Demand Report

Automotive industry demand forecast: Q4 2025

March 2026

ADVANCED PROPULSION CENTRE UK

Accelerating Progress

Q4 2025 – Automotive industry demand forecast

This demand forecast covers

Markets	Global; Europe; UK
Vehicles	Light-duty vehicles Heavy-duty vehicles 
Materials	Cathode Active Material (CAM); anode material; battery foils; electrolyte and separator material; traction electric motor material

Demand forecast purpose

This forecast brings together data from multiple sources to provide an overview of electrified vehicle (xEV) production for light and heavy-duty vehicles with the aim of putting this into context for global, European and UK regions.

This report consists of two sections:

1. Demand updates
2. Electrified components demand

Our process

The data in this report has been collated by the Advanced Propulsion Centre UK (APC) based on insight gathered from UK original equipment manufacturers (OEMs) as well as forecasts from S&P Global AutoTech Insight, Rho Motion, BloombergNEF (BNEF), Wood Mackenzie, Global Data and KGP Powertrain Intelligence.

Data

Data sources have been used from January 2026 and Q4 2025 (October – December) forecasts.

Background

The APC has been producing quarterly demand reports since 2022 to track and monitor changes and predictions in the demand for automotive batteries and subsequent components.

Our team of expert analysts regularly analyse the market here in the UK, as well as in Europe and worldwide, to understand the market outlook for automotive OEMs and their supply chains, focusing on battery production, supply chain, economic climate, and geopolitical impacts.

Vehicle production forecasts are used to predict the demand for both battery and electrified components in Europe and the UK, including both battery supply chain and electric-motor demands. Additionally, a comparison is provided between demand and anticipated battery material supply in Europe.

The Advanced Propulsion Centre UK (APC) collaborates with UK government, the automotive industry, and academia to facilitate driving research and investment in zero-emission vehicle manufacturing. Established in 2013 and jointly funded by the Department for Business and Trade (DBT) and the automotive industry, the APC accelerates the technologies that support the transition to zero-emission vehicle manufacturing and towards a net-zero automotive supply chain in the UK.

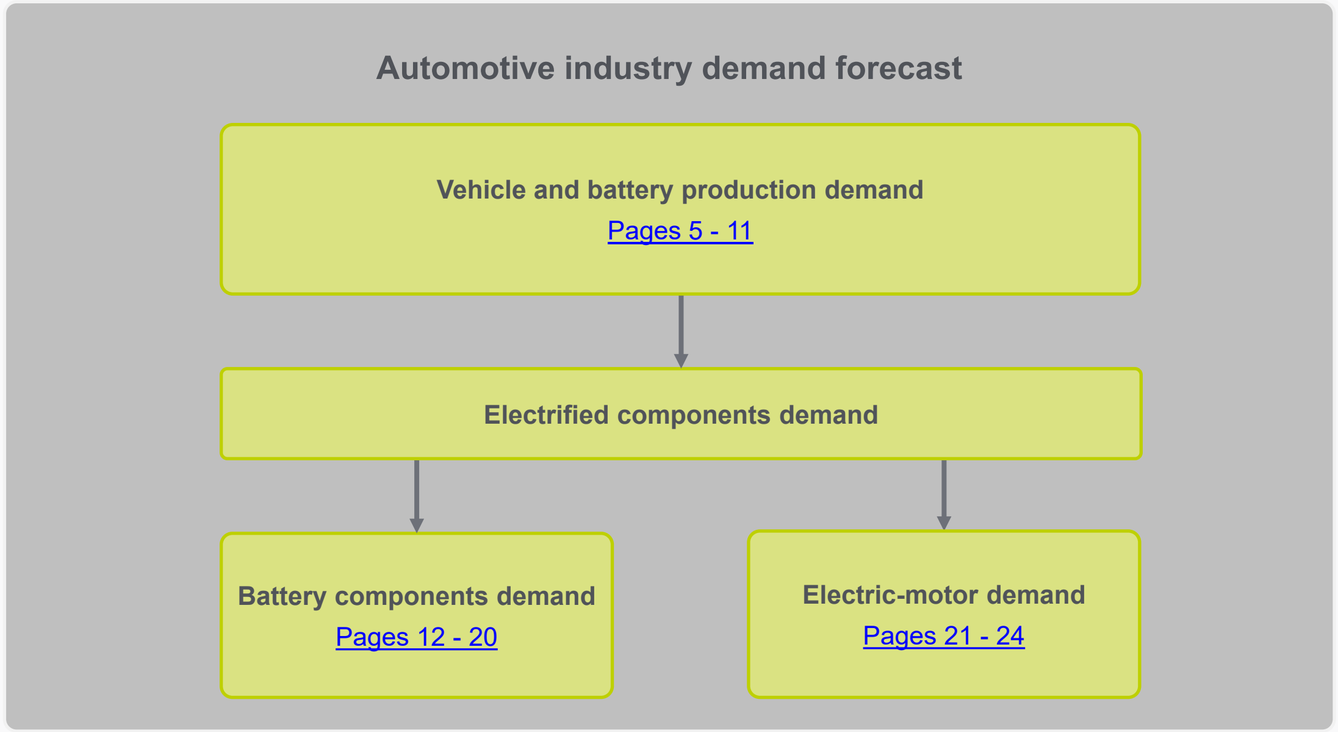
Department for Business & Trade

Contents

Vehicle production forecasts serve as the basis for projecting the demand for batteries and electrified components across Europe and the UK. This includes forecasting requirements for both the battery supply chain and electric motor production.

The diagram on the right outlines the information flow used in developing these forecasts.

Please note that this analysis excludes the potential impact of the proposed Industrial Accelerator Act (IAA) and its subsequent implications for UK-based Original Equipment Manufacturers (OEMs).



Q4 2025 – Demand update

The following section includes production and battery demand for light and heavy-duty vehicles

Key facts: vehicle production

Global demand update	European demand update	UK demand update
• Global light vehicle production grows from 97M units (2027) to 108M units (2035), reflecting moderate, sustained expansion. • Electrified vehicles (BEV, PHEV, FCEV, hybrids) rise from 51M to 75M units over the same period, lifting penetration from ~50% to ~70% of total production. • No major structural revisions to total volume forecasts; however, the powertrain mix continues to shift, with hybrids providing near-term resilience and BEVs dominating the longer-term trajectory. • Hybrids retain strategic relevance into the early 2030s, particularly in cost-sensitive and infrastructure-constrained markets, before BEVs consolidate dominance in the second half of the decade. • Key BEV adoption risks: affordability pressures, uneven charging infrastructure, and regional policy variability.	• European light vehicle production remains stable at ~18M units annually through 2035. Volume is not the story, powertrain mix is. • Modest near-term electrification uplift (2025), but long-term BEV volumes revised down; PHEV confidence slightly strengthened. • EU 2035 CO_2 targets softened. Proposed 90% emissions reduction (vs. prior 100%), with remaining 10% offset via e-fuels, biofuels, or low-carbon steel. • Transition strategy shifts from "EV-only" to flexible, with up to 20% of 2035 sales potentially still combustion or hybrid (BNEF). • Chinese vehicle imports into Europe up ~20% YoY (2024–25), pressuring regional production; premium OEMs also facing reduced export volumes into China.	• UK vehicle production and battery demand broadly aligned with Q3 2025 forecasts, with a slight downward revision across near- and mid-term volumes. • Near- and mid-term production outlooks are revised down (2027/2030), however the long-term forecast remains at the UK producing 1 million vehicles in 2035. • Significant uncertainty remains around UK BEV production, with several OEMs yet to confirm future platform allocations. • Hitting the UK's 1.3M vehicle target by 2035 requires ~300K units above current forecasts and would effectively double 2025 output, underscoring the scale of the recovery challenge.

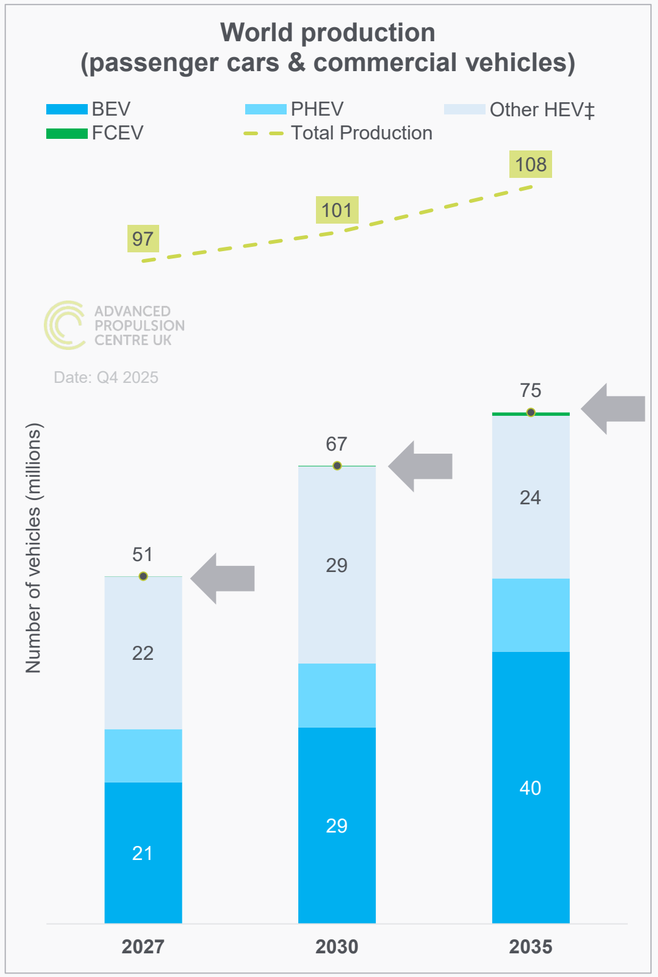
Global production and battery demand

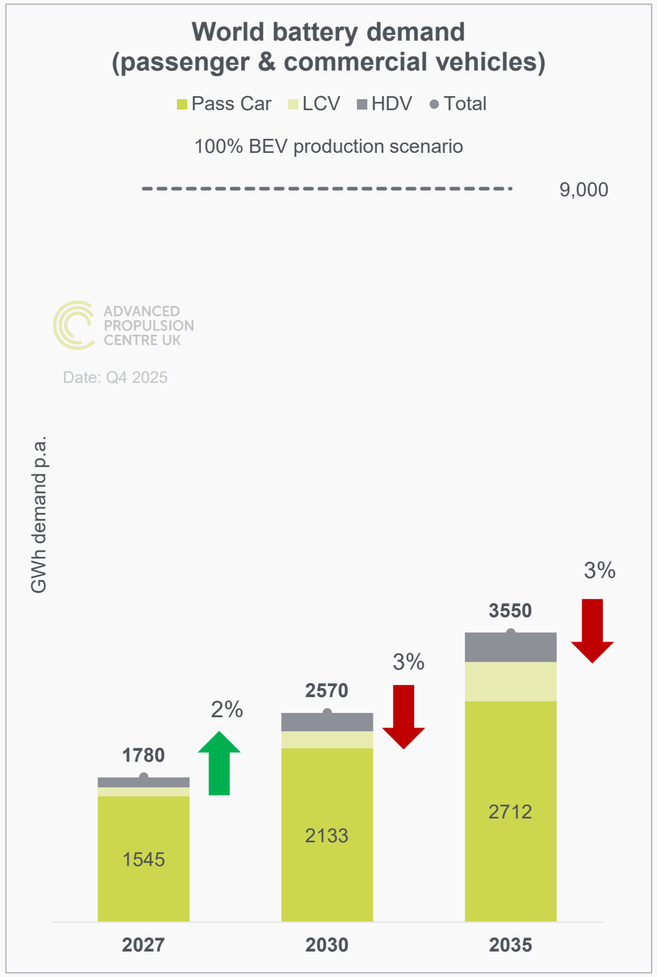
Passenger cars and commercial vehicles

Notable changes compared with previous quarter

- Quarter on quarter, the outlook shows a modest upgrade to total production across the forecast period, with stronger BEV expectations partially offset by softer PHEV and hybrid volumes in the medium to long term, while overall electrified output remains broadly stable with a slight rebalancing within the powertrain mix.
- Battery demand has been revised slightly upward in the near term but softened in the medium to long term, with weaker expectations in heavy-duty and passenger car segments outweighing modest adjustments elsewhere, resulting in a marginally lower long-term total outlook.

ADVANCED PROPULSION CENTRE UK





Arrows indicate change compared with Q3 2025 Demand Report

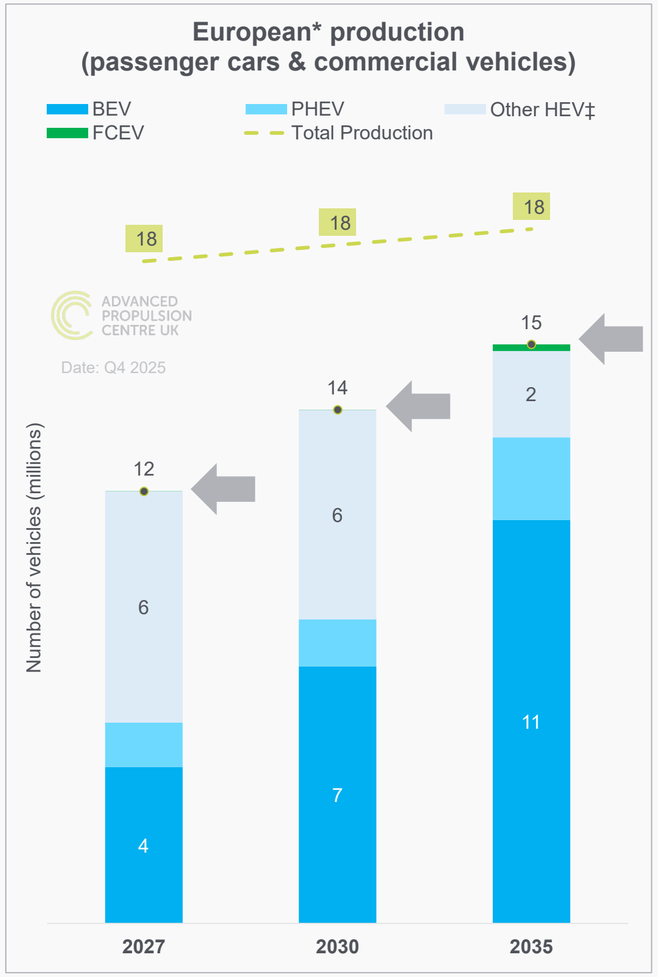
Source: APC Demand Databases using S&P Global AutoTechInsight (January 2026), BNEF forecasts (2026), Wood Mackenzie forecasts (Q4 2025), Global Data and KGP Powertrain Intelligence (Q4 2025) and Benchmark / Rho Motion forecasts (Q4 2025)
Total production includes ICE vehicles.
‡ Other HEV includes MHEV and H_2 ICE

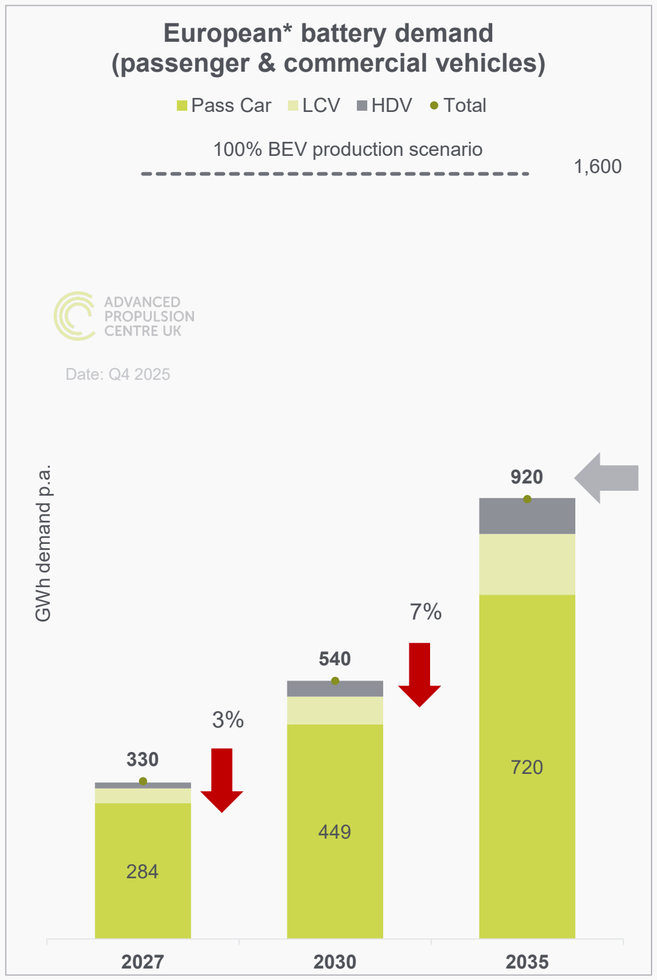
European production and battery demand

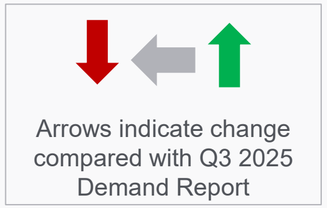
Passenger cars and commercial vehicles

Notable changes compared with previous quarter

- While overall numbers do not change compared to previous quarter, Q4 revisions paint a picture of a slightly slower near-term EV ramp but a more ambitious long-term electrification trajectory, with traditional hybrids playing a larger transitional role than previously assumed.
- Overall battery demand estimates do not change in the long term, but short term out to 2030 sees a slight reduction as hybrids with smaller average pack sizes make a larger powertrain mix.







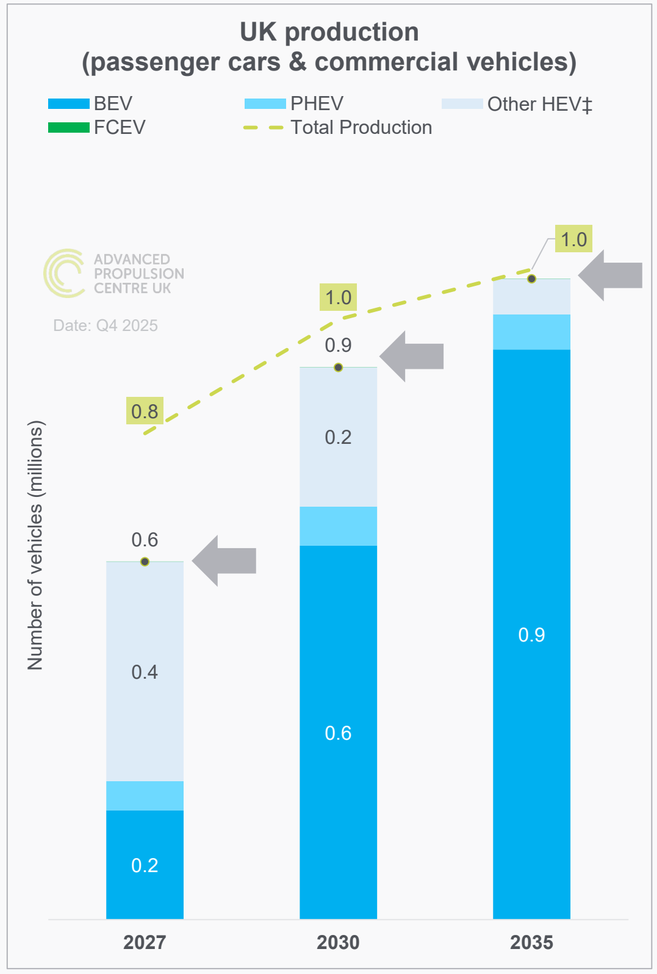
Source: APC Demand Databases using S&P Global AutoTechInsight (January 2026), BNEF forecasts (2025), Wood Mackenzie forecasts (Q4 2025), Global Data and KGP Powertrain Intelligence (Q4 2025) and Benchmark / Rho Motion forecasts (Q4 2025)
*European forecast includes non-EU countries such as Turkey
Total production includes ICE vehicles. ‡ Other HEV includes MHEV and H_2 ICE

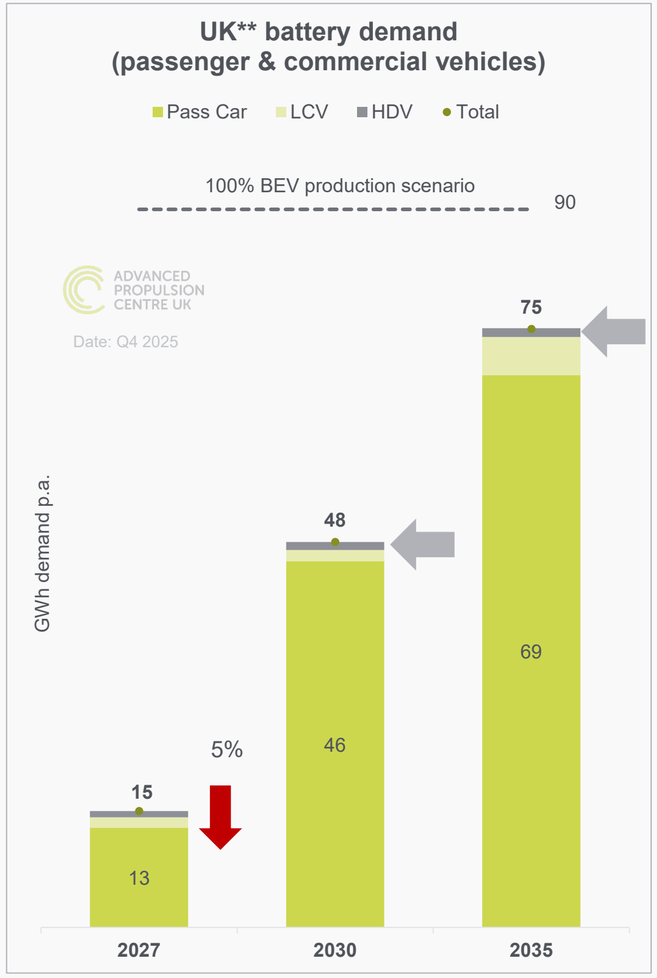
UK production and battery demand

Passenger cars and commercial vehicles

Notable changes compared with previous quarter

- Vehicle production remains broadly unchanged compared to the Q3 2025 demand report.
- Long term battery demand remains unchanged. 2027 demand drops slightly due to lower battery capacity PHEVs/HEVs coming into production.





Arrows indicate change compared with Q3 2025 Demand Report

Source: APC Demand Databases using S&P Global AutoTechInsight (January 2026), BNEF forecasts (2025), Wood Mackenzie forecasts (Q4 2025), Global Data and KGP Powertrain Intelligence (Q4 2025) and Benchmark / Rho Motion forecasts (Q4 2025)
Total production includes ICE vehicles. ‡ Other HEV includes MHEV and H_2 ICE
** Excludes forecast UK battery exports (this represents UK vehicle manufacturing demand only)

What does it mean for the UK if 1.3 million are produced annually by 2035?

- To achieve the UK target of recovering output to 1.3 million vehicles by 2035, this would require nearly doubling the production levels forecast for 2025, a pivotal year for the industry's recovery.
- 1.3 million vehicles remains below pre-Brexit and pandemic production levels, with current forecasts indicating that production from the current OEM base may only reach circa 1 million vehicles by 2035.
- If the UK does achieve the 1.3 million mark, the UK automotive industry could look like the following:

Vehicle production

UK assembly facilities may operate close to maximum capacity

Existing assembly facilities could require new investment

The entry of a one or more new manufacturers could play a key role in helping the UK meet its 1.3 million vehicle production target

~20%

Key supply chain components could see an ~20% increase compared to current 2035 APC forecasted demand

Battery components

95 GWh battery demand

140 kt CAM

90 kt AAM

60 kt Lithium (LCE)

Electric motors

1.8 million e-motors

330 GW e-motor

Over 3 kt magnets

This assessment is based solely on domestic UK vehicle production demand and excludes any consideration of export potential, which could present a significantly greater opportunity

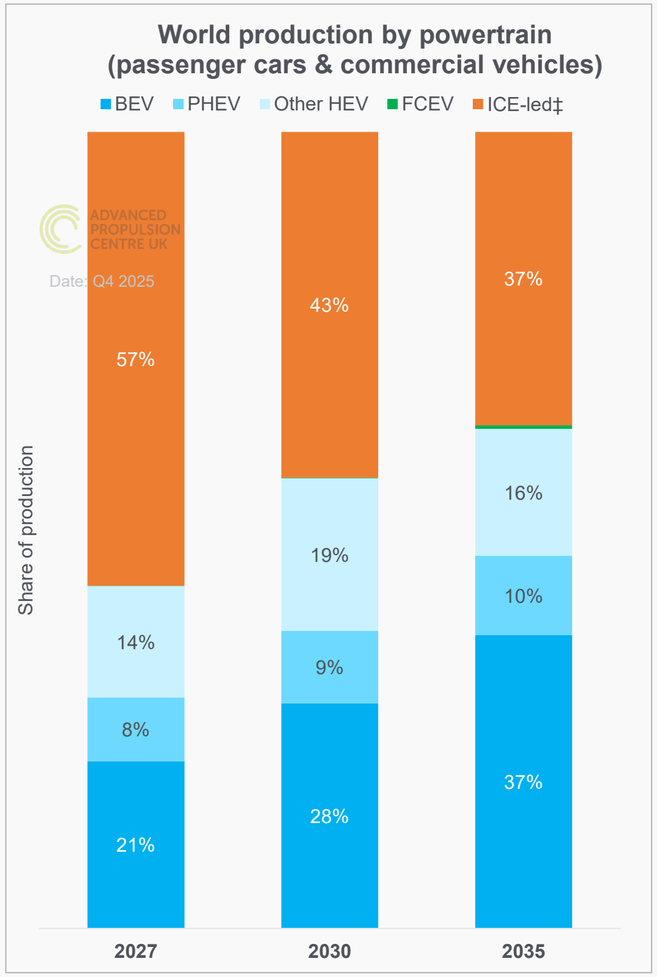
Forecasts by powertrain

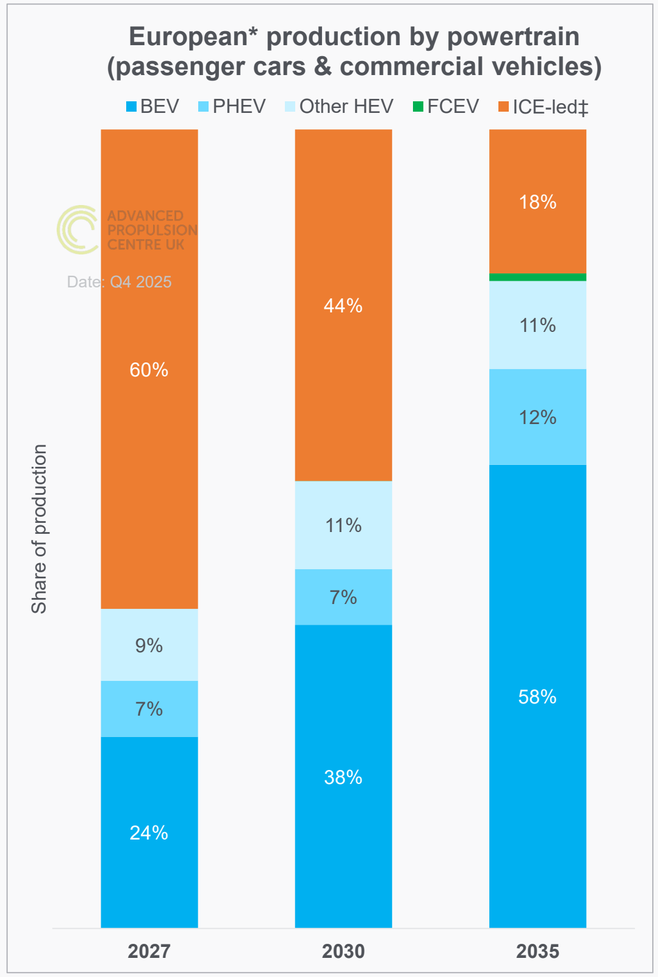
Passenger cars and commercial vehicles

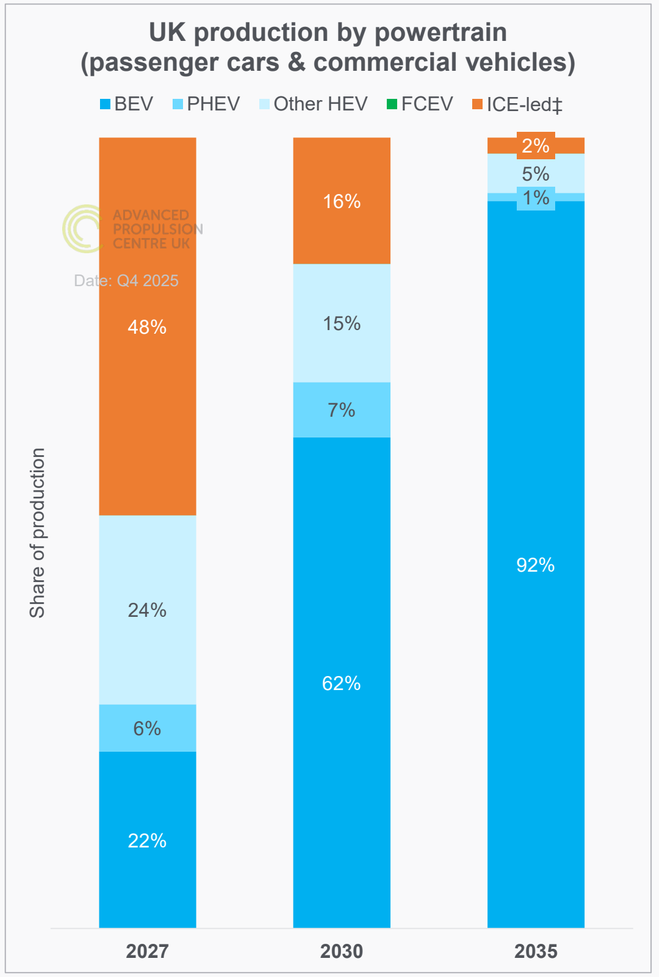
Notable changes compared with previous quarter

- In the short term (2030), the share of BEVs is projected to decline slightly in Europe but increase in the UK. In Europe, there is a strong resurgence of hybrids while new pure BEV models are projected to come to market in the UK.
- The powertrain mix will continue its historic shift, with hybrids proving to be a popular intermediate step for consumers, even as the share of battery-electric vehicles continues to climb.

ADVANCED PROPULSION CENTRE UK







Source: APC Demand Databases using S&P Global AutoTechInsight (January 2026), BNEF forecasts (2025), Wood Mackenzie forecasts (Q4 2025), Global Data and KGP Powertrain Intelligence (Q4 2025) and Benchmark / Rho Motion forecasts (Q4 2025)
*European forecast includes non-EU countries such as Turkey
‡Includes MHEVs, ICE and Hydrogen-ICE

Q4 2025 – Electrified components demand
Battery components

The following section provides insights into battery material supply chain activity, cathode chemistry split, battery material demand and supply for LDVs (passenger cars and light commercial vehicles)

Key facts: battery components

 European demand update	 UK demand update
• Europe shifts from near-balance to a structural cell deficit by 2035; gigafactory pipelines improve the 2030 outlook, but long-term ramp risk remains material. • LFP gains mid-term share but nickel-based cathodes reassert by 2035, driven by energy density requirements; nickel-rich chemistries remain the European default given OEM performance demands. • Upstream materials are the core bottleneck: cathode active material is undersupplied across all timeframes; anode active material faces the deepest deficit, particularly post-2030. • Recycling capacity is misaligned: mechanical processing generates black mass, but hydrometallurgical refining capacity is insufficient to convert it into battery-grade materials. • Proposed EU rules would require 70% of EV components receiving state support to be EU-manufactured, with batteries subject to EU-origin content requirements despite upstream reliance on Chinese materials.	• UK battery strategy pivoting from cell ambition toward materials, next-generation chemistries, and recycling infrastructure. • Gigafactory investment strengthening, led by AESC's Sunderland expansion, anchoring domestic cell supply for UK automotive. • Critical mineral production remains limited; nickel (South Wales) and lithium (Cornwall and North East projects) are the only meaningful exceptions. The UK will remain heavily reliant on imports. • Updated Critical Minerals Strategy targets 10% domestic sourcing, 20% via recycling, and no more than 60% from any single country; lithium ambition set at 50,000 tonnes LCE domestically by 2035, which advancing planned projects could meet or exceed. • Recycling capacity expanding at mechanical pre-treatment stage, but hydrometallurgical refining remains limited, creating a potential mid-term bottleneck in battery-grade material recovery. • Increased activity in advanced anode and alternative chemistries, including silicon-dominant and niobium-based technologies, targeting high-power and fast-charging applications.

European battery material supply chain activity

Notable compared with previous quarter

- Near-term (2027) cell balance deteriorates with an emerging undersupply. Long-term (2035) structural gap widening. Overall, cells deficit deepens due to delayed or cancelled gigafactory ramp-ups.
- Chronic cathode bottleneck remains; some mid-term easing but no structural fix. Long-term deficits in anode and cathode remain the key structural risk to European self-sufficiency.

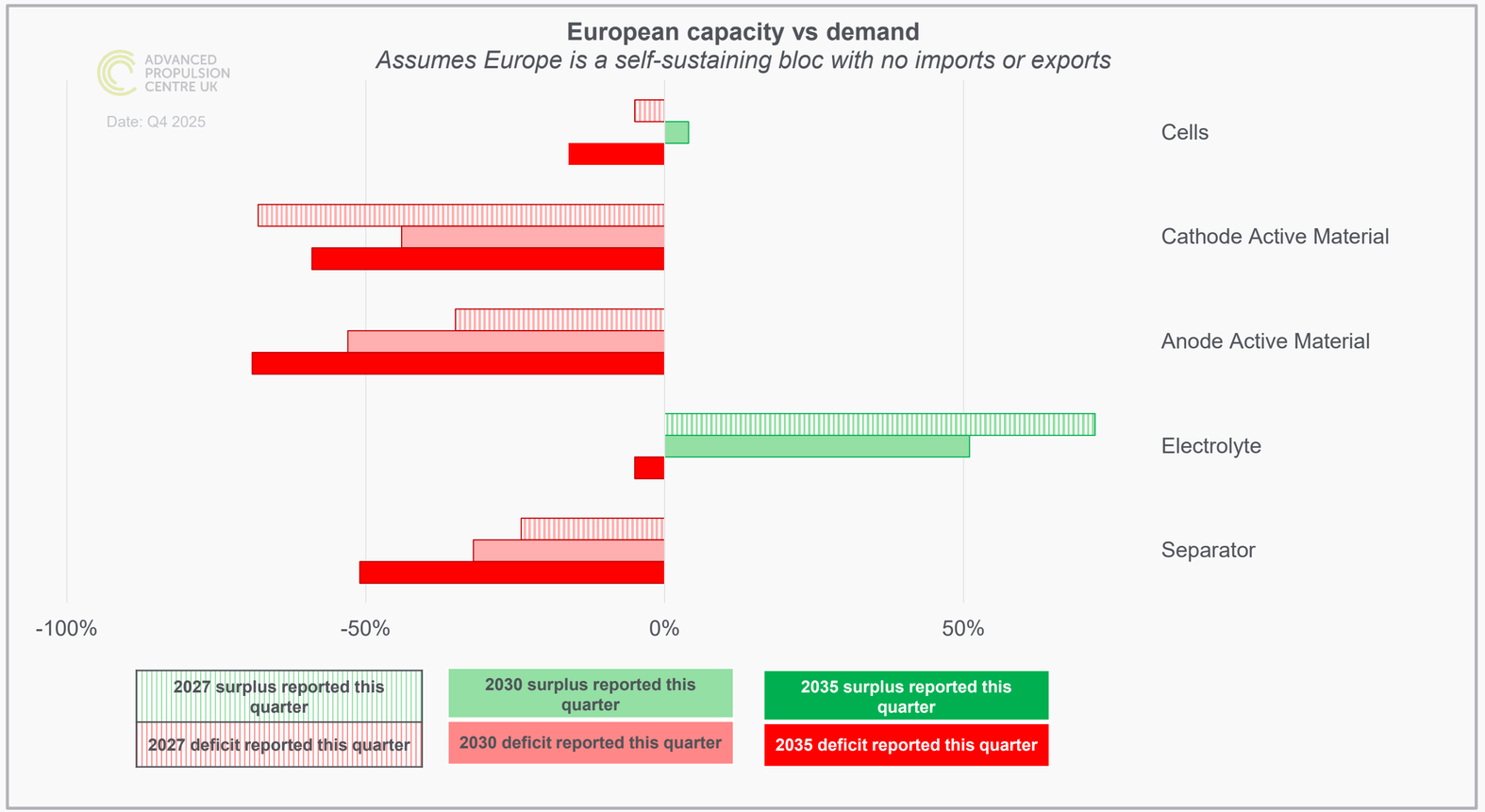


Figure 1: European capacity vs demand assuming Europe is a self-sustaining bloc with no imports or exports

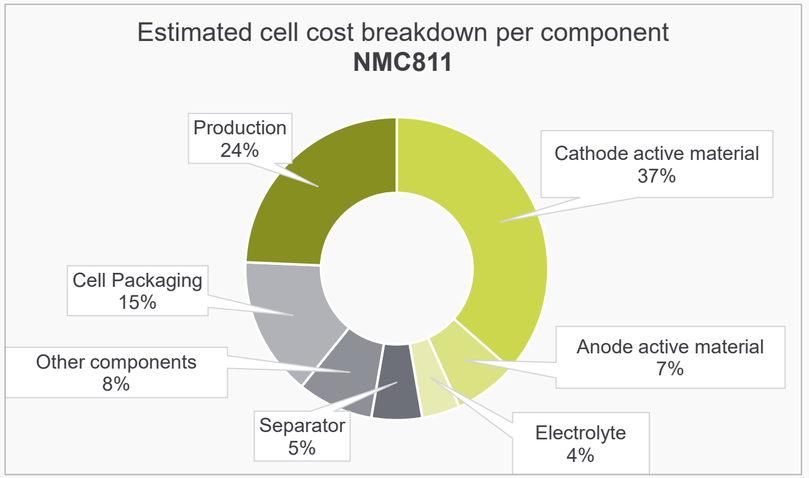


Figure 2: Estimated NMC811 cell cost breakdown per component

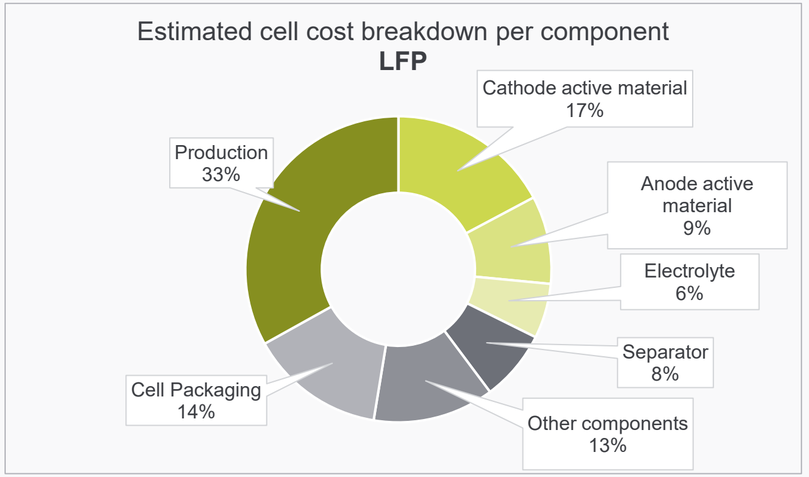


Figure 3: Estimated LFP cell cost breakdown per component

Source: APC Demand Databases using S&P Global AutoTechInsight (January 2026), BNEF forecasts (2025), Wood Mackenzie forecasts (Q4 2025), Global Data and KGP Powertrain Intelligence (Q4 2025) and Benchmark / Rho Motion forecasts (Q4 2025)
‡Europe region includes non-EU countries such as Turkey
*Risk-weighted capacity based on APC internal assessment of announced and under construction projects

Battery recycling capacity vs feedstock

Notable compared with previous quarter

- Pre-treatment remains heavily overbuilt in the near term, especially globally.
- Refining is the structural bottleneck in Europe and ex-China markets, particularly beyond 2030.
- China continues to balance the global system, masking tightening outside China.
- The structural imbalance is feedstock-constrained short term, refining-constrained long term.

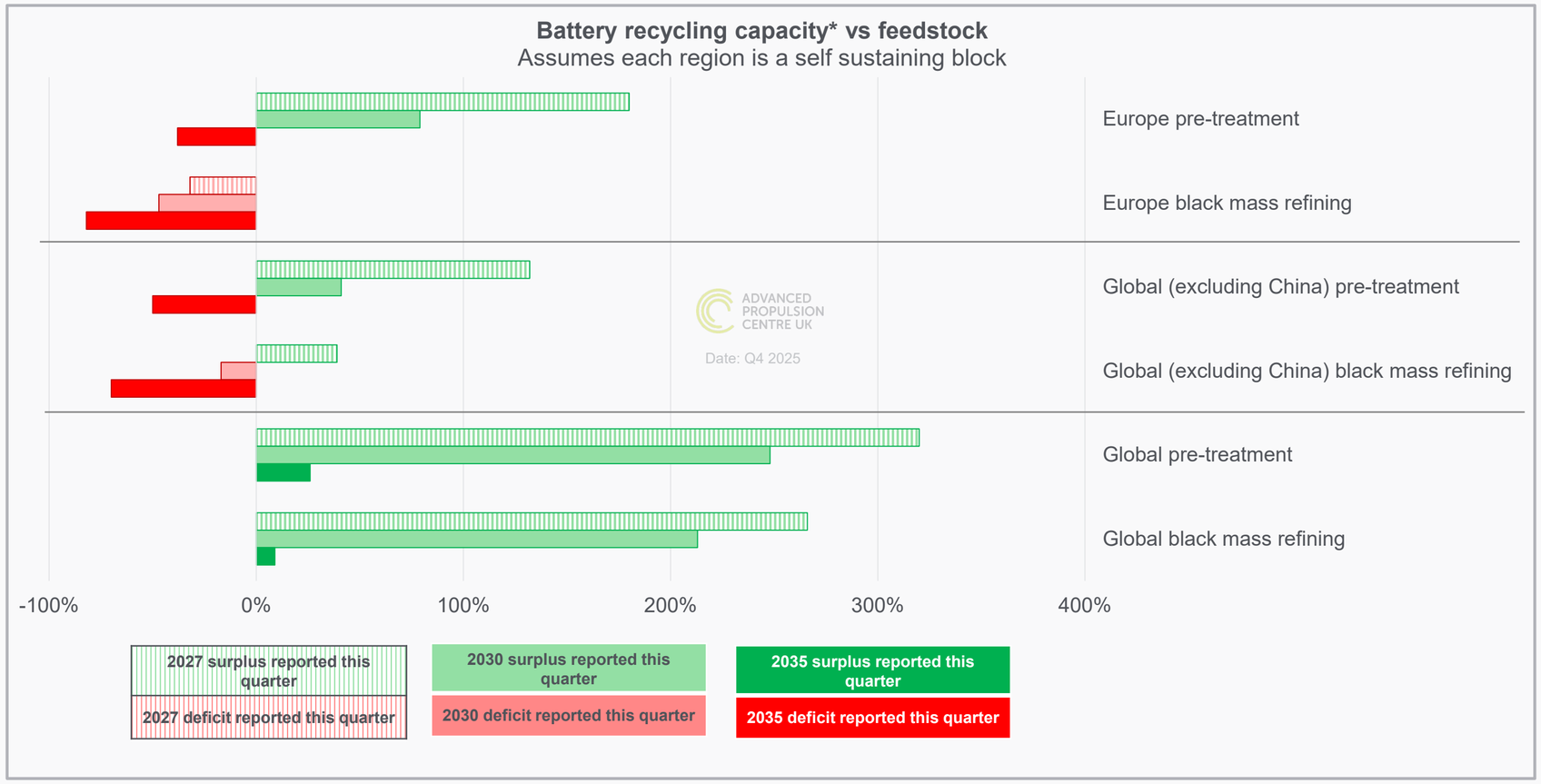


Figure 1: Recycling demand across 3 regions (1. Europe, 2. Global excluding China and 3. Global) assuming each region is a self-sustaining bloc with no imports or exports

Source: Benchmark / Rho Motion battery recycling forecast (Q4 2025)
*Risk-weighted capacity based on projects in commissioning, under construction, or in the planning phase

The chart shows two key stages of the recycling process:

1. **Pre-treatment**
   Converts battery production scrap and EOL batteries into intermediate products such as black mass.

2. **Black Mass Refining**
   Processes black mass into battery-grade materials that can be reused in new battery production.

The chart illustrates the relationship between feedstock availability and recycling capacity across 3 different regions:

1. Europe
2. Global (excluding China)
3. Global

Positive values indicate that the region has more processing capacity than available feedstock (e.g., all end-of-life electric vehicles can be handled locally without exporting material).

Negative values indicate that the region has insufficient processing capacity, meaning some feedstock must be exported to other regions for processing.

Sources of recycling inputs include:

- End-of-life (EOL) electric vehicles
- Gigafactory production scrap
- Stationary energy storage systems

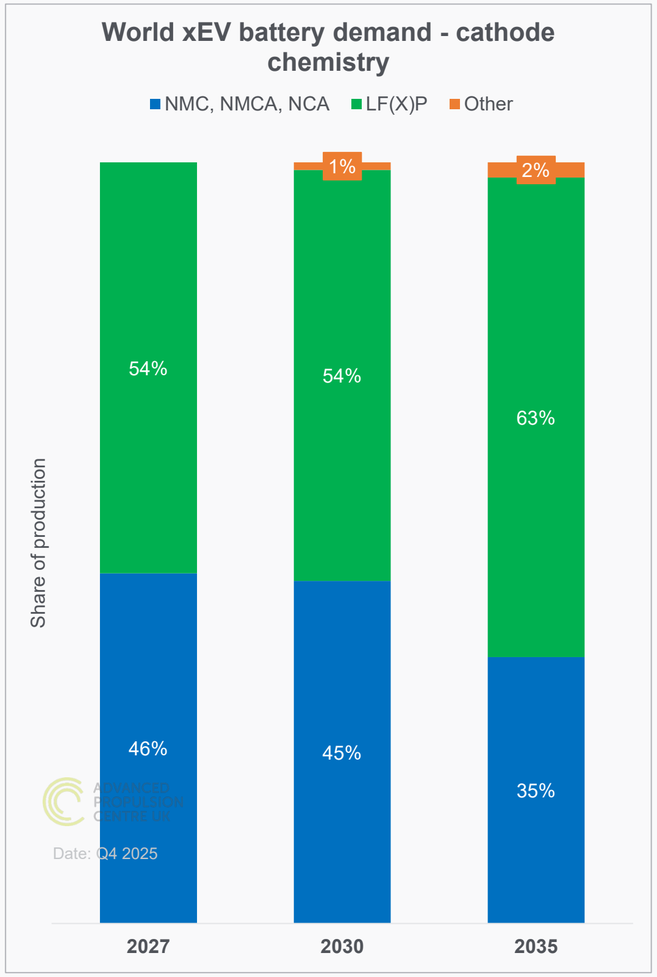
Forecasts for automotive battery demand by cathode chemistry

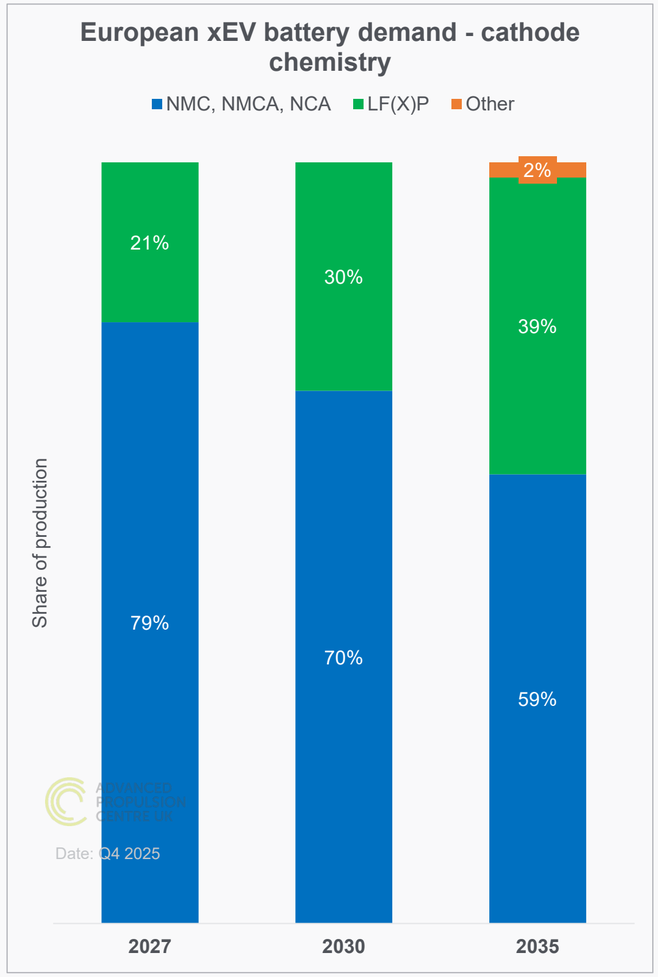
Passenger cars and light commercial vehicles (< 6 tonnes)

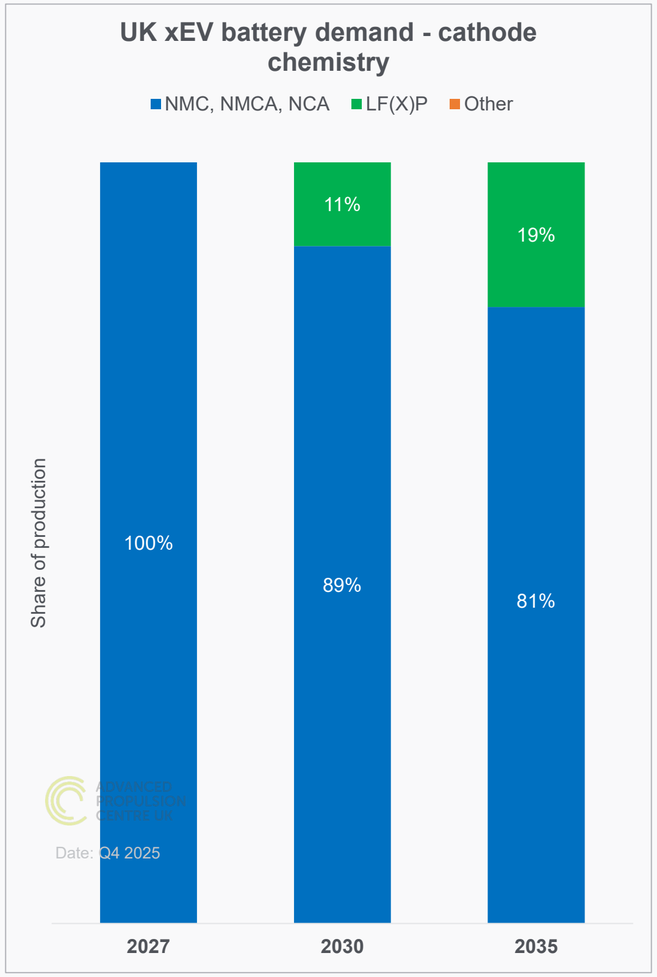
Notable changes compared with previous quarter

- LF(X)P share increased slightly compared to Q3 2025 demand report both globally and in Europe.
- LF(X)P takes 11% share by 2030 in the UK on cost grounds, but nickel-based cathodes reassert by 2035 as energy density and premium production mix requirements dominate.

ADVANCED PROPULSION CENTRE UK







Source: APC Demand Databases using S&P Global AutoTechInsight (January 2026), BNEF forecasts (2025), Wood Mackenzie forecasts (Q4 2025) and Benchmark / Rho Motion forecasts (Q4 2025)
Note: Passenger cars & light commercial vehicles < 3.5t only, *European forecast includes non-EU countries such as Turkey, ‡Includes non-plug-in HEVs & ICE
NMC includes NMC chemistries with less than 80% Nickel content as well as NMCA

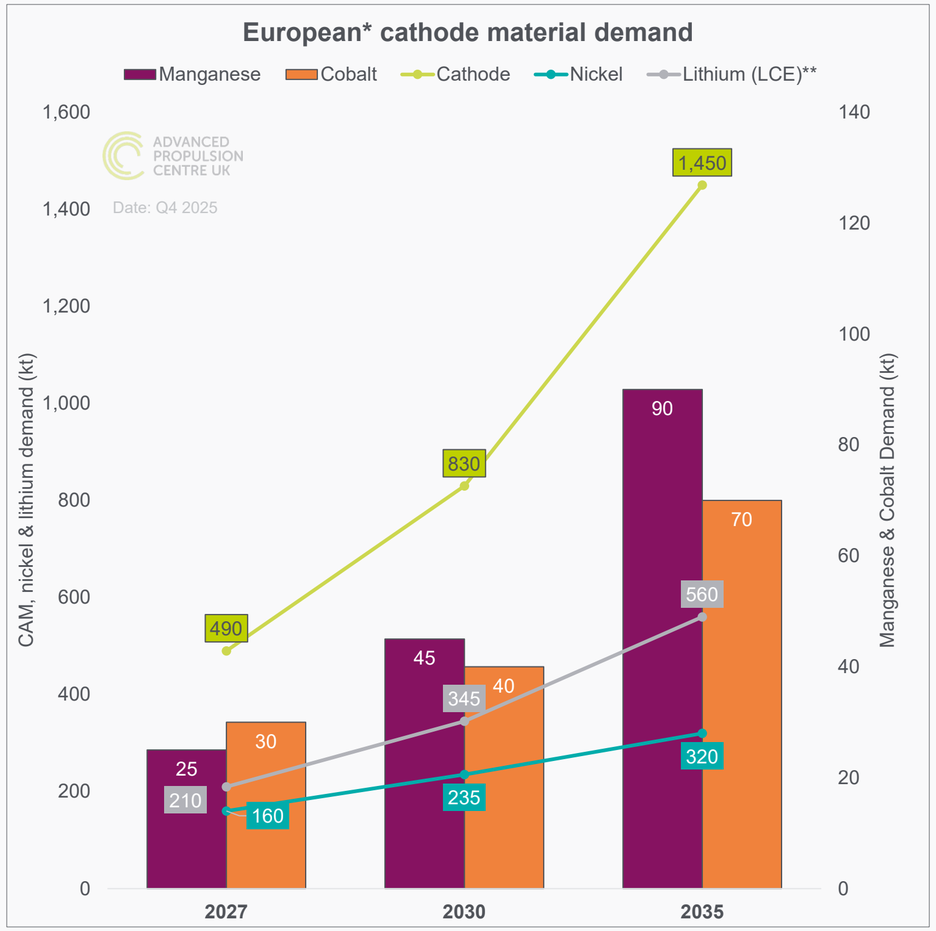
European cathode and anode active material demand

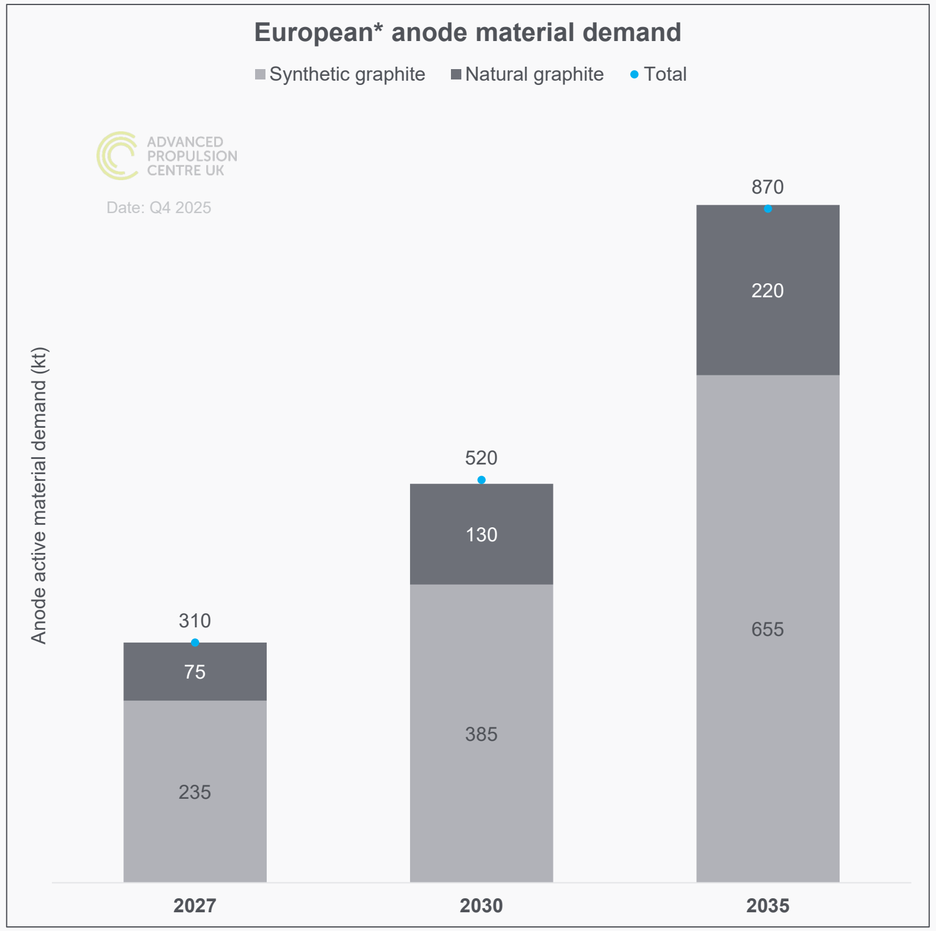
Passenger cars and light commercial vehicles (< 6 tonnes)

Notable changes compared with previous quarter

- Slight decrease in battery materials in the medium-term (2030), compared with Q3 2025 demand report, aligning with slight decrease in European battery demand.
- Synthetic graphite share revised up, reflecting OEM preference for high-performance, fast-charge anodes suited to nickel-rich chemistries, and tighter natural graphite access following China's export controls.

ADVANCED PROPULSION CENTRE UK





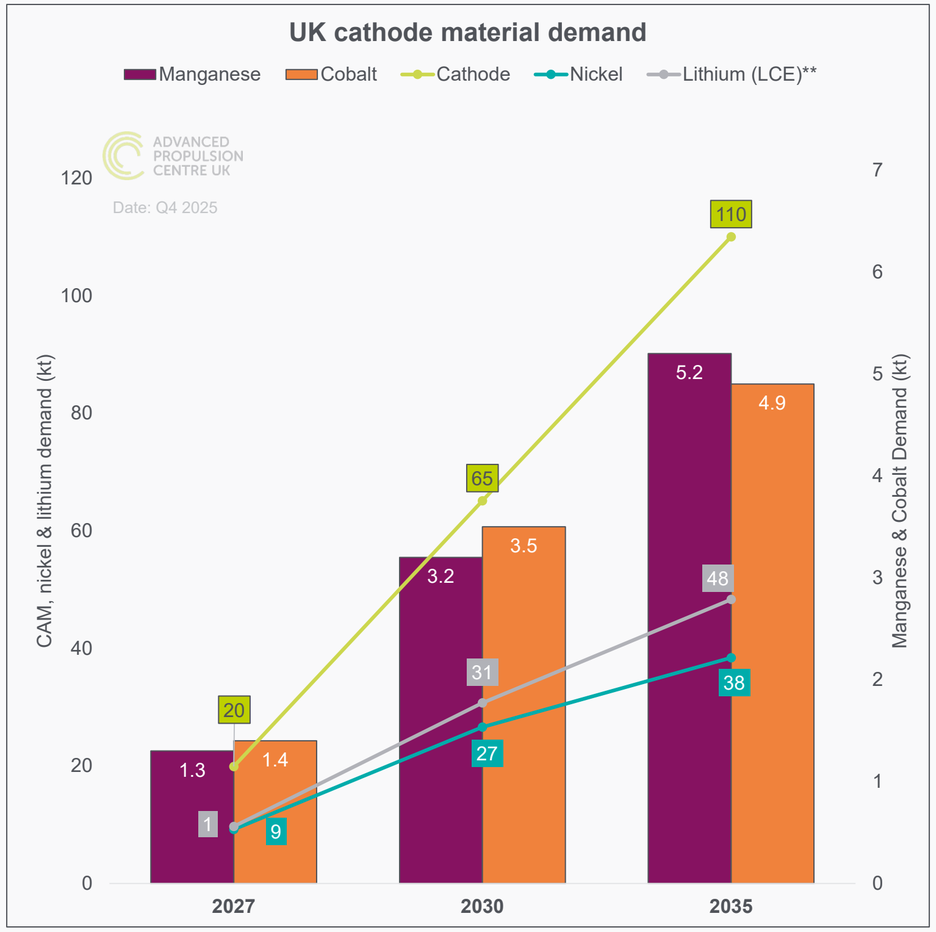
Source: APC Demand Databases using S&P Global AutoTechInsight (January 2026), BNEF forecasts (2025), Wood Mackenzie forecasts (Q4 2025) and Benchmark / Rho Motion forecasts (Q4 2025)
Note: Passenger cars & light commercial vehicles < 3.5t only, *European forecast includes non-EU countries such as Turkey, **Contained Li metal would be 5.3x lower
Anode material demand model assumption: Synthetic to natural graphite demand ratio 3:1

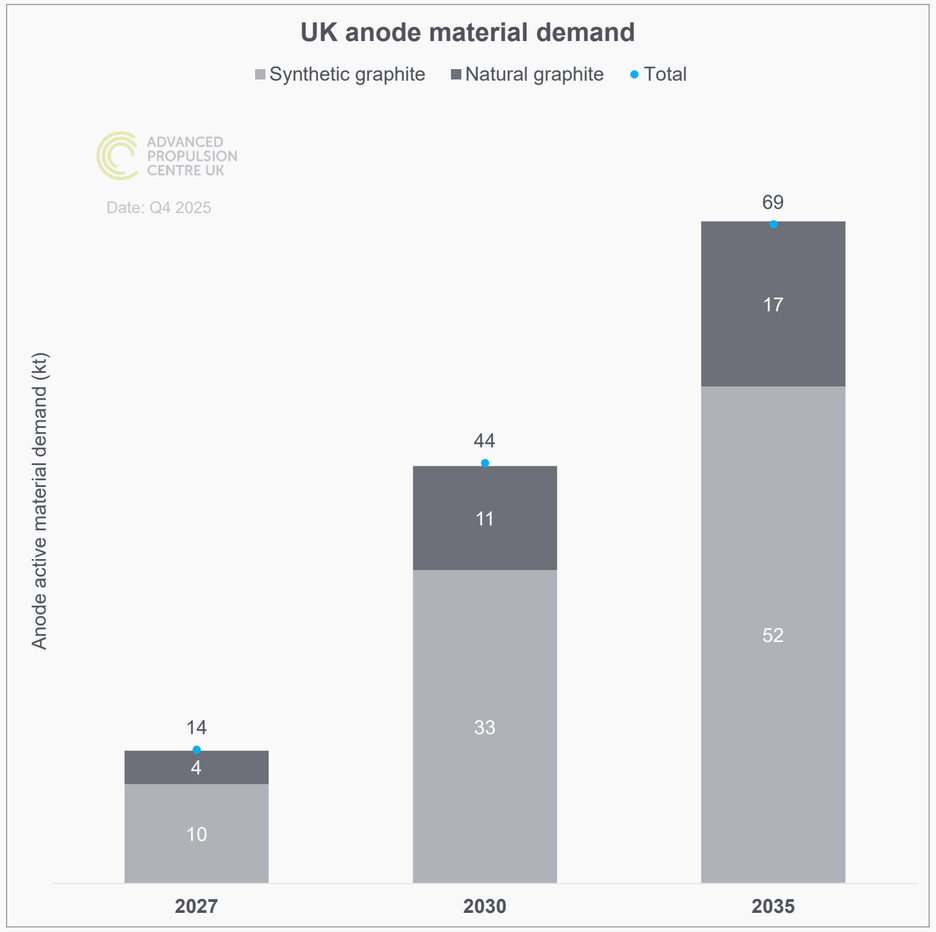
UK cathode and anode active material demand

Passenger cars and light commercial vehicles (< 6 tonnes)

Notable changes compared with previous quarter

- Cathode and anode material demand remains broadly unchanged in line with long term UK battery demand.





Source: APC Demand Databases using S&P Global AutoTechInsight (January 2026), BNEF forecasts (2025), Wood Mackenzie forecasts (Q4 2025) and Benchmark / Rho Motion forecasts (Q4 2025)
Note: Passenger cars & light commercial vehicles < 3.5t only, **Contained Li metal would be 5.3x lower
Anode material demand model assumption: Synthetic to natural graphite demand ratio 3:1

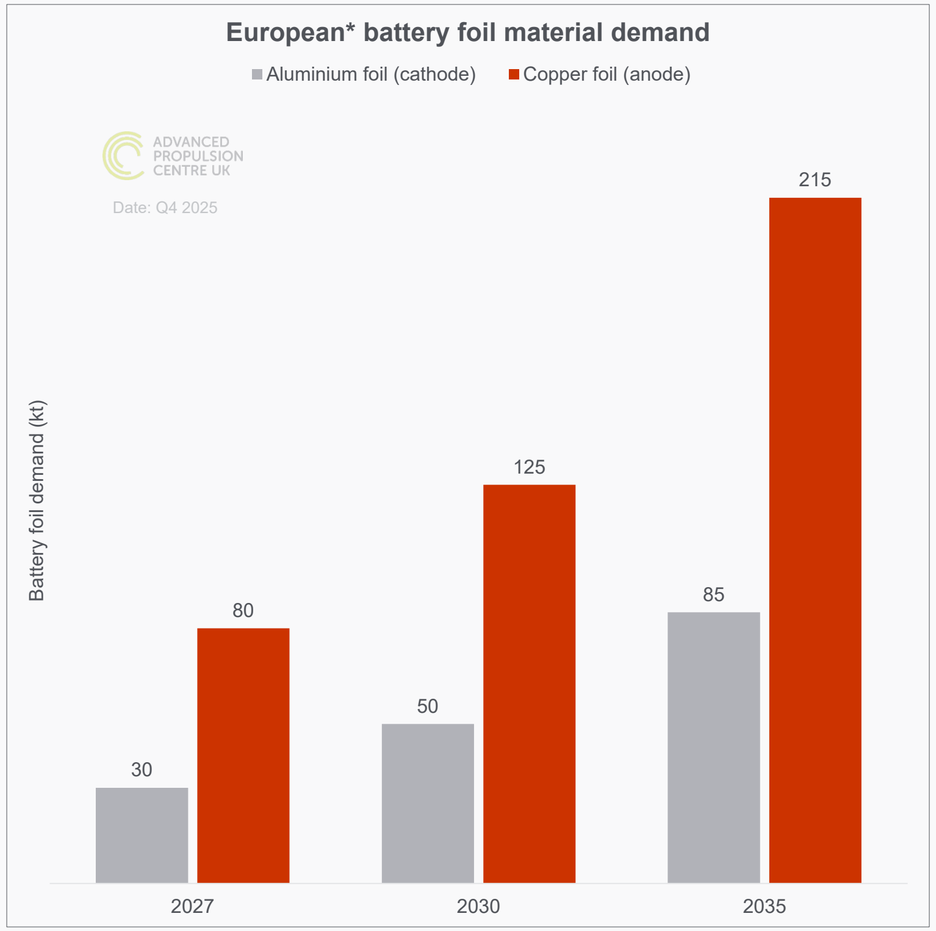
European demand for battery foils, electrolyte and separator material

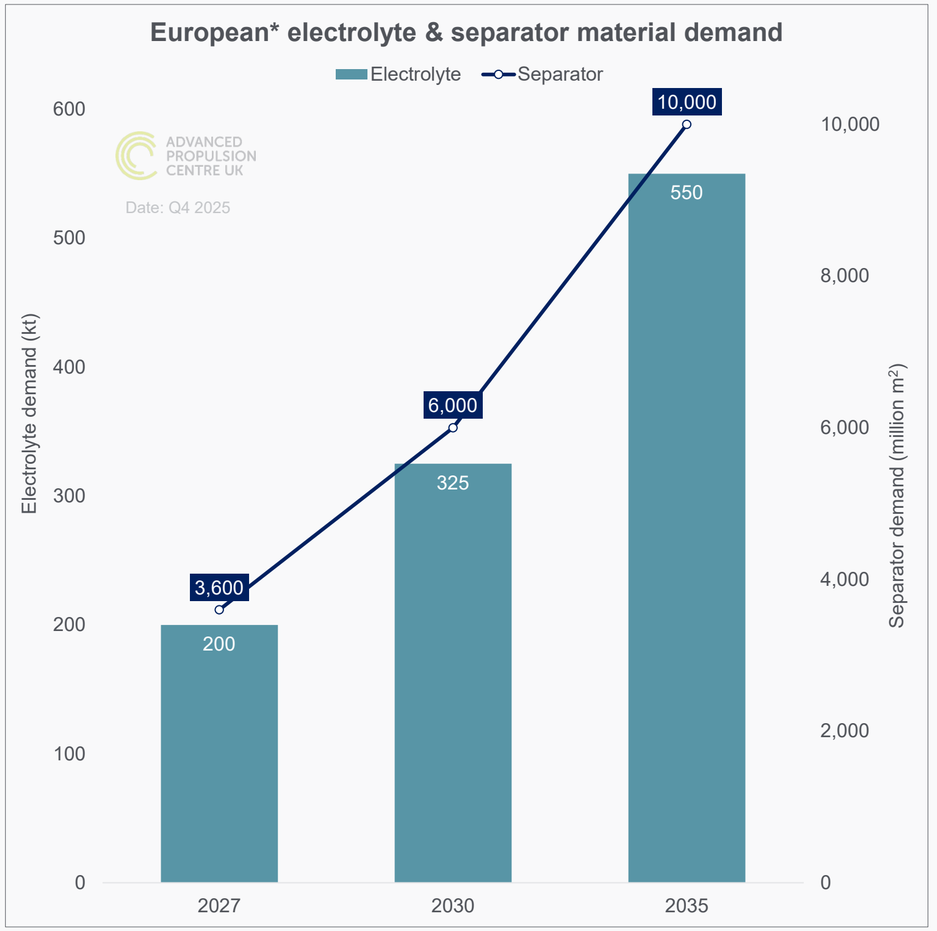
Passenger cars and light commercial vehicles (< 6 tonnes)

Notable changes compared with previous quarter

- No significant change in long term (2035) foil, electrolyte, and separator material demand.
- Slight drop in medium term (2030) material demand in line with European battery demand.
- AI data centres are emerging as a powerful, relatively price-insensitive new source of copper demand that intensifies an already looming supply crunch, likely raising costs and constraining global EV deployment.

ADVANCED PROPULSION CENTRE UK





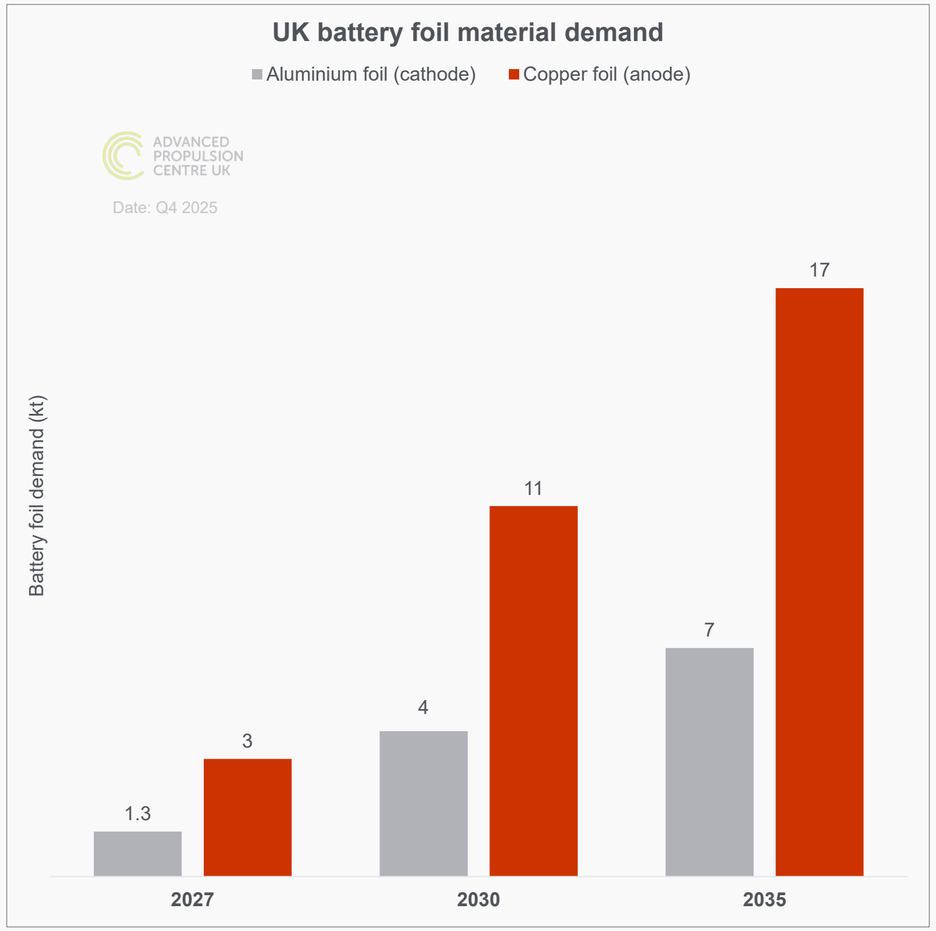
Source: APC Demand Databases using S&P Global AutoTechInsight (January 2026), BNEF forecasts (2025), Wood Mackenzie forecasts (Q4 2025) and Benchmark / Rho Motion forecasts (Q4 2025)
Note: Passenger cars & light commercial vehicles < 3.5t only, *European forecast includes non-EU countries such as Turkey

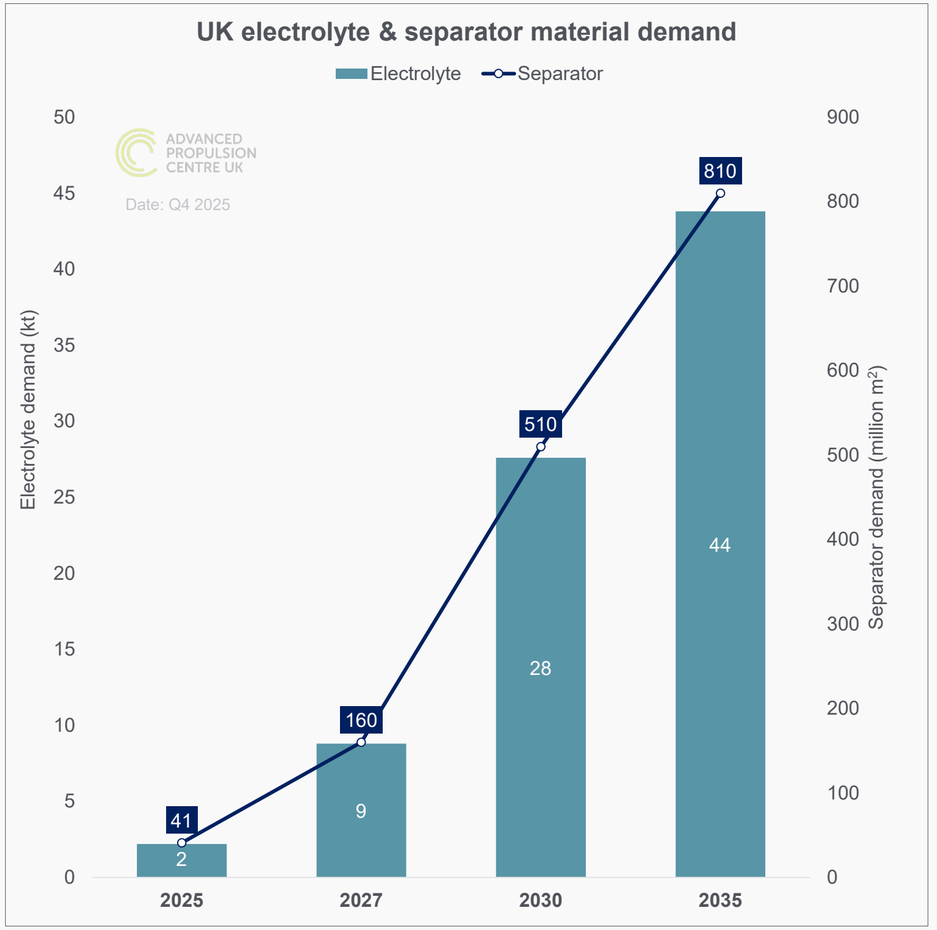
UK demand for battery foils, electrolyte and separator material

Passenger cars and light commercial vehicles (< 6 tonnes)

Notable changes compared with previous quarter

- Material demand remains broadly unchanged in line with long term UK battery demand.





Source: APC Demand Databases using S&P Global AutoTechInsight (January 2026), BNEF forecasts (2025), Wood Mackenzie forecasts (Q4 2025) and Benchmark / Rho Motion forecasts (Q4 2025)
Note: Passenger cars & light commercial vehicles < 3.5t only

Q4 2025 – Electrified components demand
Electric motors

The following section reviews traction electric motor demand for LDVs (passenger cars and light commercial vehicles)

Key facts: electric motors

ADVANCED PROPULSION CENTRE UK

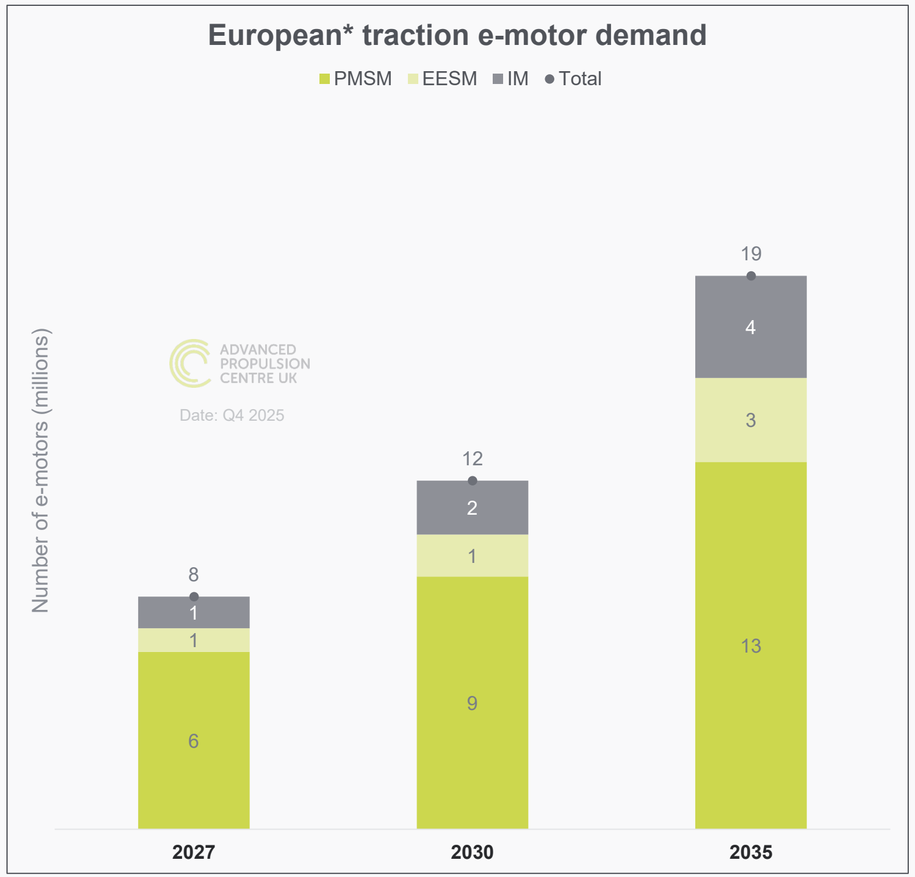
 European demand update	 UK demand update
• European traction e-motor demand more than doubles from ~8M units (2027) to ~19M units (2035), driven by sustained xEV growth. • PMSMs remain dominant at ~two-thirds of demand, but EESM and IM technologies grow to over one-third by 2035, reflecting gradual diversification away from rare earth-dependent designs. • Magnet demand doubles (~10kt to ~20kt); copper demand more than doubles (~70kt to ~165kt); electrical steel sees the sharpest absolute growth (~270kt to ~650kt). • China's rare earth export controls are tightening access to key permanent magnet materials, raising costs and supply risk for Japanese magnet makers and EV supply chains downstream.	• UK traction e-motor demand nearly triples from ~0.5M units (2027) to ~1.4M units (2035), in line with domestic EV production growth. • PMSMs remain dominant, growing from ~0.3M to ~1.0M units; EESM penetration rises to ~0.4M units by 2035 as OEMs seek to reduce rare earth exposure. • Supply chain risk remains elevated given China's dominance in rare earth magnet processing, reinforcing interest in EESM architectures and recycled magnet feedstock. • HyProMag opened the UK's first commercial rare earth magnet recycling facility (Tyseley Energy Park, January 2026), producing up to 300 tonnes of NdFeB magnets per year using HPMS technology. • The Tyseley facility is a key enabler of the UK's Critical Minerals Strategy (November 2025), which targets 10% domestic sourcing and 20% recycling of critical minerals by 2035, and represents a significant milestone for a country with no rare earth production across the value chain.

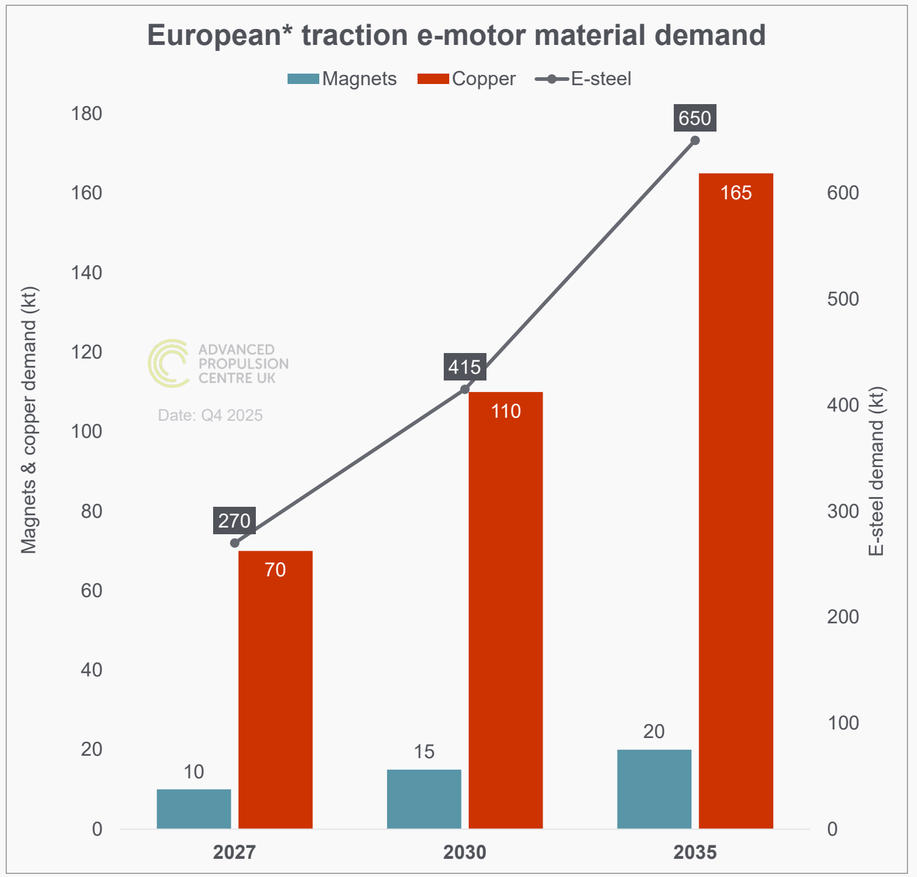
European demand for traction electric motors

Passenger cars and light-commercial vehicles (< 6 tonnes)

Notable changes compared with previous quarter

- No significant changes compared to the Q3 2025 Demand Report





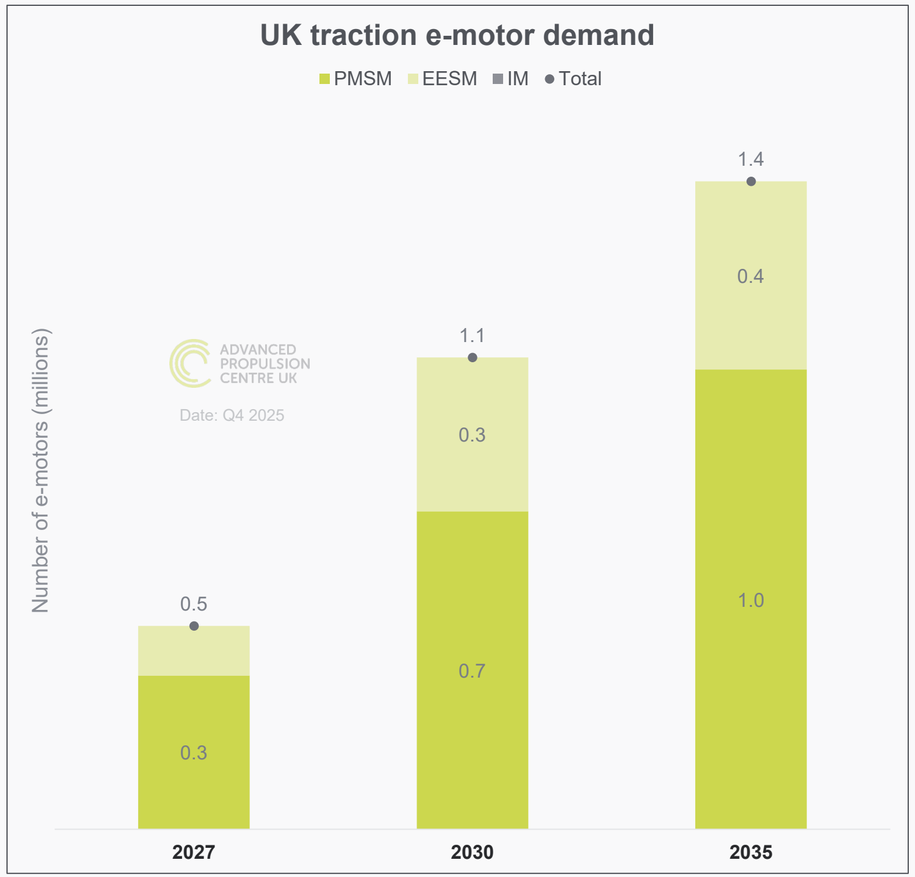
Source: APC Demand Databases using S&P Global AutoTechInsight (Sep 2025), Benchmark / Rho Motion data (2025), BNEF forecasts (2025)
Note: Passenger cars & light commercial vehicles < 3.5t only, *European forecast includes non-EU countries such as Turkey
Excluding mild hybrid electric motors

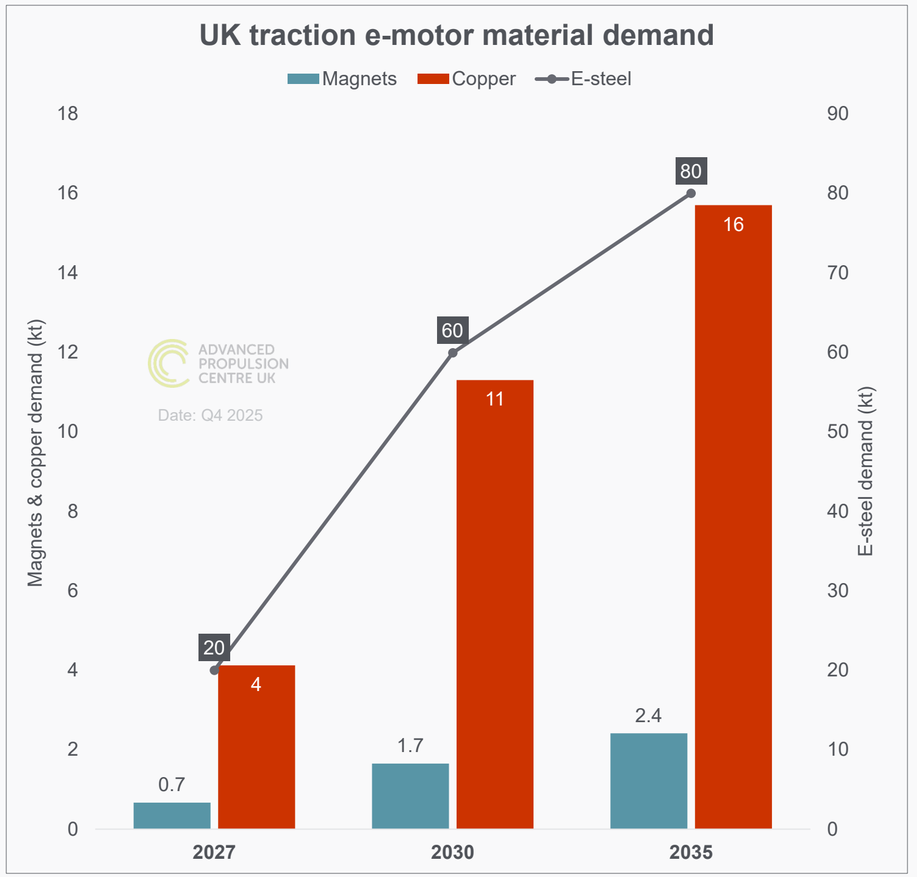
UK demand for traction electric motors

Passenger cars and light commercial vehicles (< 6 tonnes)

Notable changes compared with previous quarter

- No significant changes compared to the Q3 2025 Demand Report





Source: APC Demand Databases using S&P Global AutoTechInsight (Sep 2025), Benchmark / Rho Motion data (2025), BNEF forecasts (2025)
Note: Passenger cars & light commercial vehicles < 3.5t only
Excluding mild hybrid electric motors

ADVANCED PROPULSION CENTRE UK

Glossary

Glossary

BEV	Battery electric vehicle
CAM	Cathode active material
EESM	Electrically excited synchronous motor
EOL	End-of-life
FCEV	Fuel cell electric vehicle
IM	Induction motor
LCE	Lithium carbonate equivalent
LF(X)P	Lithium iron phosphate (LFP) lithium-ion cathode which can include manganese (LFMP)
NCA	Nickel cobalt and aluminium lithium-ion cathode
NMC	Nickel manganese cobalt lithium-ion cathode
NMCA	Nickel manganese cobalt and aluminium lithium-ion cathode
MHEV	Mild hybrid vehicle
OEM	Original equipment manufacturer
Other-HEV	Non-plug-in hybrid vehicles including full and mild hybrids that combine an internal combustion engine and a battery to deliver power
PHEV	Plug-in hybrid electric vehicle combining an internal combustion engine and an electric powertrain
PMSM	Permanent magnet synchronous motor
REE	Rare earth element
xEV	Electrified vehicle including BEV, PHEV, HEV, FCEV

ADVANCED PROPULSION CENTRE UK

This Q4 2025 automotive demand forecast is provided by the Technology Trends team at APC.

Data sources have been used from Q4 2025 (October – December) and January 2026 forecasts.

If you have any questions or would like more detail on any of the graphs or data, please email: info@apcuk.co.uk