

Tagliapietra, Simone; Trasi, Cecilia; Sebastian, Gregor

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A smart European strategy for electric vehicle investment from China

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A smart European strategy for electric vehicle investment from China

Simone Tagliapietra, Cecilia Trasi and Gregor Sebastian

Executive summary

Simone Tagliapietra (simone.tagliapietra@bruegel.org) is a Senior Fellow at Bruegel

Cecilia Trasi (cecilia.trasi@bruegel.org) is a Research Analyst at Bruegel

Gregor Sebastian is a Senior Analyst with Rhodium Group's China Corporate Advisory team

THE EUROPEAN UNION'S push to decarbonise road transport relies critically on a rapid shift to electric vehicles (EVs). However, European carmakers face high production costs and limited battery capacity, leaving them unable to supply affordable mass-market EVs at scale. Chinese manufacturers have stepped into this gap and their cost-competitive models now account for a quarter of EU EV sales. Chinese firms have also become major investors in Europe's battery and EV supply chains.

THIS INFUX OF CHINESE foreign direct investment presents Europe with a strategic dilemma. There are clear short-term benefits: Chinese investment expands production capacity, sustains regional jobs and accelerates the decarbonisation timeline. But it also brings significant risks including market distortions arising from allegedly subsidised competition, public security vulnerabilities linked to data access and foreign control of digital assets, long-term economic dependency, and the weaponisation of critical raw material exports.

THE EUROPEAN COMMISSION has introduced tariffs on Chinese EV imports, strengthened its trade-defence toolbox and launched new industrial policy initiatives, but EU member-state approaches to Chinese investment remain fragmented and inconsistent. This undermines the EU's collective bargaining power precisely when it must act together. Europe should not passively absorb Chinese capital, nor should it seek to block it outright. Instead, it must shape the terms of engagement to align foreign investment with the EU's climate, industrial and security objectives. This requires using access to the EU market – the EU's greatest source of leverage – in a coordinated way.

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1 Europe's critical window in the EV transition

European manufacturers face eroding market share at home and also diminishing exports to China

The decarbonisation of road transport is one of the main planks of the European Union's climate strategy. Passenger cars generate more than half of the emissions from the EU transport sector, with the sector overall accounting for 29 percent of EU greenhouse gas output¹. Unlike power generation or heavy industry, road transport emissions have stubbornly resisted decline. A rapid shift towards low-emission vehicles – primarily electric vehicles (EVs) – is therefore necessary.

However, the route to a mass-market EV fleet is proving more complex than anticipated. European manufacturers continue to struggle with cost competitiveness. Few European EV models sell below €30,000 and the average remains above €50,000 (Jugé *et al*, 2025a). High upfront costs, inadequate charging infrastructure and an uneven rollout across EU countries hold back adoption, especially by middle- and lower-income households.

This gap has presented an opportunity to Chinese automakers. Benefitting from years of state-driven industrial policy and tightly integrated supply chains, brands such as BYD and Geely/Leapmotor have brought lower-cost models to the European market. By 2024, one in four EVs sold in the EU was made in China – a dramatic rise from almost zero in 2019 (Transport & Environment, 2024). These vehicles retail at an average €32,000 (Sebastian *et al*, 2024), presenting an attractive option for cost-conscious consumers and a formidable challenge to domestic producers.

The competitive pressure coincides with a tense geopolitical landscape and growing fragmentation of global trade. European manufacturers face eroding market share at home and also diminishing exports to China – once a major profit centre – as local production in China increasingly substitutes imports. Meanwhile, President Trump's tariffs and regulatory barriers are disrupting established trade patterns, including EU auto exports to the United States.

In this context, Chinese foreign direct investment (FDI) into Europe's EV and battery sectors is accelerating. This influx of capital offers clear benefits: it helps scale up production, creates regional jobs and supports achievement of climate targets. But it also raises strategic issues. These include market distortions driven by Chinese state-subsidised competition, potential public security vulnerabilities, including risks to data and critical infrastructure, and long-term economic dependence, with Europe potentially locked into low-value segments of the EV value chain.

Recognising these intertwined threats to Europe's climate goals and its industrial base, the EU has begun to respond. Measures include the imposition by the European Commission of tariffs on Chinese EVs and the adoption of the 'Industrial Action Plan for the European automotive sector' (European Commission, 2025a) in the context of the Clean Industrial Deal, a broad, non-binding strategy issued by the European Commission in February 2025 to drive the decarbonisation of European industry while boosting its competitiveness (European Commission, 2025b). Meanwhile, Beijing has made it clear that removing EU duties on electric vehicles is a priority².

Brussels has also started to acknowledge the dual nature of foreign direct investment (FDI) – particularly from China – as both an enabler of the green transition and a potential source of strategic risk. For European policymakers, the question should not be whether to engage with Chinese capital – that decision is already being made in industrial plants across

1 See European Environment Agency, 'EEA greenhouse gases – data viewer', <https://www.eea.europa.eu/en/analysis/maps-and-charts/greenhouse-gases-viewer-data-viewers>.

2 Xinlu Liang, 'China, EU close to EV tariff deal, state media says, dismisses 'trade diversion' fears, *South China Morning Post*, 5 July 2025, <https://www.scmp.com/news/china/diplomacy/article/3317099/china-eu-close-ev-tariff-deal-state-media-says-dismisses-trade-diversion-fears>.

the continent³. The real challenge is how to ensure that this wave of foreign investment contributes to, rather than undermines, the EU's core objectives.

Yet national-level policy remains fragmented. Differing approaches to investment screening, state aid and subsidy regimes weaken the EU's collective leverage and complicate the task of shaping foreign capital flows in line with Europe's long-term interests.

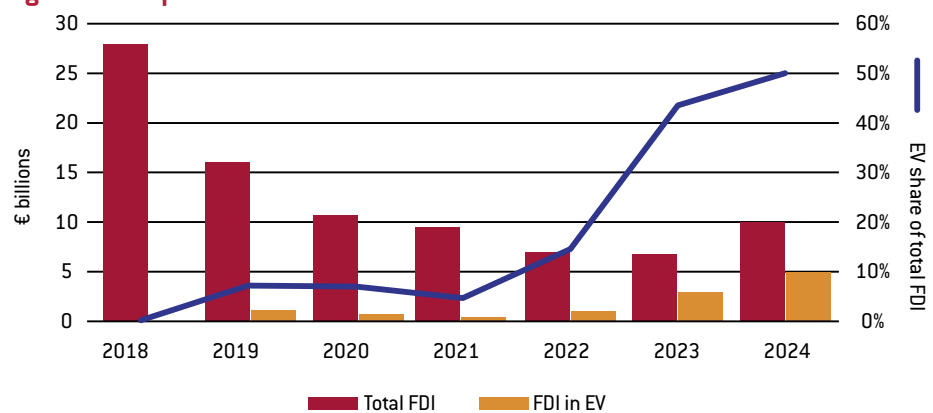
Against this backdrop, this policy brief:

- Analyses the structure and trajectory of Chinese investment in Europe's EV and battery sectors;
- Assesses the opportunities and risks this investment poses to Europe's industrial resilience;
- Examines the EU toolbox for managing the risks associated with such investments;
- Outlines a policy framework to head off these risks, including a conditional engagement, framework that leverages EU market access and public support to attract and shape investment in a way that supports the EU's strategic objectives.

2 Chinese FDI in Europe's EV sector

Chinese investment in Europe's EV sector has moved from the periphery to the core of the continent's green industrial transition. In 2024, Chinese greenfield investment in the EV sector hovered around €5 billion, more than 50 percent up from 2022, accounting for half of all completed Chinese greenfield FDI into Europe that year (Figure 1) (Kratz *et al*, 2025).

Figure 1: Completed Chinese outbound transactions in the EU and UK

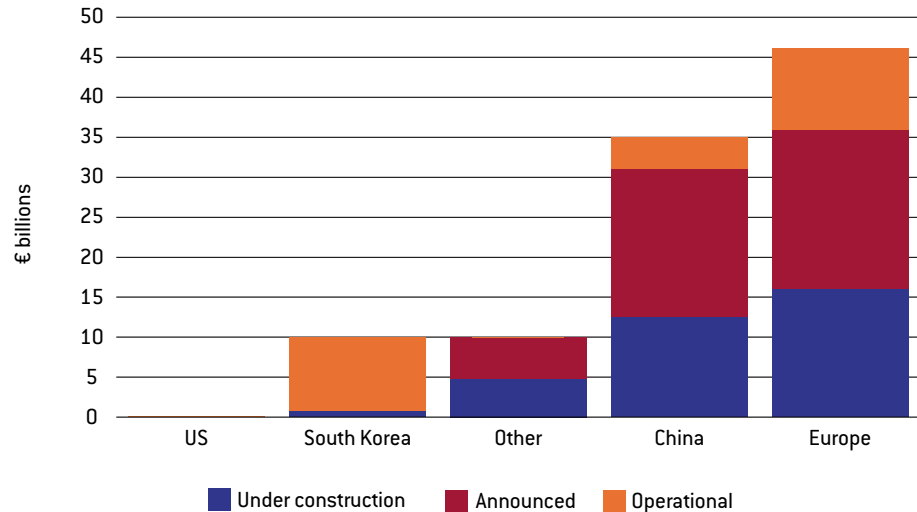


Sources: Bruegel based on MERICS and Rhodium Group. Note: major transactions include transactions above \$5 million only. Data refers to EU27 + UK. Data refers to completed outbound transactions only. EV includes battery, battery parts and EV assembly.

Plant-level investment data shows that China has become the second-largest investor in Europe's EV supply chain, behind intra-EU flows and ahead of the United States and other Asian economies (Figure 2). These are long-term, capital-intensive bets. Unlike portfolio flows, FDI in manufacturing creates 'sticky' assets: they shape labour markets, technical architectures and supplier ecosystems, and influence policy over decades.

3 Former Stellantis CEO Carlos Tavares said that, "Whether I like it or not, with me or without me, Leapmotor would have been in Europe anyway". Michael Wayland, 'Stellantis to rapidly grow exports of Chinese EVs to Europe, other countries', *CNBC*, 14 May 2024, <https://www.cnbc.com/2024/05/14/stellantis-china-ev-exports.html>.

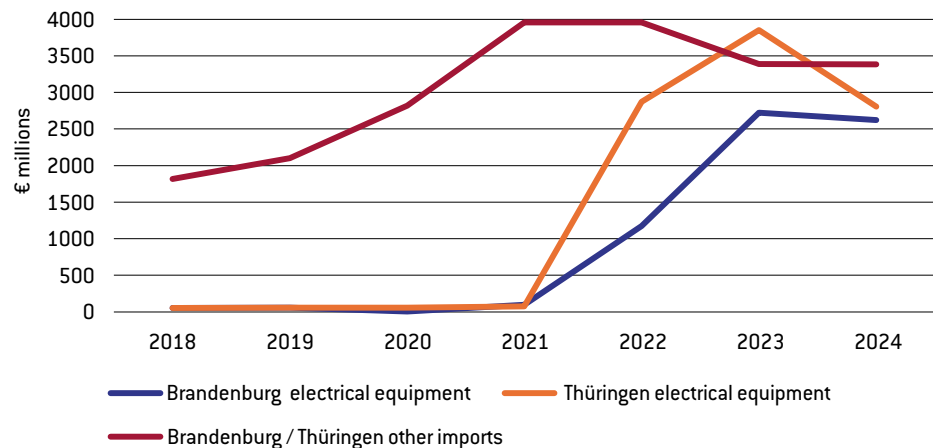
Figure 2: Battery investment in Europe by source, 2020-2024



Sources: Bruegel. Notes: investment statistics are at the plant level (ie a company at a specific location). Europe refers to EU27, Norway, Switzerland and the UK. Data is expressed in 2023 euros.

These investments now span nearly the entire value chain: from upstream cathode and anode materials to midstream battery cell and module production, and downstream into EV assembly and battery recycling. Flagship projects include CATL's €7.3 billion battery gigafactory in Debrecen, Hungary (due to start production in 2025⁴) and Envision AESC's €2 billion plant in Douai, France (also due to start production in 2025⁵). Chinese EV investment has also flowed into Belgium, Germany, the Netherlands, Poland, Slovakia and Sweden (Kratz *et al*, 2025).

Figure 3: Imports from China into Brandenburg and Thuringia by product category, € billions



Source: Destatis. Notes: despite the earlier start of construction, the chart shows that import volumes remained modest until 2021, suggesting that the bulk of equipment imports occurred not during early construction, but rather in the final lead-up to commissioning and production start-up. This aligns with typical project development cycles, with high-value machinery and electrical components installed during the final stages of pre-operational ramp-up, ahead of production launches in 2022 and 2023.

4 *Hungary Today*, 'Chinese Battery Factory CATL to Start Production in Debrecen Next Year,' 7 November 2024, <https://hungarytoday.hu/chinese-battery-factory-catl-to-start-production-in-debrecen-next-year/>.

5 See European Commission press release of 12 October 2023, 'EIB with support from InvestEU invests €450 million in the construction of AESC electric battery gigafactory in Douai,' https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4946.

Chinese EV and battery investments can help expand EU production capacity

Most of the value creation remains in upstream segments of the supply chain, not final assembly. There is growing evidence that Chinese and foreign investment in the EU auto and battery sectors often involves a front-loaded phase of imports, particularly of electrical equipment, during the transition from construction to operational readiness (McKinsey, 2022). This pattern is illustrated by a significant surge in imports of electrical equipment from China into German states such as Thuringia, where CATL began building its battery plant in 2019, and Brandenburg, home to Tesla's gigafactory, which broke ground in 2020 (Figure 3).

Newer projects show signs of greater integration. BYD's €4 billion investment in Hungary reportedly includes agreements for supplier partnerships with European firms such as Germany's Dürr⁶ and Italy's Brembo and Pirelli⁷. BYD's electric bus plant in Komárom on the Hungary/Slovakia border, operational since 2017, initially sourced around 20 percent of its components from European suppliers, but that number rose to 30 percent to 50 percent by 2019.

A reason for this is the front-loaded nature of equipment purchases in battery manufacturing: companies such as China's Wuxi Lead, the world's leading supplier of battery cell manufacturing machinery, typically deliver the bulk of high-value machinery during the initial construction and commissioning phase. This means that most equipment is installed upfront, while later stages focus more on integrating local suppliers for auxiliary inputs and maintenance.

2.1 Opportunities

Chinese EV and battery investments can help expand EU production capacity, revitalise regional economies and support transfer of know-how, all of which are legitimate priorities for Europe's green and industrial transition. Attracting Chinese investment in line with the EU's current FDI screening and governance framework can contribute, provided it is integrated carefully into a wider ecosystem of domestic and international partnerships.

2.1.1 Scaling up battery production

The EU has set via the Net-Zero Industry Act (Regulation (EU) 2024/1735) a battery manufacturing localisation target of 90 percent of battery demand to be met from domestic production by 2030 – implying a manufacturing capacity of at least 550 GWh⁸. But Europe currently falls far short of this goal, with only around 200 GWh⁹ of operational cell capacity and 190 GWh of module assembly capacity (Jugé *et al*, 2025b), against projected demand exceeding 1 TWh by 2030 (Link *et al*, 2025).

6 See Dürr press release of 13 January 2025, 'Dürr equips first BYD plant in Europe with sustainable painting technology', <https://www.durr.com/en/media/news/news-detail/view/duerr-equips-first-byd-plant-in-europe-with-sustainable-painting-technology-91606>.

7 Reuters, 'China's BYD expects to pick location for third European plant in 7-8 months', 18 March 2025, <https://www.reuters.com/business/autos-transportation/chinas-byd-complete-process-choose-location-third-plant-europe-7-8-months-2025-03-18/>.

8 For battery technologies, that would mean contributing to the objectives of the European Battery Alliance and aim to meet almost 90 percent of the Union's battery annual demand by the Union's battery manufacturers, meaning a Union manufacturing capacity of at least 550 GWh by 2030 (Regulation (EU) 2024/1735).

9 This capacity is largely linked to the LG facility near Wrocław, Poland, construction of which began in 2016 and which has expanded steadily to an estimated capacity of 86 gigawatt hours today; and the Samsung SDI facility (30 GWh) in Göd and SK Group's facilities in Komárom (7.5 GWh), in Hungary. Ongoing expansion at both sites, alongside fresh investments from CATL and Eve Energy (both Chinese) mean Hungary should have the largest capacity in the EU, once under-construction facilities come online.

While EU-supported projects, such as the French battery manufacturer Verkor under the Important Projects of Common European Interest (IPCEIs)¹⁰, have often struggled with financing delays or have even collapsed (as did Northvolt, for example, once hailed as Europe's flagship battery champion before entering bankruptcy proceedings in late 2024 and early 2025; Tagliapietra and Trasi, 2024), Chinese and Korean firms have demonstrated their ability to deploy capital quickly and at scale. Bridging Europe's battery capacity gap through established foreign players can help meet near-term targets and ensure the EV supply chain keeps pace with rising demand.

However, while it makes sense to tap Chinese FDI to fill immediate gaps, the ultimate benchmark should be whether this investment complements domestic capacity building and diversification towards partners more aligned with EU norms.

2.1.2 Regional development and job creation

Chinese FDI could also support regional reindustrialisation, particularly in central and eastern Europe. Many segments in these regions are part of supply chains linked to internal combustion engine (ICE) vehicles (such as engine components, fuel systems and exhaust components) which are at risk of obsolescence as the green transition accelerates. Modelling by the International Monetary Fund suggests that targeted foreign investment can mitigate the economic dislocation brought about by the green transition by helping regions shift from ICE-related supply chains to EV production (Wingender *et al*, 2024). For example, CATL's plant in Hungary is expected to provide 9,000 jobs¹¹. In Spain, Chery plans to reactivate the former Nissan plant in Barcelona, idle since 2021¹². These projects have the potential to diversify industrial activity and advance cohesion objectives.

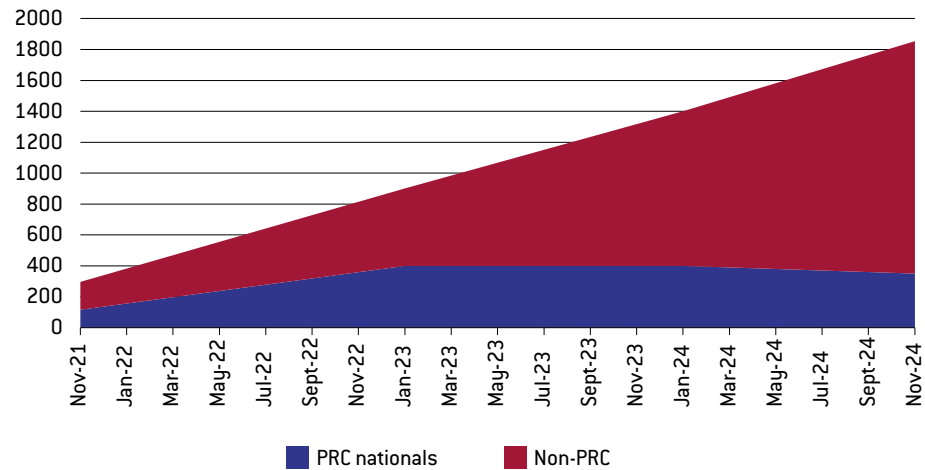
Early evidence from CATL's Erfurt plant (Figure 4) and BYD's bus factory in Hungary points to an approach involving foreign staff training local workers, before transitioning to full local employment. Clear frameworks can help maximise these positive spillovers, making this an objective that is both realistic and socially valuable when implemented within robust national and EU strategies.

10 IPCEIs support large-scale, transnational projects that are considered strategically important for the EU, especially in areas in which the market alone would not deliver sufficient investment. To date there are IPCEIs for hydrogen technologies, microelectronics and semiconductors, batteries, cloud and hedge computing, and biotechnologies. They are permitted under EU state aid rules, which allow exceptions to the general prohibition on state aid if the aid is intended to “remedy a serious disturbance in the economy of a Member State” or to “promote the execution of an important project of common European interest”.

11 See City of Debrecen news, ‘CATL starts recruiting employees in Debrecen’, undated, <https://www.debrecen.hu/en/local/news/catl-starts-recruiting-employees-in-debrecen>.

12 Reuters, ‘China's Chery to open its first European manufacturing site in Spain’, 16 April 2024, <https://www.reuters.com/business/autos-transportation/chinas-chery-will-open-spain-its-first-european-manufacturing-site-2024-04-16/>.

Figure 4: Number of staff by nationality at CATL's plant in Germany



Source: Bruegel based on Kratz *et al* (2025).

It is worth noting that here too, the depth of impact depends on the structure of investment. Projects that rely heavily on externally sourced labour or partially assembled components requiring limited local assembly provide limited local benefit. Unless there are requirements for local hiring, supplier participation and training, investment may fail to deliver durable economic resilience.

2.1.3 The potential for knowledge transfer and innovation spillovers

Chinese battery and EV firms lead in areas in which Europe is lagging: cost optimisation, manufacturing scale and energy density. Their presence in European markets can be beneficial in pushing European manufacturers closer to the innovation frontier. In fact, at moderate levels of competition, innovation peaks, before declining when competition becomes too intense. Aghion *et al* (2005) found that patenting activity in the automotive sector follows this curve, with maximal innovation when industries are 'neck and neck'. The Tesla-driven acceleration in EV development is a good example: the company acted as a crucial proof-of-concept and market catalyst that demonstrated EV viability and desirability, thereby speeding up industry acceptance of electric vehicle technology and showing that new entrants could compete in EVs, helping validate the technology's commercial potential (Teece, 2018). Meanwhile, the scaling challenges faced by Northvolt (see section 2.1.1) illustrate the value of complementing in-house technological capabilities with operational know-how and experience drawn from established global peers. Without this, production delays and cost overruns are more likely (Trasi and Tagliapietra, 2025).

Knowledge transfer and operational know-how can accelerate Europe's progress in high-volume manufacturing and battery efficiency. Well-structured joint ventures, supplier partnerships and collaborative R&D can lift the competitive frontier for European firms, complementing domestic innovation. However, evidence suggests that deeper learning effects occur when there is an active exchange of expertise rather than passive assembly operations, meaning that the benefits of learning depend on how the investment is embedded (Fischer *et al*, 2009; Giroud *et al*, 2012). Full-cycle plants with integrated R&D and robust local supply networks are more likely to generate spillovers (Gray *et al*, 2015; Clementi and Bergmann, 2016). In contrast, minimal assembly platforms or partnerships that are light on intellectual property may bring little beyond market access for the investor.

2.2 Risks

Foreign investment – Chinese or not – poses structural economic, technological and security risks that may constrain the EU's capacity to steer its own industrial policy.

Also, in the current tense geopolitical environment, Europe's reliance on Chinese firms for critical raw materials and battery components is a vulnerability. China control to a significant degree the refining and processing of lithium, nickel, cobalt and rare earths, which are essential inputs for EVs. Chinese moves to tighten export controls on rare earths and high-performance magnets in retaliation against US tariffs¹³ illustrate Beijing's readiness to weaponise supply chains as a tool of geopolitical leverage. For Europe's automotive sector, this means that abrupt restrictions or price shocks could disrupt production, hinder the scaling-up of production of affordable electric vehicles and erode industrial resilience¹⁴.

Moreover, more extensive integration of Chinese firms into Europe's EV and battery supply chains could complicate Europe's access to major export markets, especially the US. While President Trump has so far made no specific threat to make EU access to the US market conditional on excluding China, his administration's hardline stance and broader trade measures put strong pressure on allies to limit ties with China and diversify supply chains. This includes pressuring the EU to tighten export controls and investment screening, and to decouple from Chinese value chains.

2.2.1 Market distortions

China's EV industry has benefitted from generous state support. In 2020, 98.6 percent of A-share listed companies in China, including EV manufacturers, received subsidies (Boullenois *et al*, 2025), while budgetary support averaged 4.5 percent of revenues – more than six times the OECD average (0.69 percent). Grants to listed companies in China increased by 67 percent between 2016 and 2023 (Boullenois *et al*, 2025). This support combines direct funding, cheap credit from state banks and low-cost land and infrastructure, creating an unrivalled cost advantage for Chinese EV makers.

EU investigations have confirmed the existence of unfair support as grounds for countervailing duties on Chinese EV imports (Regulation (EU) 2024/2754). While European firms also receive public funding, for instance via IPCEIs, the scale and policy design of Chinese subsidies can enable aggressive price competition in overseas markets for locally assembled models, even at thin or negative margins, to gain market share (Nielsen, 2005).

Chinese state-owned enterprises (SOEs), while less dominant in EVs than in other sectors, play a major role in battery manufacturing. Unlike private enterprises that operate purely on market principles, SOEs may pursue strategic goals that align with Chinese industrial policy rather than pure profit maximisation (Gammeltoft and Fasshauer, 2017). Firms such as battery maker CALB (linked to the defence SOE AVIC), which has announced a €2 billion plant in Portugal¹⁵, and carmakers such as SAIC and Dongfeng, enjoy privileged access to finance and operate under softer budget constraints, further skewing the playing field.

13 Lewis Jackson, Amy Lv, Eric Onstad and Ernest Scheyder, 'China hits back at US tariffs with export controls on key rare earths', *Reuters*, 4 April 2025, <https://www.reuters.com/world/china-hits-back-us-tariffs-with-rare-earth-export-controls-2025-04-04/>.

14 See CLEPA press release of 4 June 2025, 'Urgent action needed as China's export restrictions on rare earths disrupt European automotive supply chains', <https://www.clepa.eu/insights-updates/press-releases/urgent-action-needed-as-chinas-export-restrictions-on-rare-earths-disrupt-european-automotive-supply-chains/>.

15 *Reuters*, 'China's CALB to invest \$2.09 billion in EV battery factory in Portugal', 21 February 2025, <https://www.reuters.com/business/autos-transportation/chinas-calb-invest-209-billion-ev-battery-factory-portugal-2025-02-21/>.

2.2.2 Public security risks

As EVs are now software-defined products, electronics and technology FDI poses particular risks related to data security and unauthorised access to sensitive information (Gu, 2025) the proliferation of investments made by Chinese state-owned enterprises (SOEs). Although locally assembled vehicles must comply with EU technical standards, embedded hardware and proprietary software can remain opaque, creating enduring vulnerabilities that are difficult to monitor and mitigate.

FDI could enable the transfer of sensitive technologies or expertise (Moran, 2009). Modern EVs gather and process sensitive data including real-time location, driving behaviour and even biometric identifiers. The proliferation of digital technologies has made data security a preferred justification for imposing restrictions on foreign investment, particularly from China (Gu, 2025) the proliferation of investments made by Chinese state-owned enterprises (SOEs). China's Data Security Law and Counter-Espionage Law grant Chinese authorities broad powers to access to data held by Chinese companies, even if that data originates from outside China. This raises concerns that data collected by EVs in the EU, if accessible to Chinese parent companies or technology providers, could be subject to requests or compulsory transfer to Chinese authorities and used for purposes beyond the original intent, including surveillance or intelligence gathering.

This concern reflects a broader trend of securitising data flows and tightening foreign-investment review processes: foreign investment in critical infrastructure could in principle create vulnerability to cyber-attacks, including false data injection and denial of service (Dayarathne *et al*, 2025) prompting this study to examine vulnerabilities in Smart Cyber-Physical Power Systems (CPPS). Charging infrastructure – now part of critical national energy grids – could become entry points for cyber intrusion or disruption, if dependent on Chinese-made control systems or networked management tools.

Then, foreign investment that involves acquisition of domestic companies could provide foreign agents with vectors for infiltration, surveillance or sabotage (Moran, 2009). Covert channels embedded in hardware or software can bypass security controls and enable remote access. Reports¹⁶ of undocumented communication modules, capable of bypassing firewalls and enabling remote access, in Chinese-made inverters highlight how such covert channels can persist undetected. Lithuania, for example, has banned remote access to Chinese renewable power systems to prevent foreign operators from adjusting power parameters or disabling devices¹⁷. Similar vulnerabilities could exist in EV fleets and their charging networks, with potential for sabotage, remote shutdown or espionage.

Domestic FDI screening is growing in importance as a foreign policy tool, particularly in the context of US-China strategic competition (Kamalnath, 2021). In a crisis or geopolitical standoff, state-linked firms could face pressure to interrupt operations or exploit these technical backdoors. While this would also damage the foreign investor's interests, mutual economic cost has historically proven an insufficient safeguard against political escalation.

2.2.3 Long-term economic dependence and value capture

Perhaps the most fundamental risk is that Europe becomes locked into low-value-added activities of assembly, logistics and low-tech services, while R&D, IP, and strategic control remain abroad. FDI often fails to generate substantial domestic value addition in host economies, particularly in member states that joined the EU in and after 2004 (Olczyk and Petreski, 2024).

16 Sarah Macfarlane, 'Rogue communication devices found in Chinese solar power inverters,' *Reuters*, 14 May 2025, <https://www.reuters.com/sustainability/climate-energy/ghost-machine-rogue-communication-devices-found-chinese-inverters-2025-05-14/>.

17 Patrick Jowett, 'Lithuania bans remote Chinese access to solar, wind, storage devices,' *PV Magazine*, 18 November 2024, <https://www.pv-magazine.com/2024/11/18/lithuania-bans-remote-chinese-access-to-solar-wind-storage-devices/>.

While importing subsidised cathodes or refined lithium can help meet Europe's short-term input needs and support local battery production, the strategic concern is that such dependency could persist without efforts to build resilient upstream capacities within Europe or with trusted partners. Even where local assembly and cell production create jobs, the benefits can be limited if important stages of the value chain – processing, cathode production and advanced R&D – remain concentrated abroad and shaped by non-market advantages.

This concern is not theoretical. The experience of Czechia, Hungary, Poland and Slovakia with foreign automotive investment, primarily from European and East Asian carmakers, offers a cautionary tale. Despite large capital inflows, they have remained stuck in low-skill segments (Szunomár, 2024). Even when firms such as Volvo or China's NIO announce R&D centres in eastern Europe, they often serve compliance functions rather than provide innovation leadership. In many cases, foreign firms operate as enclaves within the host economy, with few linkages to local businesses (Hansen, 2014; Cadestin *et al*, 2019). This isolation limits technology transfer and knowledge spillovers that could enhance domestic productive capacity.

2.2.4 Fragmented national approaches and governance risks

The governance of these investments cannot be understood in isolation from the EU's broader relationship with China. Since 2019, the EU has framed China simultaneously as a partner, economic competitor and systemic rival. In practice, the 'partner' label has steadily faded¹⁸, particularly in relation to clean tech and advanced manufacturing, where asymmetries in subsidies, market access and IP protection are growing. Chinese investment is increasingly distinguished from that of other Asian countries, such as South Korea or Japan, whose firms are seen as less politically entangled and more aligned with European norms.

This differentiation is becoming more pronounced. The resurgence of trade tensions, the antagonistic stance of the US administration and renewed tariffs on Chinese EVs in both the US and EU signal a more contentious external environment. For Brussels, this means the FDI governance stakes are higher than ever, though the EU's landscape is fragmented in this regard. While reaching multiple EU countries, Chinese FDI is more concentrated in a few member states (Andersson and Lindberg, 2024), running the risk that EU-wide industrial strategy coherence is undermined.

After the EU in October 2024 imposed countervailing duties on Chinese EVs, Beijing reportedly instructed companies to pause major investments in those EU countries that backed the measure¹⁹. As a result, Leapmotor's SKD assembly with Stellantis in Poland was paused in early spring 2025²⁰. Spain, which had abstained from the tariff vote, was chosen instead for production of the Leapmotor B10 EV.

Some countries started to proactively attract Chinese investment, seeking to anchor it within national reindustrialisation strategies (European Commission, 2024). Hungary has emerged as a key hub where firms, including BYD, CATL, EVE Power and Samsung SDI²¹,

18 Alicia García Herrero, 'Towards an EU-China non-summit?' *First Glance*, 9 July 2025, Bruegel, <https://www.bruegel.org/first-glance/towards-eu-china-non-summit>.

19 *Reuters*, 'Exclusive: China tells carmakers to pause investment in EU countries backing EV tariffs, sources say', 31 October 2024, <https://www.reuters.com/business/autos-transportation/china-tells-carmakers-pause-investment-eu-countries-backing-ev-tariffs-sources-2024-10-30/>.

20 *Reuters*, 'Stellantis stops making Leapmotor EV in Poland, eyes other options', 8 April 2025, <https://www.reuters.com/business/autos-transportation/stellantis-says-it-stopped-making-small-ev-leapmotor-car-poland-2025-04-08/>.

21 Note that BYD was granted €2.3 million; CATL received €800 million in Hungarian State Aid for a €7.3 billion EV battery plant; EVE Power was granted €37 million for a €1.3 billion battery factory; and Samsung SDI was initially proposed a €108 million grant by the Hungarian government, but the European Commission reduced it to €89.6 million after a state aid investigation. See Zoltán Forgó, 'Subsidies for Asian investment in Hungary', Forgó, Damjanovic & Partners Law Firm, undated, https://fdlaw.hu/wp-content/uploads/2024/03/240314_Subsidies-for-Asian-investors-in-Hungary-1.pdf.

benefit from state-backed tax breaks and grants (European Commission, 2024). In 2024, Hungary alone accounted for 31 percent of all Chinese investment in Europe (Kratz *et al.*, 2025), a reflection not only of its industrial capacity but also of its open political embrace of China. Hungarian Prime Minister Viktor Orbán's close ties to President Xi Jinping have amplified concerns in Brussels (Sebastian and Boullenois, 2024).

Moreover, Spain provided Envision with €300 million (covering nearly 25 percent of project costs) via grants and loans, and France approved a €48 million grant (4.4 percent of project costs) for Envision's factory (see section 2). Conversely, countries such as Sweden have imposed stricter conditions, reflecting growing strategic concerns.

3 The EU's toolbox

The EU needs a comprehensive toolbox to harness the opportunities and manage the risks associated with foreign (particularly Chinese) investment in the EV and battery sectors. These tools should combine incentives that attract and shape investment with defensive measures that discipline harmful practices, and should span areas ranging from trade policy and state aid to sustainability, cybersecurity and data protection.

It is important to note that the EU's supranational status, with limited jurisdiction over national security in member countries, combined with its continued commitment to a World Trade Organisation-compliant order, limits its policy options relative to other economies. However, while the EU lacks a centralised investment screening authority, it already possesses well-developed instruments, notably in trade defence and in the form of the Foreign Subsidies Regulation (FSR, Regulation (EU) 2022/2560) and the EU Batteries Regulation (Regulation (EU) 2023/1542). These tools can be used to incentivise investment with sufficient value added and to address non-market risks.

3.1 State aid and EU funding

Data from Hungary shows that most third-country EV investments there have received state aid worth about 8 percent of total project value (Kratz *et al.*, 2025). Although these funds are disbursed by member states, they require EU-level approval, giving the European Commission considerable leverage to influence the terms of support and align them with strategic objectives.

Currently, access to public support, such as state aid, Innovation Fund grants or European Investment Bank (EIB) financing, is not tied systematically to conditions that promote higher value-added activity or technology transfer. Conditions attached to these funds are limited to job creation and the prevention of distortions. State aid could be used to incentivise higher EU value added and employment, and to prevent a race to the bottom for EU countries trying to attracting foreign investment.

3.2 Trade defence

To mitigate supply risks that stem from market distortions and strategic dependencies, the EU has trade-defence instruments. Notably, following an anti-subsidy investigation, the EU in October 2024 imposed countervailing duties (CVDs) ranging from 17 percent to 45 percent on Chinese EV imports, on top of the 10 percent most-favoured-nation tariff (MFN)²².

22 See European Commission press release of 12 December 2024, 'EU Commission imposes countervailing duties on imports of battery electric vehicles (BEVs) from China', <https://trade.ec.europa.eu/access-to-markets/en/news/eu-commission-imposes-countervailing-duties-imports-battery-electric-vehicles-bevs-china>.

The core challenge for the EU is to monitor trade patterns and decide when to intervene

However, gaps remain. In response to CVDs, Chinese firms have increasingly redirected their exports toward plug-in hybrid vehicles (PHEVs). These vehicles may still benefit from comparable forms of state support in China, potentially circumventing the intent of the trade-defence measures. As a result, the underlying risks of market distortion and supply chain dependency may persist, indicating that these challenges have not yet been fully addressed and that greater use of the EU's trade-defence tools may be required. Beyond existing measures, the EU's trade-defence instruments could be further leveraged in two further ways. First, once Chinese EV manufacturers start producing in Europe, duties could be extended to cover parts and components if more than 60 percent of a vehicle's value originates from China, or if EU value added falls below 25 percent – thresholds that are consistent with EU anti-circumvention rules (Regulation (EU) 2016/1036).

Second, the EU can activate its anti-circumvention mechanisms to target the efforts of Chinese firms to evade duties by setting up production facilities outside China. Under the EU's trade-defence framework, duties can be extended to such operations when it is demonstrated that the exported products rely heavily on Chinese inputs and undergo only minimal transformation in the third country. The Commission has already established precedents by identifying circumvention via Turkey and Egypt in sectors such as steel and glass fibre fabrics.

The core challenge for the EU is to monitor trade patterns and decide when to intervene, especially given the EU's weak upstream capacity in segments such as cathodes and battery cells. In addition, while the European Commission is in the driver's seat on trade defence, it still depends on some support from member states, which have veto powers. With US tariffs already in play, the EU must also avoid a two-front trade conflict, meaning any action must be a careful balancing act.

3.3 Addressing distortions through the Foreign Subsidies Regulation

The EU FSR, in force since July 2023, is a powerful instrument for addressing market distortions linked to foreign subsidies. It empowers the Commission to investigate suspected distortions and impose remedies, such as repayment of subsidies, adjustments to procurement or pricing strategies, limits on production capacity, mandatory R&D sharing or compliance reporting. The FSR applies broadly across mergers and acquisitions, public procurement and other single market activities, including greenfield investments.

Unlike trade-defence rules, which target imports, the FSR focuses on the competitive impact of subsidies inside the single market. This makes it particularly relevant to Chinese EV and battery investors in Europe, many of which benefit from extensive state support, including preferential loans, R&D grants and below-market inputs, as the EU's CVD investigation into EVs highlighted (Regulation (EU) 2024/2754).

The FSR is thus a powerful tool for the Commission to address subsidy-related risks. However, the lack of clear implementation guidelines – particularly for greenfield investments – creates regulatory uncertainty. This could deter Chinese and other foreign investors, leading them to delay or cancel planned investments, or redirect them to other markets.

3.4 FDI screening mechanism

The EU has no union-wide FDI screening authority. While 24 EU countries²³ have national screening mechanisms, greenfield investments are often excluded. The Commission's 2020 guidance on how to use screening during public health crises and periods of economic vulnerability in the EU (European Commission, 2020) facilitates information sharing but has no binding force. Most EU countries focus narrowly on national security, in contrast to countries such as Canada or Australia, which also assess broader economic impacts. This

²³ Countries that have yet to notify a screening mechanism are Bulgaria, Croatia and Cyprus. Note that Greece introduced a screening mechanism in April 2025. See European Commission, 'List of screening mechanisms notified by Member States', as of 8 January 2025, <https://circabc.europa.eu/rest/download/7e72cdb4-65d4-4eb1-910b-bed119c45d47>.

raises the risk of low EU value added and a regulatory ‘race to the bottom,’ as EU countries compete for investment without imposing strategic conditions.

The EU’s FDI screening framework, which entered interinstitutional negotiations (trilogues) in June 2025²⁴, offers the potential for a more coherent approach. However, a fully centralised system – especially one that sets minimum economic benefit standards for greenfield investment screening, thereby helping to reduce intra-EU competition for Chinese (or other) FDI – remains politically unlikely. While the Commission and Parliament²⁵ support a more centralised and comprehensive approach with mandatory national regimes and broader sectoral coverage, EU countries²⁶ prioritise national sovereignty, proposing a narrower scope limited to military-relevant sectors and preserving their own decision-making authority. These differences reflect deeper tensions between EU-level economic security goals and national control over foreign investment.

3.5 Demand-side incentives for European-made EVs

In addition to accelerating EV take-up, demand-side incentives that incorporate non-price criteria can promote sustainability and supply chain resilience. The EU’s hydrogen auction scheme, for example, includes a cap on sourcing of electrolyzers from China to reduce strategic dependency²⁷. It is important to note that while carbon footprint, circularity or resilience requirements can promote sustainability and help reduce excessive dependencies, explicit ‘Buy European’ requirements raise issues of compatibility with the WTO Government Procurement Agreement and with free trade agreements with partner countries, such as Japan and South Korea.

However, the EU’s auto sector currently lacks EU-wide demand-side measures tied to such non-price criteria. Among EU members, only France has taken steps to align its subsidy framework with sustainability objectives. Its ecological bonus excludes vehicles that do not meet specific environmental performance thresholds – criteria that disqualify most imported Chinese EVs²⁸.

Another potentially high-impact tool is planned EU corporate fleet legislation (expected to be proposed in the course of 2025 and 2026). Corporate fleets account for about 60 percent of new vehicle registrations in the EU and often benefit from preferential tax treatment (Transport & Environment, 2025). The European Commission is exploring how fleet rules could help boost zero-emission vehicle uptake in line with EU climate targets. Crucially, the Commission has suggested that corporate fleet procurement could also be required to take into account sustainability and resilience factors. This could help shift market incentives towards greater supply-chain diversification and lower lifecycle emissions.

24 See European Parliament Legislative Train Schedule, Revision of the foreign direct investment (FDI) screening regulation, <https://www.europarl.europa.eu/legislative-train/theme-an-economy-that-works-for-people/file-revision-of-the-fdi-screening-regulation>.

25 See European Parliament Legislative Train Schedule, Revision of the foreign direct investment (FDI) screening regulation, <https://www.europarl.europa.eu/legislative-train/theme-an-economy-that-works-for-people/file-revision-of-the-fdi-screening-regulation>.

26 See Council of the EU press release of 11 June 2025, ‘Trade: Coreper endorses the Council’s negotiating position on FDI screening revision,’ <https://www.consilium.europa.eu/en/press/press-releases/2025/06/11/trade-coreper-endorses-the-council-s-negotiating-position-on-fdi-screening-revision/>.

27 The cap is expressed as “surface treatment or cell unit production or stack assembly carried out in China [should be limited] to no more than 25% (in MWe) of the total electrolyser capacity”. See European Commission, ‘Call for proposals: Auction mechanism for renewable hydrogen (RFNBO) — INNOVFUND-2024-AUC-RFNBO-HYDROGEN’, 3 December 2024, https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/innovfund/wp-call/2024/call-fiche_innovfund-2024-auc-rfnbo-hydrogen_en.pdf.

28 See Alternative Fuels Observatory, ‘France – Incentives and Legislation,’ <https://alternative-fuels-observatory.ec.europa.eu/transport-mode/road/france/incentives-legislations>.

While China excels in EV technology, smart systems and onboard software, Europe leads in traditional vehicle design, power systems and onboard chips

3.6 EU battery regulation

Adopted in 2023, the EU Battery Regulation (Regulation (EU) 2023/1542) includes obligations on carbon-footprint disclosures, minimum recycled content and raw materials due diligence. It could be used to restrict market access, ensuring that batteries, and the EVs powered by them, can only be sold in the EU if they meet these environmental standards. The regulation thus has the potential to address market-distortion risks and reduce supply-chain vulnerability by limiting reliance on suppliers operating under weaker environmental rules.

However, enforcement lags behind ambition. The European Commission issued a methodology for calculating carbon footprints of batteries to meet specific requirements in the Batteries Regulation at the end of May 2025 (Andreasi Bassi *et al*, 2025) providing the basis for the enforcement of requirements as in Article 7 of Regulation (EU) but rules are still in development²⁹. Sustainability thresholds could incentivise greater EU value added and help level the playing field by ensuring all battery makers meet the same environmental standards. But until core provisions are finalised and enforced, much of the regulation remains toothless and does not tackle economic security concerns.

3.7 Market access through JVs and licensing

Joint ventures (JVs) and licensing agreements are classic instruments to steer foreign investment towards local value creation and technology exchange. Historically, host countries have used JV requirements to secure domestic industrial benefits: from Japanese carmakers in the US during the 1980s, to South Korean electronics. In China itself, foreign firms were long required to enter through local partnerships.

The most significant potential benefit is technological exchange facilitated by these partnerships. While China excels in EV technology, smart systems and onboard software, Europe leads in traditional vehicle design, power systems and onboard chips. Collaboration enables companies to respond to trade protectionism from other countries and to consolidate the position of the automotive industries of both parties.

In the EU, however, freedom of capital movement and non-discrimination rules limit the use of mandatory JV requirements. Instead, the practical policy tool is robust FDI screening and clear industrial policy conditions. By applying screening consistently and making approvals conditional on meaningful local partnerships, member states can encourage foreign investors to establish JVs or licensing deals that expand domestic production and innovation, rather than simple assembly hubs.

Recent moves by Chinese firms – such as BYD’s European manufacturing push or Envision’s battery JVs – show that these arrangements are attractive even without formal mandates, especially when combined with local incentives. The challenge is to ensure that partnerships go beyond assembly to embed R&D, supply chain linkages and knowledge transfer.

Licensing can also be used to create structured technology-transfer agreements. For instance, partnerships that include R&D and engineering as part of the licensing arrangement can help local firms build capabilities over time, rather than merely assembling imported components. For example, Ford and CATL entered a licensing agreement to bring CATL’s advanced battery technology to Ford’s BlueOval Battery Park, a new battery plant in Michigan – leveraging CATL’s expertise while maintaining Ford’s ownership and operational control. This partnership, which is operational, illustrates how licensing can facilitate production scale-up without full IP transfer, although it too has faced political scrutiny³⁰.

29 See European Commission Joint Research Centre press release of 28 May 2025, ‘Calculating the carbon footprint of industrial batteries: a methodological support’, https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/calculating-carbon-footprint-industrial-batteries-methodological-support-2025-05-28_en.

30 See Ford press release of 23 June 2025, ‘Ford-Owned American LFP Battery Plant Paves Way for Next-Gen Electric Vehicles’, <https://www.fromtheroad.ford.com/us/en/articles/2025/ford-owned-american-battery-plant-future-electric-vehicles>.

These arrangements, however, vary in structure and effectiveness, shaping the degree to which Europe can capture long-term technological and economic benefits (Table 1).

Table 1: Different forms of JVs and licensing agreements

Model	Description	Example	Implications
Majority-controlled joint venture	One partner holds a controlling stake, ensuring strategic leadership while benefiting from the other partner's technology and expertise.	Stellantis-Leapmotor International ³¹ (2024): the deal allows Leapmotor to expand in Europe, while Stellantis secures low-cost EV models to compete with rising imports.	Allows European firms to integrate cost-effective Chinese technology without losing full control. However, knowledge transfer remains limited.
Equal-ownership joint venture	Both partners hold equal stakes, ensuring shared decision-making and resource exchange.	Renault-Jiangling Motors (2019): Renault invested RMB 1 billion (approximately €128.5 million) ³² and acquired a 50 percent stake in JMEV, gaining access to China's EV market while offering engineering expertise.	Facilitates market access and tech exchange, but key innovations (batteries, chips) often remain in China.
Local	Foreign firms establish production sites in Europe through JVs with local partners.	Chery-Ebro Motors (2024): Chery partnered with Spain's Ebro Motors to set up an EV factory in Barcelona, avoiding tariffs while benefiting from local expertise. Chery to become the first Chinese automaker to produce passenger vehicles in Europe.	Expands Europe's EV production capacity, but risks turning the EU into an assembly hub rather than an innovation leader.
Strategic evolution	Long-term partnerships evolve into integrated industrial relationships.	Geely-Volvo (2010): Geely's acquisition of Volvo led to expanded R&D and supplier networks in Europe, the number of Chinese suppliers for Volvo has increased from almost zero to over 1,700, contributing to more than 30 percent of Volvo's global procurement and substantially reducing production costs.	When structured properly, foreign investment can support R&D and strengthen domestic industry.
Licensing agreements	European firms license Chinese battery/EV technology, gaining access while remaining operationally independent.	CATL-Ford and Tesla: CATL licenses battery technologies, allowing Western automakers to adopt cutting-edge innovations without full-scale partnerships and direct ownership ties.	Enables fast access to advanced tech without industrial control risks. However, Europe must ensure licensing agreements contribute to domestic innovation, not dependence.

Source: Bruegel.

Many EU firms lack the leverage to negotiate favourable terms - especially under fragmented national industrial policies and restrictive state aid rules. To ensure these deals support EU interests, they must be governed under a broader framework with clear standards on ownership, IP governance, and R&D commitments.

31 See Stellantis press release of 30 July 2024, 'Leapmotor International Ships the First Batch of Leapmotor Electric Vehicles from China to Europe This Month', <https://www.stellantis.com/en/news/press-releases/2024/july/leapmotor-international-ships-the-first-batch-of-leapmotor-electric-vehicles-from-china-to-europe-this-month>.

32 See Renault Group press release of 17 July 2019, 'Groupe Renault and JMCG officially establish a joint venture for electric vehicles in China', <https://media.renaultgroup.com/groupe-renault-and-jmcg-officially-establish-a-joint-venture-for-electric-vehicles-in-china/>.

3.8 Data and cybersecurity

One of the biggest risks tied to Chinese EVs, whether imported or produced locally, relates to data, cybersecurity and deliberate disruption. The EU's main tools to address these risks include the General Data Protection Regulation (GDPR, Regulation (EU) 2016/679), the NIS2 Directive (Directive (EU) 2022/2555) and the Cybersecurity Act (Regulation (EU) 2019/881).

Under the GDPR, companies handling personal data in the EU must follow strict rules on storage, usage and cross-border transfers. Transfers to jurisdictions without an EU adequacy decision – such as China – are only allowed if specific safeguards are applied (eg standard contractual clauses). In May 2025, Ireland's Data Protection Commission fined TikTok €530 million for sending personal data of users to China, signalling stricter enforcement ahead³³.

The Cybersecurity Act provides a certification framework for ICT products, while NIS2 expands the scope of critical entities subject to cybersecurity requirements. These rules could apply to EV and battery firms, particularly those offering over-the-air updates, software-defined vehicle services or charging infrastructure.

An ongoing risk assessment of connected vehicles under NIS2 could result in certain digital suppliers being designated 'high-risk', echoing the EU's telecoms approach with Huawei³⁴.

While the GDPR is a strong tool to address risks related to the transfer of personal data, it does not cover other vehicle-related data. On cybersecurity, a major challenge is the overlap with national security – an area still controlled by member states – limiting EU-wide action. However, the Commission retains leverage via vehicle type approval, as highlighted in the Industrial Action Plan for the European automotive sector (European Commission, 2025a). This could allow restrictions on high-risk Chinese EVs or components, particularly those using domestic digital stacks or cloud services. However, such measures would carry risks of major commercial disruption, weakened EU-China cooperation, and potential Chinese retaliation.

4 Policy recommendations

The EU's strongest lever in its negotiations with China and its efforts to attract high value investment remains access to the single market. The EU should use this leverage to strike a balance between openness, industrial competitiveness and security. Demand- and supply-side measures, trade-defence tools and cybersecurity rules should not be barriers, but rather instruments for structured, rules-based integration of Chinese firms into Europe's greening industrial landscape.

Many of the necessary legal instruments already exist at EU level. The challenge is not a lack of tools, but the political will and strategic coordination needed to apply them effectively. National reluctance to cede control – particularly over investment decisions – remains a major obstacle. Yet greater coherence between EU countries is essential, and should also inform the ongoing negotiations over a price undertaking on Chinese EVs³⁵. In April 2025, the

33 Ellen O'Regan, 'TikTok hit with €530M fine after illegally sending users' data to China', *Politico*, 2 May 2025, <https://www.politico.eu/article/tiktok-hit-with-e530m-privacy-fine-ireland-china-data/>.

34 See European Commission press release of 15 June 2023, 'Commission announces next steps on cybersecurity of 5G networks in complement to latest progress report by Member States*', https://ec.europa.eu/commission/presscorner/detail/en/ip_23_3309.

35 A price undertaking is a voluntary commitment by an exporter to raise the export price of their products or cease exporting at dumped or subsidised prices, serving as an alternative to anti-dumping or countervailing duties. In the context of EU-China electric vehicle (EV) trade, price undertakings represent a negotiated solution whereby Chinese EV manufacturers would commit to selling their vehicles in the EU at or above agreed minimum prices, thereby avoiding the imposition of tariffs.

European Commission has signalled openness to minimum import price commitments³⁶, differentiated by firm and segment, while China appears to favour an industry-wide deal, likely aimed at shielding state-owned SAIC. The Commission should ensure that any price undertaking complements, rather than substitutes for, broader industrial and security safeguards.

4.1 Demand side measures: incentives to promote sustainable and resilient value chains

- **Introduce non-price criteria in legislation to decarbonise corporate fleets:** embed additional sustainability and resilience requirements into the legislative proposal on electrifying corporate fleets due between the end of 2025 and early 2026. This could take the form of either mandatory targets for large corporate fleets to procure zero-emission vehicles meeting these criteria, or fiscal incentives tied to compliance with these standards.
- **Encourage member states to align EV incentives with non-price criteria:** the EU should promote the adoption of purchase incentives that favour vehicle sustainability and supply chain resilience. This could include issuing guidance to member states and attaching conditions to funding similar to that disbursed via instruments such as the EU's Social Climate Fund.
- **Remain prepared to deploy trade-defence instruments on Chinese auto imports:** the EU should uphold fair competition by closely monitoring surges in Chinese vehicle and parts exports, whether direct, routed through third countries or via assembly within the EU using imported components. In coordination with industry and member states, the EU should impose mitigation measures if those imports are found to be subsidised and distorting. While preserving trade ties with China remains important, it must be based on a level playing field.

4.2 Supply-side measures: conditional state aid and EU funding

All state aid and EU-level funding (eg Innovation Fund, Horizon Europe, IPCEIs, EIB) should be made contingent on measurable commitments by investors. Recommended criteria include:

- **Sourcing requirements to avoid overreliance on a single supplier or country for critical inputs.** While formal local content rules would violate current guidelines, there is precedent for encouraging diversification: the EU hydrogen auction caps Chinese-sourced equipment at 25 percent of plant capacity, and recent Innovation Fund and Battery Call evaluations have encouraged diversification to reduce dependence on Chinese upstream materials³⁷.
- **Mandatory workforce upskilling** participation aligned with strategic technology areas, for instance by requiring certain investments in local vocational training, helping build domestic capabilities and social buy-in.
- **Local R&D investment commitments**, especially in next-generation battery technologies, mobility software and autonomous systems.
- **Priority access to grants** for firms that contribute actively to EU industrial resilience, including participation in ecosystem-level innovation partnerships and standard-setting.

36 *Reuters*, 'EU, China will look into setting minimum prices on electric vehicles, EU says', 10 April 2025, <https://www.reuters.com/business/autos-transportation/eu-china-start-talks-lifting-eu-tariffs-chinese-electric-vehicles-handelsblatt-2025-04-10/>.

37 See European Commission, 'Call for proposals: Auction mechanism for renewable hydrogen (RFNBO) — INNOVFUND-2024-AUC-RFNBO-HYDROGEN', 3 December 2024, https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/innovfund/wp-call/2024/call-fiche-innovfund-2024-auc-rfnbo-hydrogen_en.pdf.

4.3. Cybersecurity and data governance safeguards

- **Strictly enforce GDPR and sector-specific data laws** in the automotive sector, with significant penalties for violations to encourage transparent and legal data handling.
- **Make cybersecurity a dynamic regulatory priority:** a risk-based approach (not a blanket ban) is appropriate. The EU's ongoing cybersecurity risk assessment under the NIS2 Directive, coupled with GDPR enforcement and vehicle type-approval powers, provides tools to mitigate cyber-related threats. However, more active governance is needed to ensure connected vehicle systems do not create long-term vulnerabilities. For this, the European Commission and relevant national authorities should commit to continuous monitoring as risks evolve, particularly in relation to vehicle-to-grid communication and autonomous systems.
- Following thorough and transparent cybersecurity risk assessments **consider introducing safeguards and joint venture requirements** in especially sensitive areas such as EV charging infrastructure, telematics, personal data and autonomous platforms, using NIS2 and EU type-approval competences. These measures should ensure European operational control and limit foreign access to core digital systems.

4.4. Tackle distortions, but ensure investing remains attractive

- **Clarify how the FSR** will be applied to greenfield EV investments. Forthcoming implementation guidelines (scheduled to be formally adopted in January 2026) should include thresholds for potential EU intervention and criteria for assessing market distortion, and should clarify selection of mitigation options.
- **Avoid blunt remedies** that risk deterring strategic investments. Rather than production caps or forced IP transfers, the Commission should consider:
 - **Redirecting recovered subsidies** into an EU-managed fund for EV workforce development and R&D, turning distortive subsidies into strategic EU assets.
 - **Requiring local-content commitments** when distortions stem from subsidised Chinese inputs, promoting upstream localisation and reducing vulnerability.

The EU's current crossroads in electric vehicle industrial policy is defined by a paradox: the bloc must accelerate its green transition while managing rising strategic dependence on foreign – especially Chinese – technologies. As we have shown, Chinese EV and battery investments are neither inherently benign nor malign. Their impact will depend on Europe's ability to govern the terms of integration, using its market power not to exclude, but to discipline and direct investment. This means enforcing with resolve current rules on data localisation, cybersecurity and anti-circumvention, and improving coordination across member states to avoid subsidy races or regulatory arbitrage. Just as critically, it requires embedding sustainability, innovation, and workforce conditions into the full spectrum of incentives, from demand-side EV subsidies to corporate fleet rules and EU funding instruments.

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