

# E-mobility adoption pathways in France, Germany and Norway

Comparative analysis of macro-environmental factors for knowledge transfer and best practice identification

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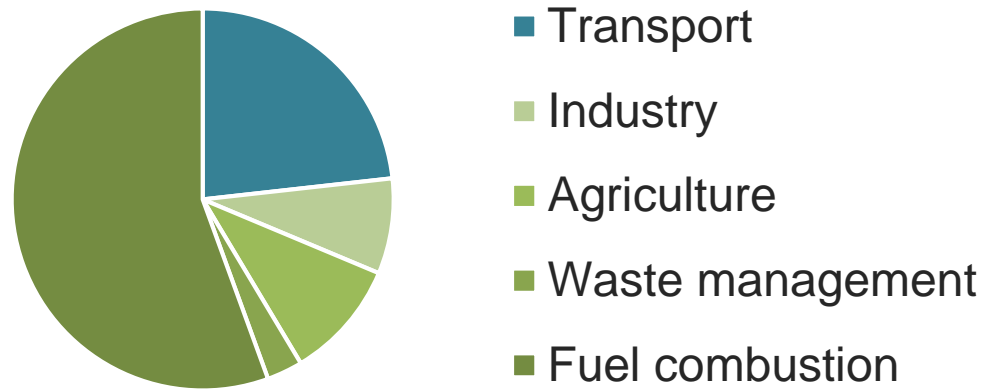
22.06.2018

## Agenda

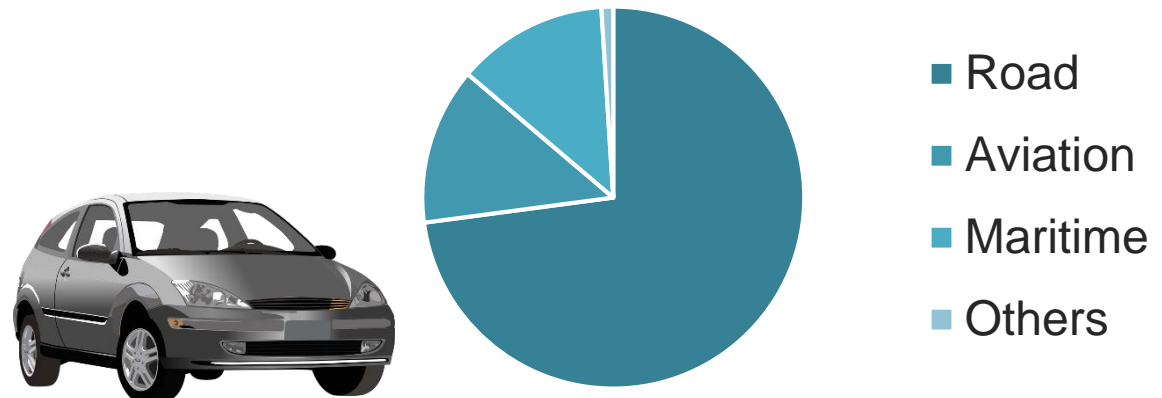
- Sustainable mobility
- Adoption path comparison
- Why these differences?

## Sustainable mobility

Share of European GHG



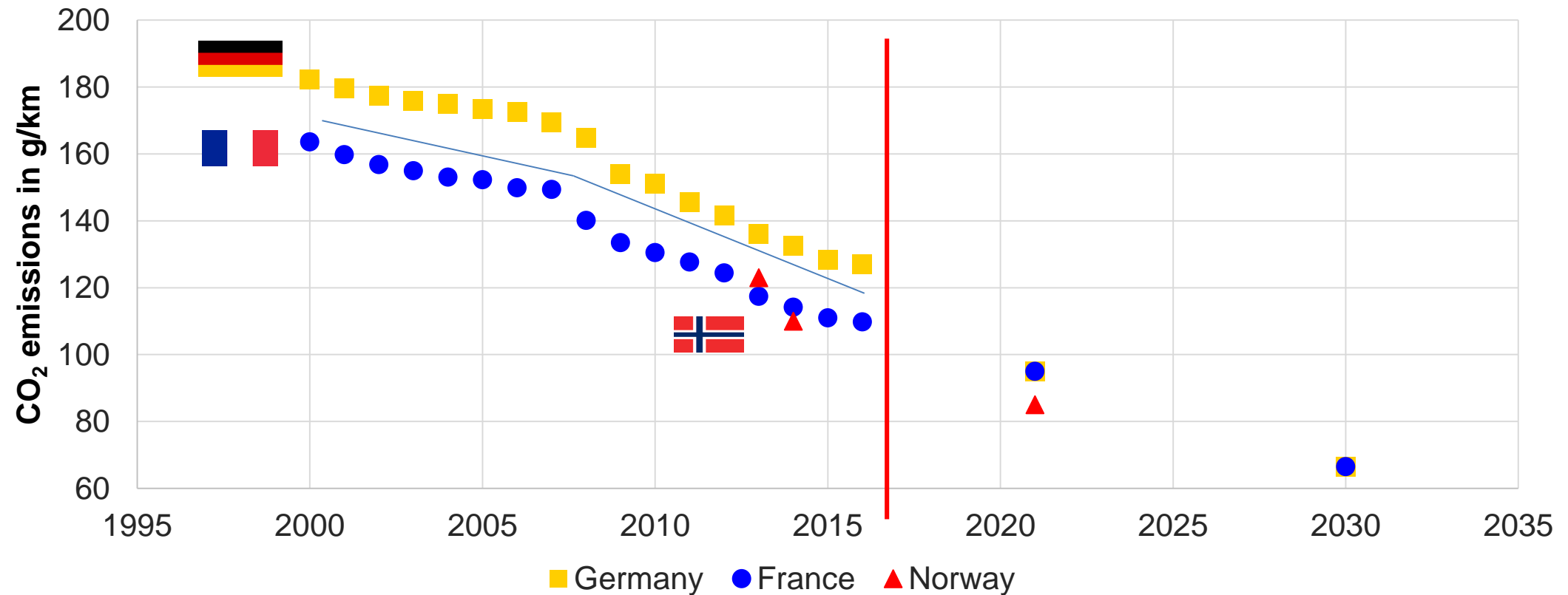
Share of European transport GHG



Eurostat, 2015

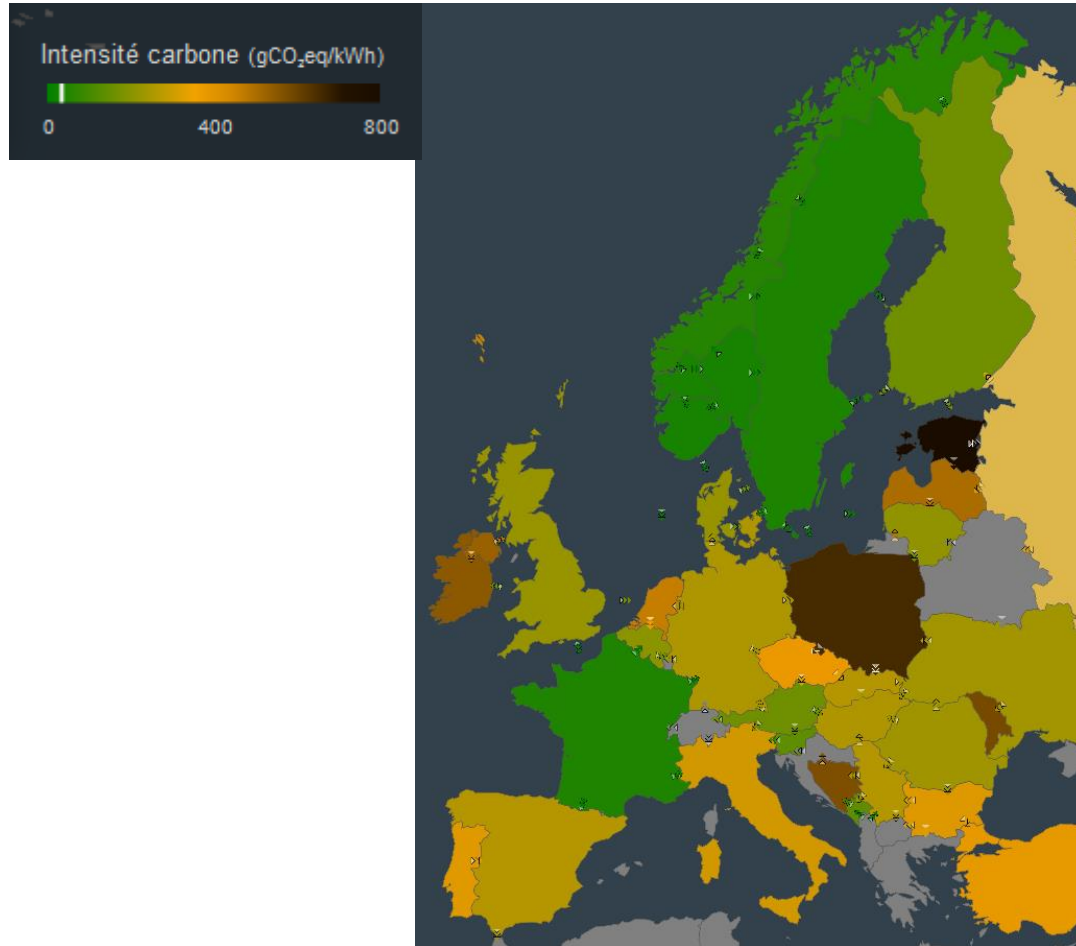
## Sustainable mobility

Average CO<sub>2</sub> emissions in g/km from new passenger cars



Eurostat

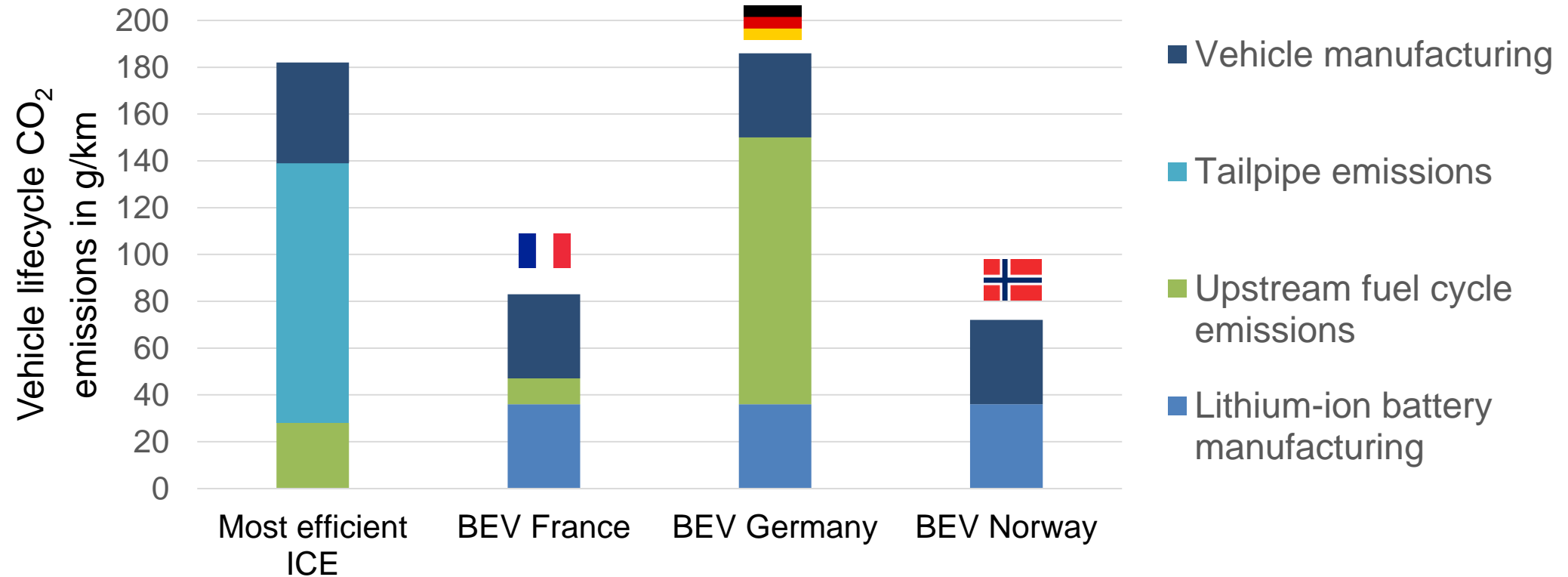
## Sustainable mobility



Electricity Map  
[electricitymap.org](http://electricitymap.org)

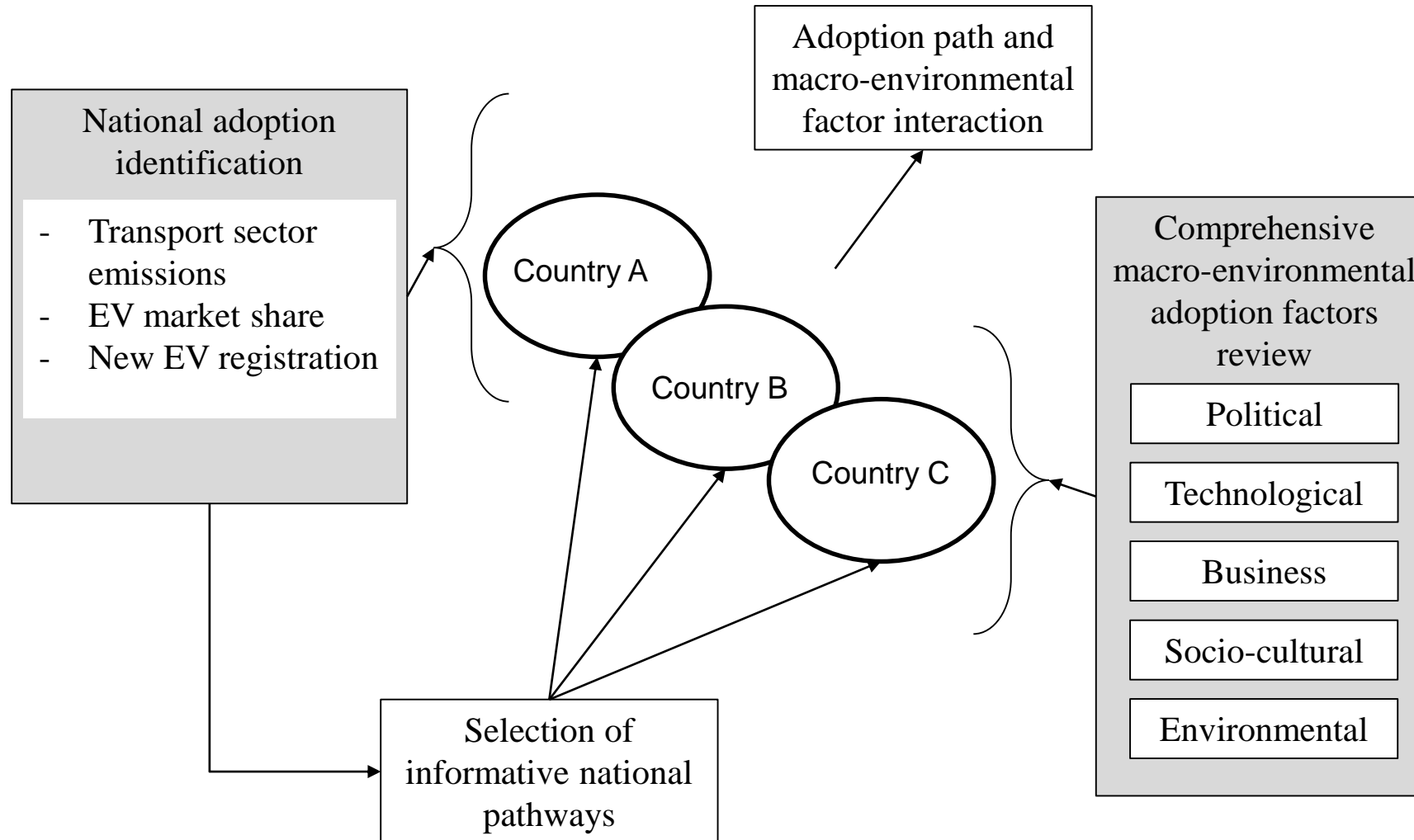
June 2018

## Sustainable mobility



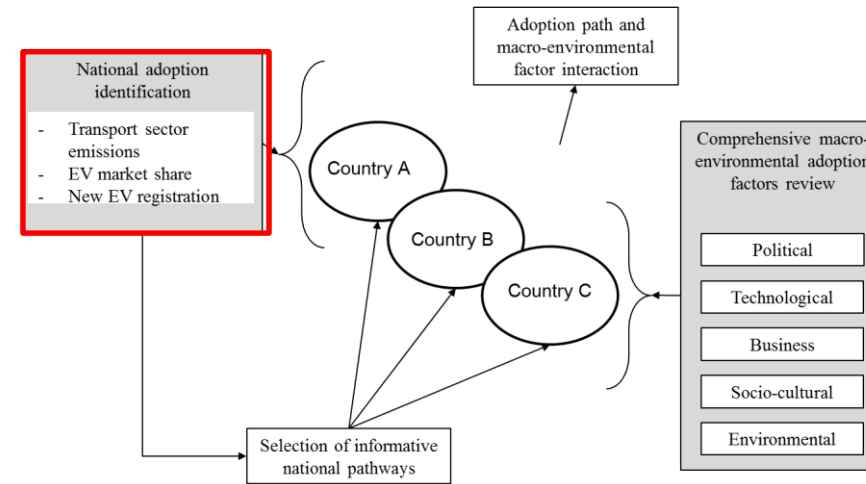
Adapted from Hall, Dale; Lutsey, Nic (2018): Effects of battery manufacturing on electric vehicle life-cycle greenhouse gas emissions. ICCT.

## Analysis framework

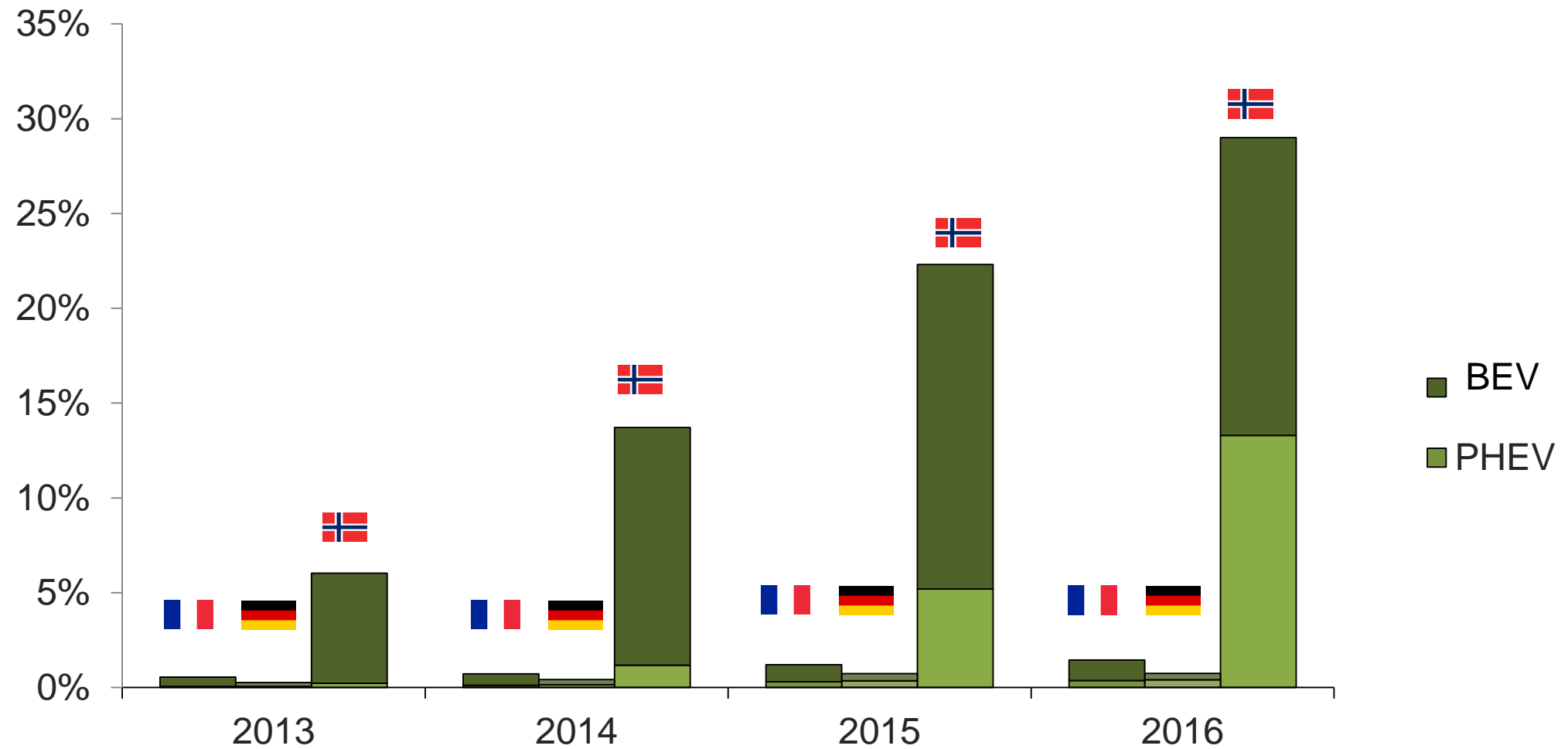


## Agenda

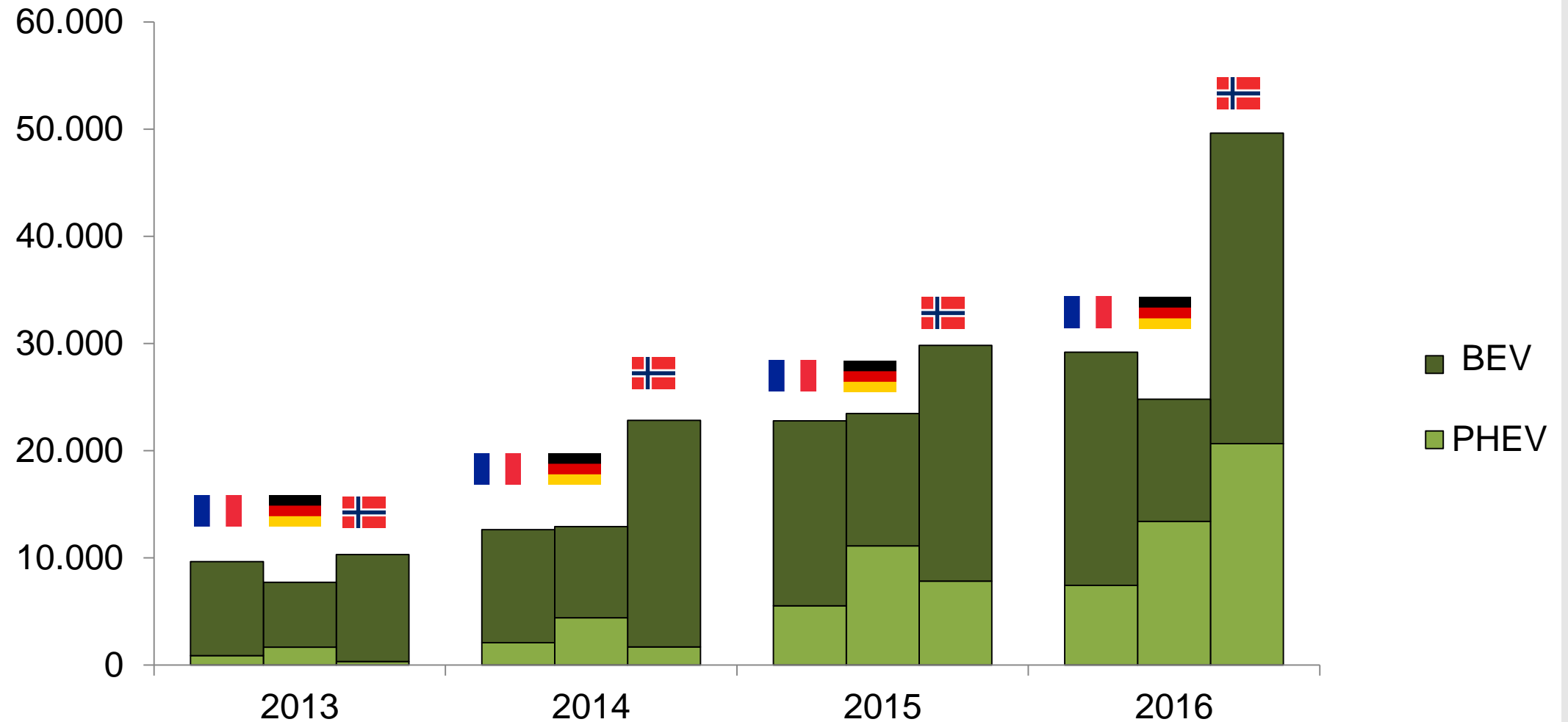
- Sustainable mobility
- **Adoption path comparison**
- Why these differences?



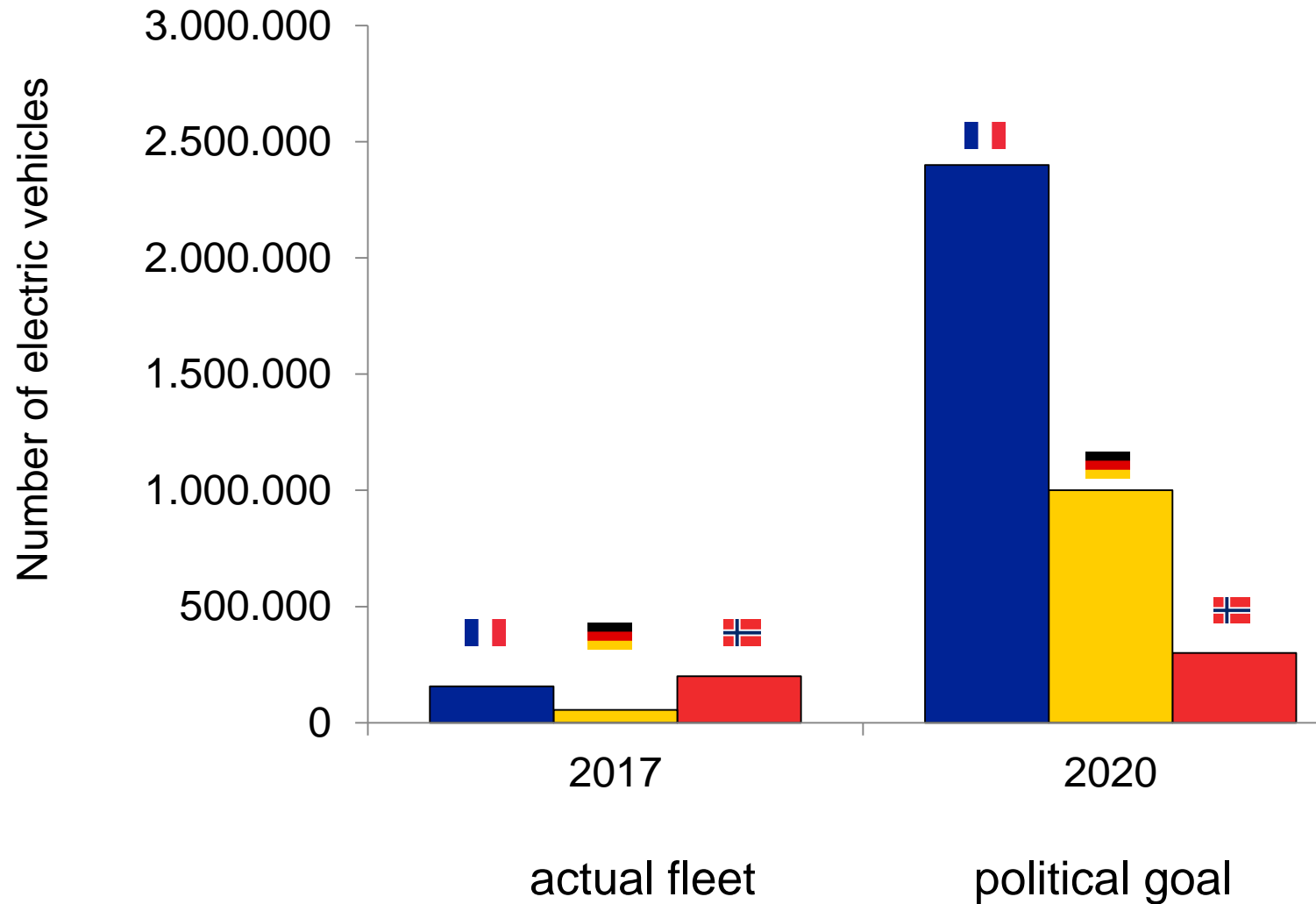
## Market share comparison



## New registration comparison

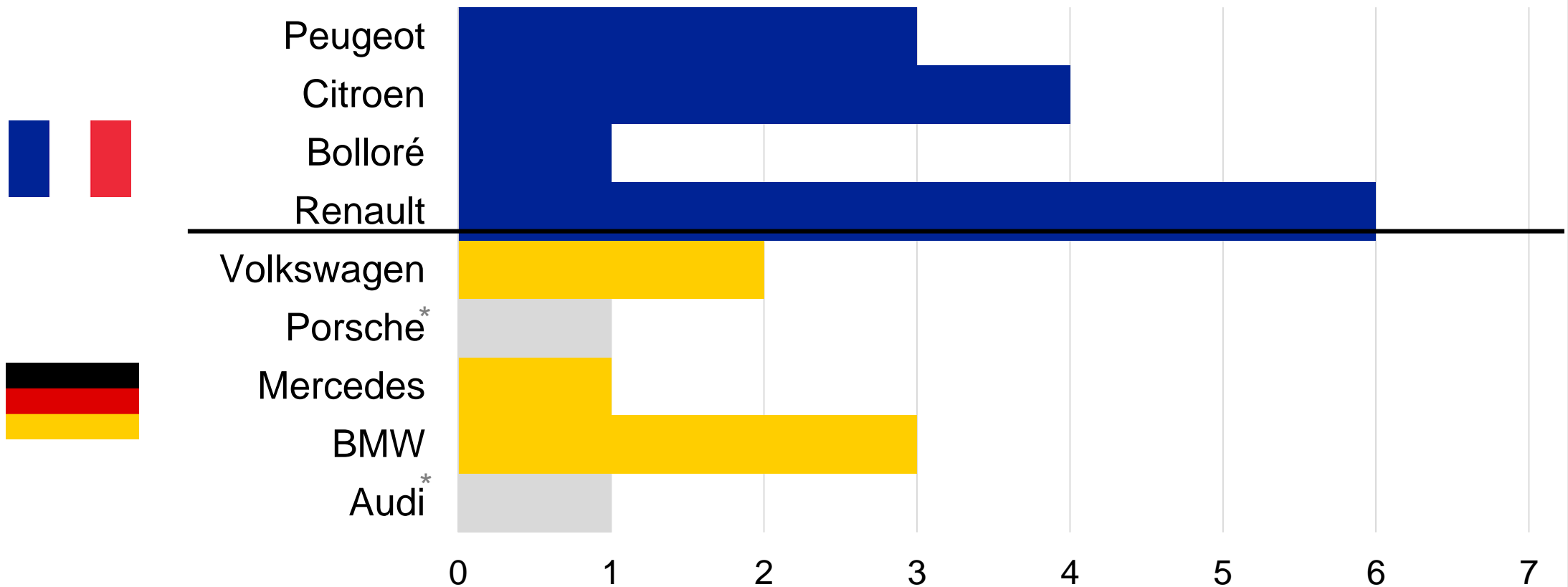


## Electric vehicle fleet and political goals



## Car industry

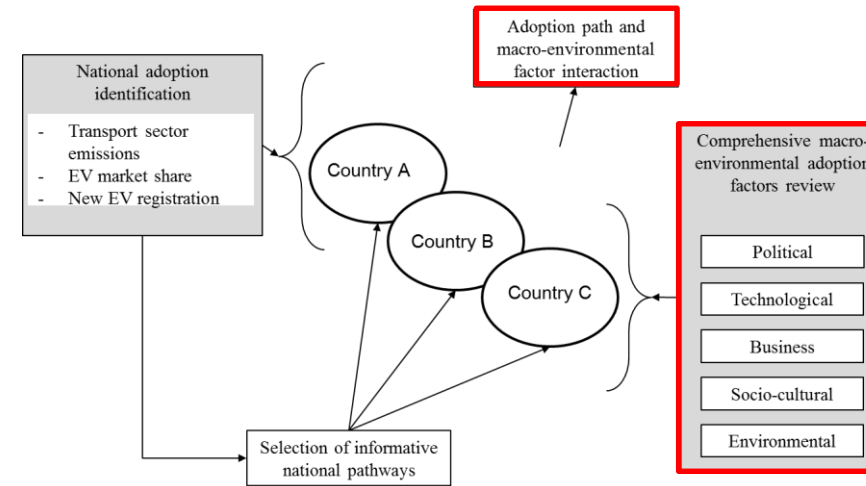
Number of fully electric models by make



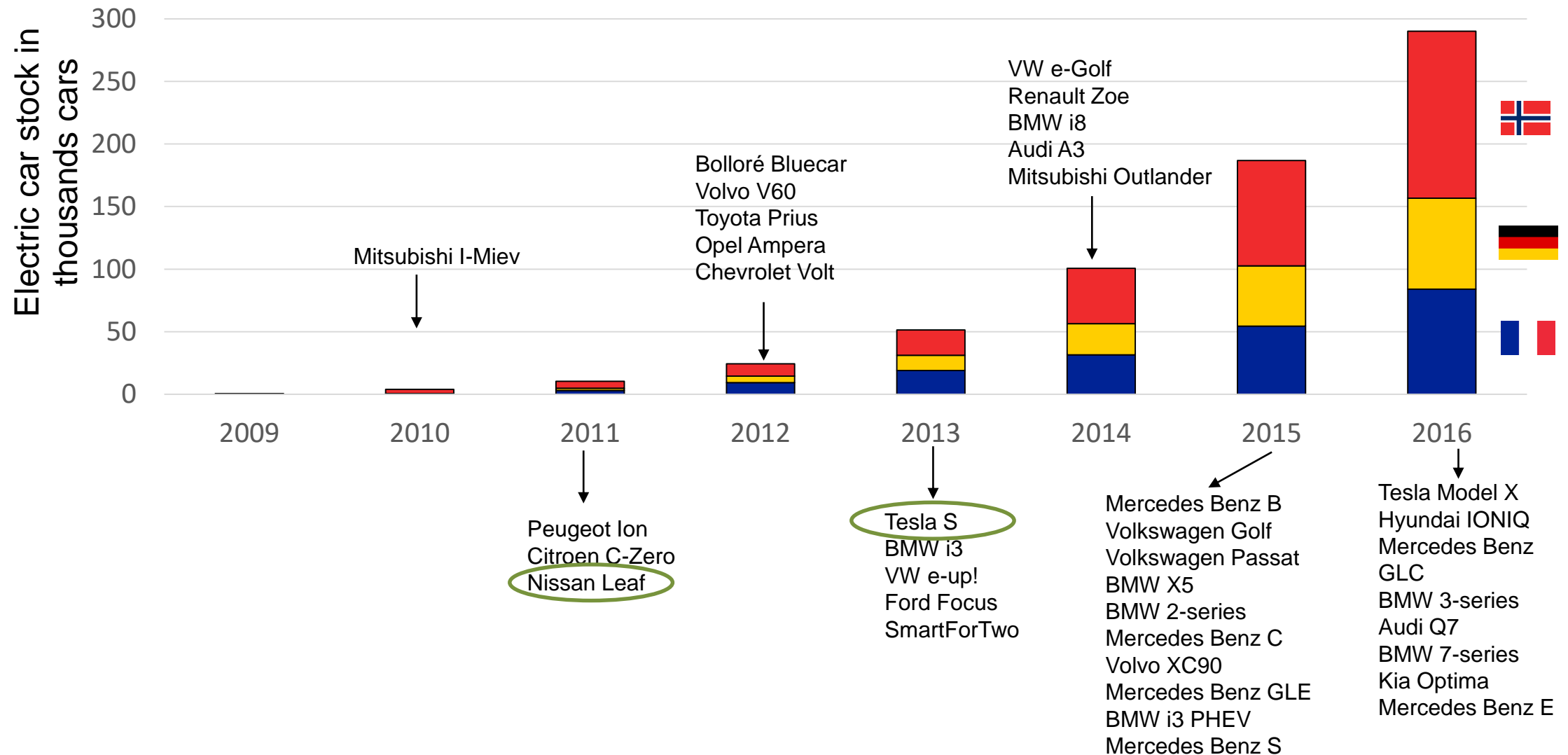
\*upcoming

## Agenda

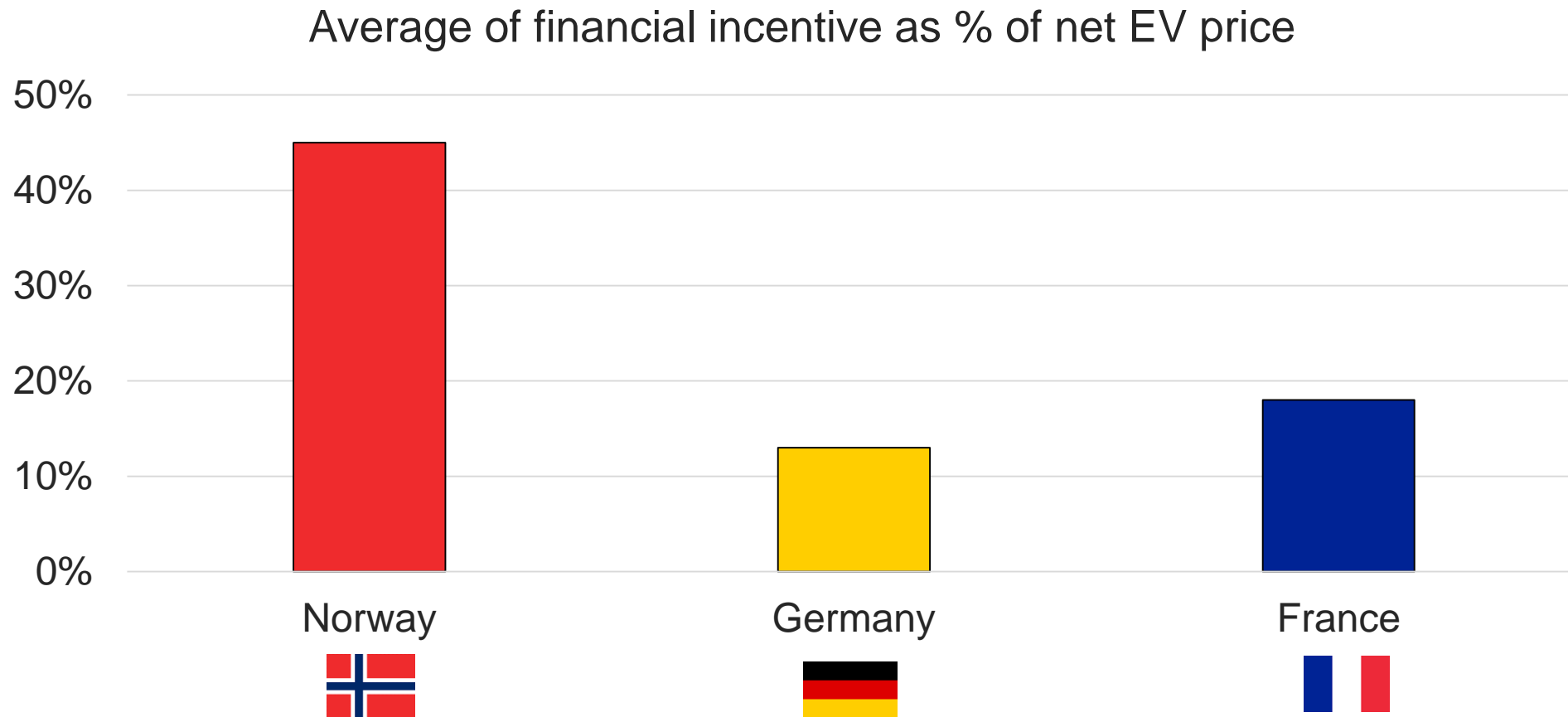
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## Electric car stock and model availability






## Monetary subsidy



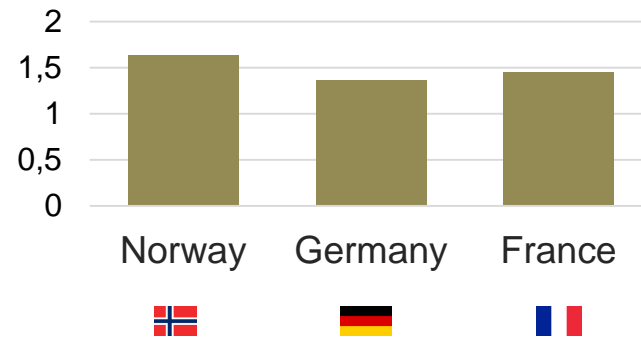
McKinsey 2017

## Exemplary calculation: Renault ZOE Life 41kWh

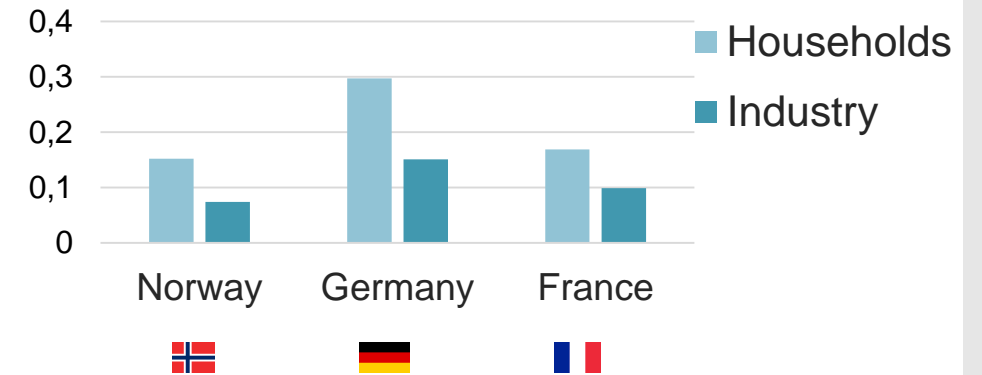
	 France	 Germany	 Norway
List Price	26480 €	26649 €	24852 €
VAT	6620 €	6251 €	Exempted
Bonus	-6000 €	-5000 €	None
Home charging facility	1500 € -30% tax credit	1500 €	Offered
Registration tax	Exempted (~46 €)	~27 €	Exempted
Annual ownership/road tax	Not applicable	Exempted five years	Exempted
<b>End price</b>	<b>28150 €</b>	<b>29426 €</b>	<b>24852 €</b>

## Fuel prices

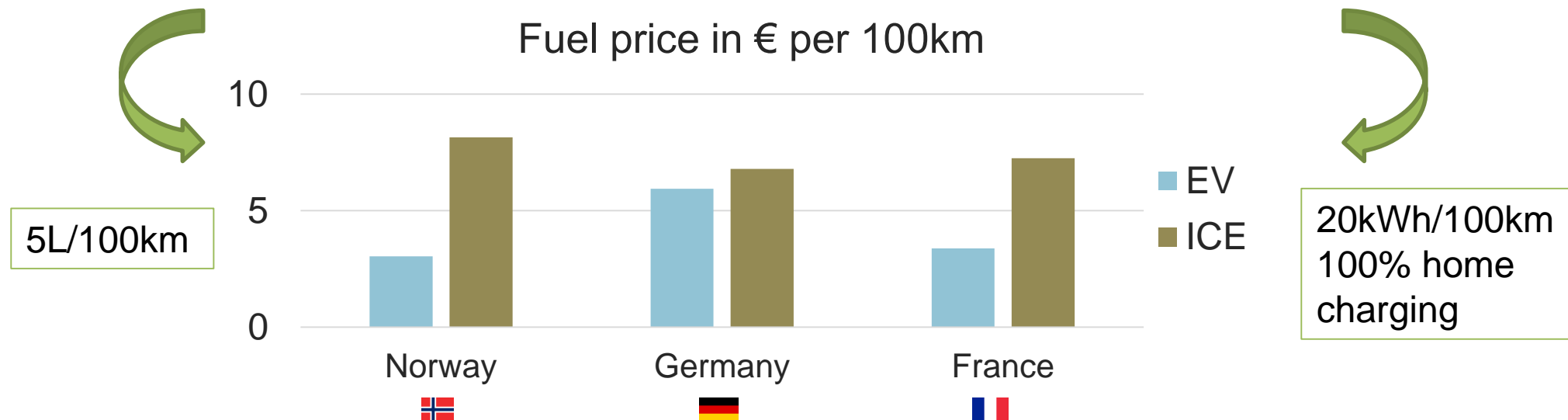
Gasoline price in €/Liter



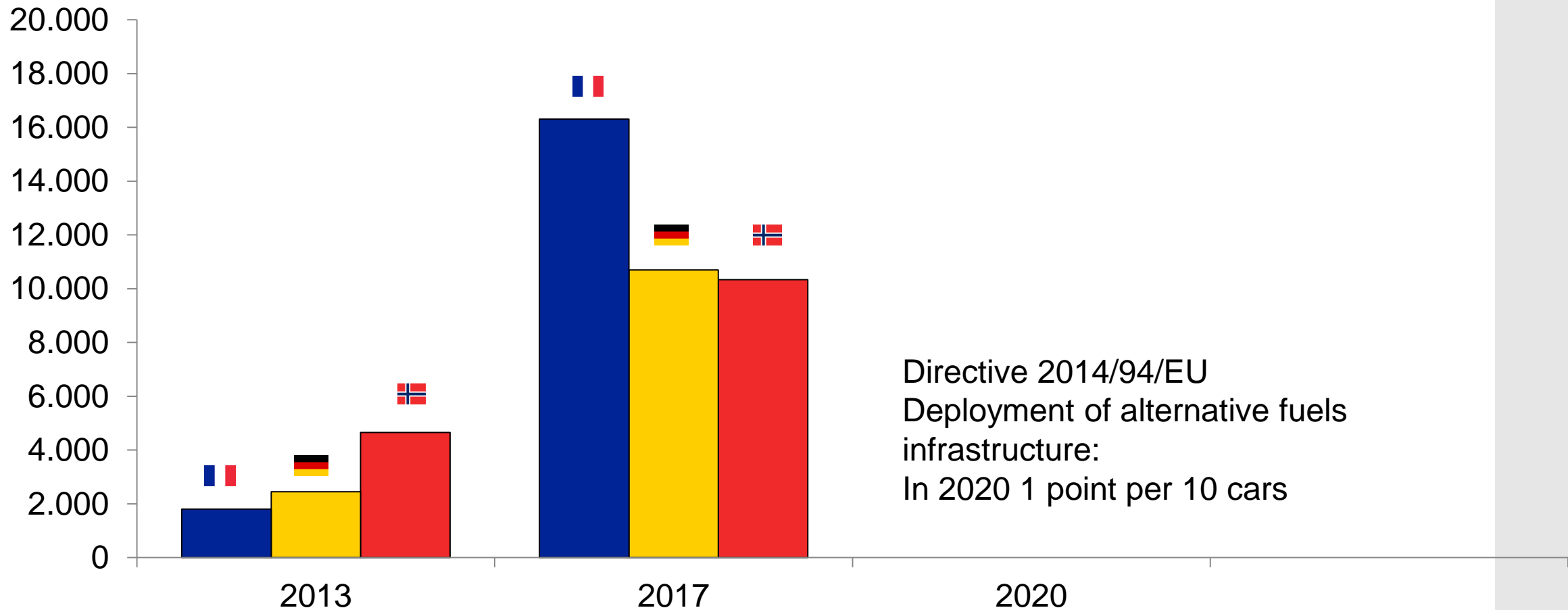
Electricity prices in €/kWh



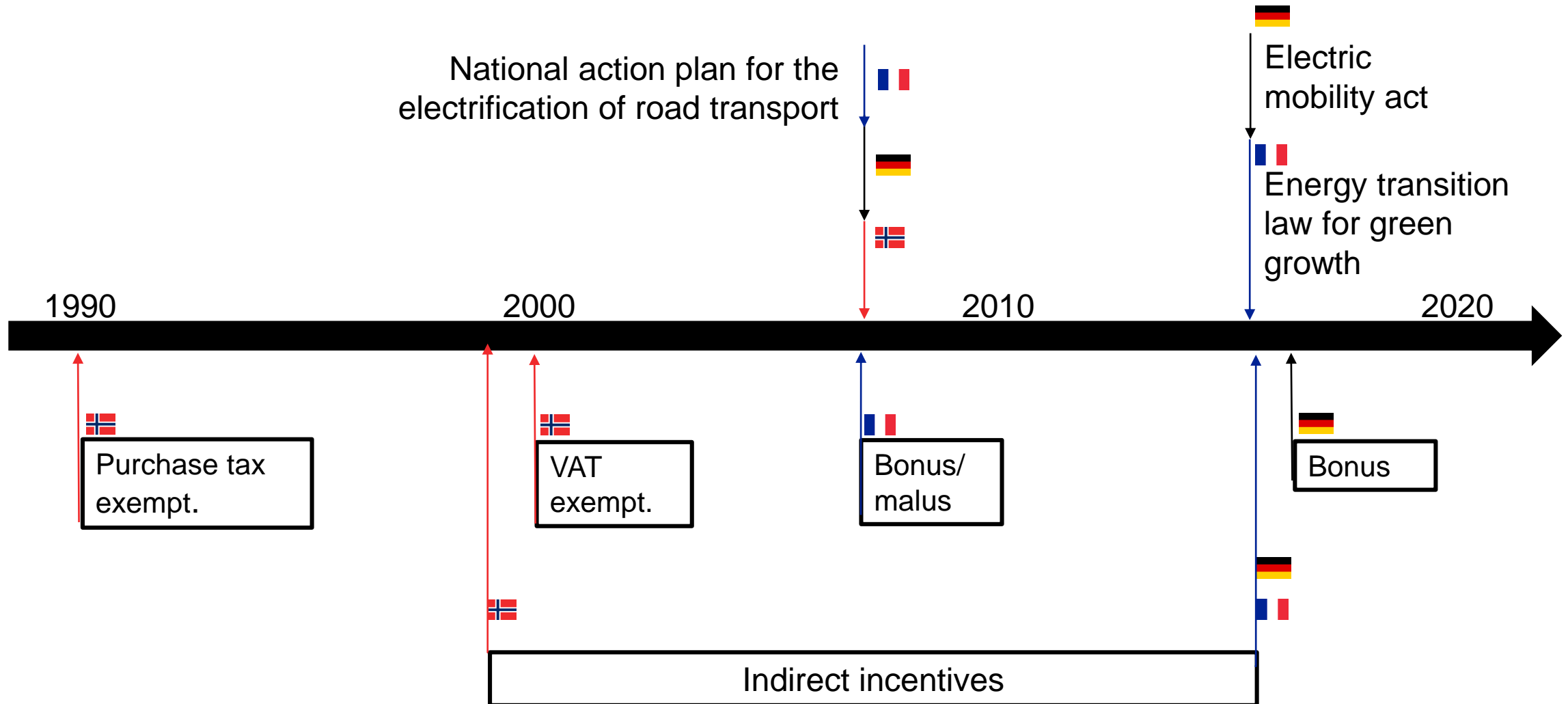
Fuel price in € per 100km



## Public charging points



## A matter of time?



## Conclusions & outlook



Early significant monetary incentive



National simple and unified plan



New mobility patterns