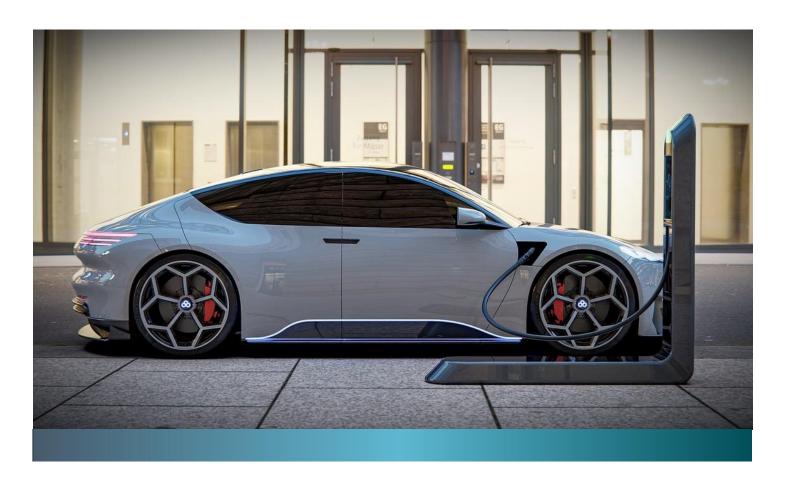
Paving the way: EV Country Attractiveness Index findings

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Cornwall Insight has partnered with law firm Shoosmiths to create the Electric Vehicle Country Attractiveness (EVCA) Index, a quarterly ranking which charts the relative attractiveness of major European nations for investment in electric vehicles (EVs) – with a particular focus on passenger cars – and EV charging infrastructure. We have identified a variety of metrics covering a range of factors (from purchase subsidies to national EV charging targets) upon which nations can be ranked on their attractiveness.

State of the market Q323

Following the <u>previous iteration</u> of the EVCA Index, published in September 2023, the EV market has continued to grow across Europe. From October 2022 to October 2023, the EU, Norway, and the UK have seen a combined 29% year-on-year increase in battery electric vehicle (BEV) sales. This has contributed to BEVs achieving a combined market share of 15% across the three jurisdictions so far in 2023. While an improvement from previous years, internal combustion engine (ICE) vehicles remain the most popular choice among European consumers as petrol and diesel cars have maintained a market share of more than 42% across the EU, Norway, and UK in 2023. For the first time, all of the ranked nations on the EVCA Index have maintained positive growth in BEV sales over the past four quarters (Figure 1).

¹ ACEA

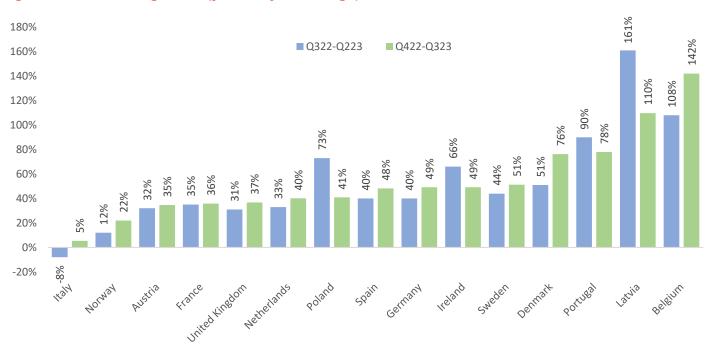


Figure 1 – BEV sales growth, (year-on-year change)

Source: European Automobile Manufacturers Association (ACEA)

Helping to break down one of the main barriers to EV adoption, charging infrastructure also continues to be rolled out across the continent. As of Q323 more than 700,000 public – and many more private and semi-public – EV charge-points are in operation across the EU, Norway, and the UK combined, an increase from around 640,000 in Q223. As this network continues to expand, the viability of purchasing a BEV should increase across Europe as, among other things, 'range anxiety' becomes less of an issue for would-be consumers.

Rates of public EV charging growth are also largely consistent across the index, however many countries have seen growth decline in Q323. Significant downward trends have been identified in Latvia, Ireland, and Spain. In Latvia, 13 public charge-points have become inoperable over the past quarter, contributing to the decline. Although Ireland's network of public charge-points is now within the estimated 2,540-4,850 needed by 2025 – according to the Electric Vehicle Charging Infrastructure Strategy 2022-2025² – such a drop-off in growth could act to slow down the country's EV transition. Meanwhile, Spain is experiencing a levelling-off of growth.

² GOV.IE

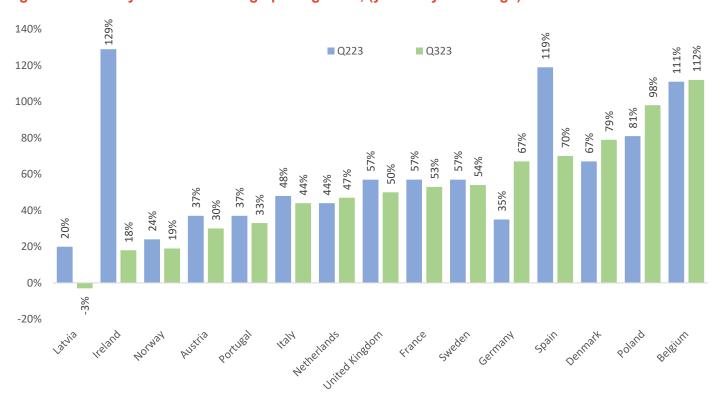


Figure 2 – Publicly accessible charge-point growth, (year-on-year change)

Source: European Alternative Fuels Observatory

International policy and competition

Across Europe, the debate has continued surrounding the future of its automotive industry and EV supply chains. On 4 October 2023, the European Commission (EC) initiated an anti-subsidy probe into Chinese BEVs imported into the EU. The probe aims to investigate the levels of state support granted to Chinese BEV manufacturers by the Chinese government (EC President Ursula Von Der Leyen stated that the price of Chinese BEVs is kept "artificially low") with an end-goal to "level the playing field" between the EU and China.³

With the new year close on the horizon, the UK's automotive sector is also in the midst of some uncertainty as it is urging the EU to reconsider its imposition of 'Rules of Origin' tariffs on non-EU made EVs from 1 January 2024. These tariffs, according to analysis conducted by the Society of Motor Manufacturers and Traders (SMMT) could add around £3,400 to EU-made BEVs sold in the UK and £3,600 to British-made BEVs sold in Europe.⁴ With the price of ICE vehicles unaffected by these tariffs, the cost-gap between BEVs and more polluting vehicles could widen by a significant amount, potentially slowing the EV transition. While the UK government and the SMMT is asking for the rules to be delayed until 2027, the EC is currently in the process of deciding whether to implement a one year delay by slightly changing the definitions outlined in the UK-EU Trade and Cooperation Agreement.⁵ Currently, it is felt that imposing these tariffs would not support EU industry as intended due to a lack of battery manufacturing capabilities across the continent.

Perhaps alleviating some of this uncertainty, the UK Autumn Statement announced by Chancellor Jeremy Hunt on 22 November 2023 has committed to make available more than £2bn for "the automotive sector to support

³ European Parliament

⁴ SMMT

⁵ European Commission

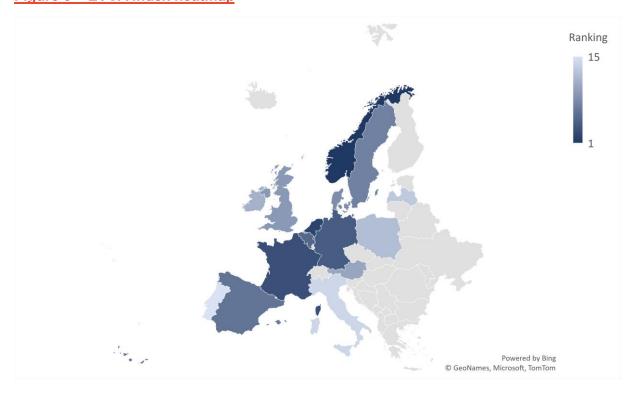




the manufacturing and development of zero emission vehicles, their batteries and supply chain." It is hoped that this will provide a necessary boost to the UK's domestic manufacturing capabilities and ensure that British industry can take advantage of, and help to accelerate, the EV transition.

Reflecting the changing nature of the European EV landscape, the rankings of the EVCA Index have changed once more. This is highlighted in Figures 3 and 4 – with 1 (darker shading) being the highest and 15 (lighter shading) the lowest– and is followed by a discussion of the latest developments in the ranked EV markets.

Figure 3 – EVCA Index heatmap



⁶ GOV.UK

Figure 4 – EVCA Index scores and rankings

Country	Score	Ranking	Change
Norway	6.7	1	0
Netherlands	6.4	2	0
France	5.9	3	0
Germany	5.88	4	0
Belgium	5.85	5	+2
Spain	5.5	6	-1
Sweden	5.49	7	-1
Denmark	5.48	8	+1
United Kingdom	5.4	9	-1
Austria	5.2	10	0
Ireland	4.2	11	0
Poland	4.0	12	+2
Latvia	3.9	13	-1
Italy	3.7	14	-1
Portugal	3.3	15	0

Explaining the shift

For the fourth time running, Norway remains atop the EVCA Index. With a BEV market share of 83% as of Q323, Norway is continuing to make strong progress towards its 2025 ICE phase-out target. Despite BEV sales declining in recent months, Norway looks to be on track to meet targets as, over the same period, sales of petrol and diesel vehicles have also declined by 64% and 34% respectively. Combined, these ICE vehicles have a market share of only 3.6%.

Support for the EV transition remains strong in the Netherlands, home to the most expansive and developed public charging network in Europe. However, with more than €27mn (41%) left in the Subsidy for Electric Passenger Cars for Private Individuals (SEPP) budget, which is due to expire on 29 December 2023, there are concerns that Dutch consumers are losing interest in purchasing BEVs.⁷ In contrast, the SEPP budget for 2022, despite being greater than in 2023, had been fully exhausted by June 2022.

France has seen an increased demand for BEV incentives over the course of 2023. In particular, the French government has been exploring options to make BEVs accessible to consumers with lower incomes. While current subsidies are more generous for low income consumers, President Emmanuel Macron announced that starting in 2024, thousands of European-made BEVs will be available to low income households to lease for €100 per month. The French government has also, in an effort to better reflect the full scope of a vehicle's emissions, changed the rules for awarding the ecological bonus subsidy. These new rules came into effect on 10 October 2023 − with a transition period in place until 15 December 2023 − and will give each vehicle a "green score". While the full details of the scheme are yet to be released, this score will reflect the CO₂ emissions across the wider vehicle manufacturing process, including things like "battery characteristics" and "distance travelled between the place of production and the place of marketing", for instance. This forms part of the French government's plan to re-shore EV manufacturing domestically and elsewhere throughout the EU.

⁷ Netherlands Enterprise Agency

⁸ French Republic



In Germany, BEV subsidies came to an end for corporate consumers in September 2023, leading to a massive boom in sales in August (+170%) followed by a major slump in September (-28%). Despite this, BEV sales appear to have returned to usual levels in October.

Belgium has continued to excel in its EV transition as it has topped the index for growth in both BEV sales and deployment of publicly accessible charge-points. The Flemish government has also reintroduced a subsidy to aid in the purchase of new and used BEVs, with up to €5,000 available and a budget of €20mn for 2024. With a large share of Belgium's BEV market in the corporate market, this could help to fuel more interest among private consumers and help to end their reliance on ICE vehicles. Changes to the calculations underlying the Mobility Budget could also help to spur BEV uptake across the country as a whole. As such, Belgium has risen two positions on the index, moving from seventh to fifth place.

Spain has also continued to perform well on the EVCA Index, despite dropping from fifth to sixth place. BEV sales have continued to rise as have public charge-point installations, while funding remains in place to support this trend moving forward. In fact, on 14 November 2023, the Spanish government announced that EV subsidies were to be extended from 31 December 2023 to 31 July 2024 in order to fully exhaust the remaining €290mn from the initial €1.2bn budget. However, Spain has also run into some issues recently as, despite a major uptick in public charge-point deployment, many charge-points currently remain non-operational, pending grid connections, across the country. Meanwhile, BEVs still have a low market share of 5%.

Sweden has also dropped one position on the EVCA Index, from sixth to seventh place. This is more owing to the successes of Spain and Belgium than its own shortcomings, however. While some critics still question the country's decision to end BEV subsidies in 2022, sales remain strong in Sweden, with over 50% growth as of Q323. Meanwhile, Stockholm is poised to ban the use of petrol and diesel vehicles in its city centre, beginning in 2025. This will be further reaching than similar systems such as London's Ultra Low Emission Zone as petrol and diesel vehicles will be outright banned, with no option to drive them within the zone for a fee. While this is yet to be implemented, it could set the model for other Swedish or European cities moving forward.

Denmark has regained eighth position on the EVCA Index owing to its increased and sustained growth in BEV sales and deployment of public charge-points, alongside its increasingly favourable macroeconomic landscape. This success is not to be overestimated, however, as Danish automotive association De Danske Bilimportører

⁹ Belgian Federation of Enterprises

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(The Danish Car Importers) warn that growth could "stagnate" due to the lack of cheaper BEV models on the market and the looming rise in BEV taxation post-2025.¹⁰

The UK has continued to fall down the EVCA Index, dropping from eighth to ninth place. While the UK continues to see increases in both BEV sales and public charge-point deployment, it is not excelling or leading the Index in either. Furthermore, with political uncertainty surrounding the future makeup of the UK's car fleet under the Zero Emission Vehicle mandate (particularly during the period from 2030-2035) and the spectre of Rules of Origin tariffs looming, the UK's EV transition is characterised by uncertainty. In addition, and despite a pressing need to deploy more fast and rapid charging, vital support schemes like the Rapid Charging Fund still continue to experience setbacks. So, while on a macro level the UK is continuing to grow its BEV market and support the expansion of its EV charging network, it could and perhaps should be doing so with an increased rate of urgency. Announcements made in the Autumn Statement could help to enable this as alongside further support for manufacturing, the government is aiming to remove "unnecessary planning constraints" and ensure that that the National Planning Policy Framework "prioritises the rollout of EV charge-points.". 11

Austria has maintained tenth position on the EVCA Index and it has continued to see moderate growth of around 30% in both BEV sales and public charge-points as of Q323. Like the Netherlands and Spain, Austria still has more than €21mn of funding available to subsidise BEV and charge-point purchase until the end of 2023, perhaps suggesting a similar lack of consumer interest in transitioning to EVs. Otherwise, Austria is introducing a scheme (similar to that available in Germany) in 2024 where EV drivers can receive payments for their charging activity recorded at non-public charging points. This so-called 'ePremium' will be funded through CO₂ offsetting payments made by oil and gas companies.

Similarly, Ireland has retained eleventh position on the EVCA Index. Despite a month of BEV sales decline in September 2023, and a low rate of charge-point growth, Ireland has continued to develop its fleet of BEVs and public charge-points over the course of Q323. Providing further clarity and incentivising continued growth Ireland's Budget 2024, announced on 10 October 2023, extended the vehicle registration tax relief and benefit-in-kind tax rates currently enjoyed by BEVs until 2025. With the development of a national delivery plan for en-route charging due for release in late 2023, Ireland could reinvigorate its BEV market moving into 2024.

While BEV sales growth has declined in Q323, Poland has seen significant growth in its public EV charging network, with an increase of 98% year-on-year in Q323. This has contributed to Poland moving up the index from fourteenth to twelfth place.

Owing to the small size of its fleet, Latvia continues to show strong BEV sales growth at 110% as of Q323. However, a decline in operational public charge-points coupled with Poland's success has seen Latvia fall from twelfth to thirteenth place on the EVCA Index.

While Italy continues to occupy the lower echelons of the EVCA Index, some positive developments have arisen in Q323. Recovering from a period of sustained decline in its BEV market in 2022, Italy has seen its fourth positive sales quarter in a row. While overall sales still remain lower than in other major European countries, Italy's progress shows hope for the future. With Italy also keen to re-shore EV production domestically and within Europe, the country could see an increased appetite for the EV transition in 2024.

Portugal remains in fifteenth place on the EVCA Index despite continued strong growth in BEV sales. Currently, this is not being matched by a strong policy framework and subsequent rise in public EV charging infrastructure.

¹⁰ The Danish Car Importers

¹¹ GOV.UK

¹² Citizens Information

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Indicators:

A range of indicators, subject to differing weightings, have been utilised in the production of this index. They are listed as follows without regard to importance or weighted value:

- Committed government funding
- National EV sales targets
- National EV charge-point implementation targets
- Support for ICE vehicle rollback or ban
- Available investment subsidies, funds, and tax benefits for EVs and EV charge-points
- Available purchase subsidies, funds, and tax benefits for EVs and EV charge-points
- Ability to conduct business
- Rate of inflation
- Market share of BEVs in new registrations/sales
- Share of BEVs in the passenger car stock
- Four-quarterly growth of BEV sales
- BEVs per publicly accessible charge-point
- Charge-points per kilometre of motorway
- Four-quarterly growth of publicly accessible charge-points
- Achievement of Alternative Fuels Infrastructure Regulation (AFIR) fleet-based charge-point targets
- Wholesale cost of electricity scaled to GDP

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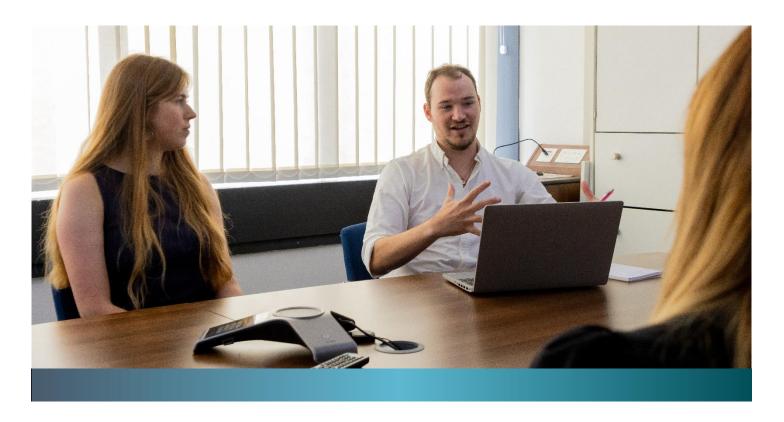
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About Cornwall Insight



Cornwall Insight is the pre-eminent provider of research, analysis, consulting and training to businesses and stakeholders engaged in the Australian, Great British, and Irish energy markets. To support our customers, we leverage a powerful combination of analytical capability, a detailed appreciation of regulation codes and policy frameworks, and a practical understanding of how markets function.

Understanding that the e-mobility and low carbon landscape is fast-paced and often complicated, our services help you navigate this rapidly changing area. Our products, forums, training and consultancy services distil the latest news and developments in the sector, allowing you to assess the opportunities and challenges quickly.

With the accelerating adoption of electric vehicles and the deployment of charging infrastructure, it is important to keep up with this changing landscape. Our experienced team of analysts and consultants can do just that, providing market insight and advice and support for projects.

Our EV Insight Service can help to provide these essential insights concisely and comprehensively. Through weekly newsletters, in-depth reporting and alerts, and a bi-monthly user forum, our service provides insight across key commercial, policy and regulatory developments in the EV market, looking across the value chain from EV uptake to infrastructure, supplier activity and fleet services.

Our expert-driven service of market intelligence and vital insight on how markets are developing will enable you to create the best approach for your business.

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About Shoosmiths

Shoosmiths is the law firm clients choose for excellent service, incisive thinking and above all for their ability to focus on what matters.

From offices across the UK and Brussels, the firm supports some of the world's most exciting and ambitious businesses; amazing clients making an impact. A key tenet of the firm's strategy is its focus on five sectors - Mobility, Energy & Infrastructure, Technology, Living, and Financial Services.

Electric vehicle (EV) charging infrastructure touches on all of these sectors and, as such, is an area of combined focus for the firm's sector groups.

Shoosmiths' national multi-disciplinary <u>e-Mobility & infrastructure team</u> has a proven track record supporting the EV sector. Led by Chris Pritchett and Calum Stacey, its specialists on all aspects of EV infrastructure financing, deployment and operation and bring a market-leading understanding of the commercial considerations of EV charging, whichever role their clients play in the value chain.

As well as planning and real estate work, delivered efficiently and via the latest portfolio management platforms, they are experts in the numerous commercial relationships that underpin this sector, from software and CRM, data aggregation, supply chain management, procurement processes with public sector clients and, of course, all the various commercial frameworks between operators, landowners, customers and manufacturers. As well as advising extensively throughout the UK and Ireland, their team have worked on contracts across Europe and the US, leveraging their deep market knowledge to provide timely, efficient and insightful support.

Some of their recent instructions include:

- Top 5 market share CPO advising a significant charge point operator in the UK on its continued network expansion.
- EVC advising on its recent £165million financing.
- Volkswagen Group advising on its tie up with Tesco for the development of the largest UK retail electric vehicle (EV) charging network, powered by Pod Point, comprising more than 2,400 free to use EV charging bays across 600 Tesco stores within the next three years.
- A leading UK motorway service station operator advising on its agreement with lonity to install high-powered ultrafast charging stations across its service stations.
- Nissan advising on its partnership with Uber, to promote the uptake of EVs across one of the largest driver fleets in the world.
- A multi-national telecoms company advising on the implementation of its dedicated EV charging equipment business in the UK, including the creation of a suite of associated B2B and B2C template contracts.
- A fibre utility company advising on its roll-out of a new EV charge point installation and operation business unit focused on residential car parks.
- A large integrated vehicle financing platform provider advising on a master services agreement to provide access to public charging networks via a subscription service made available to users of its EV fleet.
- Scania creating new UK framework arrangements combining the supply of battery electric tractor units and the supply and installation of on-site charging equipment. As well as preparing their charging-as-a-service terms and conditions.



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