



## TAKING AMBITIOUS CLIMATE ACTION

Decarbonising  
inland transport  
by 2050



**UNECE**

# Electric Vehicle Charging Infrastructure Data Collection

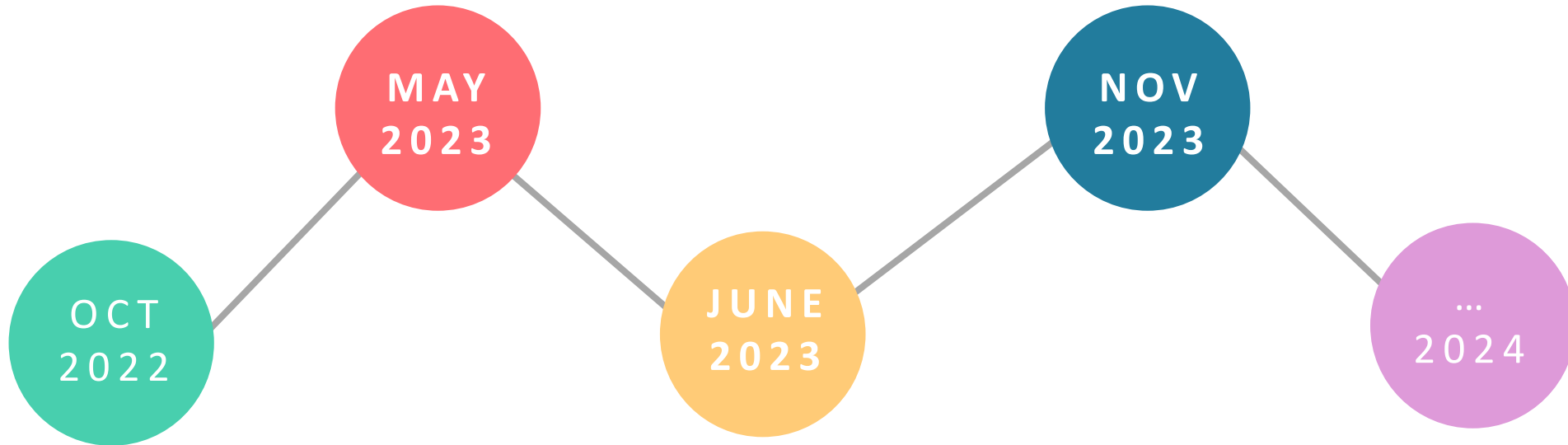
Fadhah Achmadi, Secretary, WP.6

# Timeline



At its 74<sup>th</sup> session, Working Party agreed to circulate pilot questionnaire

**Roundtable** on EV Charging Infrastructure Data Collection



Pilot **survey** by the secretariat, Eurostat, ITF on statistics production

Pilot **questionnaire** by the secretariat, Eurostat, ITF

**Refined questionnaire** to test acceptance of countries

# June 2023 Pilot Questionnaire

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

32

Countries  
responded

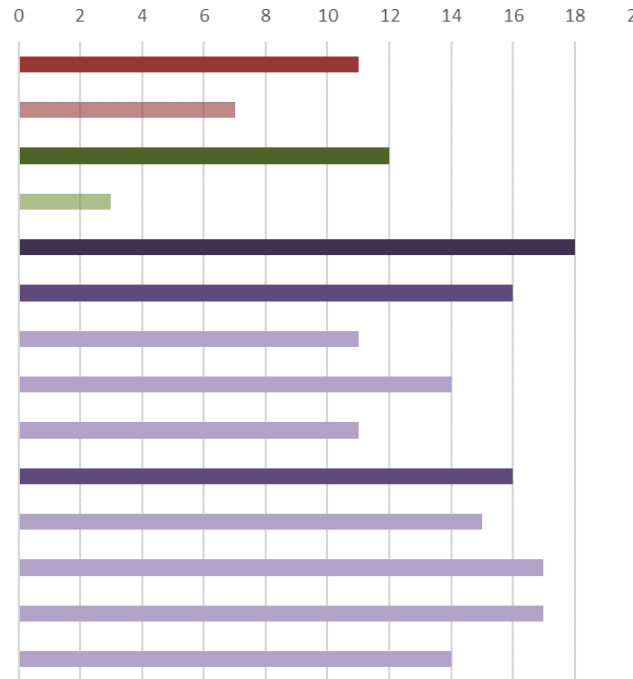
23

Provided data

# Number of countries reporting 2022 data



**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:  $P < 7.4 \text{ kW}$   
 Medium-speed AC:  $7.4 \text{ kW} \leq P \leq 22 \text{ kW}$   
 Fast AC:  $P > 22 \text{ kW}$   
**TOTAL DC (Category 2)**  
 Slow DC:  $P < 50 \text{ kW}$   
 Fast DC:  $50 \text{ kW} \leq P < 150 \text{ kW}$   
 Level 1 - Ultra fast DC:  $150 \text{ kW} \leq P < 350 \text{ kW}$   
 Level 2 - Ultra fast DC:  $P \geq 350 \text{ kW}$



- 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

# Findings and next steps

## Diverse approaches by countries

- Refining international definitions
- Identifying suitable indicators for consistent measurements

## Strategic approach for data collection

- Starting in 2025 for CQ reference year 2024
- AFIR's mandates for **power output**
- UNECE Consolidated Resolution on the **Construction of Vehicles (R.E.3)**

## Revised questionnaire

- Integrate new definitions discussed at the roundtable
- Follow-up questionnaire in 2024 to test the updated definitions and refinements

# Refined Questionnaire



<b>Number of public recharging pools/locations</b>
of which: restricted access/semi-public
<b>Number of public recharging stations/devices</b>
of which: restricted access/semi-public
<b>Number of recharging points/Supply Equipment (EVSE)</b>
TOTAL AC (Category 1)
<i>Slow AC : <math>P &lt; 7.4</math> kW</i>
<i>Medium-speed AC : <math>7.4 \text{ kW} \leq P \leq 22 \text{ kW}</math></i>
<i>Fast AC : <math>P &gt; 22</math> kW</i>
TOTAL DC (Category 2)
<i>Slow DC : <math>P &lt; 50</math> kW</i>
<i>Fast DC : <math>50 \text{ kW} \leq P &lt; 150 \text{ kW}</math></i>
<i>Level 1- Ultra fast DC : <math>150 \text{ kW} \leq P &lt; 350 \text{ kW}</math></i>
<i>Level 2- Ultra fast DC : <math>P \geq 350 \text{ kW}</math></i>

**Keep** 'of which: restricted access/semi public'?

**Number of public recharging pools/locations at 31.12**  
of which dedicated to heavy-duty vehicles

**Number of public recharging stations/devices at 31.12**

**Number of public recharging points/Supply Equipment (EVSE) at 31.12**

Alternative Current

Slow AC:  $P < 7.4$  kW

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

Fast AC:  $P > 22$  kW

Direct Current

Slow DC:  $P < 50$  kW

Fast DC:  $50 \text{ kW} \leq P < 150 \text{ kW}$

Ultra fast – level 1:  $150 \text{ kW} \leq P < 350 \text{ kW}$

Ultra fast – level 2:  $P \geq 350 \text{ kW}$

**Power output installed in public recharging points (kW) at 31.12**  
of which dedicated to heavy-duty vehicles

**Number of publicly accessible hydrogen refueling points at 31.12**



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# Thank you!

**Fadhah Achmadi**  
Secretary, WP.6

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