

Preliminary findings of 2023 EV Charging Infrastructure Questionnaire

UNECE – ITF - Eurostat



Presented by:
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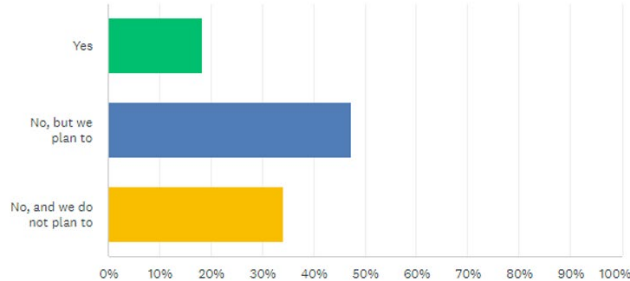


Pilot Survey Oct – Nov 2022

The availability of public chargers (and their power/speed) is of importance to the EV transition

Does your statistics office or other producer of official statistics do any measurement of electric vehicle charging infrastructure?

Answered: 38 Skipped: 0



66% produce the data or have plans to do so.

ANSWER CHOICES	RESPONSES
Yes	18.42% 7
No, but we plan to	47.37% 18
No, and we do not plan to	34.21% 13
TOTAL	38

Questionnaire Survey 2023

- Sent out in June 2023
- Categorization of recharging points by EU AFIR (Alternative Fuel Infrastructure Regulation)
- Responses received from 31 countries, of which 21 provided data

	2018	2019	2020	2021	2022
Number of public recharging pools/locations					
of which: restricted access/semi-public					
Number of public recharging stations/devices					
of which: restricted access/semi-public					
Number of recharging points/Supply Equipment (EVSE)					
TOTAL AC (Category 1)					
<i>Slow AC</i> : $P < 7.4$ kW					
<i>Medium-speed AC</i> : 7.4 kW $\leq P \leq 22$ kW					
<i>Fast AC</i> : $P > 22$ kW					
TOTAL DC (Category 2)					
<i>Slow DC</i> : $P < 50$ kW					
<i>Fast DC</i> : 50 kW $\leq P < 150$ kW					
<i>Level 1- Ultra fast DC</i> : 150 kW $\leq P < 350$ kW					
<i>Level 2- Ultra fast DC</i> : $P \geq 350$ kW					

Number of countries reporting (data 2022)

Number of public recharging pools/locations

of which: restricted access/semi-public

Number of public recharging stations/devices

of which: restricted access/semi-public

Number of recharging points/Supply Equipment (EVSE)

TOTAL AC (Category 1)

Slow AC: $P < 7.4$ kW

Medium-speed AC: 7.4 kW $\leq P \leq 22$ kW

Fast AC: $P > 22$ kW

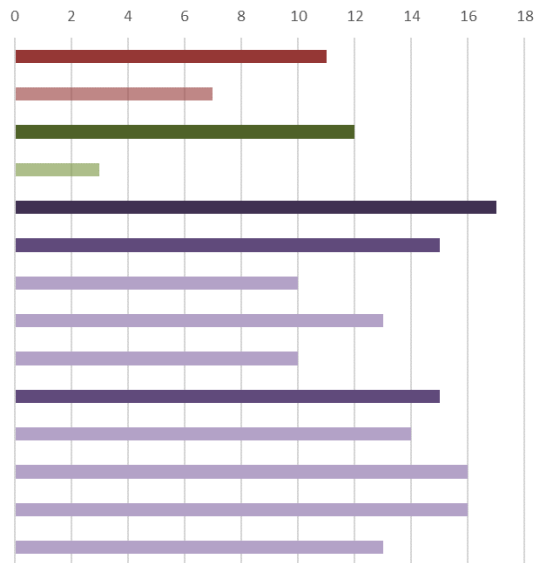
TOTAL DC (Category 2)

Slow DC: $P < 50$ kW

Fast DC: 50 kW $\leq P < 150$ kW

Level 1- Ultra fast DC: 150 kW $\leq P < 350$ kW

Level 2- Ultra fast DC: $P \geq 350$ kW

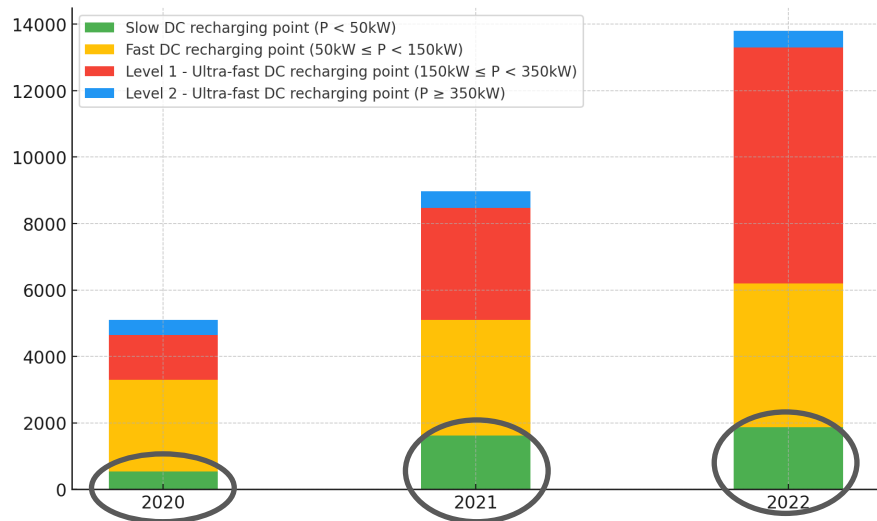


- Not all countries track/report “**Restricted access/semi-public**” category
- Disaggregated **AC** and **DC** charging infrastructure data are not always available
- Countries provided data as of **Dec 31, Jan 1, June 30**
- Some countries have different power categorizations, e.g.:
 - Level 1 – Ultra fast DC: 150 kW – 250 kW
 - Level 2 – Ultra fast DC: > 250 kW

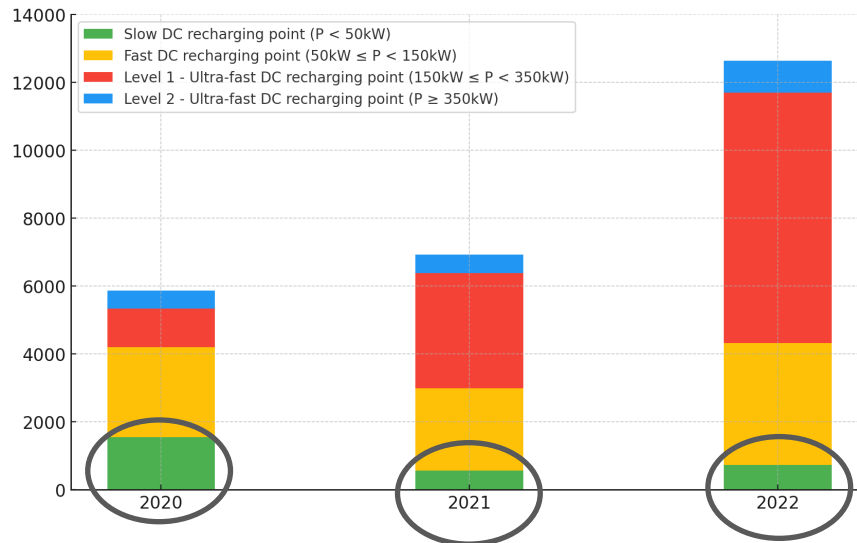


Our data vs EAFO (German case)

DC charging points



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European Alternative Fuels Observatory

Feedback from responding countries

- Include unknown/unclassified category

TOTAL DC (Category 2)					1332
<i>Slow DC: P < 50 kW</i>					418
<i>Fast DC: 50 kW ≤ P < 150 kW</i>					99
<i>Level 1- Ultra fast DC: 150 kW ≤ P < 350 kW</i>					44
<i>Level 2- Ultra fast DC: P ≥ 350 kW</i>					2
Unknown					769

- If these specific data types to be collected consistently, we would be willing to modify our data collection method
- **Big Data** approach



Final thoughts

- **Number of EVs** vs charging infrastructure to inform a range of strategic decisions and policy formulations
 - Ratios of EVs to charging points, electric grid management, promotion of EV adoption, ...
- Variance in how countries measure and report EV charging infrastructure data underscores the need for **unified data collection, definitions, and reporting methods.**
- The ultimate aim is to create a **standardised and publicly accessible database** to be disseminated through our data portals.



https://w3.unece.org/PxWeb2015/pxweb/en/STAT/STAT_40-TRTRANS_03-TRRoadFleet/03_en_TRRoadFuelR_r.px/table/tab...

Road Vehicle Fleet at 31 December by Fuel Type, Type of Vehicle, Country and Year

Table: Road vehicle fleet at 31 December by vehicle category and fuel type

Result

▼ About table Pivot manual Pivot clockwise Pivot counterclockwise Fullscreen

▼ Show result as... 2021

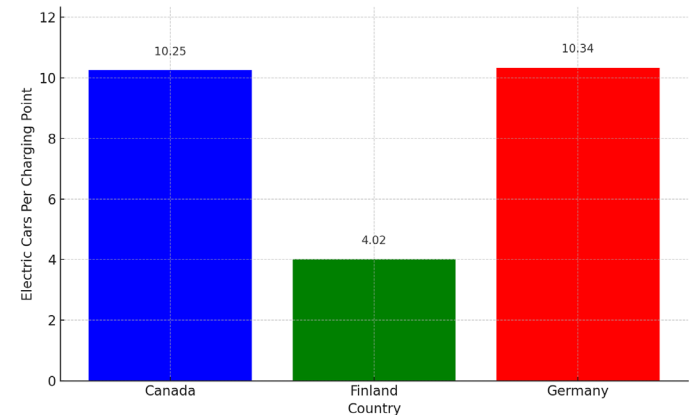
▼ Edit and Calculate

▼ Save result as...


▼ Save your query

▼ Hide empty rows

	2021
- Electricity	
Passenger cars	
Albania	624
Andorra	..
Armenia	..
Austria	76,539
Azerbaijan	..
Belarus	..
Belgium	40,851
Bosnia and Herzegovina	75



Thank you

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