



CHAdeMO

CHAdeMO in Europe

Munich, 17 October 2019

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CHAdeMO in Europe

CHADEMO EU BASICS

- Chargers
- Organisation
- Members

DAFI/STF

- The Directive
- Discussion points

CHADEMO EU ACTIVITIES

- Meetings
- CHAdeMO stands at trade shows

Q&A

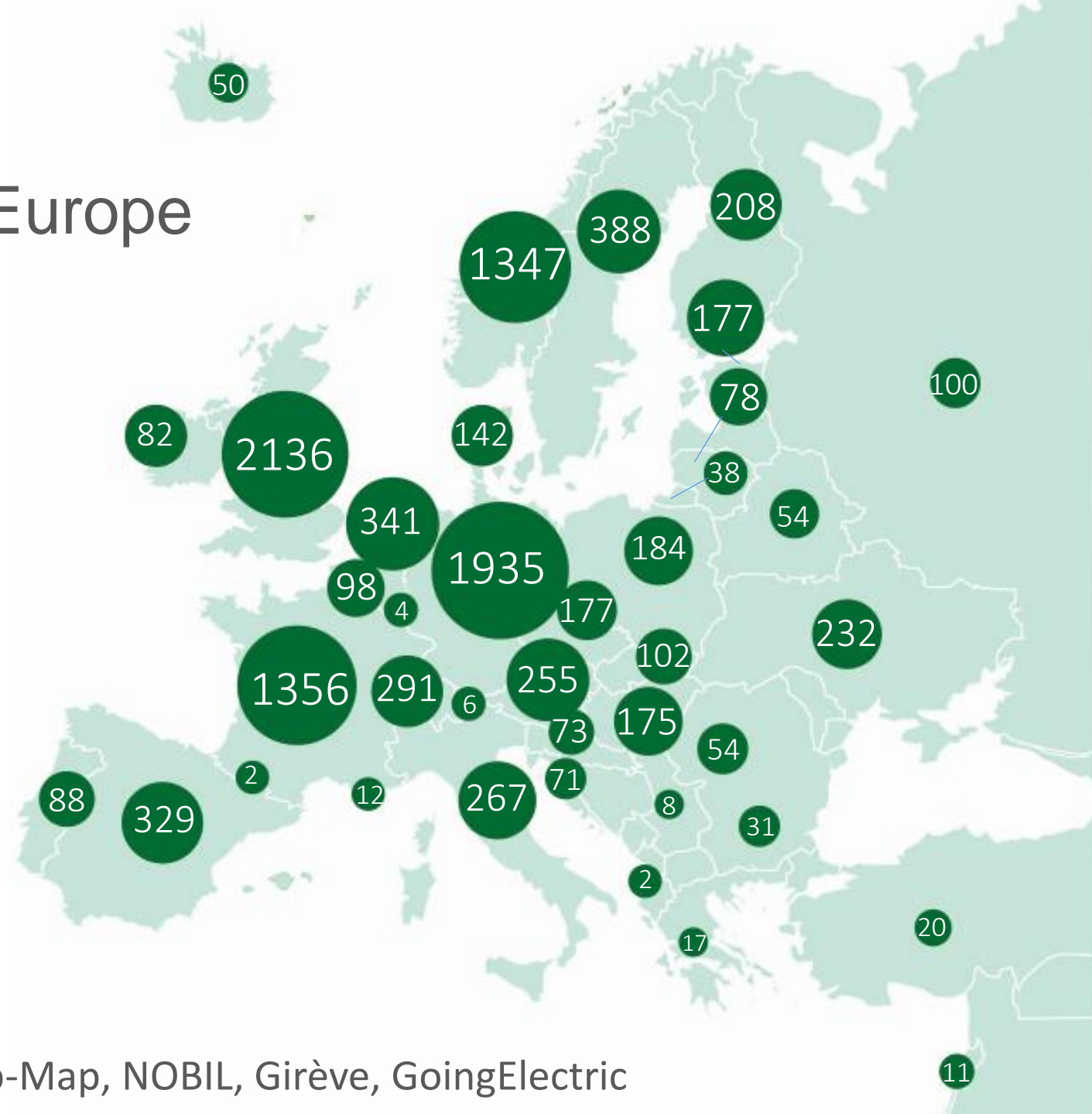


CHADEMO EU BASICS

CHAdeMO charge points in Europe

TOTAL

10 900



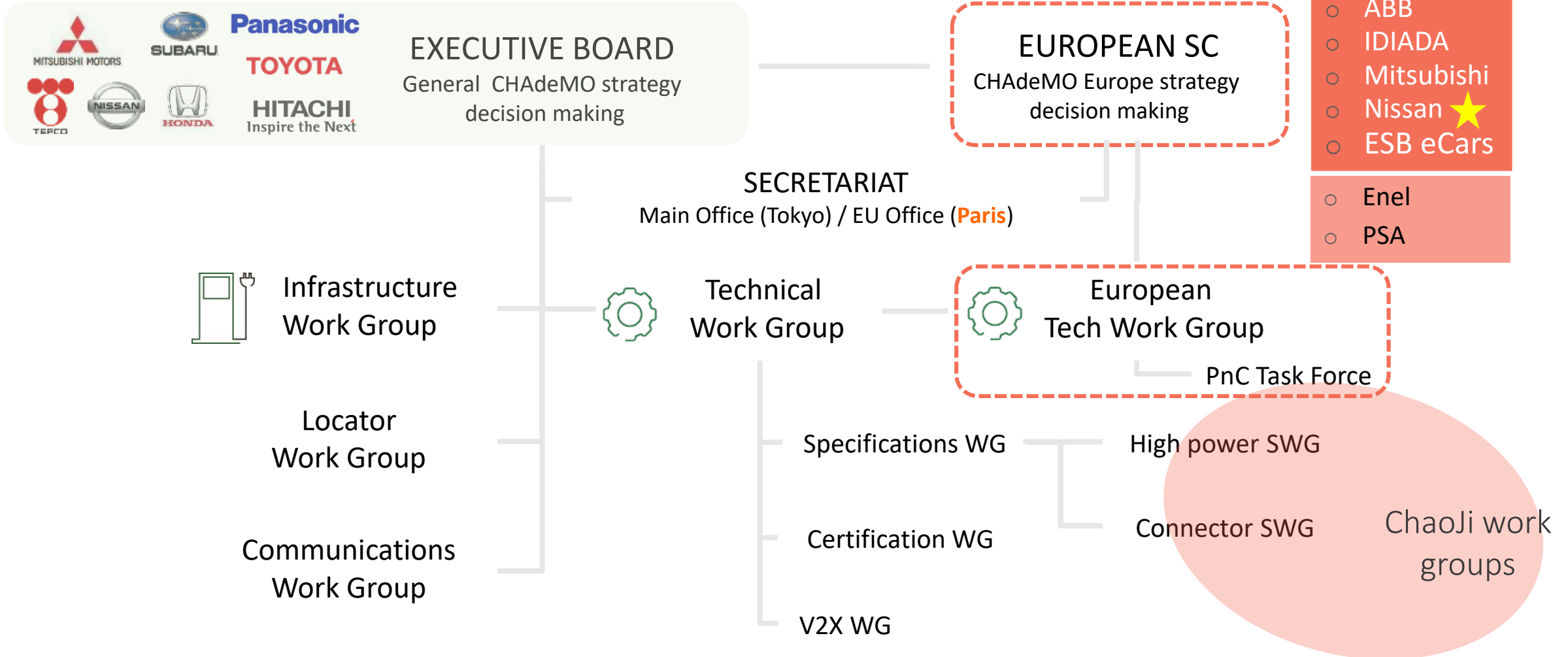
Note: as of Sept 2019 (not exhaustive)

Source: ChargeMap, PlugShare, EAFO, Zap-Map, NOBIL, Girève, GoingElectric

CHADEMO EU BASICS

Organisation

GENERAL ASSEMBLY



CHADEMO EU BASICS

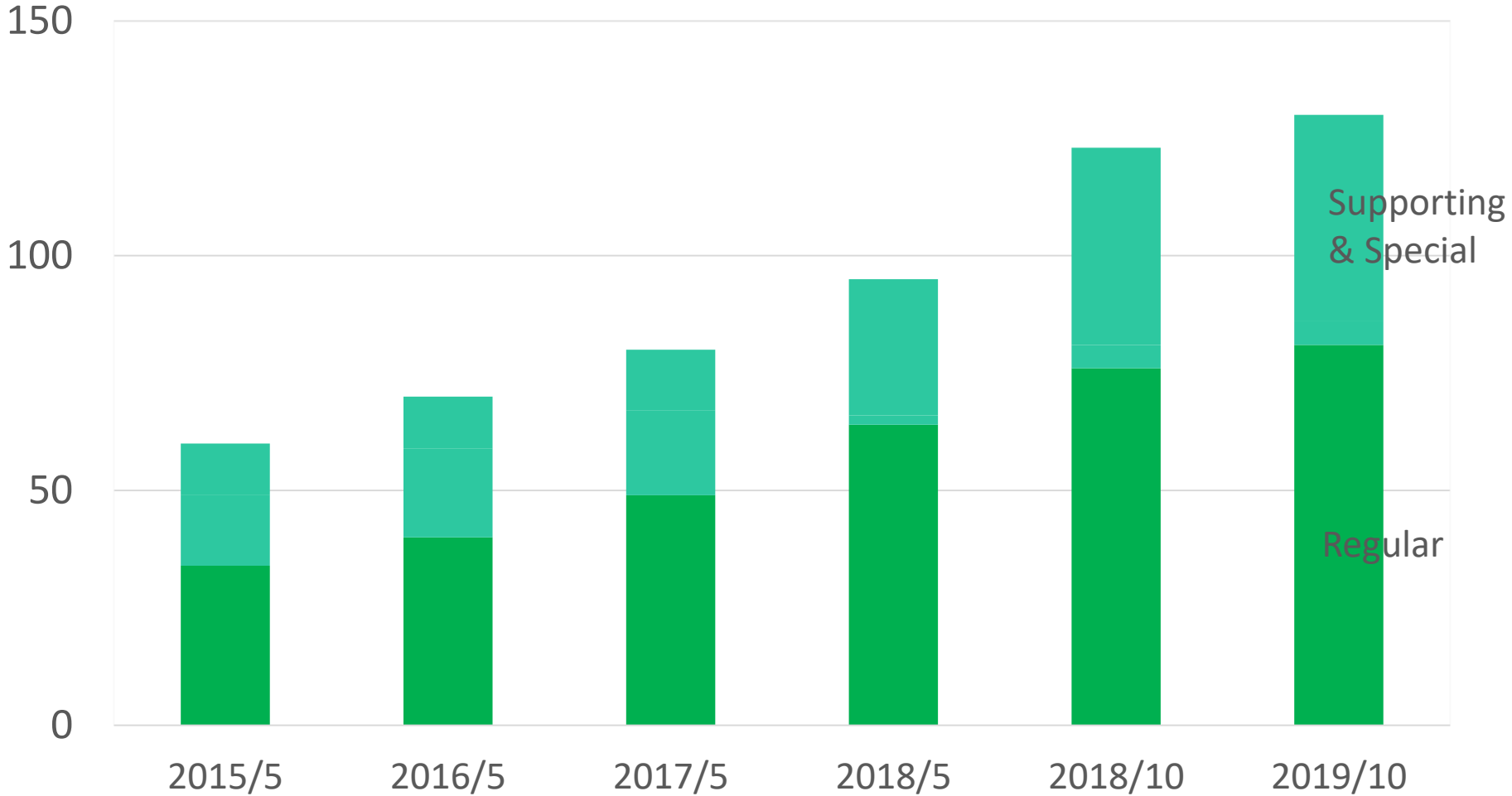
CHAdEMO members in Europe

130

EU members

23

Countries



DAFI

Directive on Alternative Fuels Infrastructure (2014/94/EU)

OBJECTIVES

- To provide a general direction for the development of alternative fuels in the Single European Transport Area

✗ Binding targets

Binding targets?

✓ Common technical specifications

More technical requirements!?*1

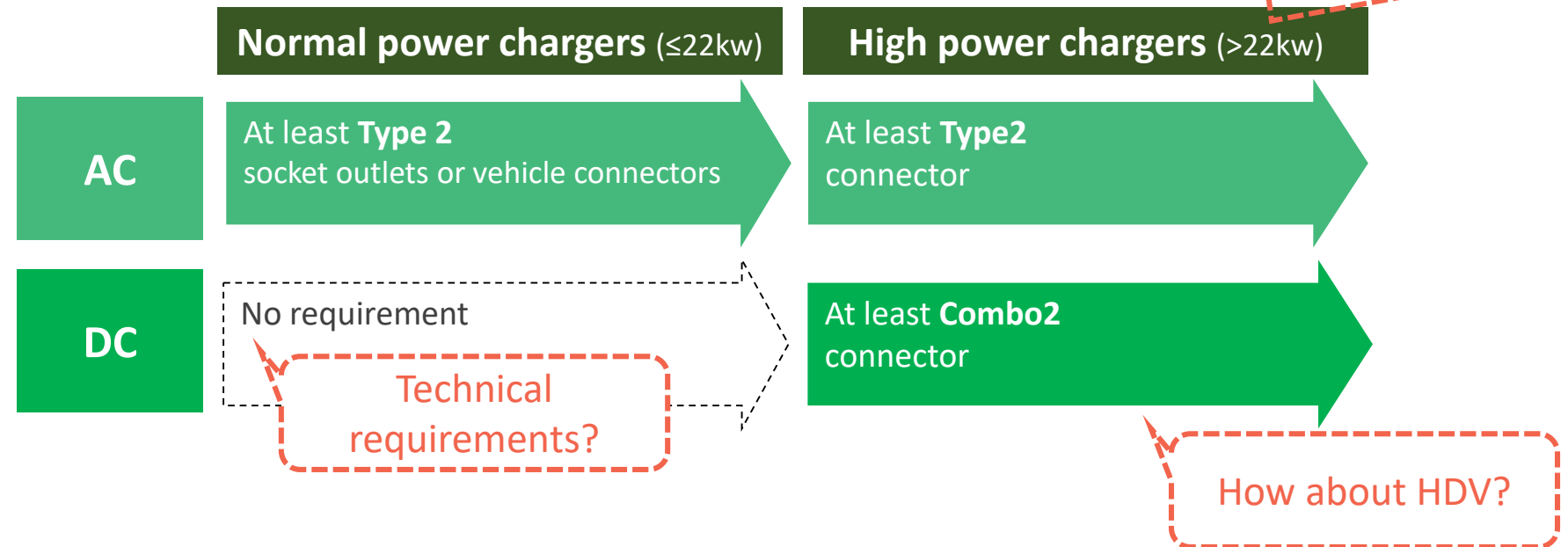
RESULTS

- Combo2 minimum requirement

Direct Current (DC) high power recharging points for electric vehicles shall be equipped (...) **at least** with connectors of Type "Combo 2" as described in standard **EN62196-3**

Is 22kW a good cut-off point? *2

What are the good cut-off points on the high end? 100kW? 150kW? 350kW?? *2



DAFI

Discussion point *1: further standardisation

Tech requirements

- **“Further standardisation may be necessary” potentially for:**

- EV to CP
- EMSP to Roaming Platform
- CPS to EMSP
- CPO to Roaming Platform
- CPO to DSO
- CP to CPO



- Communication
 - **OCPP**
 - **OCPI**
- Automatic user authentication
 - **ISO15118-20**
- HDV charging

CHAdeMO position

- **The fewer requirements or categorisation, the better**
- **EV to X communication should not be harmonised**
- **IEC standards should be adopted for HDVs**
 - *IEC 61851-23-1 for pantographs*
 - *IEC 61851-23Ed2 for high-voltage conductive charging*

DAFI

Discussion point *2: categorisation of charge points

STF initial question

Category	Definition	Power
1	Normal power recharging points	$P < 22\text{kW}$
2	A High power recharging points (AC)	$22\text{kW} \leq P \leq 43\text{ kW}$
	B High power recharging points (DC)	$P \leq 100\text{ kW}$
	C High power recharging points (DC)	$P > 100\text{kW}$

CharIN proposal

Category	Definition	Power
2	A Fast charging, FC50	50 kW - 149 kW
	B High power charging, HPC 150	150 kW - 249 kW
	C High power charging, HPC 250	250 kW - 349 kW

JRC proposal

Category	Definition	Power
1	A AC recharging point	$P < 6\text{ kW}$
	B AC recharging point	$6\text{kW} \leq P \leq 22\text{ kW}^*$
2	A DC fast recharging point	$P < 50\text{ kW}$
	B DC fast recharging point	$50\text{kW} \leq P < 150\text{ kW}$
	C DC ultra-fast recharging point	$150\text{kW} \leq P < 350\text{ kW}$
	D DC ultra-fast recharging point	$P \geq 350\text{kW}$

* This may include cases of outlets of AC of up to 43kW (three phase), usable only by one type of car

Questions

- Lower threshold for DC high power charging needed?
 - **22kW today**
- Which cut-off points are needed? More convenient?
 - **100kW**
 - **150kW**
 - **250kW**
 - **350kW**

Join us for further discussions!
info@chademo.eu

CHADEMO EU ACTIVITIES

Member meetings

- Annual European member meetings
 - #8: Stuttgart, 10/11/2017 (EVS30)
 - #9: Munich, 17/10/2018 (eMove360)
 - #10: Lyon, 22/05/2019 (EVS32)
 - #11: TBC



○ Technical meetings

○ F2F

- Munich, 17/10/2018 (eMove360)
- Lyon, 22/05/2019 (EVS32)



- Tokyo, 19/07/2019 (IEC)

○ Telco

- V3.0 preliminary specs (28/03/2019)
- V3.0 spec updates (9/07/2019)
- High-power SGW conf call (11/09/2019)

○ PnC Task Force

- F2F (15/01), Telco (28/03), F2F (21/05)

CHADEMO EU ACTIVITIES

CHAdEMO booths at trade fairs

2018:



Hannover Messe
23-27/04, Hannover
(45 sqm)



eMove³⁶⁰ eMove360
16-18/10, Munich (32 sqm)

eMove³⁶⁰ eMove360
15-17/10, Munich (48 sqm)



EVS31
30/09-2/10, Kobe
(72sqm)

2019:



EVS32
19-22/05
Lyon (81 sqm)



Cenex LCV (joint booth with Innovate UK)
4-5/09, Millbrook (12.4sqm)



Thank you
for your
continued
support for
CHAdEMO!

CONTACT

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