e-Mobility in Poland

e-cars: In Poland, the benefits for electric vehicle owners are still small, introduced mainly at the local government level. Some cities individually reward the owners of such vehicles by introducing, for example, public, free chargers or no fee policy in paid parking zones, or by allowing drivers to use bus lanes. According to forecasts, it is planned to expand the network of vehicle charging stations, develop car-sharing services and include electric vehicles in public administration fleets. The forecast for the development of electromobility in Poland was presented in the Strategy for Responsible Development, which sets the goal of having one million electric vehicles on Polish roads by 2025. One of the biggest barriers to the development of electromobility in Poland is the relatively high prices of electric vehicles and insufficient financial support from the state in the form of financial incentives.

e-buses: The market for the production of electric buses is developing dynamically, currently ahead of the domestic demand. At present, the following electric buses are manufactured in Poland: Solaris, Volvo and Ursus. Despite the fact that electric buses are more expensive than those powered by a combustion engine, they appear more and more frequently in the public transport of large cities - in Warsaw, Toruń, Kraków, Jaworzno, Inowrocław, Ostrołęka. Other cities are also willing to purchase environmentally friendly buses. According to long-term government plans, it is planned to support the purchase of electric buses and expand the charging infrastructure.

e-bikes: In Gdańsk and 13 surrounding municipalities (Gdańsk-Gdynia-Sopot metropolitan area) a metropolitan bicycle system is being developed, consisting exclusively of electrically powered bicycles. It is currently the most modern and the largest cycling system of its kind in Europe. It is based on 4th generation bicycles, equipped with GPS receivers, supported by an application and not requiring docking stations. Ultimately, the fleet will include more than 4000 bicycles. Urban electric bicycles can also be found in Warsaw, but their number amounts to 100. Slowly, but visibly, the market of private, individual electric bicycles is also developing. However, the price is a big barrier here, just like in the case of cars.

Photo by Obszar Metropolitalny Gdańsk-Gdynia-Sopot
Mevo Metropolitan e-Bicycle system

e-logistic: This market segment is still practically undeveloped, with almost complete dominance of combustion engines.

e-scooters: W większych miastach Polski działa kilka systemów miejskich skuterów elektrycznych, wypożyczanych za pomocą aplikacji mobilnych. Taka forma przemieszczania cieszy się coraz większą popularnością wśród mieszkańców, dlatego na rynku sukcesywnie pojawiają się nowe prywatne firmy, np. GoScooter, Blinkee, Scroot, JedenŚlad, EcoShare, Yumi.

e-ferries: Seasonally two ships with electric drive serve in Bydgoszcz. They are powered by energy obtained by photovoltaic panels mounted on the entire surface of the roof. In addition, they are equipped with batteries with the ability to quickly charge. They can take up to 28 passengers on board. An initial concept for a ferry connection in Gdansk has been developed, but no action is being taken to implement it yet.

Key ideas from Poland:

Economic challenges for electromobility in Poland, especially overcoming social, financial and technical barriers, require coordination at government, corporate and social levels. Currently, the process of electromobility development in Poland is determined bythe programme of "Plan for the Development of Electromobility in Poland" and the "National Framework for the Development of Alternative Fuel Infrastructure".

The most important barriers to the development of electromobility in Poland include:

- lack of a system of financial incentives stimulating the demand for electric vehicles and the construction of new infrastructure;
- too high a share of mining raw materials in the production of electricity;
- rising electricity purchase prices on the internal market;
- lack of adaptation of the full potential of the traditional automotive industry to the needs of developing electromobility;
- lack of social capital to support the new electromobility industry,
- poorly developed infrastructure of public charging points,
- excessively long charging times for vehicles,
- insufficient range of electric cars without re-charging (at least twice as much as conventional cars).