring forth these positive outcomes, the local governments, with the support of several national government bodies, have agreed on a set of goals, which consist in:

- An increase of public transport's share of electric buses in their fleets
- The construction of charging infrastructure for electric cars and buses
- Cooperation in R&D in the field of electromobility
- The preparation of a good practices guide for implementing electric transport in Polish municipalities
- The inclusion of local governments in the development of the Act on Electromobility
- The establishment of the Low-Emission Transport Fund

Krakow City Transport also ordered the delivery of e-buses in October 2016 from Solaris, after undertaking tests in 2014, in view of developing alternatively-fuelled transports to limit the use of combustion engines in the city centre. 17 zero-emission Urbinos 12 and 3 next-generation articulated models will join the five e-buses already operating on Krakow's roads. These buses will also be equipped with a pantograph and plug-in charging systems. They will be low-floored and air-conditioned.

The City of Zielona Gora is also following this electromobility strategy, with a vision to operate only electric buses. The city has recently chosen to acquire 45 electric 12-meter buses from Ursus Bus company. Likewise Warsaw is currently acquiring new e-buses, with 30 units in operations by the end of 2017. The local operator MZA plans to operate nearly 140 zero-emission buses by 2020.

Gdańsk, Gdynia, Sopot

> TRISTAR system and urban mobility strategy

INNOVATION | STRATEGY

One remarkable example of ITS investments, co-funded by the EU, is the TRISTAR project. It is Poland's biggest ITS project yet, both in size and budget-wise. This traffic management system was set up in 2011 in the Tricity, an urban agglomeration comprising around 750.000 inhabitants and including the cities of Gdansk, Sopot and Gdynia.

This Intelligent Transportation System focuses on private and public transport-related traffic, and includes strategy management, network control, local traffic optimisation and prioritisation of bus and tramway lines. By managing traffic in a way that gives priority to public transport, it is hoped that the project will help reduce travel times, thus increasing public transport's attractiveness and ridership.

Warsaw, Gdynia

> Solar energy-powered buses and trolleybuses

INNOVATION | SUSTAINABILITY

After a successful trial period of 15 buses by MZA, Solaris delivered 80 Solaris Urbino buses equipped with photovoltaic cells on their roofs, along with converting units, in March 2016. On-board equipment, such as ticketing machines and LED lighting are powered by solar energy, which accounts for 1KW of electricity, representing up to 5% of fuel consumption reduction. All buses are running on EURO 6 engines, and can recover energy while braking, and 60 of them are articulated buses.

Meanwhile, in December 2016, Gdynia's trolleybus company PKT announced its plan to provide solar energy to its trolleybus network. The idea is to install photovoltaic panels on the trolleybus depot in Gdynia Oksywie, which would cover an area of 5000m², roughly the size of a football field. This solar power farm is expected to produce a nominal power of about 0.5 MWp, which should contribute a few percent of the total energy supplied for the network.