

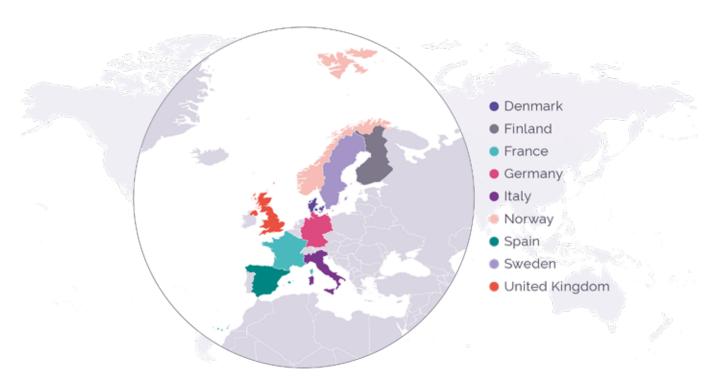
INTRODUCTION

The European automotive market has faced significant disruption because of the COVID-19 pandemic: the ongoing crisis has shut down factories, disrupted supply chains, and hit consumer confidence.

The specific implications for electric cars remain uncertain: oil prices have plummeted at times <u>during</u> <u>the pandemic</u>, which may have provided an incentive to stick with petrol or diesel cars. But emissions regulations are still in place, automotive manufacturers still have legal incentives to produce electric cars in many European markets, and the specific context of each European market will naturally still influence consumer adoption.

In countries such as Germany, the automotive industry has been a major player in the national economy, and the transition away from fossil fuels has been met with resistance such as pro-diesel protests. In countries such as Norway, petrol and diesel vehicles are heavily taxed while electric cars are not – creating consumer incentives that do not exist in other markets. However the pandemic affects the electric car industry, automakers will need to factor in the challenges and opportunities that long predated it.

YouGov analysed data across nine European countries:



The findings in this white paper are largely taken from January 2020. They show that both current and prospective electric car owners are significantly motivated by a desire to help the environment. But they also uncover the practical, cost-based considerations that can either support or undermine electric car ownership on a continental and national scale.

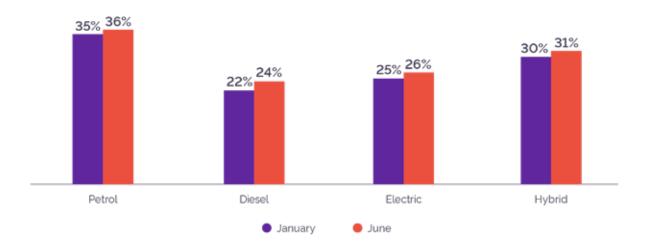
The research goes on to explore the reasons why drivers enjoy their electric cars – and highlights potential commercial opportunities for manufacturers who want to increase their sales and their market share.

Some additional data was collected in June 2020 to determine how the COVID-19 crisis has affected the European electric car market. The findings are summarised in the next chapter.

The impact of COVID-19 on the European electric car market

Consideration across all vehicle types has remained broadly stable between January and June 2020 despite the COVID-19 pandemic.

NET CONSIDERATION CHANGES ACROSS EUROPE



Our research showed that five markets saw some meaningful changes at the national level.

Germany

Germany's petrol car ownership was the highest across the nations we surveyed before the pandemic, and it remains so now. That said, petrol car ownership decreased by two percentage

points - within the margin of error, certainly, but not indicative of a significant increase. There were more noticeable movements in terms of automotive recommendations: petrol car recommendations decreased by five percentage points while electric recommendations saw growth of five percentage points.

NET RECOMMENDATIONS ACROSS EUROPE - JUNE 2020



Italy

Italians have been more positive about electric cars over the course of the pandemic. By June, Recommend scores increased by four percentage points to 23%.

Norway

We take a deeper look at the Norwegian electric car market later on in the white paper – focusing on data from January 2020. Between January and June, net recommendations dropped by eight percentage points: the most substantial decline in our dataset.

At 18%, Norwegians are now behind Spanish, Italians, and those from the UK in terms of overall recommendation.

Spain

Spanish drivers were more likely to buy or lease new or used hybrid cars by June 2020: rising to 46% from 40% in January.

Petrol recommendations declined by five percentage points over the last six months, while electric car recommendations stayed relatively stable.

The UK

Electric car recommendations increased by six percentage points – from 16% to 22% between January and June 2020.

That said, the UK 27%, it also has the second-highest level of petrol recommendations across all nine European nations.

ELECTRIC CAR OWNERSHIP ACROSS EUROPE

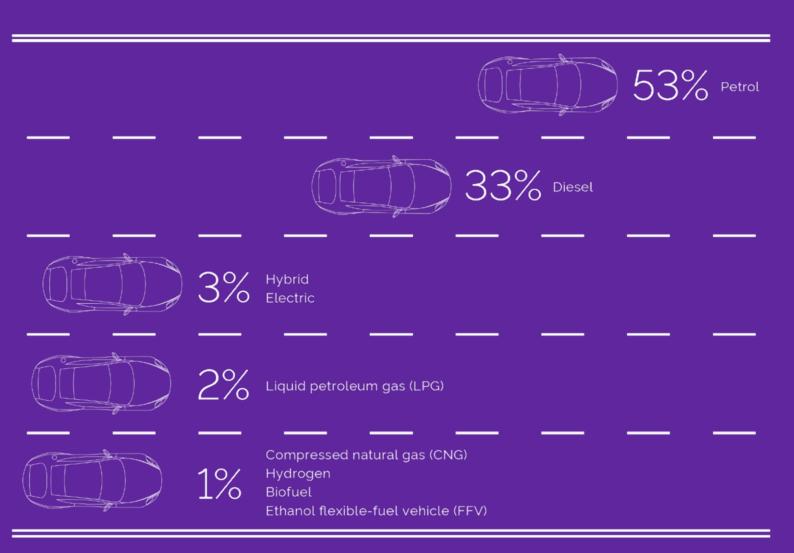
Are electric car owners facing an uphill drive in Europe? This chapter explores current levels of ownership, recommendations, and purchase intention across the nine European markets surveyed.

YouGov data indicates that electric car owners represent a small minority of the European market: on average, only 3% of respondents say they own at least one vehicle in this category. By

comparison, over half (53%) have one or more petrol and a third (33%) have one or more diesel vehicles – amounting to more than three-quarters (76%) of Europeans across all nine nations when joint ownership is taken into account.

But this isn't necessarily the full story. There are distinct national idiosyncrasies that can help or hinder automotive manufacturers looking to break into a particular market.

VEHICLE OWNERSHIP BY FUEL TYPE (JANUARY 2020)



For example, 15% of Norwegians own an electric car. The country's healthier market (which will be explored further later in the paper) may be an example of how regulatory and tax incentives for consumers can translate into adoption.

But Italy's electric ownership is low, and a larger proportion of the population (86%) own a petrol or diesel car than any other nation surveyed. Uptake of lower-emission liquid petroleum gas (LPG) cars – which are frequently promoted as an ecofriendlier alternative to petrol and diesel – is higher (15%).

Both policy and incumbency could play a role here: 'autogas' (as LPG Is sometimes known) has been an established fuel in Italy since the 1950s, and tax exemptions have made the price at the pump significantly lower than petrol and diesel.

ALTERNATIVE FUELS IN ITALY, SWEDEN, AND NORWAY (JANUARY 2020)



Hybrids are occupying similar commercial territory to electric cars across Europe - and are outperforming them in terms of consumer recommendations and purchase consideration.



European vehicle recommendations

Hybrids are more recommended than electric cars across every European nation surveyed.

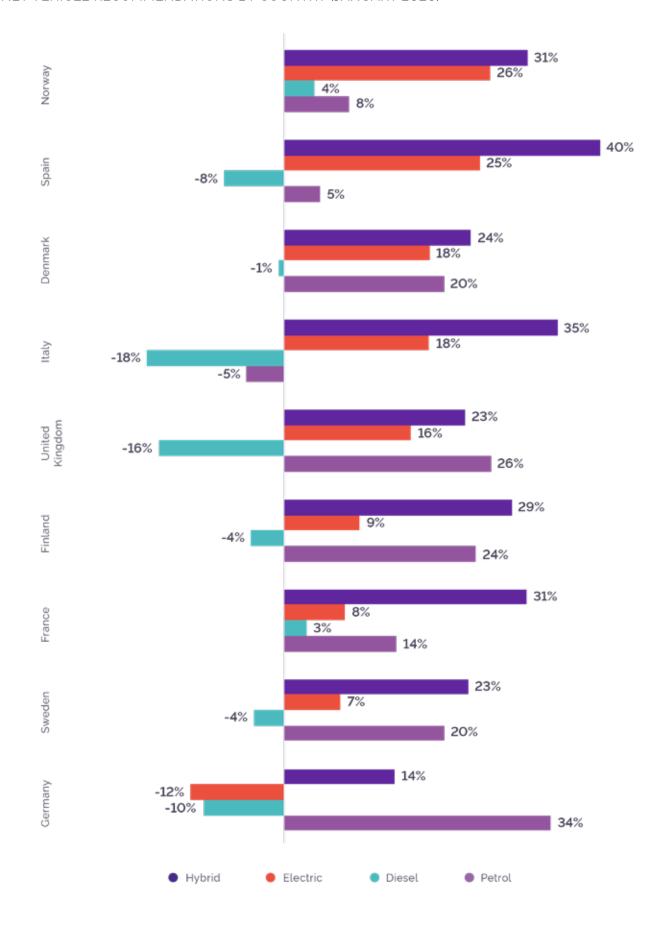
This is partially explained by their perceived reliability. Europeans are more likely to believe that hybrids are dependable compared to electric cars (30% agree hybrids are more reliable vs. 11% who disagree) – though almost three in ten (28%) say they're neither more nor less dependable and a similar proportion say they simply don't know (31%).

But another factor that could work to hybrids' advantage is their inherent versatility. In nations with relatively underdeveloped charging networks, a battery-powered car could be a less attractive option for drivers than a vehicle that can conveniently switch between electric and another fuel type.

In Spain, for example, people are most likely to recommend hybrids and the second-most likely to advocate for electric cars. But YouGov's research shows that there's a 15 percentage point recommendation gap between the two categories – and that seven out of ten Spanish consumers (71%) regard limited availability of charging points as a barrier to purchase. ACEA data suggests that, as of 2019, fewer than 5,500 charging locations served a population of over 46 million. By contrast, Norway (which is significantly smaller than Spain) is estimated to have over 12,000 charging stations for a population of under 5.5 million.

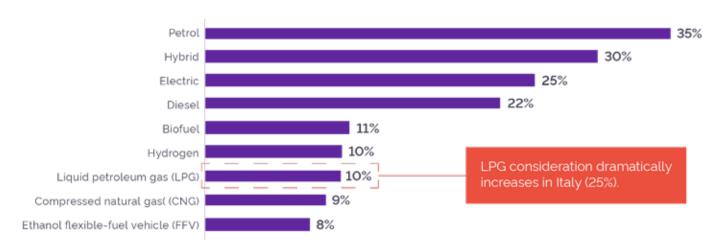
In Norway, hybrids still win in terms of overall recommendations – but only by five percentage points - and electric cars are more recommended than they are anywhere else. If Spain introduces more charging stations, it could see a corresponding increase in recommendations.

NET VEHICLE RECOMMENDATIONS BY COUNTRY (JANUARY 2020)



Electric is more popular than diesel - but petrol power is still number one

AVERAGE NET CONSIDERATION TO BUY OR LEASE NEW OR USED IN THE NEXT YEAR (JANUARY 2020)



While petrol is still comfortably on top in terms of customer consideration, credible alternatives are also considered by many consumers.

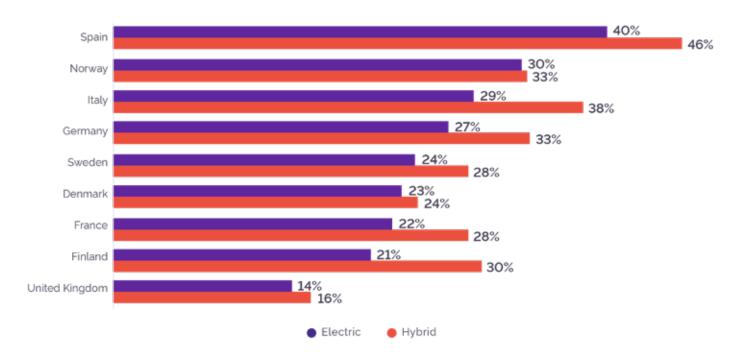
If a third of consumers (35%) are thinking about buying a petrol car in the next year, three in ten are considering buying a hybrid (30%). As with overall recommendations, hybrids beat their electric counterparts across every nation polled – although Norway is within the margin of error. Many of the factors that drive recommendations could play into purchase consideration such as incumbency, reliability, and charging infrastructure. Spain has the highest electric consideration across all nations surveyed, with four in ten (40%) contemplating buying or leasing these cars in the next year.

In both categories, UK consideration is the lowest in Europe: only 14% are considering buying an electric car an electric car. Previous YouGov research from 2019 suggests that a lack of choice and low understanding around regulations and financial incentives were discouraging adoption in UK. It may also be explained by the government's decision to cut electric vehicle subsidies in 2018.

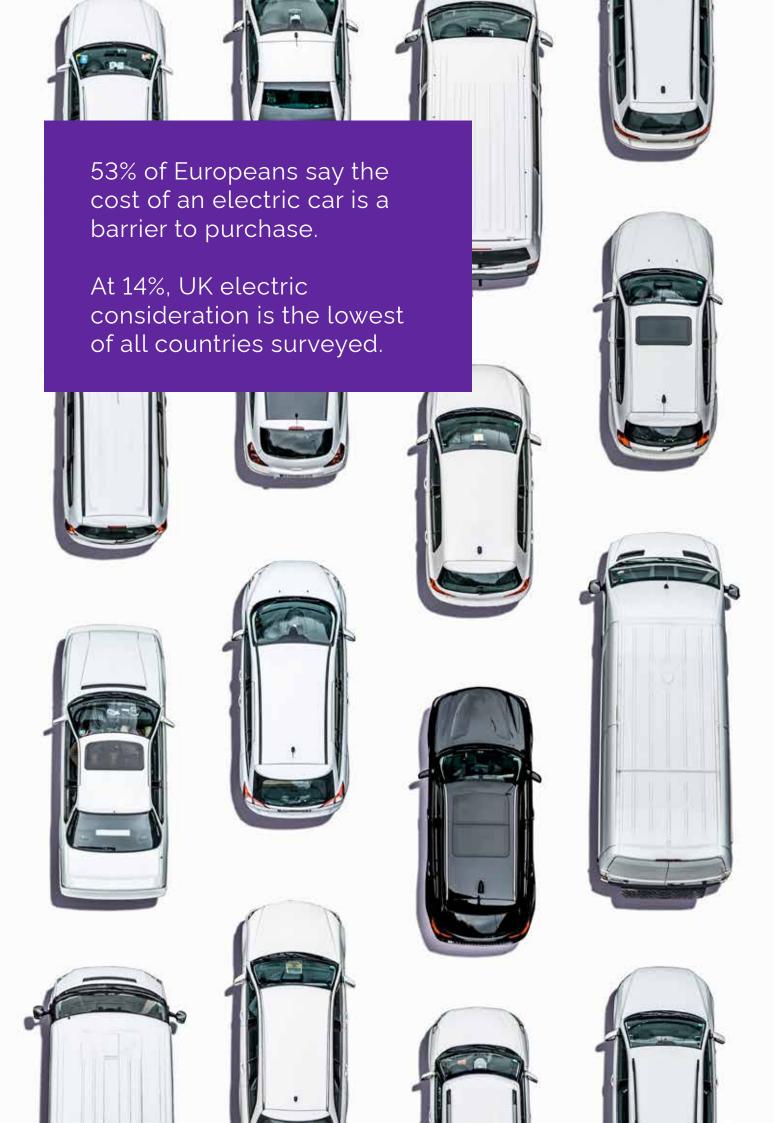
Notably, more Europeans are considering buying or leasing electric cars than diesel (25% vs. 22%), and though Italy's LPG market is more established, more Italians are considering electric cars (25% LPG vs. 29% electric).



CUSTOMER CONSIDERATION: HYBRID VS ELECTRIC (JANUARY 2020)

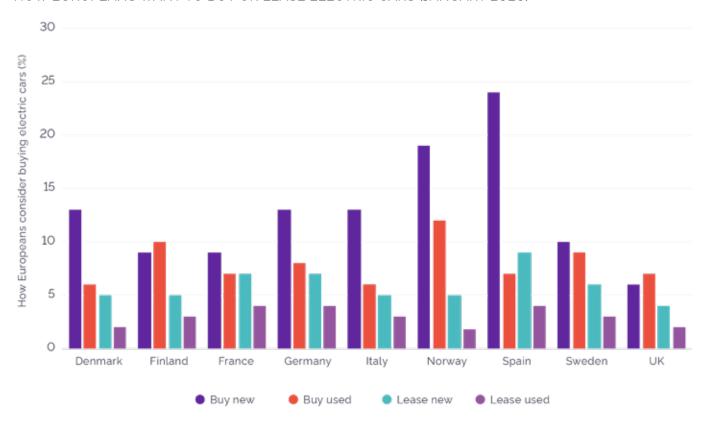






New vs Used

HOW EUROPEANS WANT TO BUY OR LEASE ELECTRIC CARS (JANUARY 2020)



European respondents vary in how they prefer to buy electric cars.

While buying new is by far the most favoured option across all countries surveyed (with Spain, Norway, and Italy driving up the average), markets such as the UK, France, and Sweden prefer to buy or lease second-hand vehicles.

The cost of buying an electric car is a sticking point for over half (53%) of Europeans, and the relatively small pool of second-hand cars may well be affecting consideration: nearly a quarter (25%) believe it's a barrier to purchase. This rises to over three in ten (31%) UK consumers, who are more reluctant to go electric than any other nation in Europe.

They may be more persuaded as the market matures and more second-hand vehicles enter circulation. It's likely no accident that consumers living in Norway – which has a more developed electric car market than the other nations polled – are the most willing to buy a used electric car outright.

Another byproduct of consumer cost concerns could be the relative popularity of leasing options in countries such as Spain, France, and Germany. The option to spread the upfront cost of an electric car over a period of months or years may well be attractive to consumers who would otherwise feel priced out of the market.

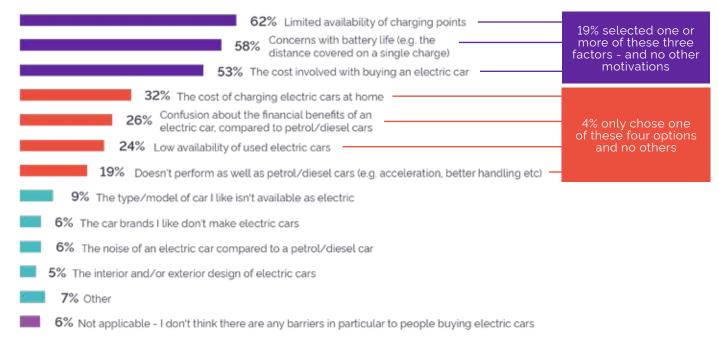
BARRIERS TO PURCHASE: WHAT'S STOPPING EUROPEANS FROM GOING ELECTRIC?

What stops consumers from buying an electric, and what might help them make the switch to e-mobility? This chapter explores the barriers that could discourage a purchase and the triggers that could motivate consumers to make a purchase.

The key issues for consumers are largely pragmatic concerns about price and function. More than six in ten were worried about limited

availability of charging points (62%) – with battery life coming in second (58%) and upfront cost coming in third (53%). Almost a fifth (19%) of consumers only selected one or more of these top three barriers to buying an electric car, selecting no other options at all. Consumers also cite these barriers when asked about hybrid cars, but they're dramatically less worried: for example, only three in ten (30%) are concerned about charging points.

WHAT'S STOPPING EUROPEANS FROM BUYING ELECTRIC CARS?



4% of all Europeans surveyed only chose one or more of these four options: performance relative to petrol/diesel cars, the small used car market, the price of home charging, and confusion around finance options.

For some consumers, though, the barriers are more aesthetic and emotional. Almost one in ten (9%) say the particular type/model of car they prefer isn't available in electric, and 6% say the specific brands they like don't make electric cars. This suggests that some consumers might be receptive to manufacturers making electric cars in a wider range of models.

Hybrid Cars: Barriers: (£s) 45% Cost involved 34% Limited Charging Points 30% Concerns with Battery Life

Behind the barriers

Each major barrier to purchase is underpinned by a number of demographic, geographic, and practical considerations.

As mentioned earlier, Spanish consumers are most likely to be worried about the availability of

charging points – which likely has something to do with the country's small number of stations compared to other electric car markets such as Germany (which has over 34,000).

Most concerned European country

Functional barriers



71% of people in Spain are more concerned about limited availability of charging points.





66% of people in the United Kingdom are more concerned about battery life (e.g. the distance covered on a single charge).





66% of people in Sweden are more concerned about the cost involved with buying an electric car.



UK consumers are most likely to be concerned about battery life. Again, this could be partially attributed to issues around charging: the country has over 14,000 stations, but they're not distributed evenly between urban and rural areas, or the North and the South. In urban areas, the prevalence of on-street parking can also make home charging a challenge: six in ten Londoners don't have a garage or driveway. Fear is a powerful motivator, and running out of power is a real worry for the UK's would-be electric car drivers.

In Sweden, consumers are most likely to worry about the upfront cost. This is potentially explained by the fact that the country's major purchase incentive is essentially a rebate: instead of a tax exemption, drivers receive a "climate bonus" of 60,000kr six months after registration. The intended effect is to discourage Swedes from exporting electric vehicles over the border, but it may have had unintended consequences for consumers who might otherwise purchase a new car.

GOING ELECTRIC: KEY PURCHASE TRIGGERS

So why might Europeans want to buy an electric car?

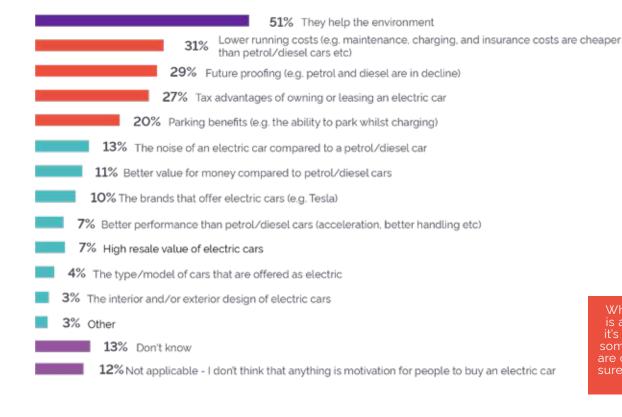
Helping the environment is the most popular reason given: over half (51%) of European respondents say they're motivated by this issue. However, only 6% of respondents select it as their sole motivation.

Cost is particularly prominent: over three in ten (31%) mention lower running costs in areas such as maintenance and charging, while more than a quarter (27%) cite the tax advantages of owning or leasing an electric car. These advantages heavily

vary from market to market, and can include discounts on road tax, VAT exemptions, and green rebates.

There may also be a sense that electric cars are an inevitability: almost three in ten European consumers (29%) believe they're a way to future-proof against the decline of internal combustion engines. The ability to park while charging is also appealing to a fifth of consumers (20%). As touched on earlier, this is something that could well vary based on the availability of charging stations – as well as the ease of home charging.

WHAT MOTIVATES EUROPEANS TO BUY ELECTRIC CARS?



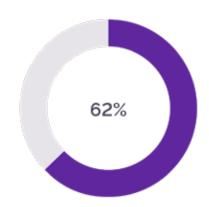
While 6% say noise is a barrier, 13% say it's an advantage. In some countries, laws are changing to make sure that electric cars emit sounds.

Hybrid Cars: Triggers:



45% Consumers claiming that they help environment is the main motivator in buying an Hybrid car

Behind the motivators



Helping the environment is a particularly strong emotional motivator in Spain, the UK, and Italy,

The reasons why each country's consumers might buy an electric car depend heavily on the nation's specific legal, economic, and cultural circumstances.

In Spain, the UK, and Italy, helping the environment is a particularly strong emotional motivator, cited by more than six in ten respondents (62%) across all three countries. But in each of these markets, hybrids beat electric cars in terms of consumer consideration and recommendations – and in Italy particularly, LPG also serves as an incumbent fuel that could potentially scratch the lower-carbon itch.

So functional motivators can play a key role in differentiating electric cars from the other vehicles on the market. Norwegian consumers are most likely to cite lower running costs and tax advantages, which may again be a byproduct of their more developed market. Meanwhile, Spanish consumers are most likely to look towards the future.





49% of people in Norway are more motivated by lower running costs.



Motivator



49% of people in Spain are more motivated by future proofing.



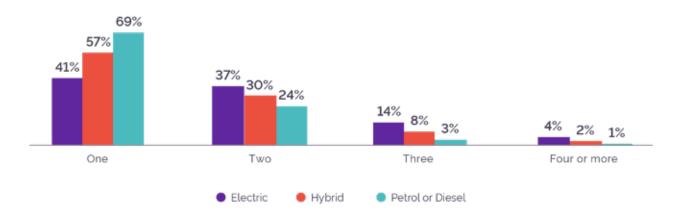


41% of people in Norway are more motivated tax advantages.



ELECTRIC CARS IN MULTI-CAR HOUSEHOLDS

HOW MANY CARS DO YOU OWN?



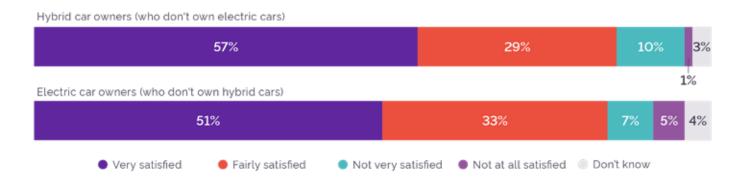
Countries across Europe – in the EU and outside of it – have made commitments to phase out fossil fuel vehicles. This chapter investigates how willing European drivers are to go "full electric" – and how happy electric car owners are with their purchases.

YouGov's research indicates that electric cars are more likely to be part of a multi-vehicle household than either hybrids or petrol/diesel vehicles. YouGov's research indicates that electric cars are more likely to be part of a multi-vehicle household than either hybrids or petrol/diesel vehicles. While slightly more than four in ten EC owners (41%) have just one car, 55% have two or more.

Nearly seven in ten of those who own petrol/diesel vehicles (69%) have just one car, while almost three in ten (28%) own two or more.

Perhaps appropriately, hybrids sit between petrol/diesel and electric vehicles in all categories: over half own one car (57%), while two-fifths (40%) own two or more.

HOW SATISFIED ARE ELECTRIC AND HYBRID DRIVERS WITH THEIR CARS?



Regardless of how many cars are in the household, hybrid and electric car owners both report high satisfaction. The vast majority of EC drivers (85%) are either "very satisfied" (51%) or "fairly satisfied" (33%), and while HC owners are more likely to say

they're "very satisfied" (57%) they're slightly less likely to say they're "fairly satisfied" (29%).

Consumers who own these vehicles are clearly happy with them. So what drives this satisfaction?



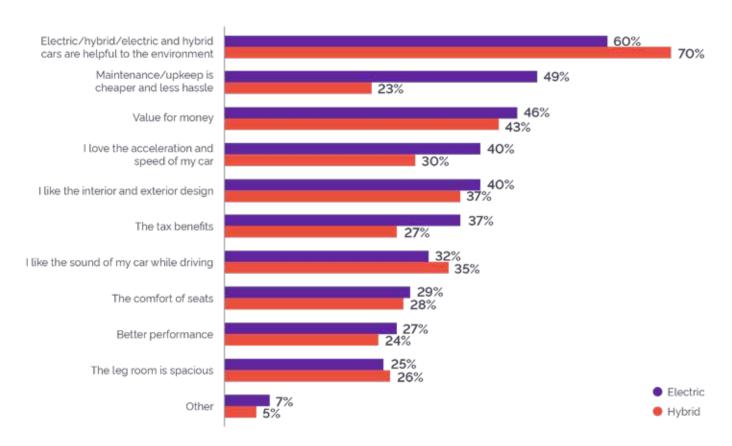
Electric vs. hybrid satisfaction

The reasons why electric and hybrid owners are satisfied echo many of the reasons why prospective car owners might be motivated to buy them.

In both categories, a majority of satisfied owners cite environmental benefits. While electric cars are

often regarded as more eco-friendly than hybrids, seven in ten satisfied HC owners (70%) claim that they're happy with their vehicle because it's helpful to the environment – compared to six in ten satisfied EC owners (60%).

WHY ARE ELECTRIC AND HYBRID OWNERS SATISFIED?



Satisfied EC owners are more likely to cite financial and functional benefits in every relevant category:

Value for money 46% EC vs 43% HC

Speed 40% EC vs. 30% HC

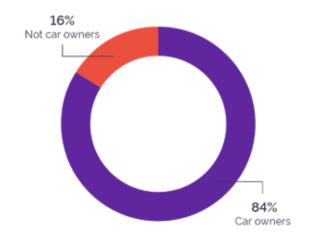
Performance 27% EC vs. 24% HC The gap between satisfaction with maintenance/upkeep is especially wide: almost half (49%) of electric drivers are content compared to under a quarter (23%) of hybrid drivers.

Overall, this data indicates that satisfied EC owners are happier with their vehicles from a financial and practical standpoint. Automotive manufacturers may therefore want to educate consumers about the everyday, non-environmental benefits of electric vehicles where they exist. Many drivers are already feeling them.



THE GERMAN ELECTRIC CAR MARKET

GERMAN CAR OWNERS



| Vehicle type owned (January 2020) | Germany | Europe |
|-------------------------------------|---------|--------|
| Petrol | 78% | 65% |
| Diesel | 28% | 40% |
| Hybrid | 2% | 4% |
| Electric | 2% | 3% |
| Liquid petroleum gas (LPG) | 1% | 2% |
| Hydrogen | 1% | 1% |
| Compressed natural gas (CNG) | 1% | 1% |
| Biofuel | 1% | 1% |
| Ethanol flexible-fuel vehicle (FFV) | 0% | 1% |

In total, 84% of Germany's consumers own cars but how they own cars diverges from the rest of the continent.

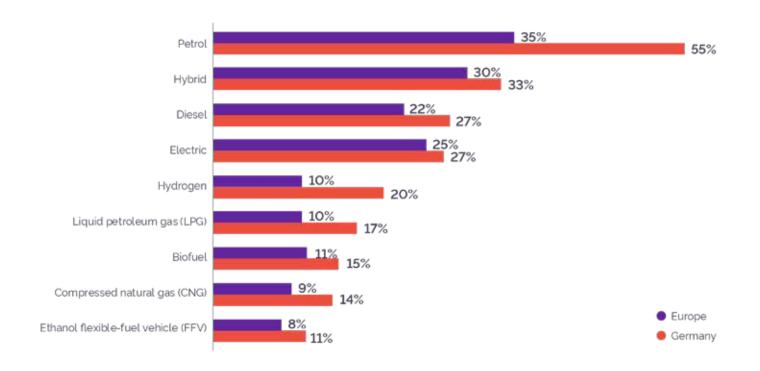
Though diesel engines were invented in Germany, they're dramatically less popular in their homeland than they are across all European nations surveyed. Less than three in ten (28%) drive these vehicles compared to two-fifths (40%) on average. This may at least partially be due to the fact that, in many certain German cities, older diesel cars are banned due to high carbon emissions.

Petrol car ownership, on the other hand, is well above the continental average. More than three quarters (78%) drive these car compared to 65% across all European nations polled.

84% of German adults own at least one car.

Which cars do Germans want to buy?

VEHICLE BUYING AND LEASING PURCHASE CONSIDERATION (JANUARY 2020)



Looking at consumer consideration reveals that Germany may not be a particularly encouraging market for electric car manufacturers.

While electric consideration is slightly higher than the continental average, it's also higher in other competing categories. Hybrids beat electric cars in terms of purchase consideration (33% to 30%), and despite continental legislative efforts to discourage diesel vehicles, they're still on level pegging with ECs (27%). Hydrogen and LPG consideration are both higher than the norm, with 20% and 17% respectively considering them against a continental average of 10%.

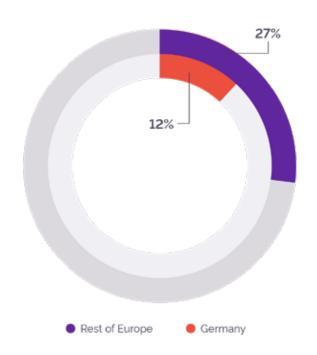
But possibly the most concerning aspect for electric car manufacturers is the gap between Germany and the wider continent when it comes to consideration of petrol cars vs. ECs.

Comfortably more than half of the country's consumers (55%) are considering buying or leasing a petrol car compared to just over a third (35%) of Europeans across all nations surveyed.

Germans are less likely to recommend electric cars - and more likely to say there's no reason to buy one

"I don't think that anything is a motivation for people to buy an electric car."

RESPONDENTS WHO SELECTED THIS OPTION



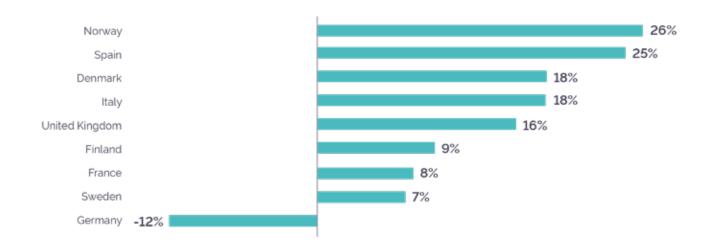
While consideration of electric cars is close to the European average, Germans express negative sentiments in other respects.

For example, when asked about purchase

motivations 12% of Europeans don't see any reason to buy an electric car. In Germany, this increases to over a guarter of consumers (27%). And if Germans are less motivated to buy electric cars, they're also less inclined to recommend them. Across every other European nation surveyed, electric cars enjoy positive advocacy. At the upper end of the table, Norway and Spain have net recommend percentages of 26% and 25%, while Finland (9%), France (8%) and Sweden (7%) sit at the lower end of the table - while remaining firmly positive.

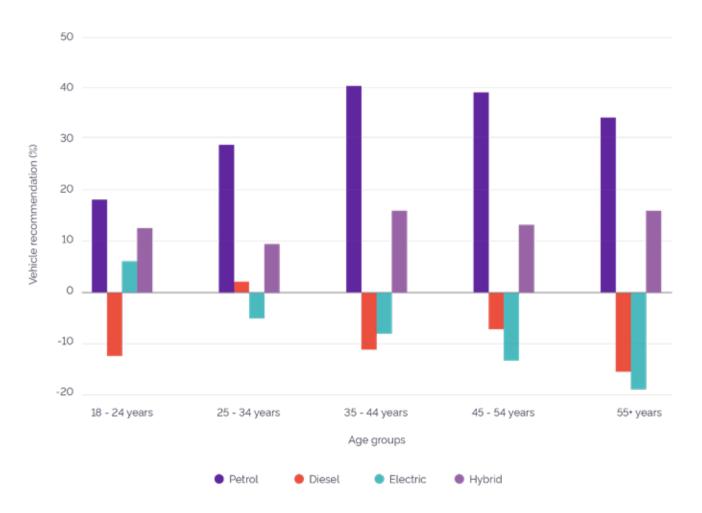
Only Germany has net negative recommendations, and consumers are unequivocal about it: with a score of -12%, electric cars perform significantly worse than they do in any other market. To effectively compete in this country, manufacturers may need to consider ways to improve both purchase consideration and word of mouth among German consumers.

ELECTRIC VEHICLE RECOMMENDATIONS BY COUNTRY (JANUARY 2020)



Older Germans are less likely to recommend electric cars

GERMANY VEHICLE RECOMMENDATIONS BY AGE (JANUARY 2020)



As Germans get older, they become less likely to recommend electric vehicles. Almost a fifth of over 55s (19%) would tell friends or colleagues to avoid them, as would 13% of those aged 45-54. The only consumer demographic with positive scores is the youngest, with 6% of 18-24s recommending electric cars. As these younger drivers replace older drivers on the roads over time, recommendation may well increase.

So why might Germans be less keen to embrace electric cars? It may have much to do with the automotive industry's singular role in the country's national economy – and its ongoing friction with EU carbon emission rules.

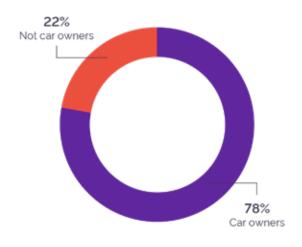
In Germany, the transition towards an electric future is one that could be more economically and

emotionally fraught than it is elsewhere. Reports indicate real anxiety among car manufacturers and the hundreds of thousands of Germans who work for them (or are indirectly supported by the industry). Major automotive employers have announced tens of thousands of job losses – with some experts predicting that more are yet to come – and recent attempts to ban diesel cars in cities such as Stuttgart have been met with protests.

Overall, YouGov's data suggests that the conflict between the German automotive industry and the EU's low-carbon regulatory agenda is having an effect on consumer perceptions of electric cars. Addressing the concerns of these groups through targeted campaigns should be a priority for manufacturers.

THE NORWEGIAN CAR MARKET

NORWEGIAN CAR OWNERS



| Vehicle type owned (January 2020) | Norway | Europe |
|-----------------------------------|--------|--------|
| Petrol | 46% | 65% |
| Diesel | 45% | 40% |
| Electric | 18% | 4% |
| Hybrid | 11% | 3% |
| Biofuel | 2% | 2% |
| Hydrogen | 2% | 1% |
| Compressed natural gas (CNG) | 1% | 1% |
| Liquid petroleum gas (LPG) | 1% | 1% |

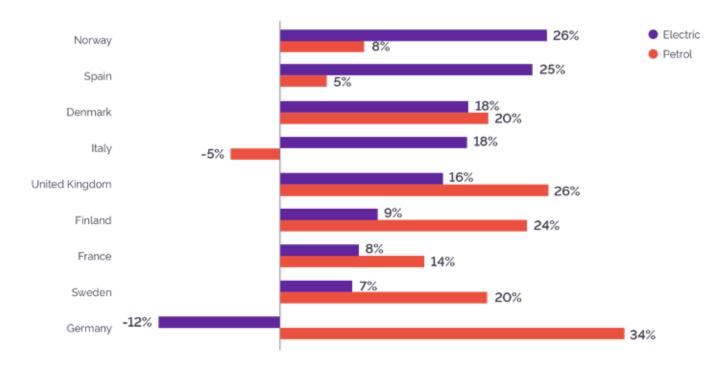
The Norwegian electric car market also diverges from the European norm – albeit in the opposite way to Germany. The country is home to more plug-in electric vehicles per capita than any other nation in Europe (and the world).

Legislation and policy have played a key role in encouraging adoption. Norway's governments have created incentives for plug-in electric vehicles since the 1990s. Electric cars and vans are excluded from purchase taxes, VAT, and certain one-off fees. Norway also set a target that by 2025 all new car, urban bus, and light commercial vehicles sold should produce zero emissions.

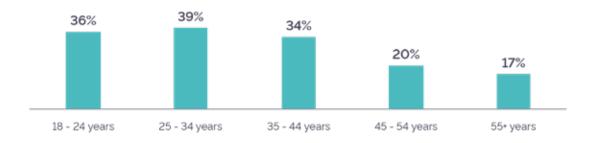
YouGov's research reveals that approaching a fifth (18%) of drivers use electric power compared to a European average of 4%. A further 11% drive hybrid cars compared to 3% across the continent as a whole. While Norwegians are somewhat more likely to drive diesel cars (45% vs 40% across all nine nations), they're significantly less likely to drive petrol vehicles (46% vs 65%).

78% of Norwegians own at least one car.

NORWAY AND SPAIN LEAD ELECTRIC CAR RECOMMENDATIONS (JANUARY 2020)



NORWAY ELECTRIC CAR NET RECOMMENDATIONS BY AGE (JANUARY 2020)



Norway is among the top three European countries when it comes to electric car advocacy. A quarter of consumers recommend these vehicles (26%), with only Spain coming close (25%).

Compared with Germany, where the only advocates of electric cars are consumers aged 18-24, ECs also enjoy positive word of mouth across each age group. Though Norwegians are less likely to recommend electric cars as they age, 17% of over-55s – and 20% of the 45-54 group – still do. Of younger Norwegians, 36% of those aged 18-24 recommend electric cars, increasing to almost four in ten (39%) of those aged 26-34.

Norway also ranks second in terms of electric car consideration after Spain, with a third (33%) of consumers contemplating purchasing or leasing an EC in the next year.

These higher recommendation and consideration scores are likely driven by a raft of legal and financial incentives. Among other benefits Norwegian electric car drivers currently enjoy or have previously enjoyed:

- VAT exemptions
- Exemption from road taxes, purchase and import taxes
- Access to bus lanes
- Lower (or no) parking fees for zero emission cars in some regions
- Discounted ferry travel

Beyond lowering the cost of electric cars, some of these count as quality of life improvements: access to bus lanes, for example, makes for a faster commute. These improvements could well play a role in advocacy.

Who are Norway's Electric car owners?

While the environment is the top motivation for buying an electric car across Europe, it isn't the key consideration in Norway. Lower running costs lead the way – with almost two-thirds of Norwegians citing this motivation compared to just over four in ten (42%) across all of the nine European markets surveyed.

Norwegians are also more likely to cite parking benefits (42% vs. 30% Europe), tax advantages (42% vs 32%) and value for money (34% vs. 16%).

This speaks to a key difference between Norway's developed electric vehicle market and that of the wider continent. The country has spent decades creating legal and financial incentives for battery-powered car owners – so consumers may see them less as a concession to environmental priorities and more as a practical, logical, everyday consumer choice.



MOTIVATIONS

| Title | European EC owners | Norwegian EC owners |
|---------------------------------------------------------------------------------------------------------------|--------------------|---------------------|
| Lower running costs (e.g. maintenance, charging, and insurance costs are cheaper than petrol/diesel cars etc) | 42% | 65% |
| They help the environment | 41% | 55% |
| Parking benefits (e.g. the ability to park whilst charging) | 30% | 42% |
| Tax advantages of owning or leasing an electric car | 32% | 42% |
| Better value for money compared to petrol/diesel cars | 16% | 34% |
| Future proofing (e.g. petrol and diesel are in decline) | 33% | 23% |
| The brands that offer electric cars (e.g. Tesla) | 18% | 21% |
| The noise of an electric car compared to a petrol/diesel car | 25% | 18% |
| Better performance than petrol/diesel cars (e.g. acceleration, better handling | 19% | 14% |
| The type/model of cars that are offered as electric cars | 15% | 12% |
| The interior and/or exterior design of electric cars | 18% | 10% |
| High resale value of electric cars | 21% | 8% |
| Other | 4% | 7% |
| Don't know | 5% | 5% |
| Not applicable - I don't think that anything is a motivation for people to buy an electric car | 2% | 0% |

Norway: Electric vs. Petrol/Diesel owners

Petrol and diesel vehicles still dominate the Norwegian market, with 66% owning vehicles in these categories. This compares to 15% who own electric cars which, while being well above other European markets, is still an overwhelming minority.

Beyond any regulatory or financial incentives, electric cars may be the country's future for one simple reason: demographics. The average Norwegian electric car owner is 40 years old, compared to an average national age of 49 for

petrol/diesel owners (and a national average age of 47). They're also more likely to live in central urban locations than petrol/diesel owners. In cities such as Oslo, there are regulations that temporarily prohibit the use of diesel vehicles on municipal roads on days with heavier pollution.

As Norway's electric vehicle drivers get older, electric vehicles could go from comprising a significant minority of the market to becoming a more powerful force on the nation's roads.

Electric car owners are more likely to have families – while petrol/diesel owners are more likely to be single

Norway's electric car owners are more likely to have families than petrol or diesel owners. They over-index on living in traditional family units: over a third (36%) have a partner/spouse and children at home compared to 24% of petrol/diesel owners. Nearly three in ten (29%) are married or cohabiting without children, compared to 36% of petrol/diesel owners.

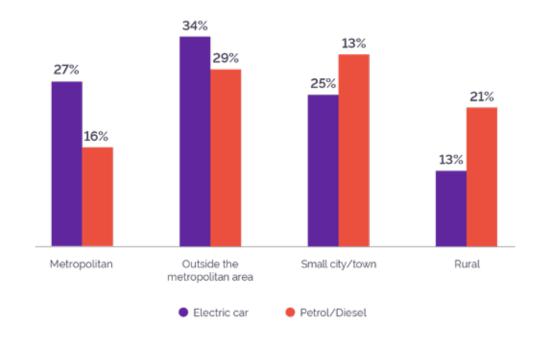
EC owners are also less likely to be single without children (14% vs. 22% petrol/diesel) and one in ten live at home with their parents. They're also more likely to have pets (65% vs 40%), they're

twice as likely to speak another language (30% vs. 15%), and lean towards living in – or adjacent to – metropolitan areas.

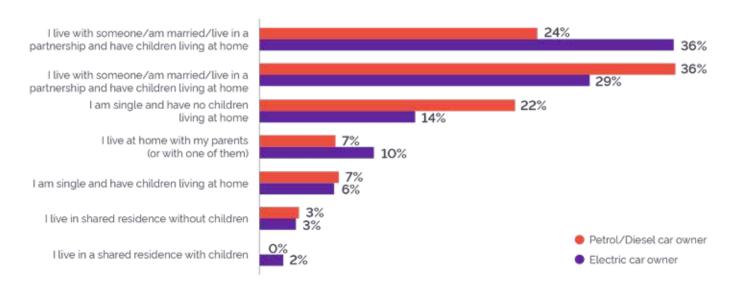
For manufacturers that want to get more out of this demographic – and for aftermarket suppliers looking to upsell EC products – it is potentially worth creating stories that target consumers living with families. But to capture more of the automotive market, manufacturers may also want to look at where petrol/diesel ownership is particularly strong. In Norway, that might mean targeting people outside of traditional family units.



DEMOGRAPHICS - URBAN VS RURAL



FAMILY SITUATION



Lifestyle and attitudes

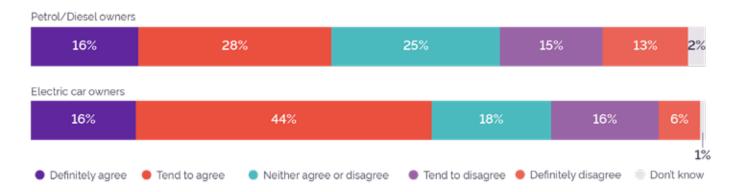
Norway's electric car owners are more likely to be physically active, make healthy food choices, and embrace technology than petrol or diesel owners. Seven in ten (70%) say they play a sport vs. 48% of Norwegians who own a car with an internal combustion engine. The most popular activities are:



More than six in ten (63%) believe they're healthy eaters, and nearly as many (60%) say they often choose diet or healthy versions of their favourite products. They're also more likely to own technology products: nearly a quarter own

a convertible/hybrid computer (23%) against 5% of petrol or diesel owners, and they're also more likely to own digital projectors (19% vs. 6%), Ultra HD 8K TVs (16% vs. 3%) and smart glasses (12% vs. 1%).

"I OFTEN CHOOSE DIET OR HEALTHY VERSIONS OF MY FAVOURITE PRODUCT."



Media habits

Norway's electric car owners have different media habits than petrol or diesel owners. In some cases these differences are minor; in other cases, the gap is wider.

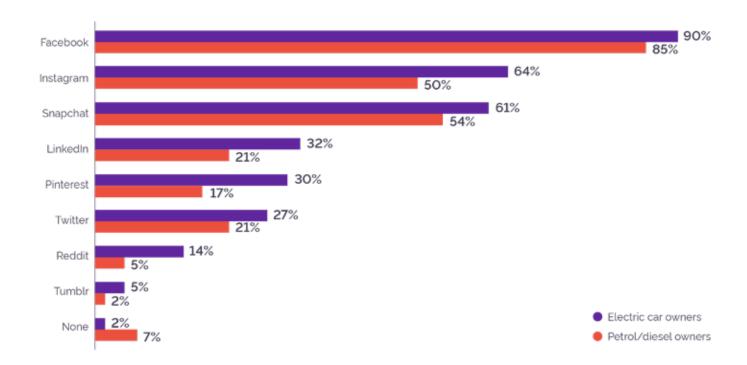
Overall, electric car owners are slightly more likely to use online channels than petrol or diesel owners (49% EC vs 46%). They're also slightly less likely to watch TV (36% EC vs. 38%). But differences are minor enough and consumption is wide enough that both channels should be a priority for manufacturers looking to reach current EC drivers and prospective EC buyers alike.

Electric car owners are ten percentage points more likely to watch Netflix: over half use the subscription service (57%) vs. under half (47%) of petrol or diesel owners. As the streaming platform does not feature third-party ads, its usefulness to automotive brands looking to advertise may be limited to product placement deals.

The positive attitude electric car attitudes have to tech is reflected in how they keep up with current events: almost a fifth (19%) use their Smart TVs to read newspapers and magazines compared to just 6% of petrol or diesel owning Norwegians.

These drivers are also more likely to use every major social media platform on a monthly basis. Electric car owners are significantly more common on Instagram (64% vs. 50% of petrol/diesel owners), Pinterest (30% vs. 17%) and Twitter (27% vs. 21%) and LinkedIn (32% vs. 21%) – and nine in ten are active on Facebook (90%).

MONTHLY USERS



CONCLUSION

The coronavirus pandemic is already having an impact on the electric car industry – but the data indicates that manufacturers in this fledgling European market faced a number of barriers before the current crisis.

While the environment is a powerful motivator for consumers, electric car purchases are driven by a range of practical reasons that vary heavily from country to country. Low oil prices may create an additional incentive for petrol and diesel drivers, and an additional challenge for the EC industry.

So if electric car manufacturers want to increase adoption and market share, they may wish to:

1. Give consumers more reasons to buy electric

cars. Mitigating environmental damage is an important motivator, but one that only goes so far. What's more, consumers have other options that are frequently marketed as 'eco-friendly': hybrids have higher consideration and recommendation scores across the continent, and in national markets such as Italy, LPG vehicles serve as a low-carbon alternative.

Educating consumers about the practical, financial, and sustainable advantages of electric cars may help increase adoption – and chip away at the scepticism of drivers who don't view them as the equal of petrol or diesel vehicles.

2. Find out who does and doesn't drive electric cars in each market.

A typical Norwegian EC owner might be a parent of two who eats granola breakfasts, goes for regular morning runs, watches Netflix, and posts photos to Instagram every now and again. For manufacturers, though, it's just as important to find out who isn't a typical owner – and how they might be persuaded with targeted campaigns.

3. Understand how consumers buy cars, as well as why.

In some countries, consumers are happier to buy new, but in countries such as the UK and Finland, the absence of a large second-hand car market could well be affecting uptake. In nations such as Sweden – where a major EC subsidy is only granted six months after registration – consumers are more likely to be worried about the upfront cost of an electric car. These buying preferences and concerns should be taken into account across every new market.

4. Know the territory.

In Germany, where the traditional automotive industry is a pillar of the economy – one considered to have made a major contribution to the nation's post-war recovery – people are dramatically less likely to recommend ECs or even believe there are good reasons to buy them. Petrol and diesel may have more emotional resonance with consumers than they do elsewhere, and this should be taken into account when bringing new products to market.

In Spain, people are more likely to consider electric cars, and more likely to express frustration about the lack of charging points – so it may be easier to promote and sell vehicles with longer battery life. Creating tailored and well-researched campaigns for each nation could help increase adoption.

This paper reflects a fraction of the data we have on the European electric car market.

OUR DATA

For this study, we combined syndicated BrandIndex and Profiles data from nine European markets with specific, deep-dive custom research in:

United Kingdom - Sample: 2,118 adults

Denmark - Sample: 1,002 adults **Finland** - Sample: 1,004 adults **France** - Sample: 1,036 adults **Germany** - Sample: 2,180 adults Italy - Sample: 1,036 adults
Norway - Sample: 1,011 adults
Spain - Sample: 1,008 adults
Sweden - Sample: 1,023 adults



E: info@yougov.com W: yougov.com

ABOUT YOUGOV

YouGov is an international research data and analytics group headquartered in London. Our data-led offering supports and improves a wide spectrum of marketing activities of a customer-base including media owners, brands and media agencies. We work with some of the world's most recognised brands.

Our line of products and services includes YouGov BrandIndex, YouGov Profiles, YouGov Omnibus, YouGov Custom Research, YouGov Crunch and YouGov Direct.

With over 9 million panellists across 44 countries, YouGov's market research covers the UK, USA, Europe, the Nordics, the Middle East, and Asia-Pacific. Our panellists come from all ages, socio-economic groups, and other demographic types – allowing us to create nationally and internationally representative online samples of consumers.

For more information, visit us at www.yougov.com