# Opportunities for Taiwanese Manufacturers: A Look at the European Auto Industry's Transformation (Part 1)

# 從歐洲汽車產業轉型看台灣廠商機會（上）

## Major European Countries are Shifting Their Automobile Production and Sales Towards Electrification

Driven by regulations and improved infrastructure, the European automotive market (including the EU, UK, and EFTA countries) is undergoing a dramatic transformation in its powertrain structure in 2025. Of the total 13.27 million vehicles sold, battery electric vehicles (BEVs) stand out with 2.309 million units sold, representing a significant 29.7% increase compared to 2024 and becoming the fastest-growing vehicle type in terms of sales. Compared to five years ago, the BEV market has expanded approximately 3.5 times, reflecting the **rapidly increasing acceptance of zero-emission vehicles among European consumers.**

In terms of brand competition, the market landscape has seen a significant reversal. VW's pure electric vehicle sales increased by 56% year-on-year to 274,000 units, while Tesla's sales declined by 27% to 238,000 units. This shift in brand leadership indicates that **traditional European automakers are beginning to see success in their electrification transformation.** Furthermore, VW demonstrated explosive growth in the plug-in hybrid electric vehicle (PHEV) market, with sales more than doubling, further consolidating its influence in the new energy vehicle market.

From a geographical perspective, the European automotive market exhibits a clear structure. Germany, the UK, and France remain the core of market consumption, with these three countries accounting for 6.51 million vehicles sold, roughly half of all European sales. Nordic countries continue to lead in penetration rates, with Norway nearly completing its electrification transition with a pure electric vehicle penetration rate of almost 96%. The Netherlands and Denmark also maintain high penetration rates. In contrast, Southern European countries such as Spain and Italy, as well as Central and Eastern European countries, while having smaller sales volumes, demonstrate stable growth potential. Figure 1 shows the automotive sales volume of major European countries in 2025; Figure 2 shows the sales share of major European automakers in 2025, with leading automaker VW holding a market share of 26.9%.

**Figure 1. The Automotive Sales Volume of Major European Countries in 2025**

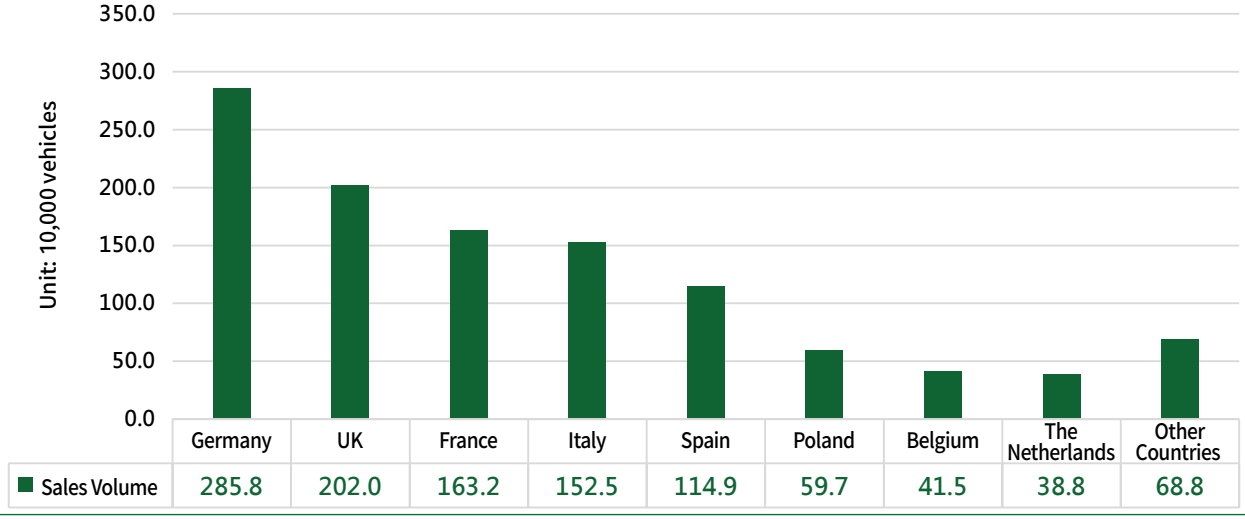


Figure 3 shows the types and market share of automobile sales in Europe in 2025. Notably, **hybrid electric vehicles (HEVs) have become the absolute mainstay of the European new energy vehicle market**, with sales reaching 4.578 million units in 2025 (accounting for 34.5% of the market), approximately 3.7 times that of plug-in hybrid electric vehicles. HEVs, with their advantages of no range anxiety and pricing, are extremely popular in price-sensitive markets such as Southern Europe and Poland, with penetration rates generally exceeding 40%, making them the preferred alternative to traditional gasoline vehicles. With the full penetration of new energy vehicles, the traditional gasoline vehicle market is facing an irreversible decline, with gasoline vehicle sales continuing to fall and diesel vehicle sales declining by nearly two-thirds compared to 2020, indicating that **the European car market has officially entered a new era of low-carbon emissions.**

BEV market share climbed alongside surging volumes, delivering robust performance even amid slight overall market fluctuations. From January to February 2026, BEVs captured 18.8% share in the EU—up sharply from 15.2% the prior year—with February sales alone jumping 20.6% to 158,280 units. **BEV sales growth was strong across Europe:** Germany +28.7%, France +27.8%, Denmark +26.1%. Italy's BEV sales skyrocketed 81.3% in a single month, signaling rapidly rising local acceptance and demand.

In individual manufacturer performance, China's BYD and U.S.-based Tesla posted impressive gains. BYD led growth as the largest brand with a 179% surge to 29,291 units in the first two months of 2026, while Tesla rose 17% to 20,941 units. By contrast, brands like Volvo, Ford, Suzuki, and Mitsubishi grappled with sales declines over the same period.

2025 was a year of dramatic shifts for Europe's auto industry. According to the latest annual data from the European Automobile Manufacturers' Association (ACEA), new car registrations edged up 2.4% from 2024. Yet the real story lies in powertrain upheaval: BEVs surpassed traditional gasoline vehicles in December's monthly market share, sending a clear signal of shifting consumer buying habits toward electrification.

2025 annual sales highlighted electrification's momentum, with BEVs growing 29.7% year-over-year. December was pivotal: BEVs claimed 22.6% share, edging out gasoline's 22.5%. PHEVs also grew sharply, up 33.4% to 1.27 million units for the year, thanks to mature tech and longer pure-electric range—taking over diesel's role as a preferred option.

**Figure 2. The Sales Share of Major European Automakers in 2025**

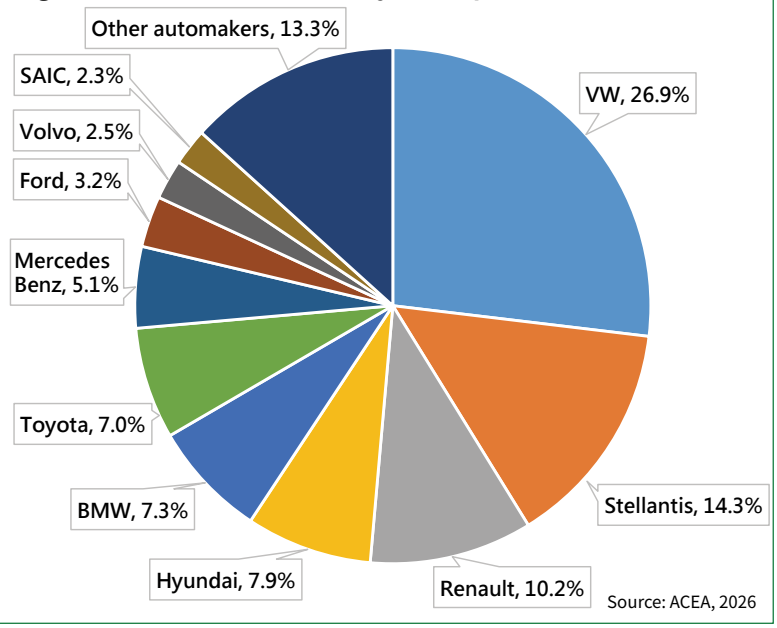
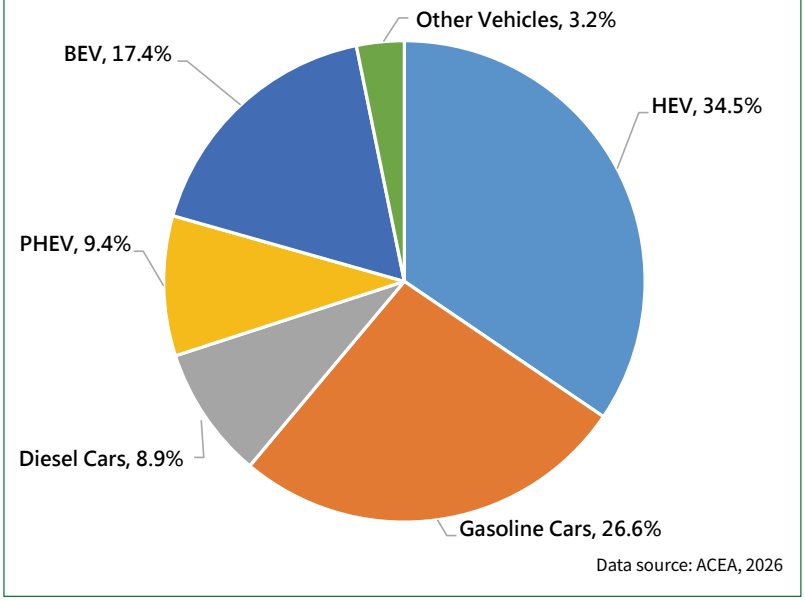



**Figure 3. European Auto Sales by Type and Market Share in 2025**




HEVs include mild hybrids (MHEVs), which saw 12.4% annual growth and held the top market share, overtaking gasoline for the first time in total sales. ACEA's broad "Hybrid Electric" category encompasses many mild hybrids, which still heavily rely on internal combustion engines with electric motors in auxiliary roles. If we view "pure gasoline" and "hybrids" as a broad ICE ecosystem, engines retain over 60% dominance in Europe. This reflects **consumer hesitation toward full electrification, favoring "electrified fuel vehicles" as the steadiest transition path.**

Behind Europe's electric vehicle boom, **European automakers are feeling unprecedented pressure from the growing presence of leading Chinese EV brands and evolving policy directions. In Europe, roughly one in every ten new cars sold is now a Chinese brand such as MG or BYD. Chinese manufacturers, leveraging their vertically integrated advantages in the battery supply chain, are steadily carving into Europe's mid to low end electric vehicle market.**


# Key Issues in Europe's Automotive Transformation

## European carbon-emission regulations driving industry change

Europe has implemented stricter carbon-dioxide emission standards, and the EU now operates the world's most stringent fleet-emission rules—making this the core structural driver behind EV-market growth. In response to slowing EV demand and industrial pressure, the EU revised its carbon-reduction regulations at the end of 2025, easing the 2035 zero-emission-new-car target to a 90% reduction in tailpipe emissions. Under the revised rules, vehicles using synthetic fuels (e-fuels) or biofuels can still be sold. This adjustment aims to **balance green transition with the competitiveness of traditional auto industries in countries such as Germany and Italy, while also reducing dependence on imported Chinese EVs and shifting toward a "multi technology" development strategy.**

Core elements of EU $CO_2$-emission rules: (1) 2035 new-car target adjustment: The EU proposes that average $CO_2$ emissions for new passenger cars in 2035 should be reduced by 90% compared with 2021 levels, rather than 100%. The remaining 10% can be offset via synthetic e-fuels, biofuels, or low-carbon steel. (2) Transition-period targets (2025–2030): The EU has introduced flexibility for 2025–2027, allowing manufacturers to meet targets based on a three-year average and temporarily easing penalties to support investment capacity. By 2030, new cars must cut $CO_2$ emissions by 55% versus 2021, while light commercial vehicles face a 40% reduction target.

Between 2025 and 2029, manufacturers must reduce $CO_2$ emissions by 15% per kilometer compared with 2021; by 2030 this drops to 55%, and by 2035 to 100%. These phased-in rules are pushing OEMs to accelerate BEV launches and actively drive growth in Europe's electric-vehicle market.

## EV-subsidy policies driving sales growth

In 2025, Europe's electric-vehicle market exhibited several positive trends, especially in policy support, consumer demand, technological innovation, and market-structure changes: (1) Green-transition pull: To achieve climate-neutrality goals, EU member states have strongly promoted new energy vehicles through measures such as the EU Battery Regulation and the EU Emissions Trading System (ETS). These policies provide multiple forms of support, lower operating costs, raise industry standards, and push the entire sector toward low-carbon, environmentally friendly production. (2) Transparent regulatory framework: The EU has a mature set of rules covering vehicle safety and environmental performance (for example, REACH and ELV), which both encourage technological upgrade and competition and help raise product-quality and safety standards—thereby offering greater reliability for consumers. (3) Fiscal incentives and subsidies: Governments of multiple countries have introduced purchase subsidies, tax benefits, and low-interest loans to encourage EV adoption. These incentives help quickly expand market scale and simultaneously support the development and refinement of local EV supply chains.

Germany (resumed subsidies): Starting 1 January 2026, Germany plans to allocate 3 billion euros for a new round of subsidies. The maximum per vehicle subsidy is 6,000 euros, with amounts tiered according to household income and size. Spain (enhanced assistance): In 2026, Spain will invest 700 million euros, of which 400 million euros will be earmarked for purchase subsidies. The maximum subsidy per vehicle can reach 7,000 euros. France and the UK (protectionism and ESG standards): France has introduced a "social leasing" scheme under which subsidy conditions are tied to the carbon footprint of the traction battery, effectively excluding non-European-manufactured vehicles. The UK has implemented the Zero-Emission Vehicle (ZEV) Mandate, which requires manufacturers to achieve specific minimum proportions of electric-vehicle sales, supported by tax-relief measures.

This relatively mild overall growth is driven less by a broad expansion in total sales and more by the ongoing shift of consumers toward electric vehicles. As subsidy policies in major European countries take effect, and as more affordable EV models enter the market, the performance gap between different powertrain types becomes increasingly clear. In 2025, Germany's new subsidy scheme for middle and low income buyers successfully boosted plug in models (including PHEVs and BEVs), driving their sales up by 27%. In France, pure electric vehicle demand grew by 28% despite an otherwise weak market.

## Chinese Brands Aggressively Gaining Share

**Chinese manufacturers achieved a record 12.8% share of the European electric-vehicle market in November 2025, expanding influence in Europe despite ongoing EU-imposed tariffs. Chinese brands have continued to expand their influence in the region. According to Dataforce, Chinese brands' share of the European hybrid-electric vehicle market has risen above 13%.** Leading the charge are BYD and SAIC (MG), along with new entrants such as Chery and Leapmotor, all of which aggressively expanded into Europe in 2025. China's domestic overcapacity in EV production has become a key driver of these export-led offensives, helping manufacturers escape intense price competition at home.

Chinese OEMs have largely absorbed the extra tariffs that the EU imposed on Chinese EVs at the end of 2024, while also targeting segments and markets less affected by these duties—such as hybrid and PHEV models, and non-EU countries like the UK. According to Jato Dynamics, Leapmotor's EV sales in Europe surged by more than 4,000% year-on-year through October, driven largely by its joint venture with Stellantis. In the same period, Chery's Omoda-branded EVs grew by 1,100%. In the first two months of 2026, battery EV and plug-in hybrids together accounted for more than one-third of total European car sales, driven by new models such as the Renault R5, Škoda Elroq, and BYD Dolphin. Chinese brands are gradually expanding their share; in February alone, BYD and SAIC's MG brand together sold 40,314 units, equivalent to about 4% of the overall market. Notably, BYD's sales more than doubled (+162%), while MG's rose 12%, and both brands outpaced Tesla that month.

As Chinese automakers sell more EVs in Europe, local manufacturers are scrambling to keep pace, even as they lobby to soften the timeline for phasing-out traditional internal-combustion-engine vehicles. To protect Europe's automotive industry and avoid disruption during the energy transition, EU-member states have proposed abandoning the 2035 plan to ban new-fuel-vehicle sales.

## Critical Components (Batteries, Etc.) Constrain EV Development

The European EV industry is at a critical juncture, undergoing a transition from internal-combustion engines while facing intense low-price competition from China and recalibrating subsidy policies. Leading OEMs such as Volkswagen, BMW, and Mercedes-Benz are emphasizing localized production and working to increase their in-house battery-supply share. At present, these manufacturers are pursuing both hybrid and pure-electric development strategies in parallel, with key components focused on high-efficiency motors, powertrain systems, and a European-based battery supply chain—such as Northvolt. Volkswagen is aggressively advancing its electrification via the VW SSP (Scalable Systems Platform), while other traditional automakers are accelerating investments in EV platforms such as Audi PPE and Mercedes MMA. **To meet localization requirements, the EU is considering rules that would require at least 70% of components to be manufactured within the bloc for an EV to qualify for subsidies. This is intended to counter the impact of low-cost Chinese EV imports.**

In 2026, 71.4% of the EV traction batteries used by European automakers originate in Asia, highlighting **one of the biggest obstacles in Europe's transition: excessive dependence on Asian battery suppliers. Even though investments in local "gigafactories" are under way, the EU still relies heavily on imported battery cells from CATL (China), LG Energy Solution (S. Korea), and Panasonic, among others.** This supply-chain dependence remains a key constraint on achieving sustainable, robust growth in the EV market.

By component type, the market is segmented into traction batteries and high-voltage components, electric motors, braking systems, wheels and suspension, body and chassis, and low-voltage electrical components. Trends include expanding new battery-cell factories, greater vertical integration (cell → module → pack), adoption of structural or CTB (cell-to-body) designs that reduce components and weight, the development of recycling and second-life ecosystems to lower material costs, and chemistry innovations aimed at improving performance and longevity in this segment.

## Structural transformation in Europe's Auto Parts Sector

Affected by electrification, weak demand, and intensifying import competition from Chinese automakers, the European automotive parts industry is in a period of deep structural crisis and restructuring between 2025 and 2026. Companies are facing sharply reduced profitability and large-scale layoffs, and the market is increasingly showing a "survival-of-the-fittest" pattern. Declining demand for traditional internal-combustion components is forcing suppliers to refocus on technology upgrade, asset divestment, and core EV components. Below is a brief overview of the industry's current situation and direction.

### 1. Market Situation And Challenges (Structural Crisis)

Weakened profitability: European suppliers such as Bosch and Valeo have seen profitability decline, due to weaker demand, high production costs, and heavy transition investments. The surge in Chinese imports has already led Europe to register a trade deficit in "new mobility components"—including traction batteries—whose import value and dependence on China have risen clearly in 2025. Mass layoffs: Over the past two years, more than 100,000 jobs have been cut across the European automotive supply chain, and competition is expected to intensify further in 2026.

### 2. Emerging Trends: Technological Upgrade and Transformation

The market's focus is shifting from traditional ICE components toward software-defined vehicles, automated-driving systems, and core EV components. M&A and consolidation are on the rise, as companies seek access to key technologies or streamline assets by divesting non-core businesses.

Supply-chain resilience has become a priority, especially after the impact of the Russia–Ukraine war on raw-material supply. Companies are striving to increase supply chain autonomy.

### 3. Aftermarket demand

Europe remains a major global automotive aftermarket, particularly for mature component categories. The EU-wide "E-Mark" certification system (based on ECE regulations) imposes high quality and safety standards, which create a barrier to entry for lower-quality suppliers. European consumers are generally receptive to high-quality aftermarket parts, offering opportunities for high quality component manufacturers.

### 4. Major Suppliers Restructuring and Deepening Core Technologies

For example, ZF has terminated loss-making EV projects, while Bosch is reorganizing its structure to cope with low-margin environments. Large OEM-suppliers are actively investing in EV powertrain systems, ADAS and other advanced safety components to increase their market shares. Overall, the European automotive parts industry is in a painful but necessary transition from a traditional ICE-centric model to a future-oriented, EV-driven ecosystem. Only suppliers with strong core EV-component capabilities are likely to survive and thrive in the next stage of competition. ◘