TRANSPORT STATISTICS

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Electric Mobility: What Data?

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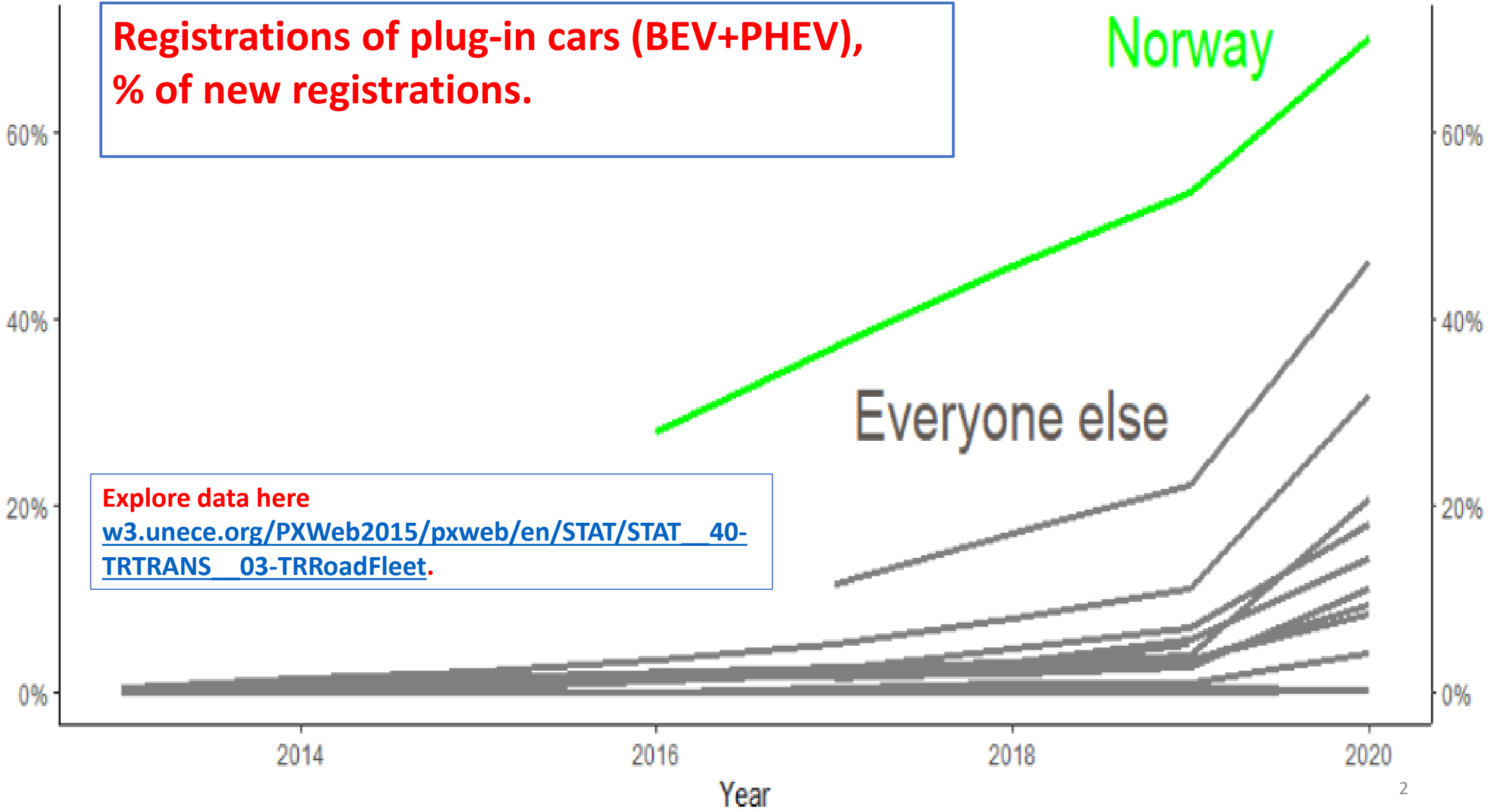
Registrations of plug-in cars (BEV+PHEV), % of new registrations.



Explore data here
w3.unece.org/PXWeb2015/pxweb/en/STAT/STAT__40-TRTRANS__03-TRRoadFleet.

What else?

- Mainstreaming electric mobility means addressing range anxiety, which means **public** charging infrastructure.
- Having **comparable** data across countries necessary to understand this.
- Ideally, including a **geospatial element**.

What to count?

Data Item	Countries producing data	Definitions used
Charging Station	United States, Norway, Switzerland	United States: a charging station location is a site with one or more Electric Vehicle Supply Equipment (EVSE) ports at the same address. Examples include a parking garage or a small parking lot. Norway: a charging station is a place/ location where there is one or more charging points. Switzerland: a charging station is a charging device that can have one or multiple plugs.
Charging Location/ Site	Switzerland	Switzerland: a charging location/ site is where there is one or more charging stations. Several charging stations can be located at one site.
Charging Device	United Kingdom	United Kingdom: a charging device is a unit capable of charging the batteries of plug-in electric vehicles. Devices are classified by their power output, and each device may offer one or more connecting points.
Charging Point	United Kingdom, Norway, Netherlands	United Kingdom: a charging point is either a single device or a number of connectors on a device which can be used simultaneously. Norway: a charging point is a reserved parking space with charging facilities for chargeable vehicles. At one charging point, there can be more than one connector, but only space for one vehicle at a time. Netherlands: the number of charging points reported are in fact the number of charging station outlets (sockets/ connectors). In practice the number of charging points and the number of outlets (sockets/connectors) are equal, except in the case of fast charging stations with 3 connectors, because not more than two can be active at the same time.
Electric Vehicle Supply Equipment (EVSE) Port	United States	United States: EVSE provides power to charge only one vehicle at a time even though it may have multiple connectors. The unit that houses EVSE port is sometimes called a charging post, which can have one or more EVSE ports.
Connector	United States	United States: connector is what is plugged into a vehicle to charge it. Multiple connectors and connector types can be available on one EVSE port, but only one vehicle will charge at a time. Connectors are sometimes called plugs.

What is Fast?

Data Item	Countries producing data	Definitions used
Rapid Devices	United Kingdom	United Kingdom: those whose fastest connector is rated at 25kW or above.
Fast Charging	United Kingdom, Switzerland, Netherlands	United Kingdom: those whose connector is rated between 7kW and 22kW. Switzerland: those whose connector is rated above 50kW. Netherlands: those whose connector is rated above 22kW.
Regular Charging	Netherlands	Netherlands: those whose connector is rated at 22kW or lower.
Slow Charging	United Kingdom	United Kingdom: those whose connector is rated between 3kW and 6kW.
Charging type Level 1	United States	United States: It is a 120V standard wall plug using a J1772 connector. Provides 2 to 5 miles of range per 1 hour of charging.
Charging type Level 2	United States	United States: It uses 240V/ 208V for residential or commercial charging using a J1772 connector. Provides 10 to 20 miles of range per 1 hour of charging.
Charging type DC fast	United States	United States: There are three types (SAE CCS, CHAdeMO, Tesla) of DC fast charging systems depending on the type of charge port on the vehicle. Provides 60 to 80 miles of range per 20 minutes charging.

What is a “public” charger?

Data Item	Countries producing data	Definitions used
Public	Norway	Norway: Charging point public is the number of charging points **available to everyone or visitors** at charging stations. For the latter, it is assumed that you have an errand on site (e.g. shopping centre, office buildings, schools and other institutions).
Semi-public	Netherlands	Netherlands: a semi-public charging point is interoperable and have been reported as accessible by their owners. These charging points can for example be found in shopping malls, office buildings, parking garages and at private persons who have made their charging point accessible to others. The values for regular, work-specific, and visitor-specific semi-public locations have been added up.
Private-Fleet customers only	United States	United States: a private- fleet customers only station may allow other entities to fuel through a business-to-business arrangement.

Details matter

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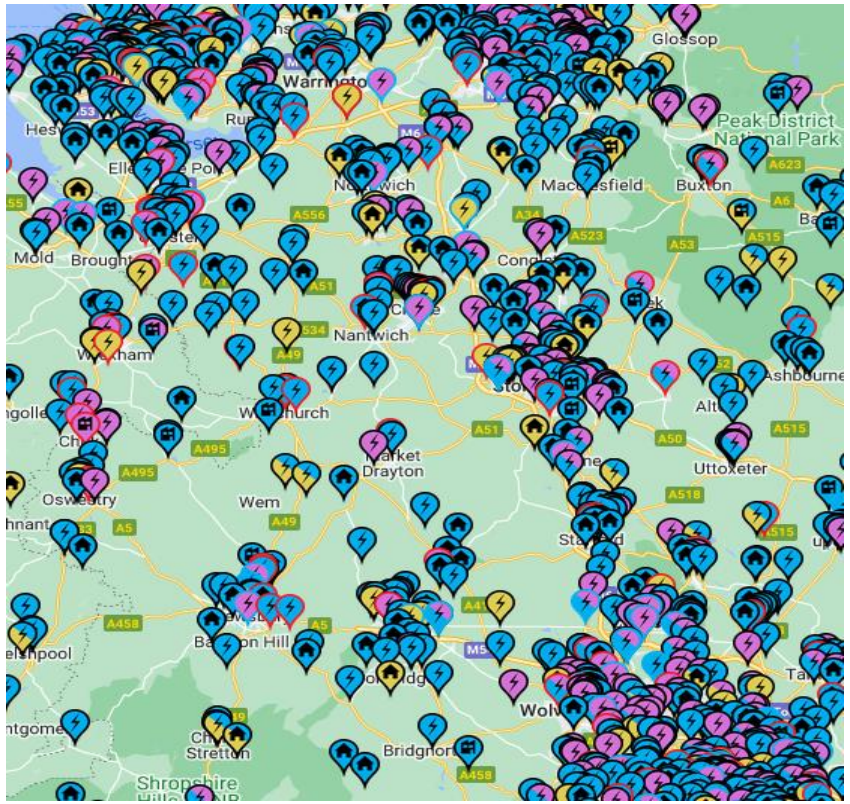
All public chargers



Motorway service locations >22 kW

Source: Zap-map.com

Electric Vehicle: Definitions and Data

- Does your government collect charging data? Definitions?
- **Read country examples in this WP.6 informal doc unece.org/sites/default/files/2022-06/ECE-TRANS-WP6-2022-Inf1_0.pdf**
- **To come: Glossary annex? Pilot questionnaire?**