

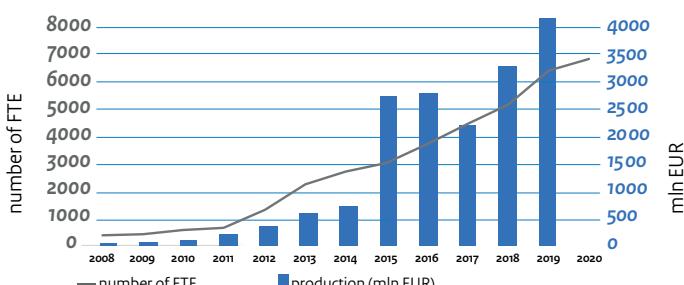


Economic growth due to Electric Vehicles 2019-2020

Electric Driving is growing unabatedly. In 2020, more than 1 in 5 newly sold cars had a (partially) electric drivetrain. That makes the Dutch EV sector particularly fast growing. Internationally, the Netherlands is seen as a strong EV market player. The knowledge and experience gained by Dutch EV companies in the last years, are valued more and more abroad.

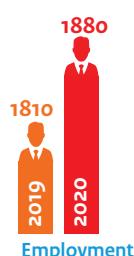
Stable growth

The Dutch EV sector provides ever increasing employment and, looking at the large growth in electric driving, this will only continue to increase in the coming years. The number of jobs that are directly related to EV has increased to 6,860 full-time equivalents (FTE). EV related turnover has increased to over €4 billion in 2019 and 2020.



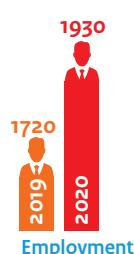
EV Services

This cluster is very visible because of the unique charging services and mature EV consultancy organisations. In addition, existing services are starting to electrify, such as taxi and shared transportation companies.



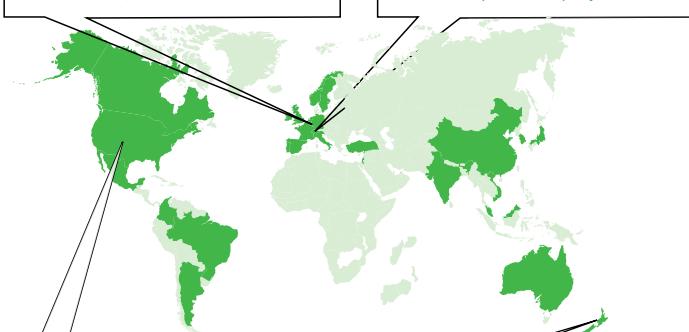
Charging infrastructure and smart grids

Market players in this cluster are working towards internationalisation, partly due to takeovers by larger companies. Dutch companies are currently ahead in the international market, but this position is being threatened by the rise of competitors abroad.



EV companies are active worldwide

Europe/Brussels/Belgium In collaboration with the European Commission, a new safety standard has been set for the second use of batteries from EVs. This was developed by EcarACCU.



United States EVBox has been working on its expansion in the United States for two years. This market is still developing and ambitions set by the new president provide extra opportunities for growth.

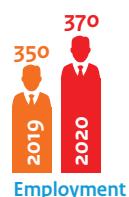
Switzerland Start-up Chargtrip develops navigation software for EV drivers. Now, they are also working for EV drivers of Swiss company Porsche.

New Zealand Truck manufacturer Hyzon Motors Europe from Groningen has been ordered to make 1,500 hydrogen fuel cell trucks for Hiringa Energy in New Zealand.



Propulsion technology and components

Companies in the automotive supply industry differentiate themselves by quality and are increasingly aiming their activities at electric mobility.



New and converted vehicles

The use of electric buses, vans and trucks is growing steadily. Almost the entire fleet of electric buses in the Netherlands is of Dutch origin. The production of the first electric inland vessels and airplanes has started.



Batteries and second use

Multiple parties in this cluster are developing processes to provide a second life for used batteries as temporary storage. Recycling of batteries that cannot be reused still has a long way to go.

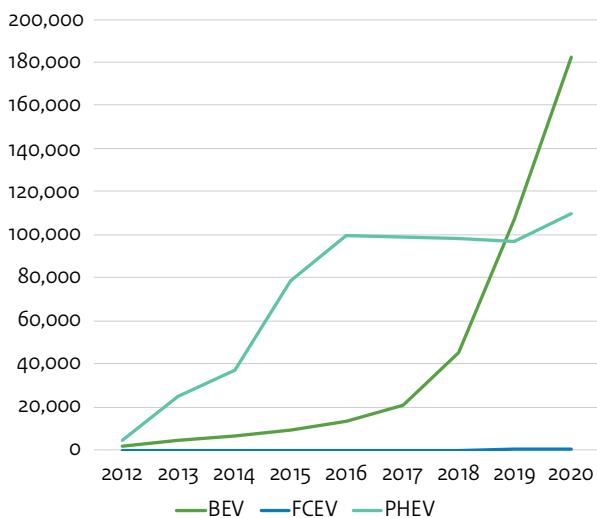


Economic growth in the EV sector is continuing

Adoption of EVs increases...

Vehicles

- The number of full electric passenger vehicles increased more than most predictions reported, from 44,984 vehicles at the end of 2018 to 182,481 at the end of 2020.
- After a couple years of stagnation, plug-in hybrid vehicles have made a come-back in 2019 and 2020, with 5,204 vehicles sold in 2019 and 15,396 vehicles sold in 2020.
- The number of E-trucks increased from 94 at the start of 2019 to 186 at the end of 2020.
- The number of light-duty zero emission commercial vehicles has doubled in 2019 and 2020 from 3,196 to 6,247.
- At the end of 2020, the milestone of 1,200 electric public transport buses on Dutch roads was reached. That means that more than 15% of all public transport buses are emission free.
- At the end of 2018 there were 50,000 LEVs on Dutch roads, whereas at this moment there are almost 85,000. The most noticeable growth took place for electric scooters and e-bikes.



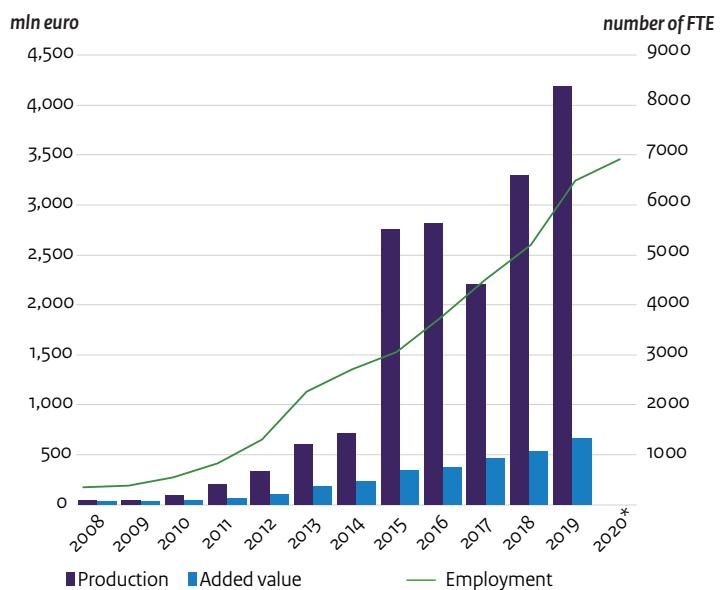
Charging infrastructure

- Since 2018, a lot of charging infrastructure has been added. In 2020, the number of regular public and semi-public charging points rose to 63,586, an increase of 28% compared to 2019 (49,520).
- The number of fast-charging points in the Netherlands grew from 1,252 in 2019 to 2,027 in 2020, an increase of 62%.

...which is reflected in economic developments.

- Production in the EV sector is close to €5 billion. The production volume increased from €3.3 billion in 2018 to €4.2 billion in 2019, a growth of 27%.
- Employment in the EV sector shows an almost linear growth, from 5,170 FTE in 2018 to 6,810 FTE in 2020. This is an increase of 31% in two years' time.
- The added value grew by 24% in 2019 compared to 2018; from €540 million to €670 million.

Development economic indicators EV sector 2008-2020



Market clusters show growth...

- The market cluster New and converted vehicles is still the largest, measured by employment. In this cluster, 2,360 FTE were counted in 2020, an increase of almost 30% compared to 2018. Companies in the market cluster Charging infrastructure and smart grids are increasing in size. Over the last two years, the number of FTE grew to 1,930, which is a 69% increase.

- The market cluster EV Services also shows growth, though a little less than other clusters, with a 15% increase in the number of FTE since 2018. Multiple electric mobility service providers are growing fast – both nationally and internationally. IT service providers for electric driving are rapidly developing, in order to prepare for scaling up.
- Market clusters Propulsion technology and components and Batteries and second use are modestly sized, yet strong statistical growth is not measured here so far.

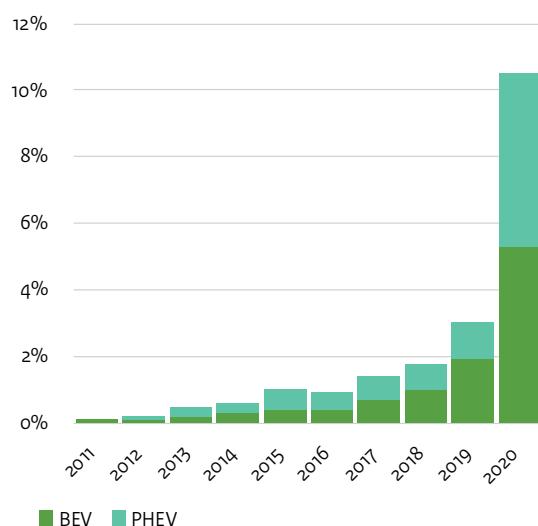


VDL Bus & Coach is manufacturing their first electric motorhome

...and internationally, EVs are experiencing a definite breakthrough...

- In 2020, about 3 million electric cars were sold worldwide, pushing the total fleet to over 10 million vehicles. EVs made up 2.6% of worldwide car sales, which represents a 43% increase compared to 2019.
- The worldwide charging network grew to about 1.3 million public charging points in 2020.
- The Dutch position as frontrunner of the European market, in relative and absolute numbers of electric vehicles, is fading away. The reputation of the Netherlands as a thriving industry full of young and innovative businesses is slowly becoming less unique.
- Large (neighbouring) countries like Germany, France and the United Kingdom are experiencing rapid development of their zero emission fleets.

Percentage EV market share in European passenger car fleet



...which leads to almost double the employment previously seen in the sector.

- By extrapolating the 2020 statistics with growth factors based on data from 2015-2020, it was calculated that the EV sector will provide 13,625 FTE in 2025.
- The future holds many opportunities for the Netherlands; especially with relation to smart charging, the organization of information systems and battery production, amongst others.
- Besides opportunities, challenges are also around the corner. The yearly increase of EV sales in December shows that fiscal regulations remain influential. If benefits are reduced too quickly, the Netherlands could fall behind in the European figures of EV adoption.



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