e-mobility NSR

Emergent Strategies for an Emergent Technology

A comparative analysis of EV-policies by government in NSR-countries

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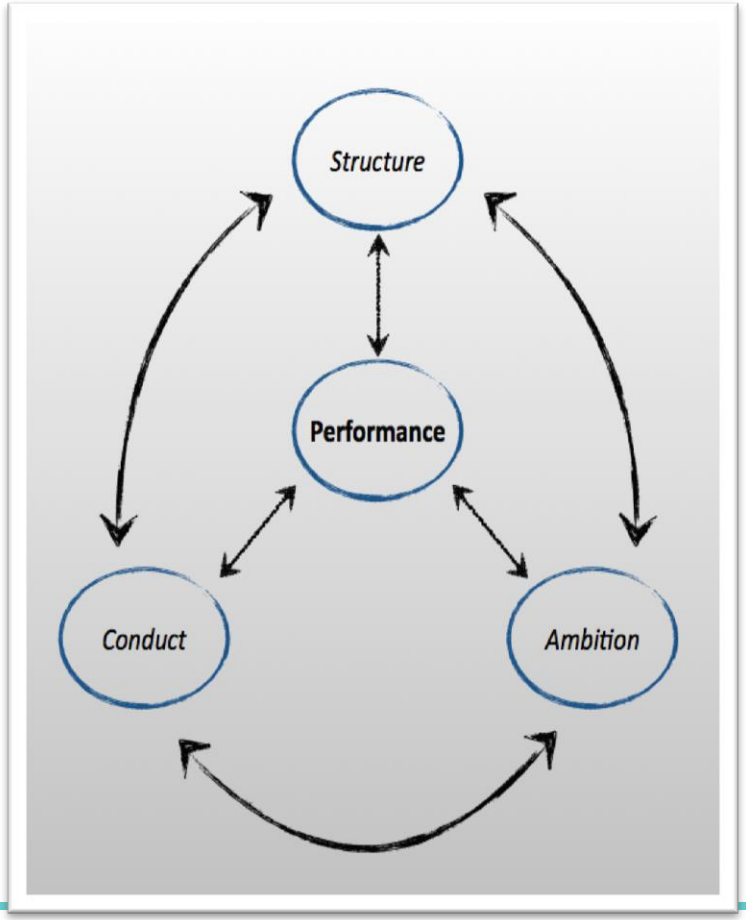
Method:

what have we been doing?

Looking for explanations of EV performance in three categories which could influence the Uptake of e-mobility



Scope & Definitions…

Performance:

Success?

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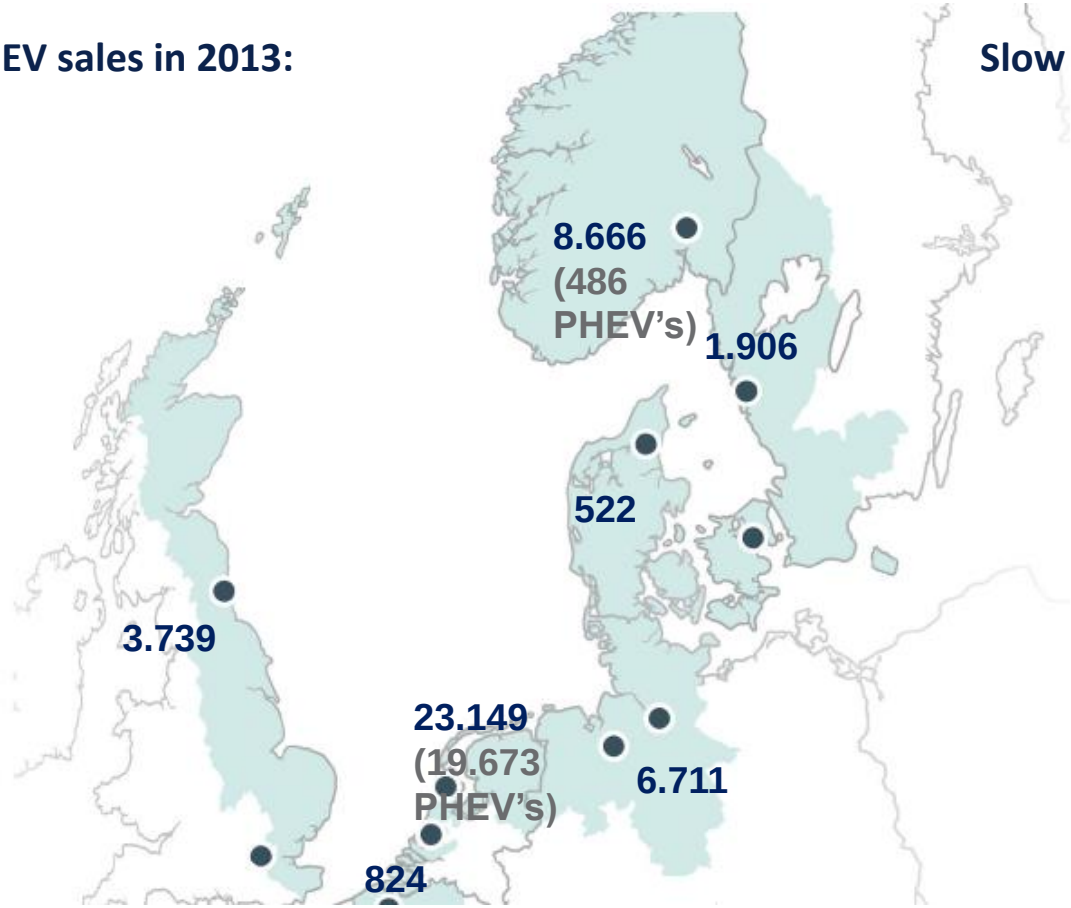
EV sales in 2013:



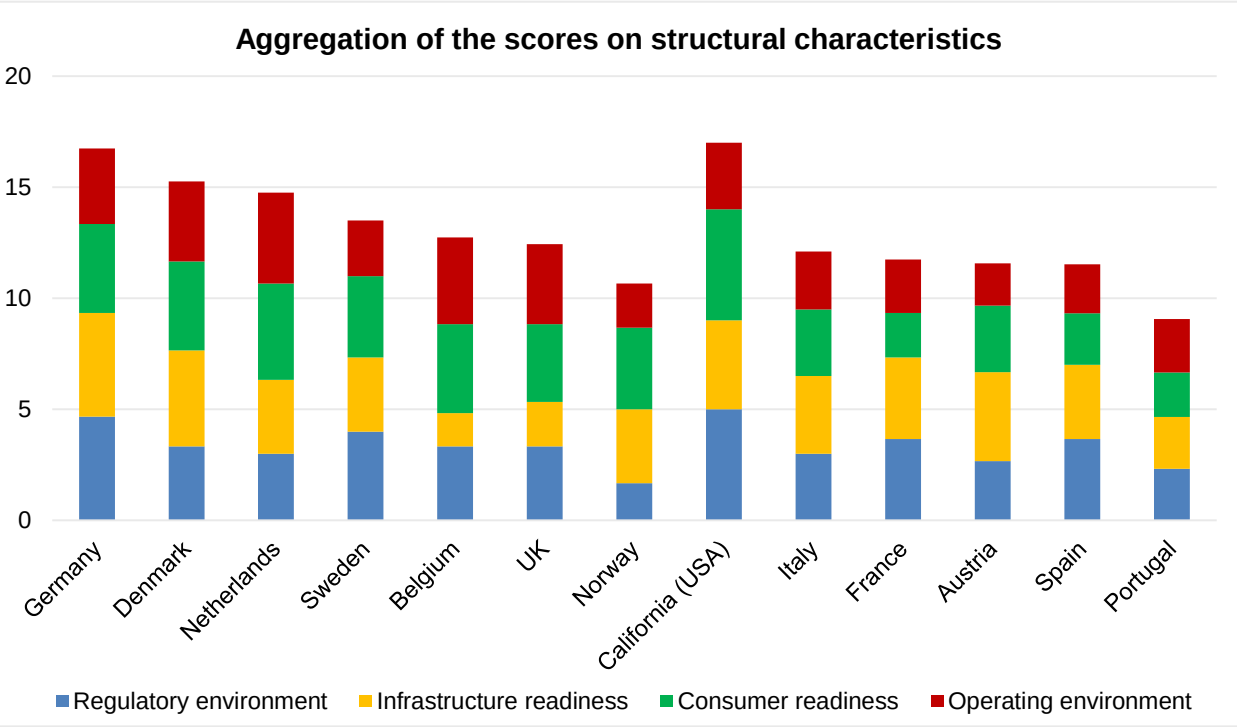
Slow chargers installed by end of 2012:

Country	Chargers
Netherlands	3.520
UK	2.866
Germany	2.821
Sweden	1.215
Norway	957
Denmark	280
Belgium	200

Structure:

Starting positions?

Countries who perform best are not always those with most favorable structure and vice versa…



Ambition:

Commitment affirmed?

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Countries who could be regarded as more ambitious are also the countries which score higher on e-mobility performance…

Country	Ambitions
Denmark	• 2014: double the number of EV's (1-1-2014: 1.300 EV's) • 150 battery swap stations in 2012. No further ambitions were found for charging infrastructure.
Germany	• 2.200 EV's in 2012, 1 million EV's in 2020, 6 million EV's in 2030 • No ambitions found for charging infrastructure
Norway	• 200.000 EV's in 2020 • In the realization phase (2015) Norway plans to have 5000 charging stations
Sweden	• 18.000 EV's in 2020 • All cars replaced by EV's in 2030 • No ambitions found for charging infrastructure
Netherlands	• 20.000 EV's in 2015, 200.000 EV's in 2020, 1 million EV's in 2025 • In 2035 all vehicles sold are ZEV's • 10.000 public charging stations (50 rapid charging stations)
United Kingdom	• 5% of the total UK car fleet and 16% of all new cars consist of EV's and PHEV's.
California	• 1.5 million zero-emission vehicles by 2025 . • Sufficient infrastructure to support up to 1 mln. ZEV's by 2020.

Conduct:

Policy actions?

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In early stages of adoption policy actions by governmental agencies are likely to play an important role in the uptake of e-mobility.

- Most policy actions focus on EV's
  - Downstream of the EV value-chain (especially consumer oriented).
  - Denmark, Norway and the Netherlands have strong financial incentives for EVs.
- More limited focus on charging infrastructure.
  - Infrastructure policies seem to be focused more upstream in the value chain (stronger focus on government purchasing and tenders).
- Norway, the Netherlands and Denmark have "similar" financial incentives.
- However, Denmark scores much lower score on EV performance.
  - Explanation: unintended consequences / "legacy"

Success:

mission accomplished?

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Many countries and regions are close to achieving the stated short term ambitions (2015)

- Vehicles more or less on target, although ‘electric mileage’ remains unclear (PHEV’s)
- Industry is adapting, more consumer-friendly models coming out from established brands; “electric driving without compromise”
- Vehicles and chargers: incentives, launching customer

What seemed speculative two years ago is now a more or less established practice.

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Thanks!

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