**Industry Focus** 

electric drive

CAR

# The European Electric Vehicle (EV) Market

## and Industrial Fasteners: The Netherlands

by Shervin Shahidi Hamedani

Amsterdam elektrisch

FCH Ultras

Q-MOBILITY

### Introduction

The European electric vehicle (EV) market experienced extraordinary growth in 2020 with a 143% increase from 2019. In 2020, more than 1.36 million new electric passenger cars, including battery electric (BEV) and plug-in hybrid electric vehicles (PHEV), were sold across the region. The strong and healthy sales in 2020 made Europe the largest EV market globally, surpassing China.

Interestingly, the surge on EV sales in Europe continued during the pandemic including the major lockdown in Europe where the vehicle market faced several difficulties in sales due to COVID-19. The pandemic drastically reduced the sales of all new cars in Europe by 20%, while the sales of EV boosted significantly and its market share increased to 11%.

Passenger cars and vans ('light commercial vehicles') are respectively responsible for around 12% and 2.5% of total EU emissions of carbon dioxide ( $CO^2$ ), which is the main greenhouse gas. On 1 January 2020, Regulation (EU) 2019/631 entered into force, setting  $CO^2$  emission performance standards for new passenger cars and vans. This could be named as the key driver for the EV sales growth in Europe, since car manufacturers have to comply with all those strict standards.

Numerous individual European markets reached much larger shares of new EV sales in 2020 to compare with 11% average growth rate. Among them are Norway with a very impressive market share of 75%, Sweden 32%, the Netherlands 25%, Finland 18%, Denmark 16%, Switzerland and Portugal 14%, Germany 13%. France, Belgium, and the United Kingdom achieved 11% of the market shares, the same amount as the average market shares in Europe.

IIIIY SAT. 18 JUL

SAT. 18 JULY SAT. 18

18 JULY SAT. 18 JULY SAT. 18

Those figures clearly tell us, that regions in northern Europe, especially in Norway, had the highest EV shares in 2020. Based on the statistics, in Norway, its three metropolitan regions of Bergen, Oslo, and Trondheim had 80%, 79% and 75% EV shares, respectively, and about three quarters of those EVs were BEVs.

#### Automotive Fasteners

In the same year, in 2020, the Automotive fasteners market was valued at USD 22 billion and is projected to reach USD 26 billion in 2026 by registering a CAGR of above 4%. The market is expected to grow due to several reasons. With no doubt, one of the major reasons are shifting focus toward lightweight vehicles and the increasing use of electronics in vehicles. Moreover, manufacturers are also shifting from standard fasteners to customized fasteners. This shift is another drive of the automotive fastener market.

In regards with the fasteners for electric vehicle development, they are sorted by different application fields. The range of electric vehicle depends on the Power Distribution Units (PDU). Fasteners for powertrains and inverters in EV require to be highly durable and resistant to vibrations as well as extreme temperatures. Some of the commonly used fasteners and parts are thread-forming screws, cable glands, sealing plugs, check valves, flow restrictors, circlips, shim washers.

Embedding and surface bonding fasteners, threaded inserts for thermoplastic housings, and SEMS screws are mainly used for the battery in EV. Fasteners that are made of high-strength materials, easy to assemble and disassemble and provide a high corrosion resistance include welding studs, flow drill screws, structural blind rivets, wheel nuts and lug nuts, mam bolts used for body, chassis, exterior and interior of EV.

#### **Electric Vehicles in the Netherlands**

The Netherlands, despite its small size, is one of the leading players in the EV market in the world. This makes this country one of the most interesting business partners for various industries, more specifically for EV manufacturers, automotive fasteners and parts suppliers. For over a decade the Netherlands has been investing in electric vehicles, charging infrastructure and the development of new technologies and connectivity.

In terms of the EV model availability at the national level with the European countries (by comparing the number of models available in at least one metropolitan region in a country) the Netherlands has the highest number of models available (112) after Germany (132). The United Kingdom and France both have 110 models, and Norway (the largest EV market in Europe) has 109 models. This reveals that manufacturers largely deliver more EV options to countries with the newest car registrations, to those with the highest EV shares, and those with strong EV policies in place.

As public chargers are one of the challenges in developing the EV market in any country, the Netherlands has the most public chargers (65,600) in Europe, followed by France (46,000) and Germany (44,700). The Netherlands also had the highest number of public chargers per million populations with 3,800, compared to France and Germany with 690 and 540, respectively in 2020.

Supported by the national climate policy, the Netherlands has spirits to improve sustainability. By 2030, all new passenger vehicles in the Netherlands must comply with zero emission. All vehicles will have to make the best possible use of renewable energy sources such as wind and solar.

The market for electric vehicles continues to grow globally. This offers opportunities for Dutch companies to sell their products and services abroad. Foreign investors may open new businesses in the Netherlands, invest more money in the development and expansion of the local players, and consequently create more jobs in the field of electric vehicle and related industries such as fasteners, parts and tools.

Additionally, to drive the electrification of the national vehicle fleet, the Dutch government provides very attractive incentives to lessen the cost for buyers and owners of electric vehicles. This is especially true for BEVs, which are the focus of the government's zero-emission transport strategy. Moreover, BEV's owners benefit from waivers on the one-time registration tax and annual ownership taxes, or receive a reduction in the case of PHEVs. On the contrary, buyers and owners of conventional combustion engine vehicles are charged vehicle taxes that are particularly high in comparison to other European markets. This is where fastener manufacturers can find their focus, expanding or redirecting their product lines to manufacture EV's fasteners and parts, as ignoring the growth of the EV market could make a huge damage on their future sales and survivability.

#### Source:

Automotive Fasteners Market - Growth, Trends, Covid-19 Impact, and Forecast, by Mordor Intelligence

Update on Electric Vehicle Uptake in European Cities, by International Council on Clean Transportation

Electric transport in the Netherlands, by Netherlands Enterprise Agency

