欧州活動報告2022 | EU activity report 2022
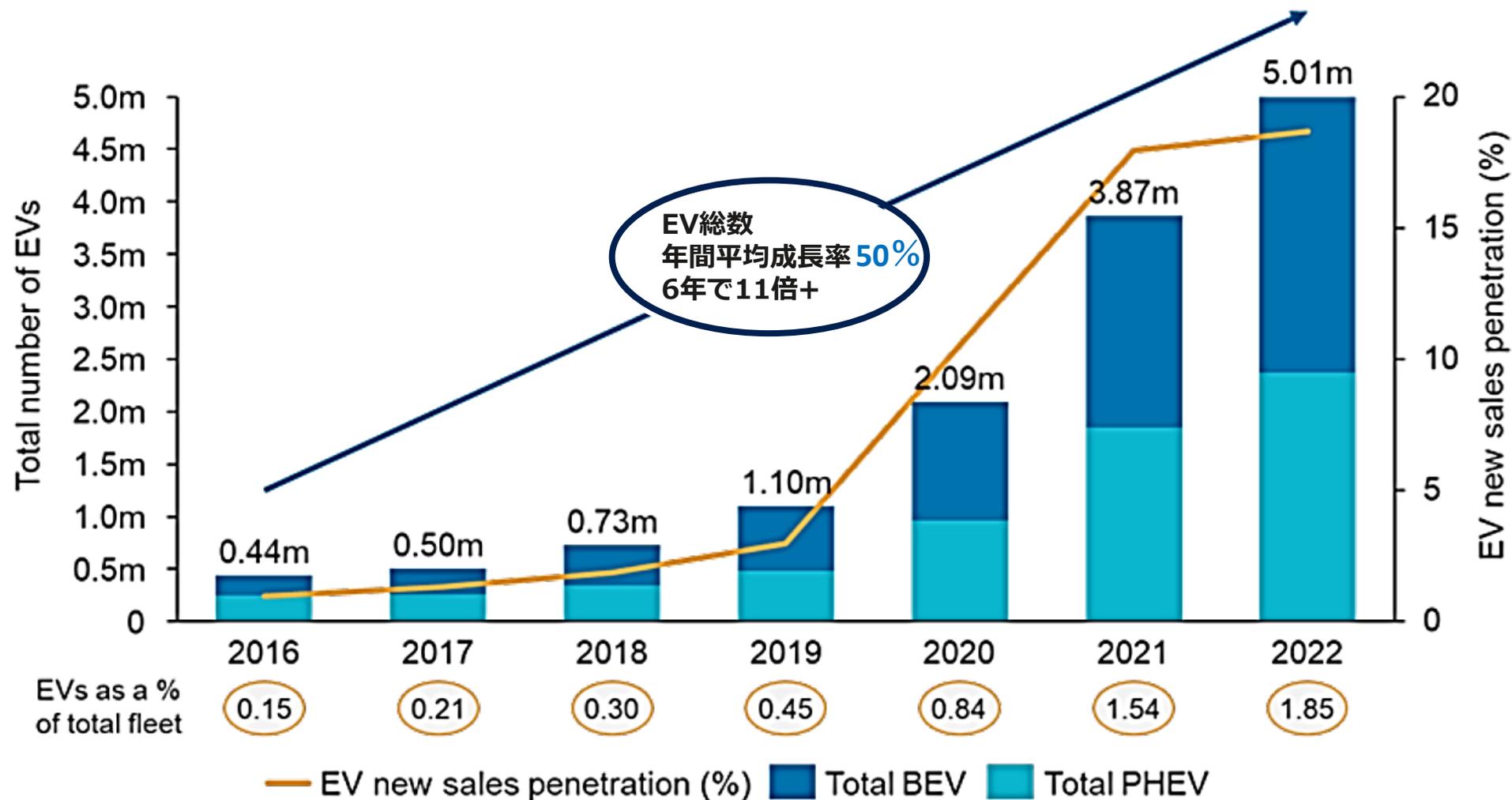
1 June 2023

チャデモ協議会 欧州事務局 | CHAdeMO EU

Content

- 欧州のEV市場と充電器設置| EU EV market and EVSE installation
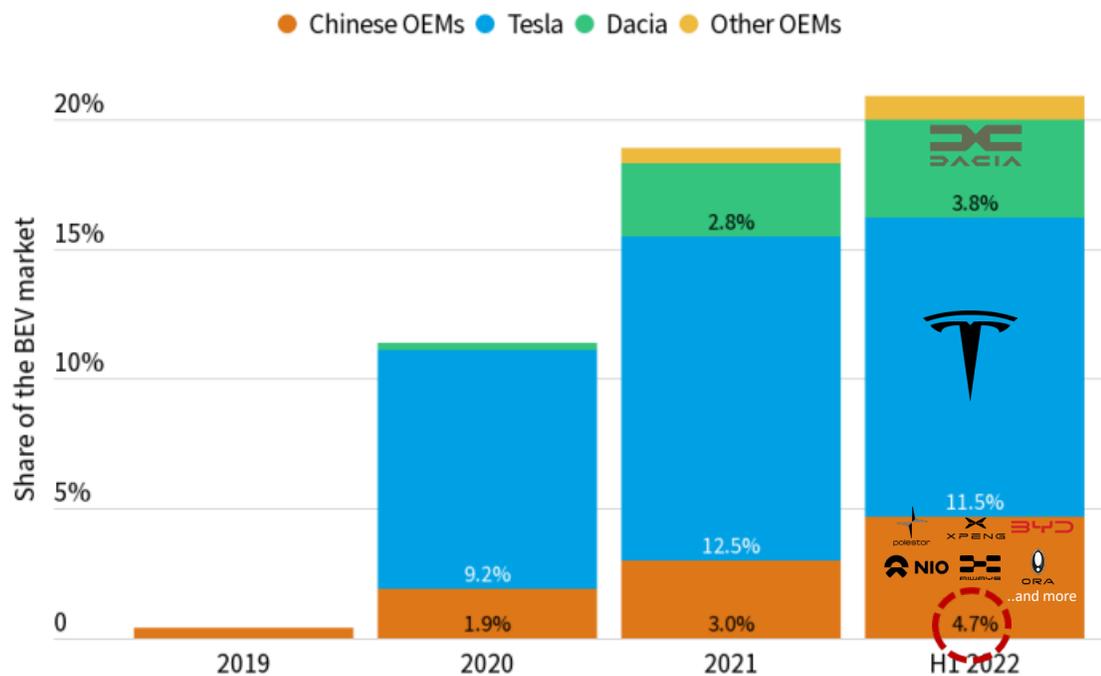- 欧州法制ニュース| EU legislation and CHAdeMO
- 欧州州事務局のPR活動| 2022 EU PR activities

欧州EV販売新車の5台に1台へ | European EVs close to 20 % of new car sale

EU27+the UK passenger EV growth (total EVs and share of vehicle sales)
【EU＋英国】EV累積販売台数と乗用車新車販売中のEV浸透率

EV総数
年間平均成長率 **50％**
6年で11倍+

Total number of EVs (left axis):
- 2016: 0.44m
- 2017: 0.50m
- 2018: 0.73m
- 2019: 1.10m
- 2020: 2.09m
- 2021: 3.87m
- 2022: 5.01m

EVs as a % of total fleet:
- 2016: 0.15
- 2017: 0.21
- 2018: 0.30
- 2019: 0.45
- 2020: 0.84
- 2021: 1.54
- 2022: 1.85

Legend: — EV new sales penetration (%) ■ Total BEV ■ Total PHEV

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欧州市場　中国製BEVシェア
- Chinese OEMs ● Tesla ● Dacia ● Other OEMs
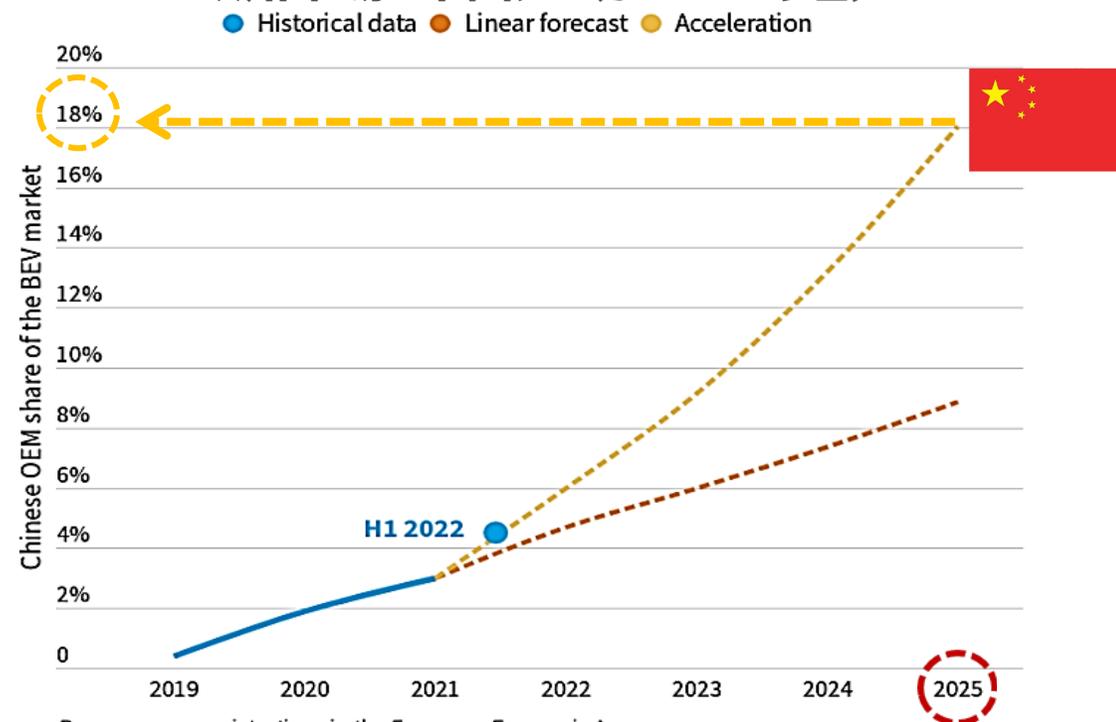
Figure 11: Made-in-China BEV sales share of the European electric car market

Scope: BEVs made in China sold in the European Economic Area.
Source: EEA data from 2019 to 2021, Dataforce in H1 2022

欧州市場　中国メーカーBEVシェア
- Historical data ● Linear forecast ● Acceleration

Figure 13: Chinese OEM share of the European BEV market

Scope: Passenger car registrations in the European Economic Area
Source: EEA registration data (2019-2021), Dataforce (H1 2022) and T&E estimates.

フランスは欧州産EVの購入促進政策発動へ
➡ EVへの買い替え時補助金支給要件にCO_2の排出量考慮
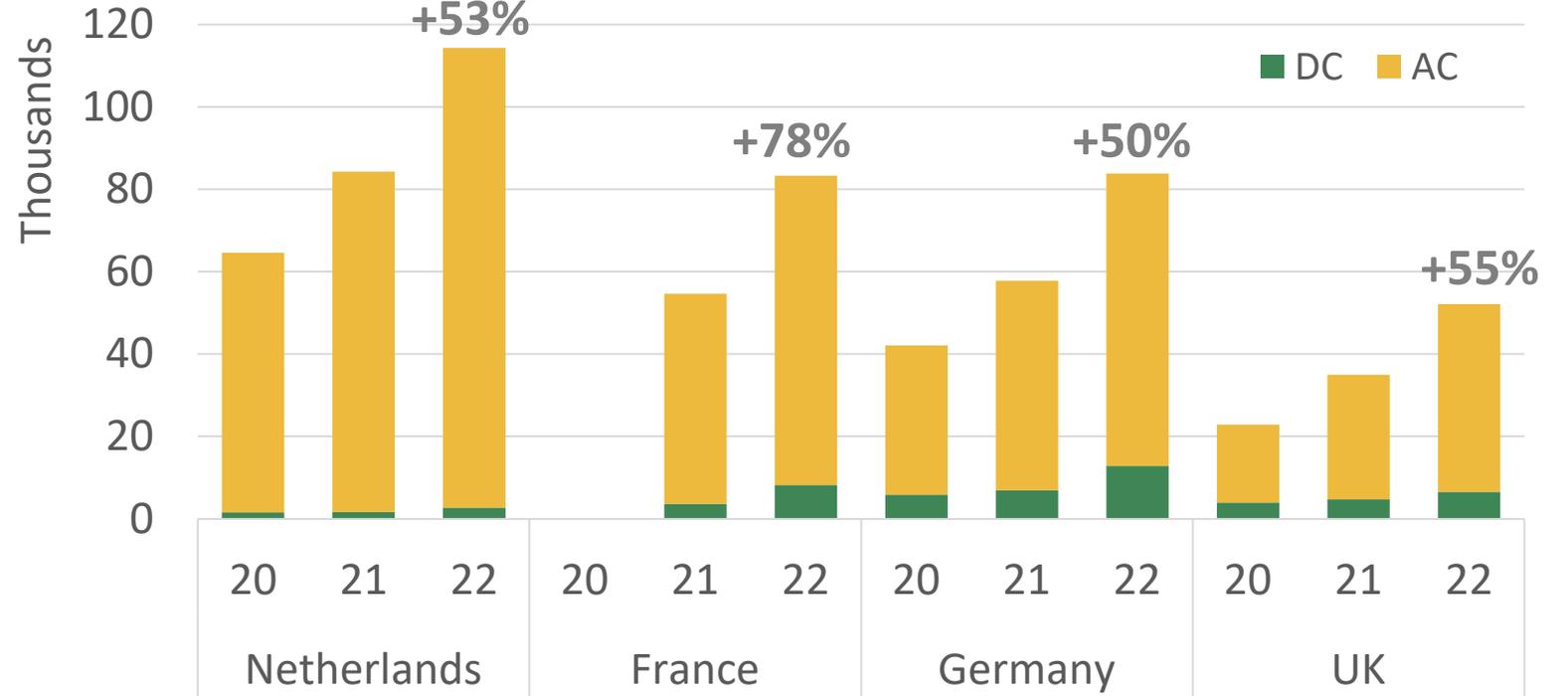France introducing policies to encourage purchase of 'made in Europe' EVs

出典：Transport & Environment　'From boom to brake: is the e-mobility transition stalling? (Oct 2022)'

充電器設置も行政主導で加速 │Government initiatives accelerates EVSE

Charger installation in Europe (AC+DC)

+60%

- DC
- AC

Europe: EU27+EFTA+UK
出典：EAFO (as of 2022) 2020 France data missing
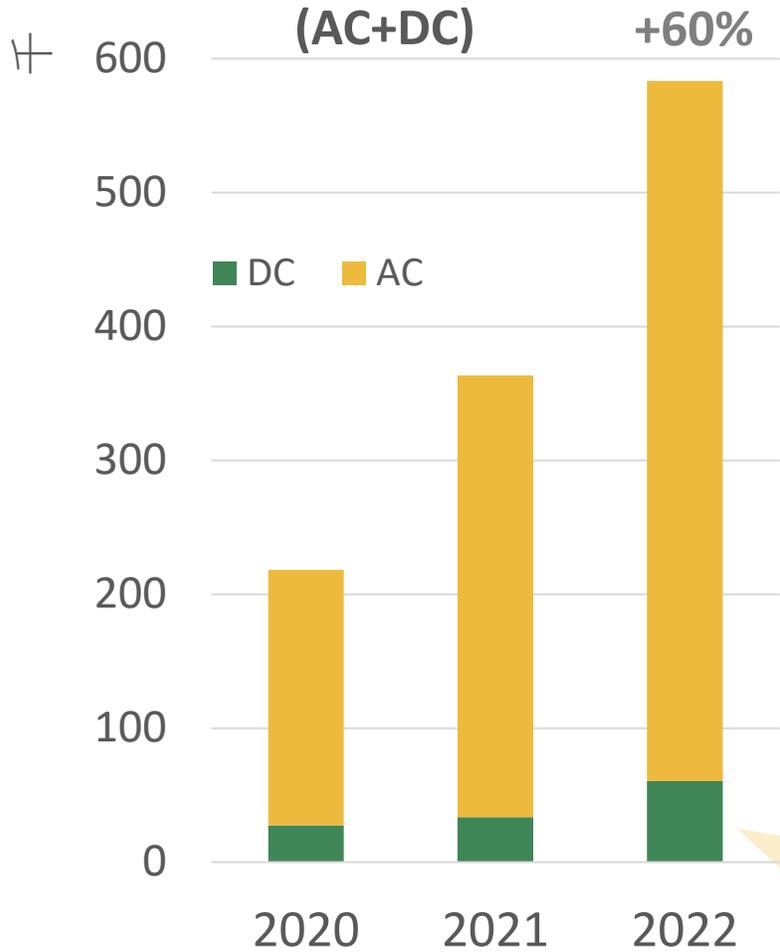
Public charge points (AC+DC) Top 4 countries

- DC
- AC

+53% Netherlands
+78% France
+50% Germany
+55% UK

20 21 22 — Netherlands
20 21 22 — France
20 21 22 — Germany
20 21 22 — UK

Thousands

DC6万基
チャデモコネクタは約3万

https://alternative-fuels-observatory.ec.europa.eu/

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チャデモ欧州市場での成長鈍化 | CHAdeMO growth slows down

# of charge points ['000]

EU DC fast charging points by connector type

# of plug-ins sold ['000]

EU DC fast charging points by connector type

EV market inlet share (fast-chargeable inlet share)

CCS: 49% (82%)
AC Normal: 39%
CHAdeMO: 7% (12%)
AC Fast: 2% (3%)
Tesla: 2% (3%)

Legend (left chart): —CCS —CHAdeMO —AC fast —Tesla

Legend (right chart): —CCS —CHAdeMO —Tesla —AC Fast —AC Normal
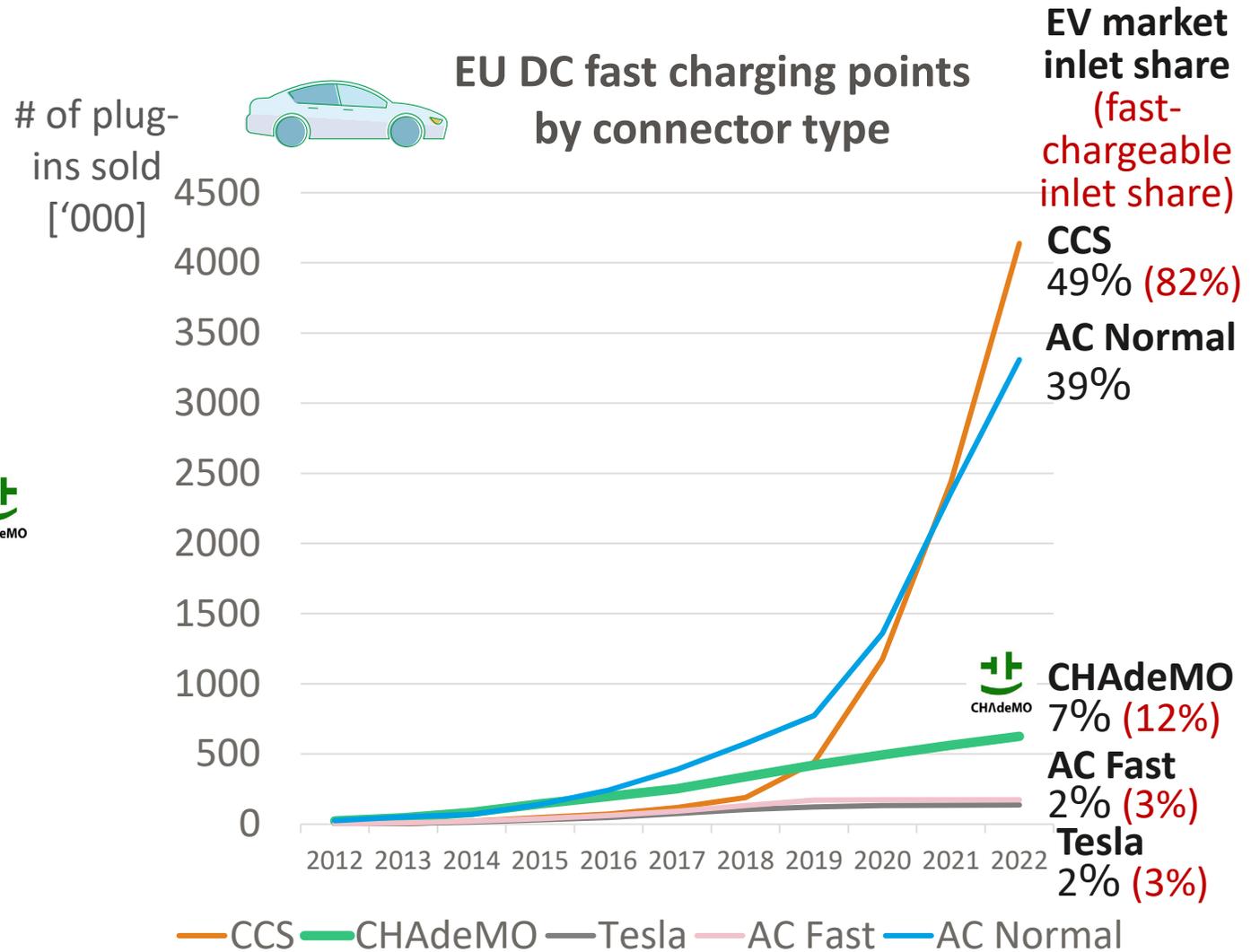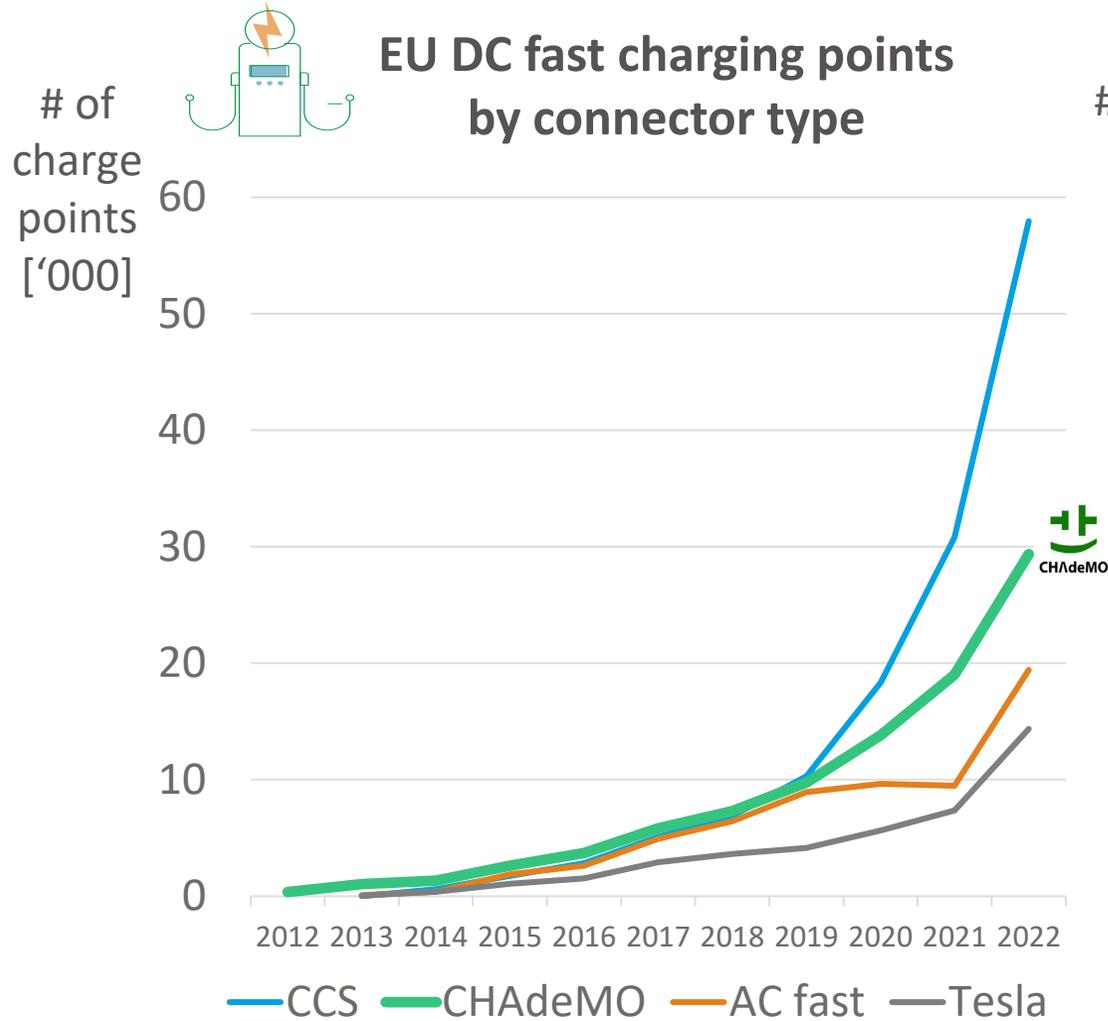
Source: European Alternative Fuels Observatory (EAFO.org) data as of Dec 2022), EU + UK + EFTA + Turkey

Source: EV-Volumes.com
Note: *Data up to 2022

欧州ニュース | EU key words

CO2排出量削減関連政策 'Fit for 55' package work progresses

大型車用急速充電施設設置へ
CCS/MCS HDV charging network

自動車CO2排出規制の厳格化
Vehicle CO2 emission standards

- **乗用車CO2排出規制、新規則へ**
  Zero CO2 emissions for new passenger cars
  - **2035年CO2削減目標 −100%**
  - **E-fuelなど合成燃料の使用可能性を2026年に再評価**
    Zero CO2 emission by 2035; potential use of synthetic fuels e.g. E-fuel, reassessed in 2026.

- **大型車CO2排出規制も見直し**
  EC proposes HDV CO2 emission standards
  - **大型車新車のCO2排出目標値**（2019年比）
    o 2030年 −**45%**
    o 2035年 −**65%**
    o 2040年 −**90%**
  - **路線バス2030年以降CO2排出 −100%**
    All 2030 new city buses to be zero-emission

建物の省エネ化の強化
Energy performance of buildings

- **建物の駐車場にpre-cabling**
  Pre-cabling of parking in new and existing residential and non-residential buildings

- **電動バイクやEPAC用の充電設備**
  Pre-cabling required for ePTW & eBike

- **充電設備の設置ができる権利の保障（Right to plug）**

Volvo-Daimler-Traton（VW子会社）「Milence」設立
'Milence' a JV by Volvo-Daimler-Traton

- **大型商用車向け充電器網**
  Installation and operation of charging stations for HDVs
- **独・蘭・仏等に1,700基設置予定**
  A total of 1,700 units at existing CCS charging stations and new MCS stations in 8 countries by 2028
- **当初はCCS→徐々にMCSに移行？**
  CCS initially adopted, gradually transitions to MCS

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AFIDからAFIRへ改定で合意 | From AFID to AFIR

合意 ハイライト
Summary of agreed text

- **充電器設置目標決定** Mandatory deployment targets for charging infra across EU
  - **LDV乗用車：60km毎に計 400 kW**
    A total output of 400 kW every 60km
    EV の普及台数も考慮
    'Number of EVs' also considered
  - **HDV大型車：120km毎に計1400 kW**
    A total output of 1400 kW every 120km

- **随時（アドホック）支払義務化**
  Mandating ad hoc payment methods
  - **50kW以上は支払い/タッチ決済カードリーダーをつけ、レトロフィットすること**
    ≥ 50kW: Credit card or devices with a contactless functionality & retrofit will be required by 2027

チャデモ関連事項
CHAdeMO related items

- **法案本文にチャデモ有害事項はなし（技術規格は「二次法」送り）**
  No adverse items in the main text - tech requirements discussed in secondary act

- **前文「公共充電インフラは車の銘柄を問わずEVユーザーが（---）差別なくアクセスできるようにする」**
  "*Regardless of the brand of their vehicle, end-users should be able to access and use publicly accessible recharging stations in a (...) non-discriminatory way*"

- **付属書「DC普通充電ポイントもCombo2コネクタが最低要件」に**
  At least CCS is required for DC normal chargers

チャデモアクション
CHAdeMO's reactions

- **「普通DC充電にもCombo2」要件でV2Gの例外扱いを要請**
  - **私設建物向け法案がAFIR技術要件参照するとチャデモV2Gに影響も**
    Private charger directive refers to AFIR technical specifications

- **訴求ポイント**
  - **V2Gではチャデモが先行**
    CHAdeMO is the only V2G standard with products
  - **V2G設置は私設中心で、公共充電器とはユースケースが別**
    V2G are deployed in the private domain and serve different UC
  - **消費者の「自由に選択する権利」**
    Consumers right to freely choose

参考資料として年間報告書をご覧ください。More information available in the Annex of our FY2022 annual report.

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AFIR二次法 |AFIR secondary legislation

欧州委員会 EC DG MOVE
持続可能な交通フォーラム
STF (Sustainable Transport Forum)

- 60メンバー（27加盟国・32の産業界等代表）
  60 members (27 MS, 32 industry members)
- DGMOVEの政策や二次法策定をサポート
  Assist DG MOVE prepare delegated acts under AFID

AFID/AFIR（法律フレームワーク）
Common technical specifications 共通技術要件

- 欧州委員会→欧州標準化機構（ESO)ドラフト規格要請
  The Commission can request ESO's to create draft standards
- 欧州委員会→ESOドラフト規格を委託立法により技術要件化
  The Commission shall be empowered to adopt delegated acts

CEN/CENELEC （欧州標準化団体）
SRAHG AFI2

1.1. Supply connector and a socket outlet for recharging **heavy-duty vehicles** (DC charging)

5.1 **Vehicle to grid communication interface (based on ISO 15118)**
5.2 Management of EV charging & discharging infra (based on IEC 63110)
5.3 Info exchange for EV charging roaming service (based on IEC 63119)
5.4 Info exchange with DER (based on IEC 61850)

STF専門家サブグループ
STF Expert Groups (2021-2023)

Sub-group on governance and standards for communication exchange
（通信規格とPKIガバナンスサブグループ）

Sub-group on a common data approach

Sub-group on best practices of authorities

Governance framework 'with particular focus on ISO 15118-20 and related PKI'

ISO/IEC （国際標準化団体）

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ISO15118通信の要件化を答申へ | ISO15118 to be mandated

チャデモは評価に参加するも15118マンデート答申を避けられず
EU chooses to 'pick a winner' despite objections

- **通信規格評価分野**
  - EV-CP **ISO 15118**
  - CP-CPO (back-end) **IEC 63110**
  - CPO-EMSP/e-roaming platform **IEC 63119**
  - CP-Energy system (grid integration) **IEC 61850 63382 etc**

- **提言**
  - **多くの産業界委員は15118の要件化に賛同**
    Industry members widely believe that EV-CP communication should be mandated in EU legislation with ISO 15118.
  - **その他の通信エリアはEN規格化には時期尚早**
    Other communication areas are premature to conclude

新プロトコルSWGを中心にWi-Fiなど汎用性の高い技術を用いてセキュア通信対応を加速
CHAdeMO HPC Protocol SWG to accelerate evaluation of versatile communication e.g. Wi-Fi / Ethernet

プラグアンドチャージ等のEV充電関連サービスのための欧州PKI*フレームワークの答申へ
EU PKI governance architecture to be proposed

- **欧州PKIシステムの統治・運用提言**
  Define how the EU PKI ecosystem should be governed and operated in the EU; recommend concrete policy and technical actions
  - ガバナンス・フレームワークとアーキテクチャのオプション整理
  - 望ましい姿の枠組みの提言
  - 必要な法律や市場規制の整理

- **既存・進行中事業に基づき提言**
  - シングル・マルチルートCAモデル Single vs multi-root CA?
  - 公的・私的機関の役割と規制 Regulated? Governance? Ownership? How to ensure interoperability?
  - 実施ロードマップ Implementation scheme / roadmap
  - 規格ギャップの特定 Standard gaps and AFIR legislation

- **今後は更なる技術詳細やデータ関連の討議へ**
  More details to be discussed in H2/2023

*(EV充電関連サービスのための)公開鍵基盤

2022年度活動：会議・展示| 2022 events

- P2D （ミュンヘン Munich 2022/06）
- EVS35（オスロ Oslo 2022/06）
- Eurobike Academy（フランクフルト Frankfurt 2022/07）
- UK EV Symposium（ロンドン London 2022/09）
- eMobility Charging Infrastructure Europe 2022 (ベルリン Berlin 2022/09)
- eMove （ベルリン Berlin 2022/10）
- OCA V2G Symposium（アーネム Arnhem 2023/03）

チャデモブース@EVS35　　　　　　　@EUROBIKE　　　　　　　チャデモブース@eMOVE　　　　　　　@OCA

2022年度活動：V2G Webinar

- 3回開催
- 平均100人聴講
- 北米やイギリスからのV2G実証試験や
  V2Gをめぐる欧州の法制度等のテーマ

- 3 webinars with 100+ participants
- Demo projects from US and UK,
  battery degradation, V2G regulatory
  policy issues etc.

スピーカーご希望の方、ぜひご連絡ください
If you wish to speak at a future
CHAdeMO webinar, contact us at
info@chademo.eu

- ビデオはこちらから
  Missed a session? Videos archived for you here

Speakers

Mr Jaap Burger
@ RAP (Regulatory Assistance Project)

Mr Xavier Moreau
@Smart En

00:04:41   00:53:26

CHAdeMO V2G webinar #6 How t...

FERMATA ENERGY

What if your
EV could earn revenue
while it's parked?

revel   FERMATA ENERGY

BROOKLYN, NYC VEHICLE-TO-
GRID (V2G) PROJECT

BY SAMUEL KING-NABI, SR. TECHNICAL MANAGER
ENGINEERING

revel   FERMATA ENERGY

EV-elocity

Findings from the EV-elocity project on the impact of V2G on
battery degradation

Project 104250

Funded by:
Department for Business, Energy & Industrial Strategy   Office for Low Emission Vehicles   Innovate UK

cenex   Leeds City Council   Nottingham City Council   University of Nottingham   WMG   CrowdCharge

https://www.chademo.com/about-us/what-we-do/webinar

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ご清聴ありがとうございました
Thank you

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