Dutch EV policy in an international perspective

Executive summary

June 2021

Authors: FIER Automotive & Mobility
Harm Weken, Edwin Bestebreurtje,
Sascha van der Wilt, Rob Kroon

https://www.rvo.nl/onderwerpen/duurzaam-ondernemen/energie-en-milieu-innovaties/elektrisch-rijden/stand-van-zaken/cijfers

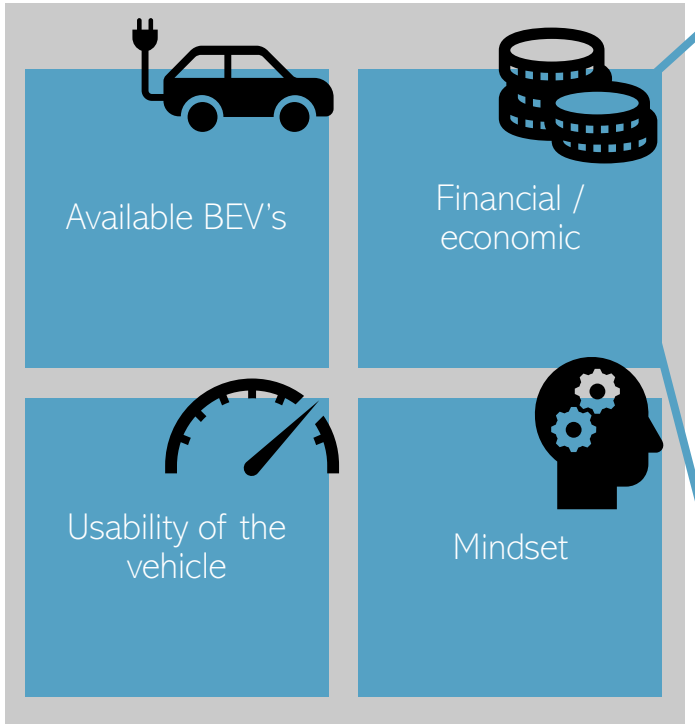
Introduction – success factors in BEV sales

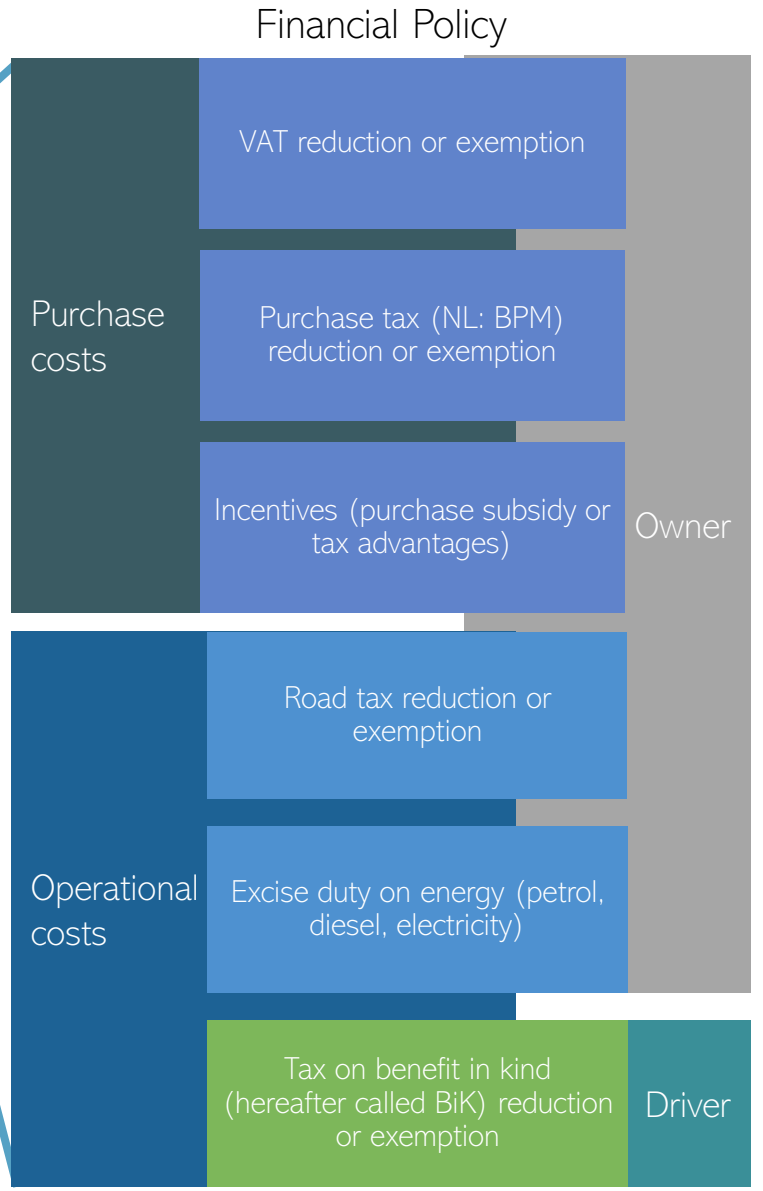
Executive summary introduction

This is a summary of the report "Dutch EV policy in an international perspective" by FIER Automotive & Mobility.

All countries are trying to increase the uptake of battery electric vehicles (BEVs) to reduce emissions. Different factors play a role in the BEV uptake. While recognizing the importance of all the identified factors, this report focusses on the factor "financial / economic", since this is the area where governments have the most direct influence.

In this report, the financial policies for incentivizing electric cars are analyzed. The influence of the different policies is calculated by comparing the purchase price and Total Cost of Ownership (TCO) of BEVs in the different countries. Also, the context of the different countries and their future policies are mapped out. The details can be found in the main report, which can be found on the website of RVO (https://www.rvo.nl/onderwerpen/duurzaam-ondernemen/energie-en-milieu-innovaties/elektrisch-rijden/stand-van-zaken/cijfers) or on the website of FIER (https://www.fier.net/projects/).





Overview of incentives for BEVs

Norway
- BEVs are excluded from CO_2-, No_x-, and weight tax. Also, BEVs are exempted from VAT;
- The Norwegian government aims for 100% BEV sales in 2025.

Sweden
- Additional €960 bonus for BEV and Hydrogen cars;
- Combustion engine sales banned from 2030 on.

Denmark
- The termination of Registration tax benefit is further delayed in 2021;
- No purchase subsidy.

The Netherlands
- Exemption from CO_2 dependent registration tax (BPM);
- BEVs are exempted from road taxes.
- Lowered, but increasing BiK taxation;
- Purchase subsidy availability in the Netherlands is low compared to other countries (only for 277 cars in 2021 and 5.823 in 2020).

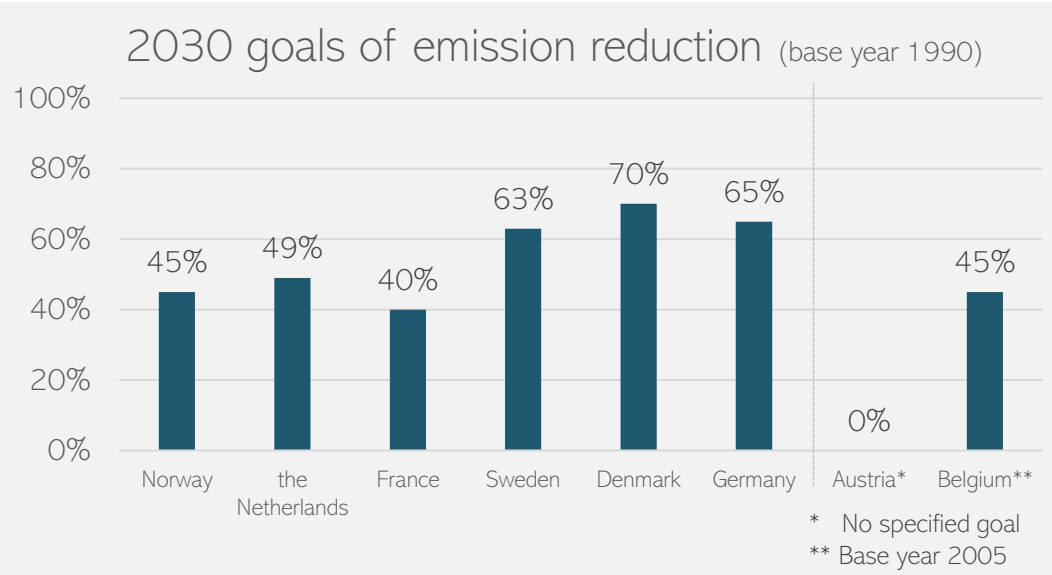
Germany
- VAT was reduced with 3% till the end of '20, which was not extended;
- Purchase subsidy with a max. of €9.000;
- BiK tax is lowered to 25% compared to ICEVs.

Belgium
- Road tax and registration tax exemptions, based on regions;
- BEVs are 100% deductible in the profit tax.

Austria
- Additional € 46 million government funding for new vehicles and recharging infrastructure in 2021;
- Investment bonus for companies.

France
- Purchase subsidy of a max. of €7.000. There is a new €1.000 subsidy for used BEVs;
- Conversion bonus of €2.500 for scrapping an old petrol (<2006) or diesel (<2011).

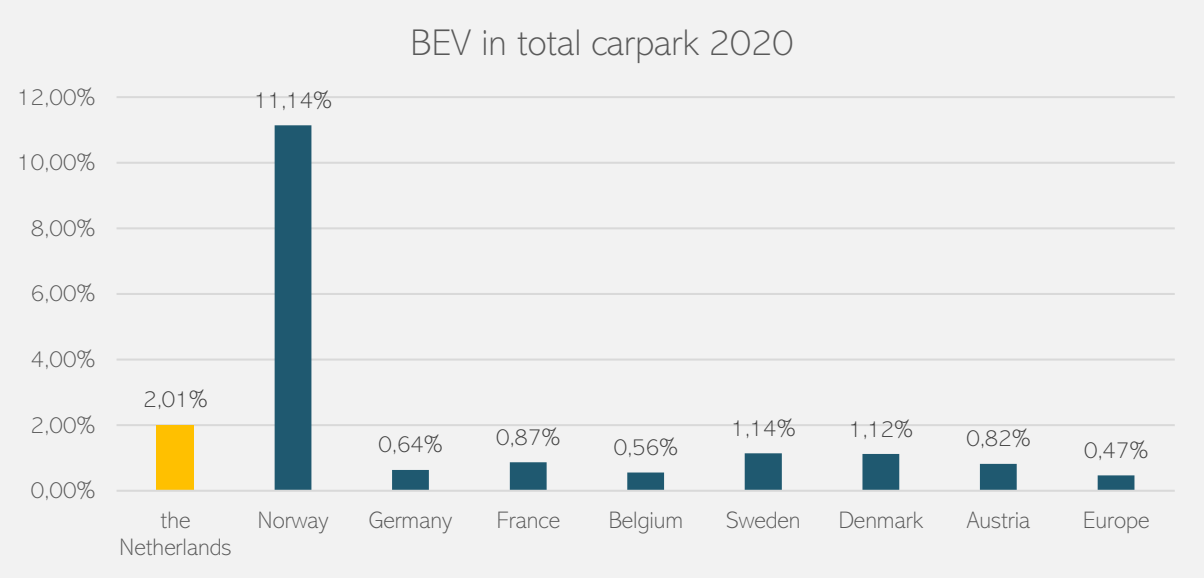
Note: This is a mere selection of the important policies, for more details, see the full report.

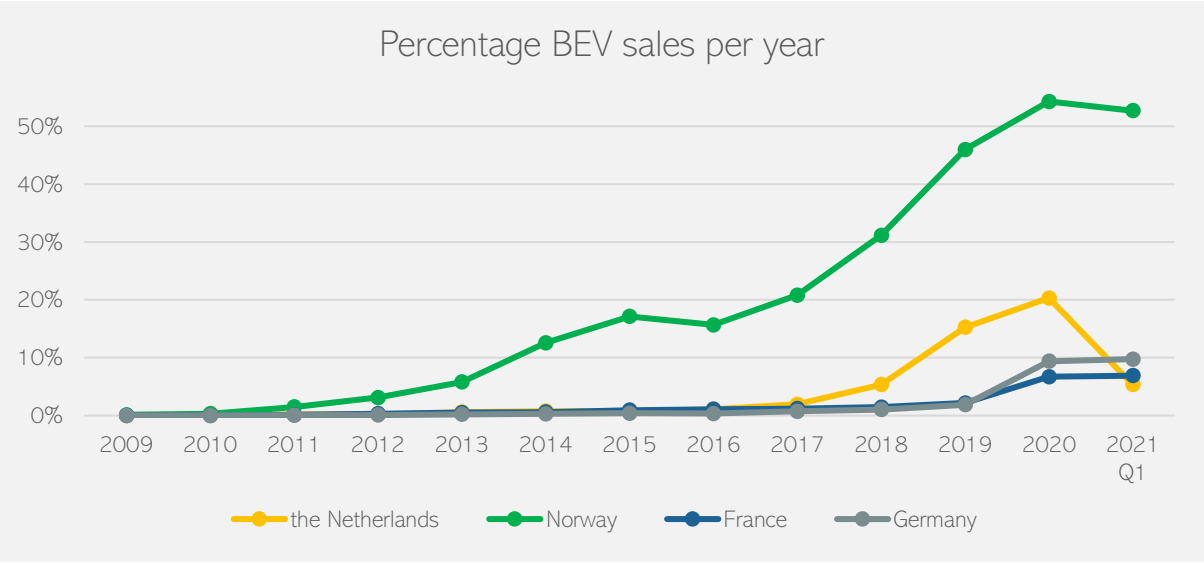


Conclusion on BEV incentives per country

There are clear differences in incentives, often led by the existing tax structure in a country. Countries as the Netherlands, Norway and Denmark, have high taxation on cars, which makes it possible to incentivise BEVs through taxation benefits. France and Germany have, for instance, much lower overall taxation on cars. This creates a higher need of subsidies when trying to incentivise BEVs. Taxation on private use of a company car is fairly similar across all countries, BiK is added to a persons income. This makes it possible in all countries to incentivize BEVs by reducing BiK taxation for BEVs. The amount of the benefit for BEVs are different per country, but they are present in all countries.

Comparison of the BEV carpark and yearly sales development





Observations

- The Netherlands is still ahead of most countries in BEV in the total carpark. However, France and Germany are increasing the BEV sales percentage much faster compared to the Netherlands, which saw a declining growth in 2020;
- The BEV sales percentage per year show a strong decrease in the Netherlands in Q1 of 2021. This is can be an indication of a decreasing trend, however, it must be said that the Netherlands historically has high BEV sales at the end of the year. The BiK tax is being increased with 4% as of 2022. Similar increases are believed to be the cause of the December-peaks of BEV sales in the past.

Source: European Alternative Fuels Observatory

Comparison average purchase price BEVs and petrol cars, the Netherlands, Germany, Norway, and France

Observations

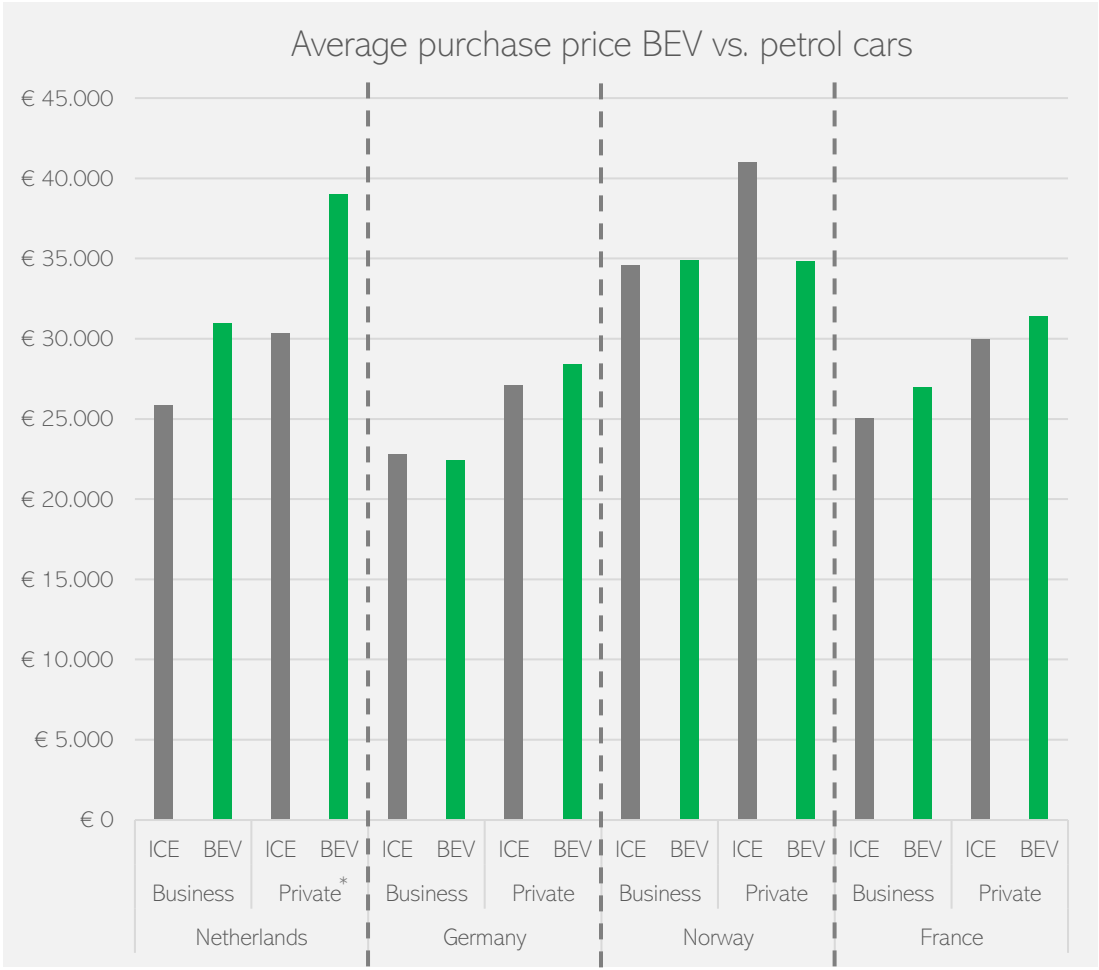
The purchase prices differences between BEVs and petrol cars are much higher in the Netherlands.

The batteries for BEVs are, relative to the nett price of the car, more expensive in the smaller segments (segment B). That causes a bigger difference in the purchase price between BEVs and petrol cars.

Norway exempts BEVs from VAT, this heavily supports the private market. The benefit of a BEV over a petrol car on Norway gets larger as the cars get more expensive because the cost for petrol cars, in VAT and other taxes, increase.

Purchase price*

	Business			Private		
	B segment	C segment	D segment	B segment	C segment	D segment
Netherlands incl. subidy (currently unavailable)	-	-	-	-€ 12.340	€ 40	-
Netherlands	-€ 11.426	-€ 1.724	-€ 2.231	-€ 16.340	-€ 3.960	-€ 5.781
Germany	-€ 1.488	€ 2.486	€ 151	-€ 3.690	€ 1.248	-€ 1.513
Norway	-€ 6.852	-€ 1.081	€ 7.039	-€ 1.919	€ 5.083	€ 15.366
France	-€ 8.146	-€ 1.531	€ 3.888	-€ 8.816	-€ 994	€ 5.467



*without purchase subsidy

Note: the methods used in selecting vehicles per segments are similar across all countries,, they can, however, lead to distorted image within the segments. For more information and the calculation method, see the full report.

Comparison average TCO of BEVs and petrol cars, the Netherlands, Germany, Norway, and France

Observations

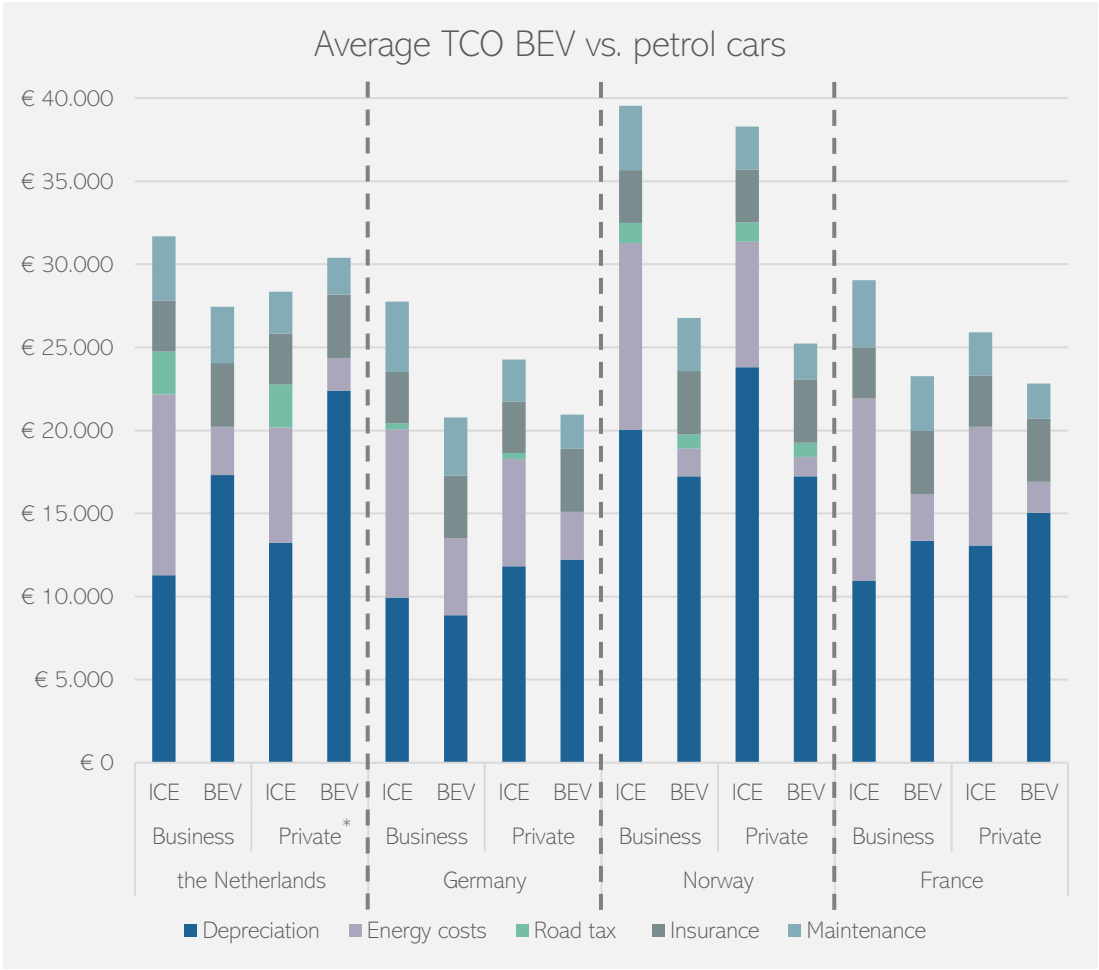
In the Netherlands, the TCO benefit of BEVs over petrol cars is much smaller than in Norway, Germany and France. The private market in the Netherlands is the only market where BEVs are more expensive.

The depreciation of BEVs is, as of now, still higher than that of petrol cars. This difference is best seen in the Netherlands. In France and Germany, the depreciation is compensated by the purchase subsidy.

The TCO of the individual segments show the effect of a progressive tax system. Cars with higher CO_2 emission, generally in higher segments, are taxed higher. This creates a greater benefit for BEVs over petrol cars in higher segments.

TCO*

	Business			Private		
	B segment	C segment	D segment	B segment	C segment	D segment
Netherlands incl. subidy (currently unavailable)	-	-	-	-€ 2.650	€ 4.739	-
Netherlands	-€ 104	€ 6.310	€ 6.513	-€ 6.650	€ 739	-€ 199
Germany	€ 6.158	€ 8.810	€ 5.963	€ 2.493	€ 5.232	€ 2.211
Norway	€ 9.651	€ 10.405	€ 18.259	€ 8.517	€ 11.039	€ 19.657
France	€ 2.783	€ 6.215	€ 8.380	-€ 69	€ 3.458	€ 5.859



*without purchase subsidy

Note: the methods used in selecting vehicles per segments are similar across all countries,, they can, however, lead to distorted image within the segments. For more information and the calculation method, see the full report.

Budget comparison of BEV incentives in 2021

Introduction

The total budgets allocated in the different countries are generally not fully transparent. This is partly due to the uncertainty surrounding these budgets. Some countries have a fixed budget for subsidies, for instance, others have only estimate costs in the national budget.

The budgets presented on this slide are predictions, made by ministries or governmental institutions of the country in question, for 2021.

The budgets are sometimes allocated to different timeframes across the different countries, making comparisons difficult. This has been eliminated as much as possible by calculating the budgets for one single year, 2021. An example of this is the purchase subsidy in the Netherlands. The budget for 2021 has largely been paid out in 2020. For the purpose of this budget comparison, the budget for 2021 has been used.

Yearly budgets for tax and subsidy incentives.

Netherlands

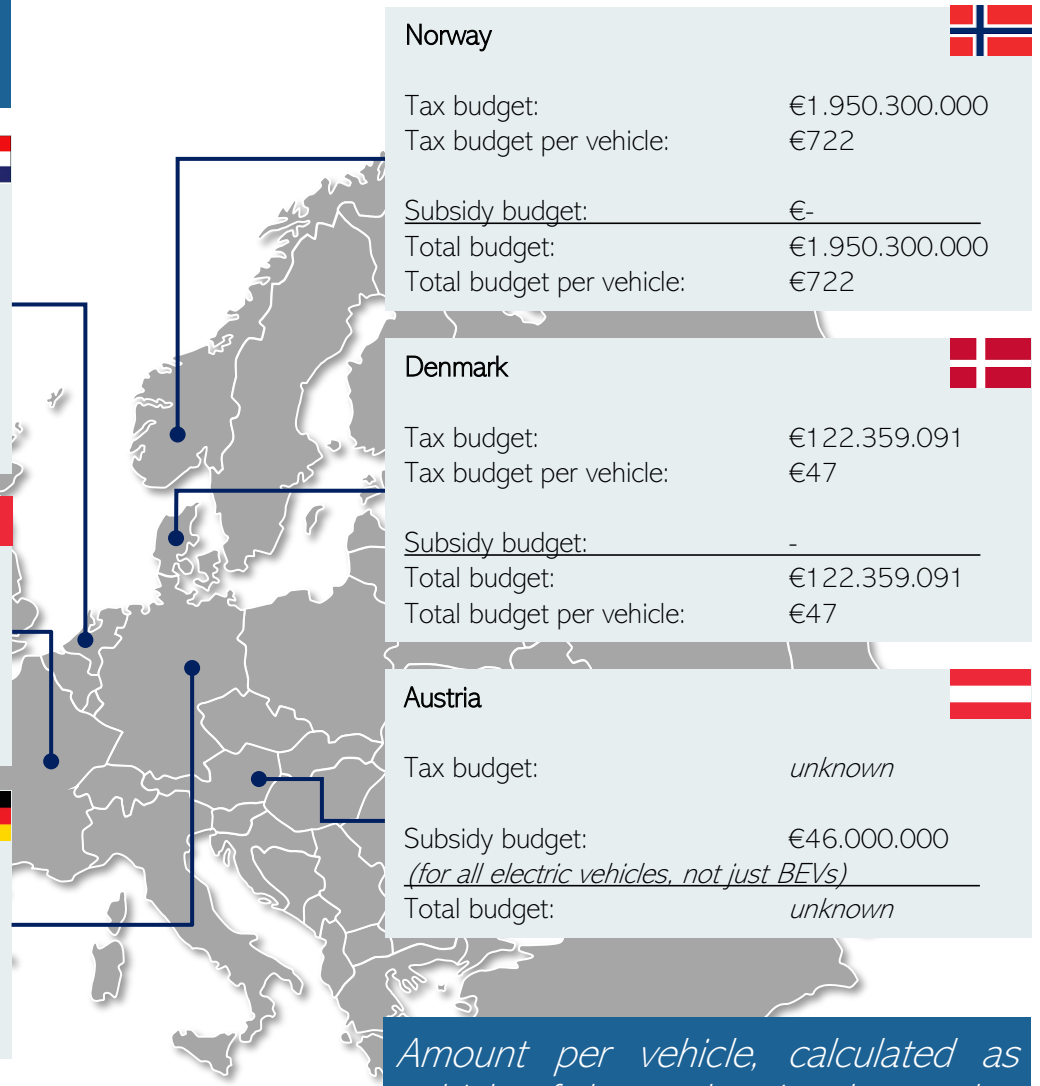
Tax budget:	€534.000.000
Tax budget per vehicle:	€64
Subsidy budget:	€14.400.000
Subsidy budget per vehicle: :	€1,72
Total budget:	€548.000.000
Total budget per vehicle:	€65

France

Tax budget:	*unknown*
Subsidy budget:	€1.239.000.000
Subsidy budget per vehicle:	€38
Total budget:	*unknown*

Germany

Tax budget:	*unknown*
Subsidy budget:	€1.845.000.000
Subsidy budget per vehicle:	€39
Total budget:	*unknown*



Norway

Tax budget:	€1.950.300.000
Tax budget per vehicle:	€722
Subsidy budget:	€-
Total budget:	€1.950.300.000
Total budget per vehicle:	€722

Denmark

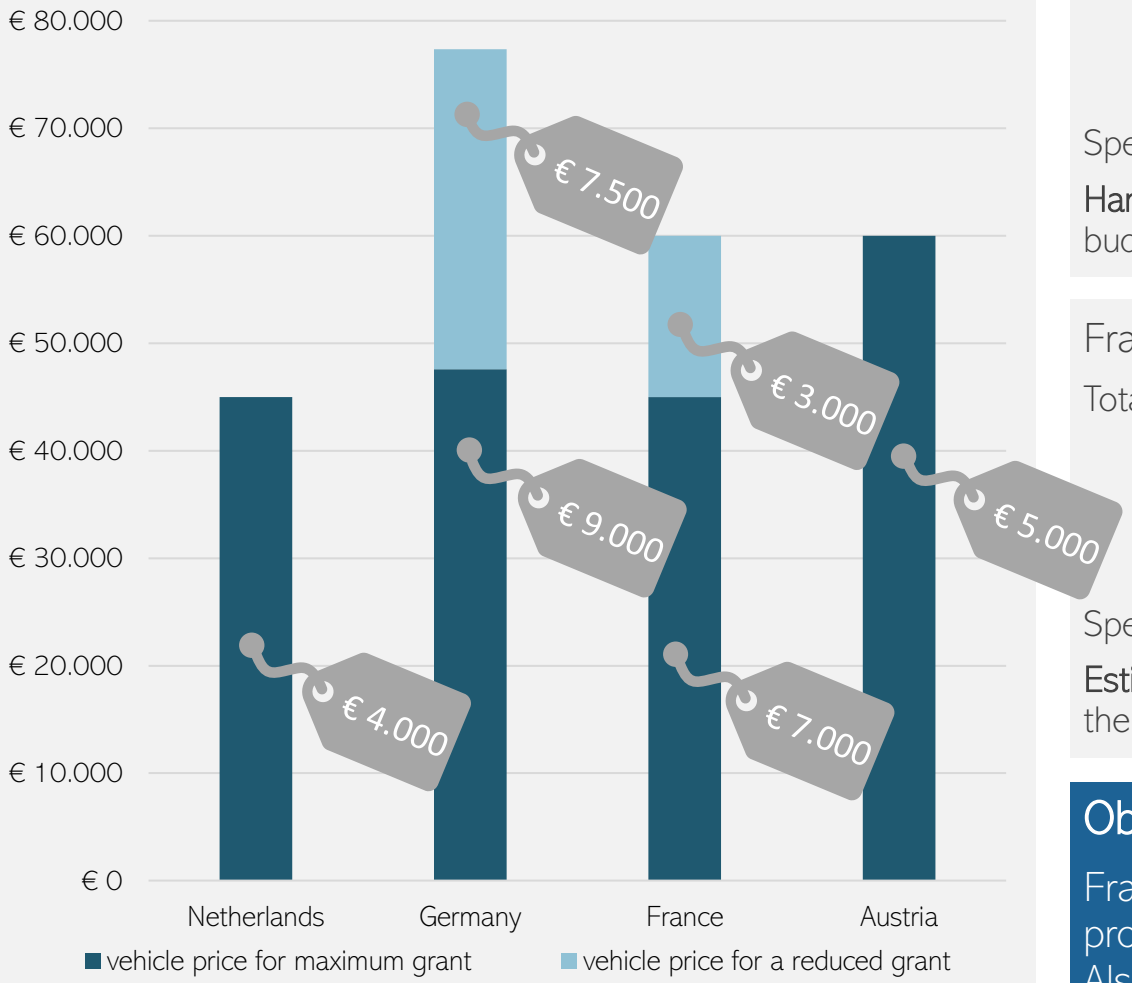
Tax budget:	€122.359.091
Tax budget per vehicle:	€47
Subsidy budget:	-
Total budget:	€122.359.091
Total budget per vehicle:	€47

Austria

Tax budget:	*unknown*
Subsidy budget:	€46.000.000
(for all electric vehicles, not just BEVs)	
Total budget:	*unknown*

Amount per vehicle, calculated as vehicle of the total national carpark.

Purchase subsidy budgets and conditions



The Netherlands

Total budget: €14.400.000

Budget limit ☑

Time limit ☑

Specifics:

Hard budget. End of the year or when the budget is exhausted.

Germany

Total budget: €1.845.000.000

~~Budget limit~~ ☐

Time limit ☑

Specifics:

Estimated budget. Time planning is leading, the costs are estimated.

France

Total budget: €1.239.000.000

~~Budget limit~~ ☐

Time limit ☑

Specifics:

Estimated budget. Time planning is leading, the costs are estimated.

Austria

Total budget: €46.000.000

Budget limit ☑

Time limit ☑

Specifics:

Hard budget. Runs until March 31st 2022, subsidy is for for all sorts of electric vehicles.

Observations

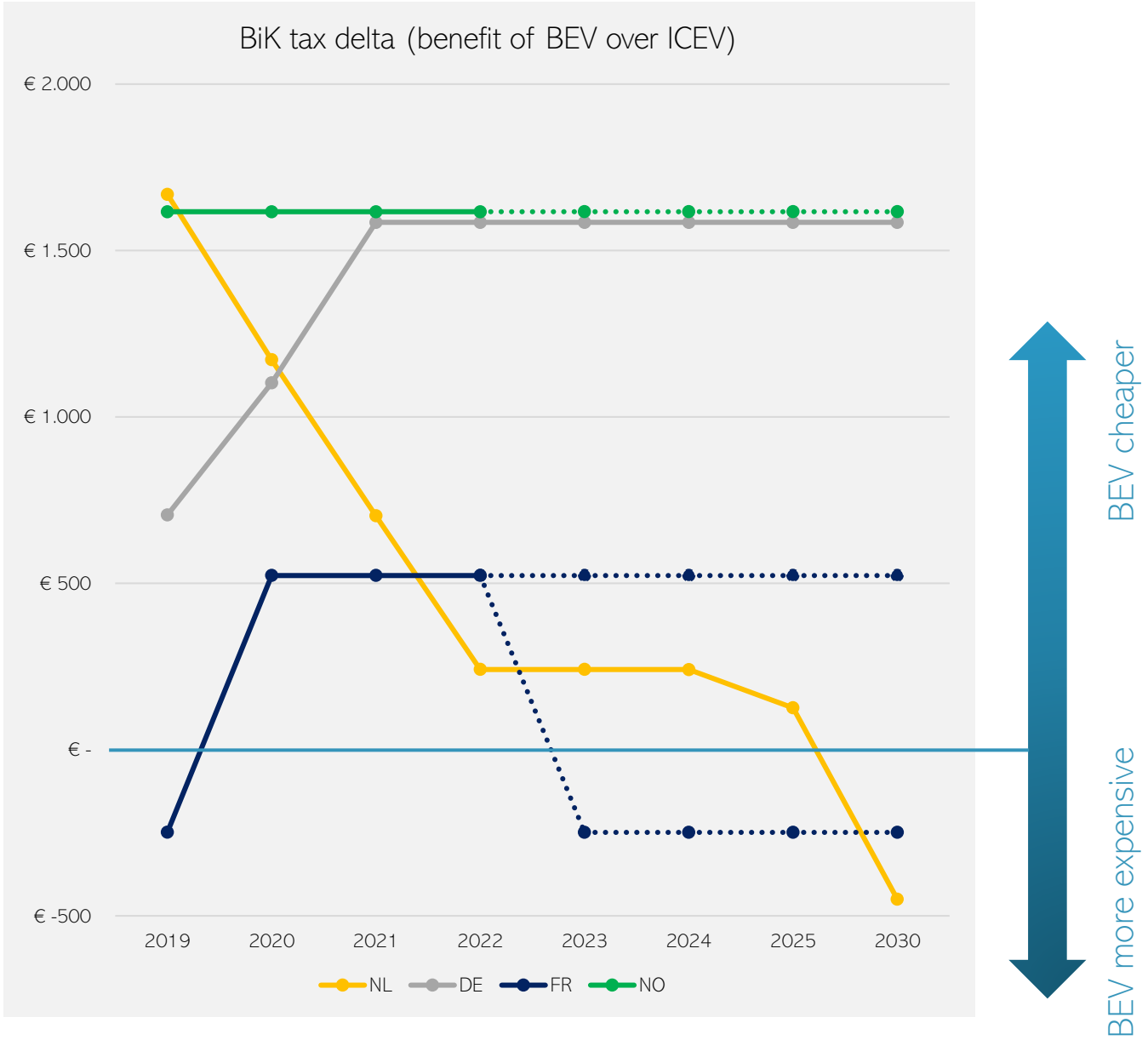
France and Germany are similar, having no budget constraint on the subsidy program. Austria and the Netherlands both have a budget- and a time constraint. Also, the total budget and amount of subsidy per BEV is lowest in the Netherlands.

Taxation on Benefit-in-kind

Observations

- Up to and including 2019, there only was a substantial advantage of BEVs opposed to petrol cars in the BiK taxation in the Netherlands and Norway;
- Only the Dutch government has committed to shrinking the advantage of BEVs over petrol cars in the BiK taxation. The regulation in France after 2022 is not clear yet;
- The past has proven that BiK taxation has an impact on the BEV uptake. A clearly communicated increase of the BiK percentage on the one hand, leads to end of year sales impulses, as seen near the end of 2019 and 2020, and on the other hand, in case of a strong increase, to a significant decline of sales in the following year. This was showed by the increase in the end of 2020 and the decline in the first quarter of 2021 in the Netherlands;
- It is not the BiK tax percentage that is decisive, but the difference in BiK tax relative to petrol cars. As soon as the cost advantage declines too much, it will be a realistic scenario that the corporate demand will decline, and corporate users will opt for petrol cars;

This calculation of BiK was done by comparing the VW Golf 1,0 TSI and the VW ID.3 45 kWh.



Conclusions & Outlook on incentives 2025 - 2030

The Netherlands has decreased some of the key incentives for BEVs in 2020, while other countries have increased some key incentives.

Depreciation is the biggest cost in the TCO. Currently, the depreciation of BEVs is higher than that of petrol cars.

Norway mainly incentivizes the private market and the Netherlands mainly the business market.

There is a limited focus on the occasion market in all countries within this research.

Tax systems with a lower tax burden demand (larger) purchase subsidy programs to positively impact BEV sales.

Stop-and-go incentives have a disruptive effect on the BEV uptake, creating an instable market growth for BEVs.

Purchase subsidies create a benefit for BEVs over petrol cars in lower segments, and emission-based taxes do so in higher segments.

Outlooks on incentives 2025 – 2030

With regards to future BEV policy, the time-frame heavily differs per country. France for example has presented their plans up to 2022, where Denmark has plans up to 2035.

It is interesting to see that no presented plans are going to show an increase of BEV incentives, only a unchanged or (slow) phasing out of the incentives.

That being sad, future outlooks of plans, goals, ambitions of national governmental BEV incentives are unfortunately no mathematical sciences. Policy decisionmakers make outlooks, also for the period after they sit in government, so there is no certainty about the implementation at that time. But also when they are in government, the policy can be flexible and incentives can change due to certain developments.

Disclaimer: All information in this report has been obtained from sources considered accurate and reliable. Nevertheless, due to the possibility of material, interpretation and analysis errors, the analysis and recommendations provided do not warrant accuracy, timeliness or completeness.

Liability: We exclude all liability for damages of any kind, direct or indirect, arising out of or in any way connected with the use of the information contained in this report. In addition, we shall not be liable for any damages, direct or indirect, arising out of or in any way connected with the use of the information contained in this report.