



A Conversation with LeasePlan

Challenges and
opportunities for the
adoption of Electric Cars
and low-emission mobility

Benelux Business Council

30 November 2020

About LeasePlan

EV Readiness Index

Car Cost Index

Electric Mobility in UAE

World leader

World leader in Car-as-a-Service

€75 billion

Car-as-a-Service addressable market

7,500+

Employees

Major reseller

Major reseller of high-quality used cars

€65 billion

Used car addressable market

1963

Founded

30+ countries

Served worldwide

1.9 million

Fleet size



Joint Venture

Local Partner 51%
LeasePlan Corporation 49%

Pioneer

First global leasing and fleet
management company in GCC

Offices

Abu Dhabi, Dubai, Ras Al Khaimah and
Sharjah

2006

Founded

Coverage

Services offered in all UAE Emirates



Educate

Our customers on what's next in low-emission vehicles including the TCO

Lead by example

LeasePlan's own fleet fully electric by 2021

Advocate

Zero emission mobility (e.g., as founding partner of EV100)

Facilitate

Customers to make the switch via electric vehicle proposition



World Business Council for Sustainable Development



TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES



Alliance of CEO Climate Leaders sector champion

The LeasePlan logo is positioned in the upper left quadrant of the image. It features the brand name 'LeasePlan' in a white, sans-serif font, set against a background of three overlapping, wavy, rounded shapes in shades of orange and red. The overall background of the page is a close-up photograph of the rear of a white electric car with a green accent panel. A charging cable is plugged into the rear charging port, and a charging icon is visible on the green panel. The car's taillights are visible on the left side of the frame.

LeasePlan

EV Readiness Index 2020

A comprehensive analysis of the preparedness of 22 European countries for the electric vehicle revolution



About the EV Readiness Index 2020

- LeasePlan's EV Readiness Index 2020 is a comprehensive analysis of the preparedness of 22 European countries for the electric vehicle revolution.
- The Index is based on four factors: EV market maturity, availability of charging infrastructure, government incentives and LeasePlan's experience with EVs in each country.
- The 22 countries included in the LeasePlan EV Readiness Index 2020 are: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.



EV Readiness Index 2020 rankings are determined using four key factors

Category	Weighting	KPI	Max. points per KPI
1) Maturity of electric vehicle market in a country	30%	• # EVs registered in 2019 / total population	5
		• Market share of EVs from all vehicles registered in 2019	5
		• Share of full electric (BEV) in the sales of EVs	2
2) Maturity of charging infrastructure in a country	25%	• # public charge locations / total population	5
		• # public charge locations per EV registered	2
		• % of fast chargers of total charging plugs	3
3) Government incentives	25%	• Score of all government incentives currently in place	5
		• Score of benefit-in-kind taxation benefits for the EV drivers	5
4) LeasePlan orders	20%	• % of EV in total orders 2019 (including both full-electric as plugin-hybrid)	3
		• % of full-electric (BEV) in total orders 2019	5

Sources used:

- ACEA - European Automobile Manufacturers' Association
- EAFO - European Alternative Fuels Observatory
- Eurostat
- LeasePlan Consultancy Services



Key findings

EV Readiness Index 2020

- The EV Readiness Index 2020 shows that the Netherlands, Norway and United Kingdom are now the best prepared countries in Europe for the electric vehicle revolution.
- Across Europe, 5.7% of all newly registered vehicles are EV. The number of EV registrations increased with, on average, 60% between 2018 and 2019. The countries with highest increase are Luxembourg (+154%), Ireland (+127%) and The Netherlands (+120%).
- Across Europe, there was a 73% increase in public charging stations. There are over 4,000 fast charging locations across the countries surveyed.
- In 2019, more countries introduced or prolonged a wide range of government incentives for EV. This is a key requirement for stimulating EV uptake. In the majority of countries surveyed, driver taxation for EVs is more beneficial than for Internal Combustion Engine vehicles (ICEs). On average, EV drivers are taxed 60% of what ICE drivers are paying. In four markets (Austria, Greece, Ireland and the United Kingdom), EVs are fully exempt from driver taxation.

LeasePlan EV country readiness index 2020

Country	Total scoring	E-Vehicle maturity	Charging maturity	Government incentives	LeasePlan orders
Netherlands	34	11	8	7	8
Norway	34	12	9	6	7
United Kingdom	30	7	7	10	6
Ireland	29	8	5	9	7
Sweden	28	10	5	8	5
Austria	27	8	4	10	5
Luxembourg	26	9	6	5	6
Finland	24	8	6	6	4
Germany	24	8	5	7	4
Belgium	23	8	5	5	5
Portugal	23	7	4	7	5
Denmark	22	8	5	4	5
France	22	5	5	7	5
Hungary	22	5	4	8	5
Switzerland	21	9	6	2	4
Spain	20	5	5	6	4
Italy	17	5	5	4	3
Czech Republic	16	4	5	4	3
Greece	15	3	2	8	2
Romania	12	4	3	2	3
Poland	11	3	2	5	1
Slovakia	11	3	4	3	1

Car Cost Index 2020

LeasePlan's Car Cost Index is a comprehensive analysis of the costs of owning and operating a car, ranging from the subcompact segment to the executive segment, in 18 European countries

It factors in all the various costs that are involved in car ownership in each country, including fuel, depreciation, taxes, insurance and maintenance

In the 2020 edition, costs are averaged over the first four years of ownership and assume an annual mileage of 30,000 km

Key findings

Car Cost Index 2020



The average monthly cost of driving a car varies hugely across Europe, from €491 a month in Hungary to €926 a month in Switzerland



Hungary is the cheapest place to drive a petrol car, while Greece is the cheapest place to drive a diesel car



Relative to GDP, the total cost of ownership is highest for drivers in Italy and Portugal, and lowest for drivers in Denmark and Sweden



Electric cars in the compact (C1) segment are cost competitive in 8 European countries, while electric cars in the mid-size (D2) segment are cost competitive in 14 European countries

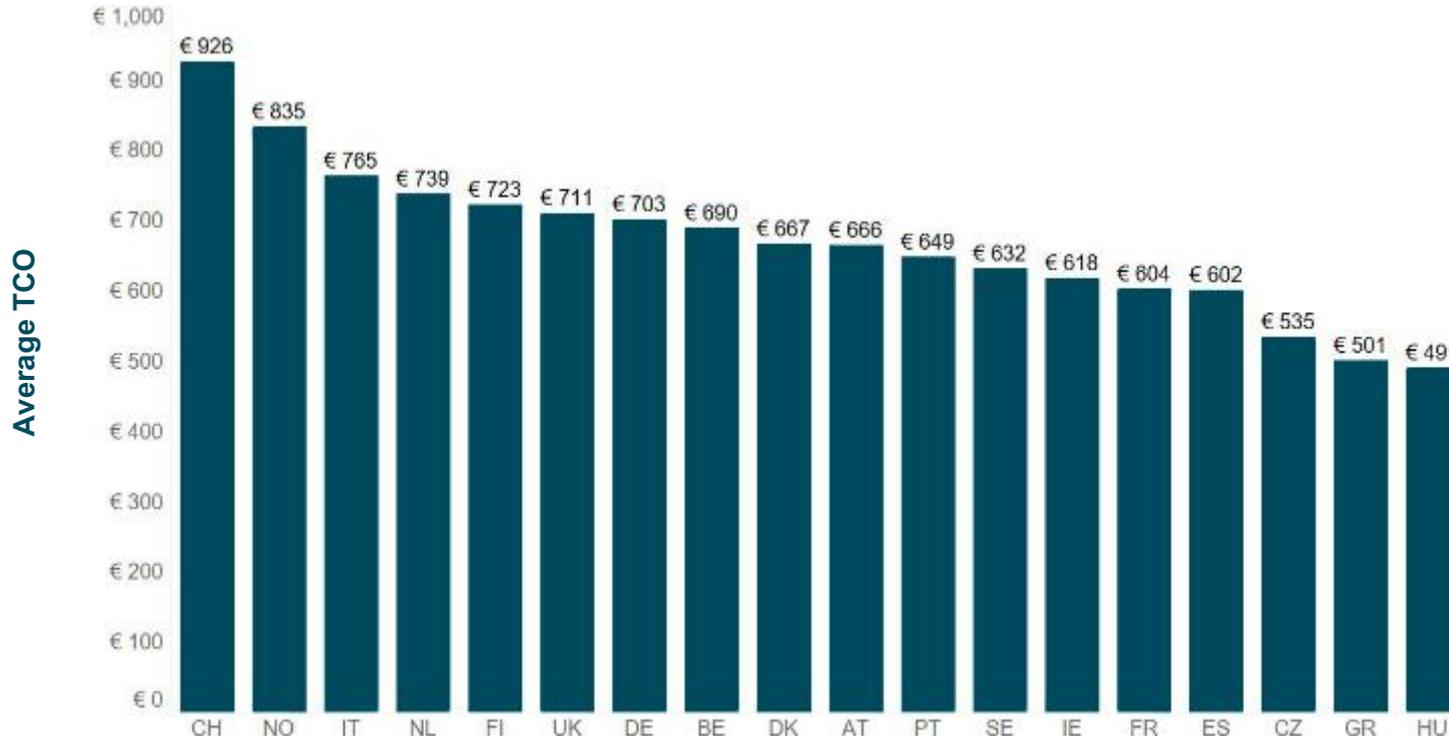


Norway and Switzerland are the most expensive places to drive internal combustion engine (ICE) cars. Conversely, electric cars are significantly cheaper than all ICEs in Norway and cheaper than petrol cars in Switzerland



No country currently has cost-competitive electric cars in the executive (E2) segment

Driving a car in 2020 is most expensive in **Switzerland** and cheapest in **Hungary**



- In Northern European countries (including Norway, the Netherlands and Switzerland), the cost of driving a vehicle is relatively high
- In Eastern European countries the cost of driving a vehicle is relatively low
- Data is based on the subcompact (B1) and compact (C1) segments for all fuel types
- TCO factors in all the various costs that are involved in car ownership in each country, including fuel, depreciation, taxes, insurance and maintenance

Wealthier countries tend to have higher costs



Relative affordability of cars can be better understood when comparing the average monthly TCO to GDP (PPP)* per capita per country



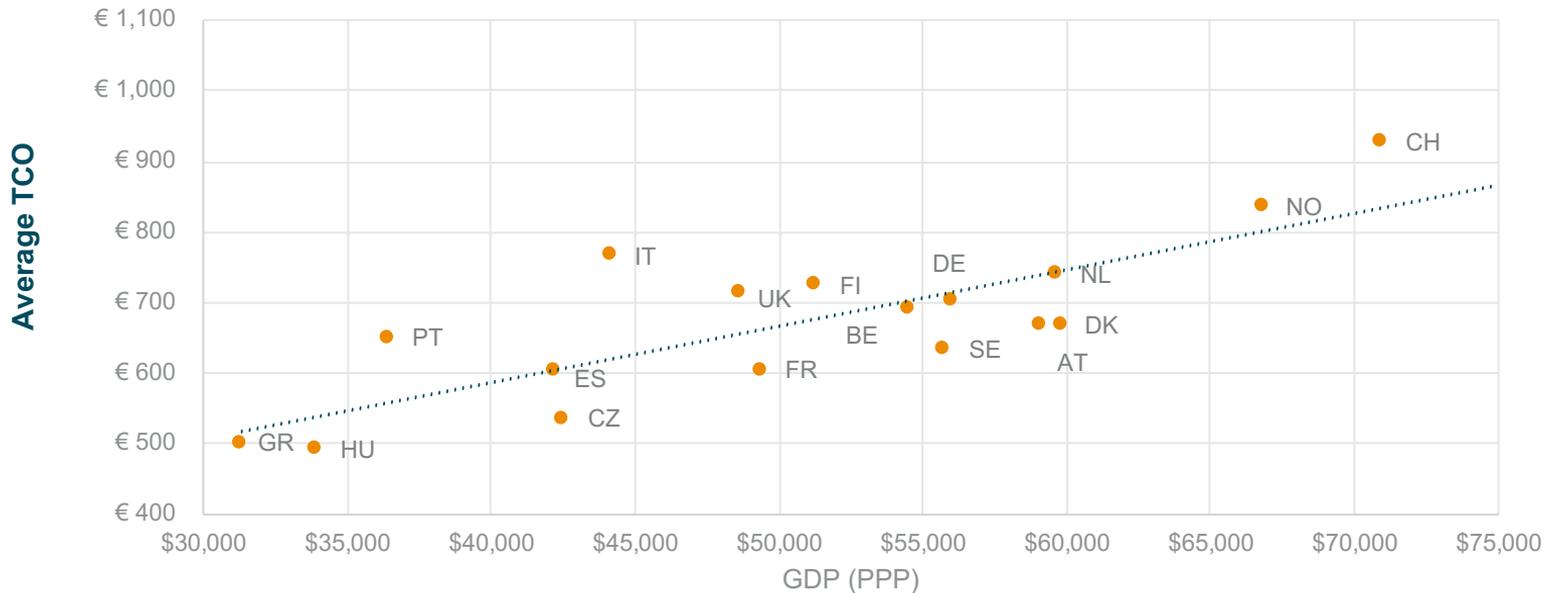
For example, in Italy the average cost is less affordable since the average TCO is relatively high compared to the GDP



*GDP (PPP): Gross domestic product based on purchasing-power parity (data.worldbank.org)

Wealthier countries tend to have higher costs

TCO vs GDP



Note: Ireland is excluded due to skewed GDP as a result of corporate taxes

In the popular D2 segment, electric vehicles have significantly lower monthly costs in the majority of the countries.

The main contributors to this trend are:



The increased fuel cost of diesel and petrol



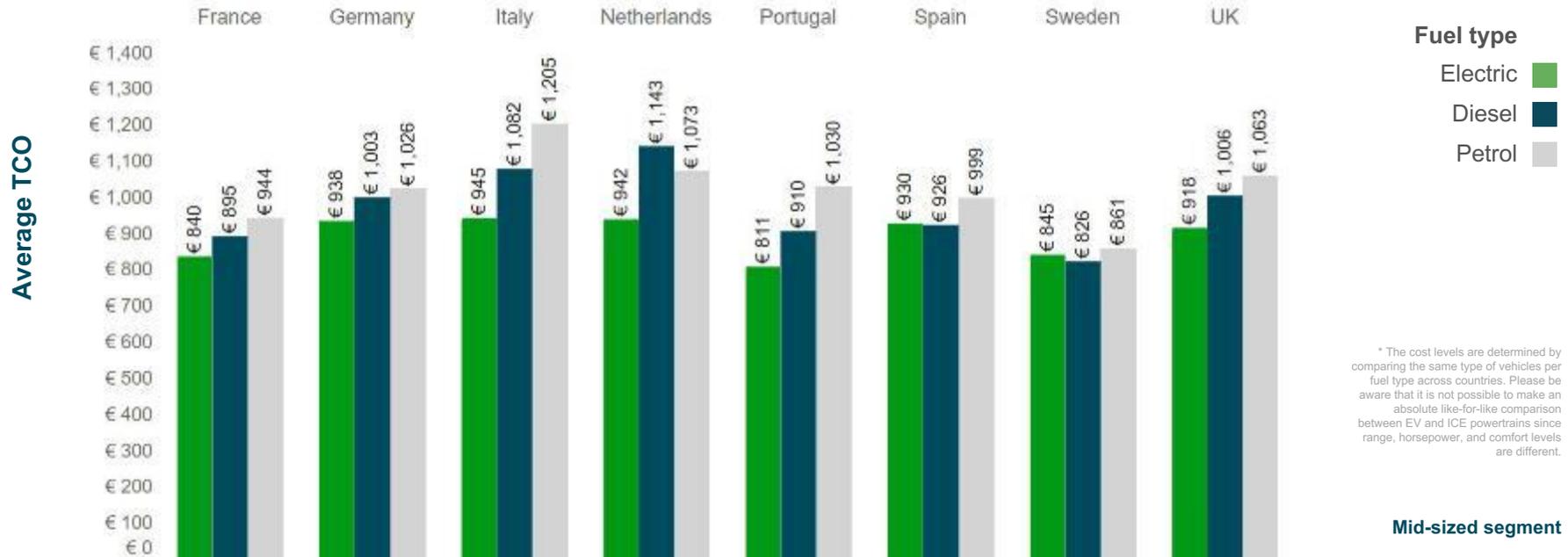
The high registration and road taxation, specifically for diesel



The increasing number of subsidies and tax breaks available for electric vehicles



Mid-size segment: In the **majority** of the researched countries, electric is more affordable than petrol and diesel in the mid-size segment



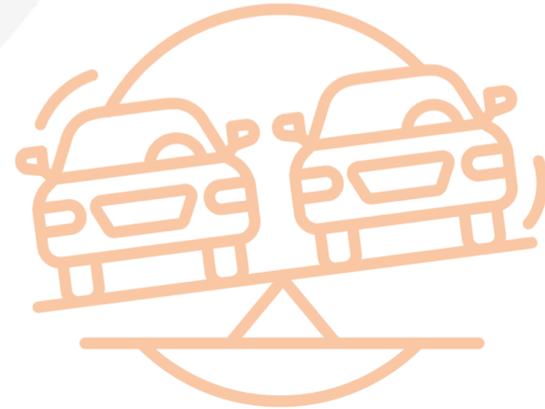
In a growing number of countries, electric vehicles (EVs) in the B1 and C1 segments are now nearing cost parity* compared to petrol and/or diesel vehicles:



Compared to ICE vehicles, EVs have lower costs over the ownership period thanks to the lower running costs. The gap widens as EVs are driven further and longer

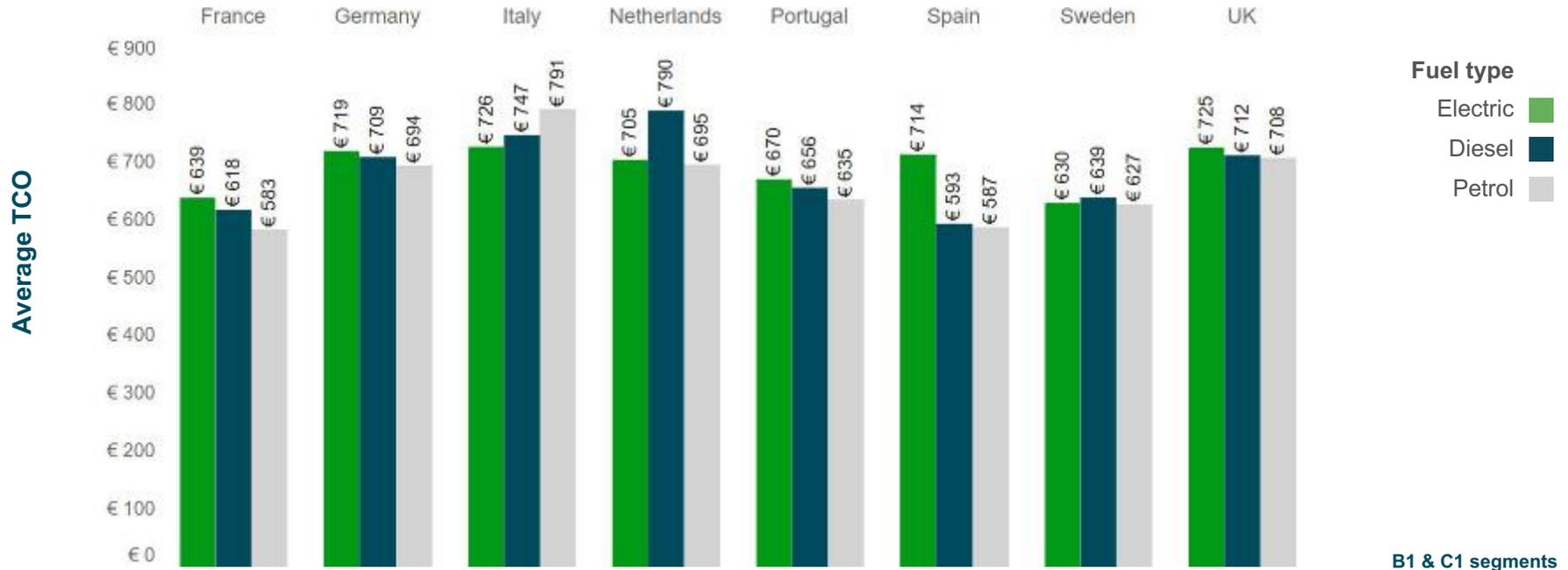


This is especially true in the B1 segment, with EVs achieving a lower TCO than ICE vehicles from 48 months/30,000 km onwards



* The cost levels are determined by comparing the same type of vehicles per fuel type across countries. Please be aware that it is not possible to make an absolute like-for-like comparison between EV and ICE powertrains since range, horsepower, technology and comfort levels are different.

Subcompact and Compact segments:
In **Italy**, electric vehicles in the subcompact and compact segment have lower monthly costs than both petrol and diesel vehicles



EV Cost Competitiveness* per segment/country



Subcompact (B1)

In the B1 segment only Sweden and Norway show a competitive TCO for EVs.



Compact (C1)

EVs in the C1 segment are cost competitive in nearly half of the countries surveyed.

EV Competitiveness

Yes ■

No ■

Data unavailable ■

B1 EV: Renault Zoe, C1 EV: Nissan

*The EV is defined as 'cost competitive' when its TCO is within a 5% margin of the TCO of the ICE vehicle

B1 & C1 segments

EV Cost Competitiveness* per segment/country



Mid-size (D2)

EVs are cost competitive in the mid-size segment in the majority of European countries.



Executive (E2)

No country currently has cost-competitive electric cars in the executive segment.

EV Competitiveness

Yes ■

No ■

Data unavailable ■

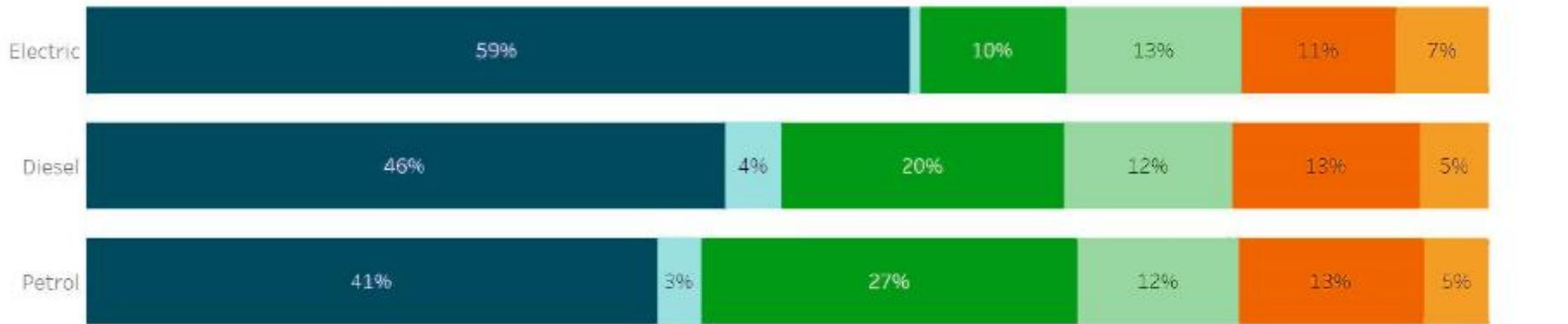
D2 EV: Tesla Model 3, E2 EV: Tesla Model S

*The EV is defined as 'cost competitive' when its TCO is within a 5% margin of the TCO of the ICE vehicle

D2 & E2 segments

EVs lower running and maintenance costs, helping to lower the overall TCO

TCO Breakdown



Depreciation **Road Tax** **Fuel or Energy** **Insurance** **RMT** **Interest**

Repair, Maintenance and Tyres

- The TCO breakdown above shows all three fuel/energy types across all countries
- The data is for the subcompact (B1) and compact (C1) segments,
- The calculations exclude VAT

EV costs are projected to continue falling

EU CO₂ emissions targets are getting tougher

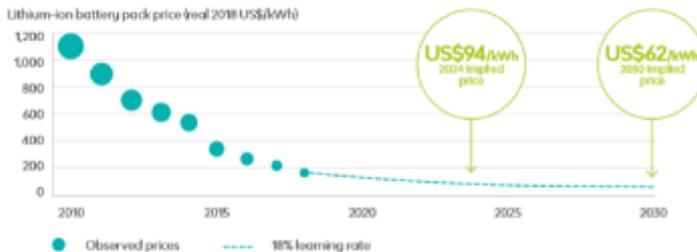


Automakers are set to launch 100s of new EV models

Existing and newly launched EV models by vehicle segments, number of launches

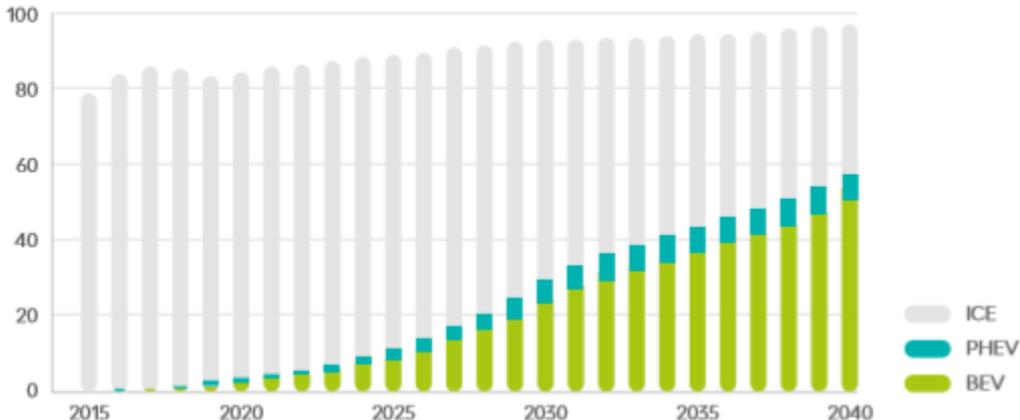


EV battery costs are falling



Global EV sales are expected to significantly increase

Million vehicles



Electric Mobility in the UAE

Positive Developments in the UAE



- As part of the Dubai Green Mobility Initiative, from 2020 10% of Dubai government's investment in new vehicles should be for electric and hybrid cars
- A similar mandate exists for the Federal Government, whereby total fleets of such entities have to comprise of at least 10% EVs by 2030
- A number of driver incentives are in place:
 - Free parking for Dubai-registered EVs in Dubai until 2022
 - Free charging for Dubai-registered EVs in Dubai until 2021
 - DEWA has installed around 250 charging stations around Dubai

Challenges for EV Adoption



- As the UAE is a tax-free country, the government's ability to adopt a similar tax incentive as in the Western countries is limited
- EV penetration in the UAE is still limited. As of the end of 2019, there were an estimated 1,800 EVs registered in Dubai
- Many of the EV models are not available locally and the ones being sold locally usually have to be specially-ordered from abroad resulting in a long lead-in time
- The process of installation of charging stations in private residences and office buildings can be further simplified

Country Adoption Outlook



- The wider adoption of Electric Vehicles in the UAE will depend on:
 - **Charging infrastructure:** more public charging stations and a simpler process to set up in private residences and office buildings
 - **Prices of EVs:** Since it is not possible to make the prices of EVs more attractive in the UAE by lowering applicable taxes, the market is likely to pick up once the purchase prices of EVs do not differ significantly from those of petrol vehicles
 - **Dealer support:** Dealerships in the UAE are still reluctant to get behind EVs. Even if their brands are global leaders in the segment, local availability and marketing support for electric cars needs to be improved
- Based on current trends (both globally and locally) we estimate that by 2022/23 EVs will become a real alternative for drivers in the UAE



GRAND DUCHY OF LUXEMBOURG
Embassy in Abu Dhabi



Kingdom of the Netherlands



Thank you!