# Trade and production of hybrid and electric cars

Statistics Explained

Data extracted on 30 October 2024 Planned article update: October 2025

## **Highlights**

" In 2023, extra-EU imports of hybrid and electric cars made up 44% of all extra-EU imports of cars. "

" In 2023, 49% of extra-EU imports of electric cars originated from China. "

This article provides a picture of the international trade in hybrid (both plug-in and non-plug-in) and electric cars in the European Union (EU) . It compares these 3 groups and shows developments over time of both extra-EU imports and exports. Finally, it shows the main partners for extra-EU imports and exports of each of these 3 products.

## Value of trade in hybrid and electric cars

The value of imports of hybrid and electric cars continued to increase, reaching € 48 billion in 2023 (Figure 1), an increase of 31% compared with 2022. Among the types of cars analysed in this article, electric cars became the largest category (€ 23 billion), followed by non-plug-in hybrids (€ 16 billion) and plug-in hybrids (€ 9 billion).

## Extra-EU imports of hybrid and electric cars, 2017-2023 (€ billion)

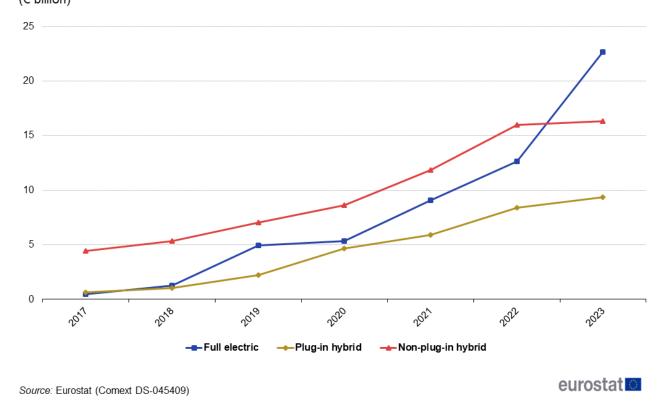


Figure 1: Extra-EU imports of hybrid and electric cars, 2017-2023 (€ billion) Source: Eurostat Comext DS-045409

The trend is similar for the exports of hybrid and electric cars which reached € 62 billion (Figure 2) in 2023, an increase of 6% with respect to 2022, though this growth was more modest compared with the evolution of imports. As with imports, the largest group of exports was electric cars (€ 30 billion), followed by non-plug-in hybrids (€ 23 billion) and plug-in hybrids (€ 10 billion). Export values were higher than import values across all three categories.

# Extra-EU exports of hybrid and electric cars, 2017-2023 (€ billion)

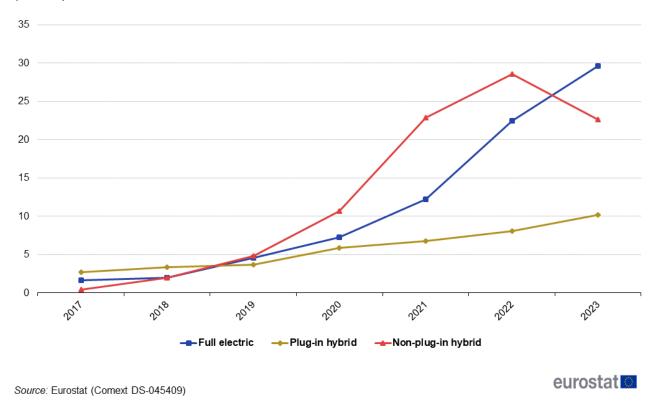


Figure 2: Extra-EU exports of hybrid and electric cars, 2017-2023 (€ billion) Source: Eurostat Comext DS-045409

## Share of electric and hybrid cars in trade of cars

In 2023, compared with 2022, the share of electric cars in total imports of cars increased by 6 percentage points (pp). By contrast, the share of plug-in and non-plug-in hybrids decreased by 1 pp and 3 pp respectively (see Figure 3).

Over several years, between 2017 and 2023, imports of electric and hybrid cars in the EU registered a staggering increase. In 2023, 44% of the total number of cars imported were electric or hybrid, indicating an increase of 37 pp compared with 2017. Full electric cars represented 21% (+20 pp compared with 2017) of total car imports in 2023. Imports of non-plug-in hybrid cars made up 18% of total car imports in 2023 (+12 pp) while plug-in hybrid cars made up 6% (+5 pp).

#### Extra-EU imports of hybrid and electric cars, 2017-2023

(% share in total number of cars imported into the EU)

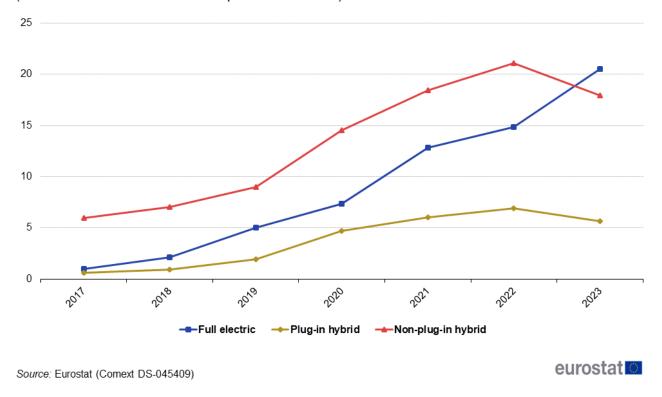


Figure 3: Extra-EU imports of hybrid and electric cars, 2017-2023 (% share in total number of cars imported into the EU) Source: Eurostat Comext DS-045409

In 2023, compared with 2022, the share of electric cars in total exports of cars increased by (+2 pp). By contrast, the share of non-plug-in hybrids decreased by 2 pp while the share of plug-in hybrids changed very little.

Over a longer period, between 2017 and 2023, exports of electric and hybrid cars in the EU increased strongly (Figure 4). In 2023, 27% of the total number of cars exported were electric or hybrid, an increase of 24 pp compared with 2017. Non-plug-in hybrids and full electric cars both represented 11% of total car exports in 2023, increasing by +11 pp and +10 pp respectively. Plug-in hybrid cars made up 4% (+3 pp).

#### Extra-EU exports of hybrid and electric cars, 2017-2023

(% share in total number of cars exported from the EU)

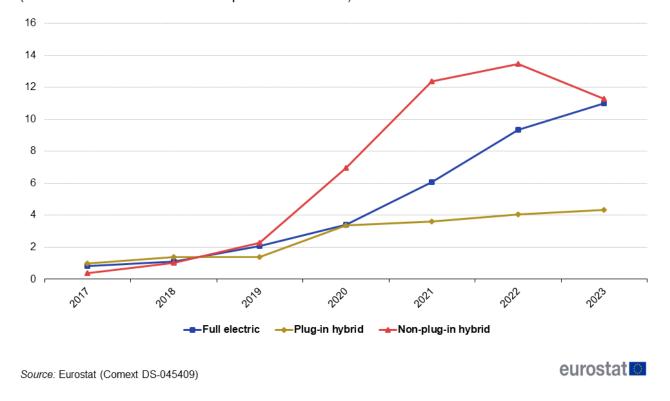


Figure 4: Extra-EU exports of hybrid and electric cars, 2017-2023 (% share in total number of cars exported from the EU) Source: Eurostat Comext DS-045409

## Main partners for electric cars

China (49%) was largest origin of extra-EU imports of electric cars. South Korea (19%) and the United Kingdom (11%) also had double digit shares (Figure 5). The United Kingdom and the United States (both 24%) were the main destinations of extra-EU exports of electric cars, followed by Norway (11%).

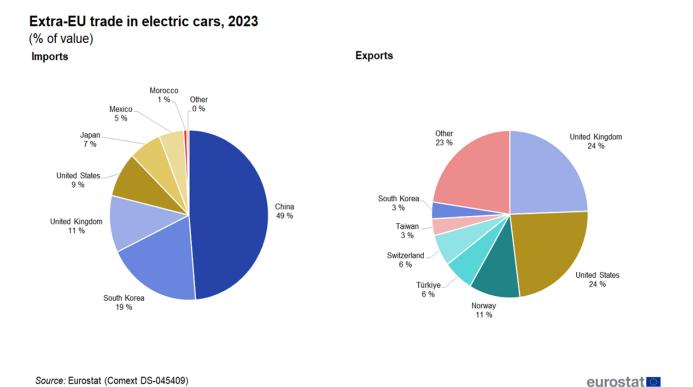


Figure 5: Extra-EU imports and exports of electric cars, 2023 (% of value) Source: Eurostat Comext DS-045409

## Main partners for plug-in hybrid cars

The top 4 partners for extra-EU imports of plug-in hybrid cars all had double digit shares (Figure 6). The United States (29%) had the largest share, followed by the United Kingdom (22%), Japan (18%) and China (11%). The largest extra-EU export destination for plug-in hybrid cars was the United Kingdom (34%), followed by the United States (22%).

# Extra-EU trade of plug-in hybrid cars, 2023 (% of value)

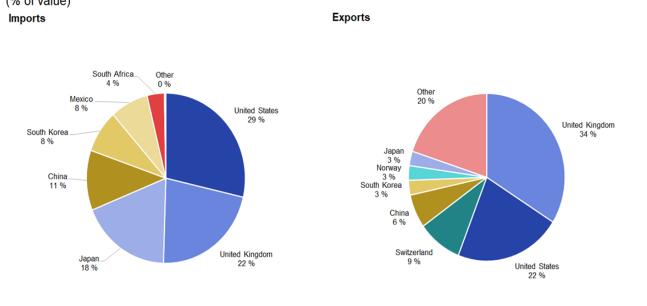


Figure 6: Extra-EU imports and exports of plug-in hybrid cars, 2023 (% of value) Source: Eurostat Comext DS-045409

## Main partners for non-plug-in hybrid cars

Source: Eurostat (Comext DS-045409)

The United Kingdom (29%) and Japan (28%) were the largest origins of extra-EU imports of non-plug-in hybrid cars, followed by Türkiye (21%) and South Korea (10%) as shown in Figure 7. The largest extra-EU export destination for non-plug-in hybrid cars was the United States (22%) followed by the United Kingdom (21%) and China (19%).

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### Extra-EU trade in non-plugin hybrid cars, 2023

(% of value)
Imports

**Exports** 

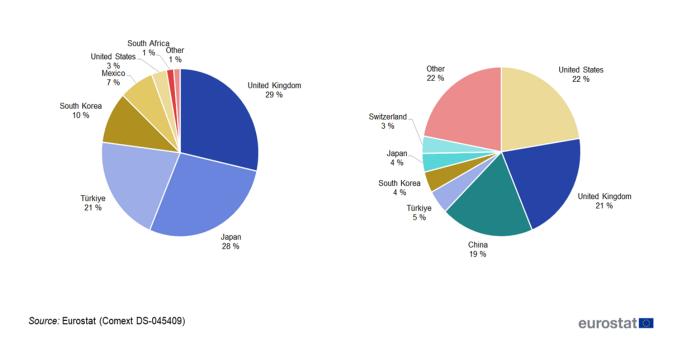


Figure 7: Extra-EU imports and exports of non-plug-in hybrid cars, 2023 (% of value) Source: Eurostat Comext DS-045409

## Production of hybrid and electric cars

In 2023, own production of hybrid and electric cars in the EU amounted to € 124 billion which was an increase of 88% compared with 2021 (see Figure 8). Electric cars (+161%) increased most in this period, followed by non-plug-in hybrids (+59%) and plug-in hybrids (+27%).

## EU own production of cars by type, 2021-2023

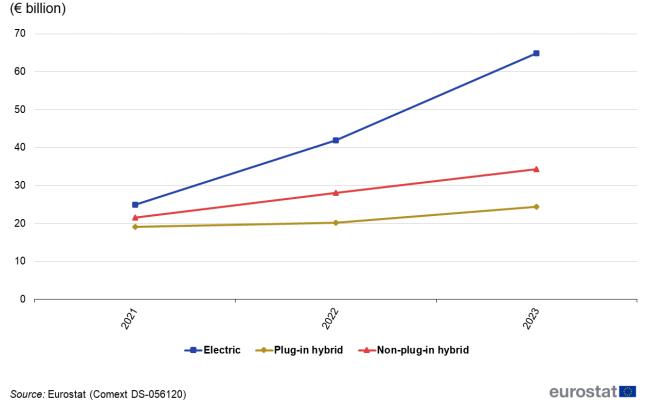


Figure 8: EU own production of cars by type, 2021-2023 (€ billion) Source:Eurostat Comext DS-056120

The share of the number of hybrid and electric cars in total own production of cars increased from 21% in 2021 to 30% in 2023. In 2023 the share of electric cars (14%) overtook the share of non-plug-in hybrids (11%) while plug-in hybrids (5%) remained the smallest group.

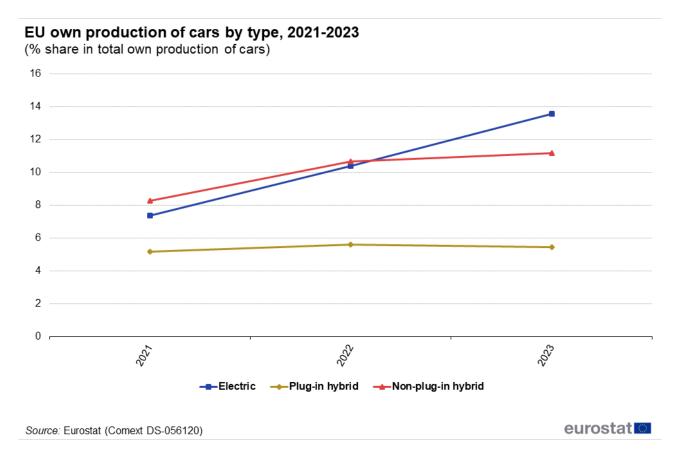


Figure 9: EU own production of cars by type, 2021-2023 (quantity share of total own production of cars) Source: Eurostat Comext DS-056120

## Source data for tables and graphs

· Download Excel file

#### **Data sources**

EU data is taken from Eurostat's COMEXT database. COMEXT is the reference database for international trade in goods. It provides access not only to both recent and historical data from the EU countries but also to statistics of a significant number of third countries. International trade aggregated and detailed statistics disseminated via the Eurostat website are compiled from COMEXT data according to a monthly process.

Data are collected by the competent national authorities of the EU countries and compiled according to a harmonised methodology established by EU regulations before transmission to Eurostat. For extra-EU trade, the statistical information is mainly provided by the traders on the basis of customs declarations.

EU data are compiled according to Community guidelines and may, therefore, differ from national data published by the EU countries. Statistics on extra-EU trade are calculated as the sum of trade of each of the 27 EU countries with countries outside the EU. In other words, the EU is considered as a single trading entity and trade flows are measured into and out of the area, but not within it.

The EU data reflect the political change in the EU composition. Therefore, the United Kingdom was considered as an extra-EU partner country for the EU. However, the United Kingdom is still part of the internal market until the end of the transitory period (end 2022), meaning that data on trade with the United Kingdom for reference periods till, then were still based on statistical concepts applicable to trade between the EU countries. As a consequence, while imports from any other extra-EU trade partner are grouped by country of origin, the United Kingdom data reflect country of consignment. In practice this means that the goods imported by the EU from the United Kingdom were physically transported from the United Kingdom but part of these goods could have been of other origin than the

United Kingdom. For this reason data on trade with the United Kingdom are not fully comparable with data on trade with other extra-EU trade partners.

EU data on production of manufactured goods is published annually around mid-July on Eurostat website in Database - Data Browser. Given the data confidentiality, in this article the data on production on own account was used (the production physically carried out on own account by producer).

#### Methodology

According to the EU concepts and definitions, extra-EU trade statistics (trade between EU countries and non-EU countries) do not record exchanges involving goods in transit, placed in a customs warehouse or given temporary admission (for trade fairs, temporary exhibitions, tests, etc.). This is known as 'special trade'. The partner is the country of final destination of the goods for exports and the country of origin for imports.

According to the requirements in the EBS General Implementing Act, the data on production on own account is reported by Member States under the variable 251001 (Sold production) which includes values and quantities of the sold production produced on own account sold/invoiced during the reference period.

#### Unit of measure

Trade values are expressed in millions or billions (109) of euros. They correspond to the statistical value, i.e. to the amount which would be invoiced in the event of sale or purchase at the national border of the reporting country. It is called a FOB value (free on board) for exports and a CIF value (cost, insurance, freight) for imports.

**Product codes** Only passenger cars are considered in this article.

Concerning international trade, the product codes used for the 3 products shown in this article are:

• Full electric: 87038010, 87038090

• Plug-in hybrid: 87036010, 87036090, 87037000

Non-plug-in hybrid: 87034010, 87034090, 87035000

Concerning production, the product codes used for the 3 products shown in this article are:

• Full electric: 29102450

• Plug-in hybrid: 29102430

· Non-plug-in hybrid: 29102410

#### Context

Trade is an important indicator of Europe's prosperity and place in the world. The bloc is deeply integrated into global markets both for the products it sources and the exports it sells. The EU trade policy is an important element of the external dimension of the 'Europe 2022 strategy for smart, sustainable and inclusive growth' and is one of the main pillars of the EU's relations with the rest of the world.

Because the 27 EU countries share a single market and a single external border, they also have a single trade policy. EU countries speak and negotiate collectively, both in the World Trade Organisation, where the rules of international trade are agreed and enforced, and with individual trading partners. This common policy enables them to speak with one voice in trade negotiations, maximising their impact in such negotiations. This is even more important in a globalised world in which economies tend to cluster together in regional groups.

The openness of the EU's trade regime has meant that the EU is the biggest player on the global trading scene and remains a good region to do business with. Thanks to the ease of modern transport and communications, it is now easier to produce, buy and sell goods around the world which gives European companies of every size the potential to trade outside Europe.

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