The European Association
for Electromobility

WE
DRIVE
NEW
MOBILITY

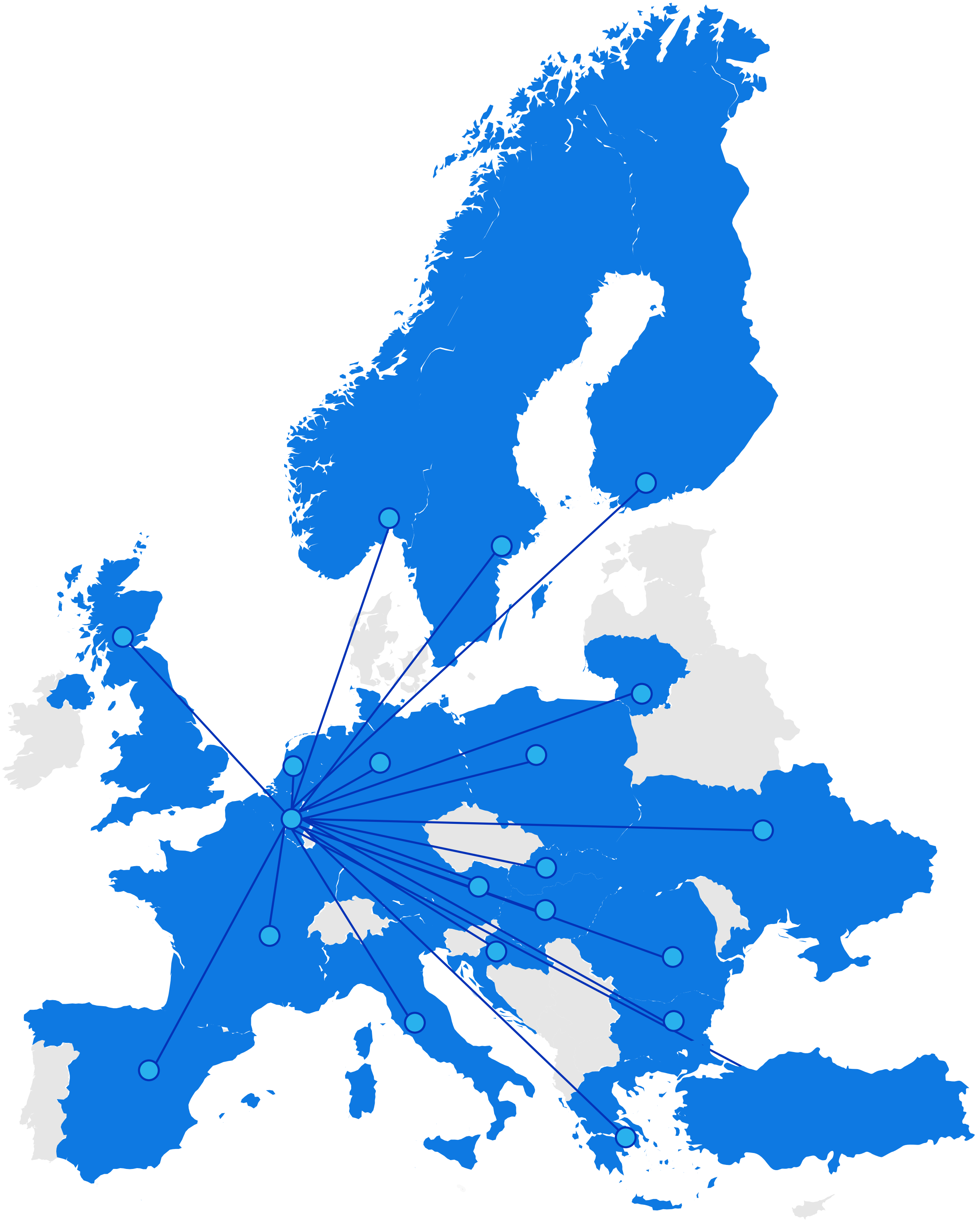
AVERE

THE EUROPEAN ASSOCIATION FOR ELECTROMOBILITY

2023

avere.org

AVERE | International activities



AVERE

The European Association for Electromobility

The European Association for Electromobility

Representing the e-mobility value chain:
OEMs, CPOs, EV users, Public Institutions, etc.

45

years of active actions to develop the e-mobility market (since 1978)

65

Members in 26 states

e-Drivers
e-Chargers
e-Vehicles

AVERE | International activities

BOARD

INDUSTRY
For profit

- Vehicles
- Infrastructure

ASSOCIATIONS
Non profit

- National Associations
- Research Associations
- Governmental Associations
- All other Associations

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PSPA,
Poland

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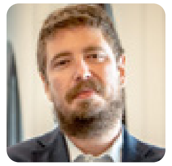
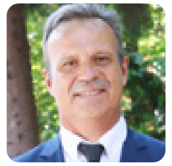


Francesco Naso
MOTUS-E,
Italy



Haluk Sayar
AVERE Turkiye,
Turkey

Janos Ungar
HEA,
Hungary

Secretary General

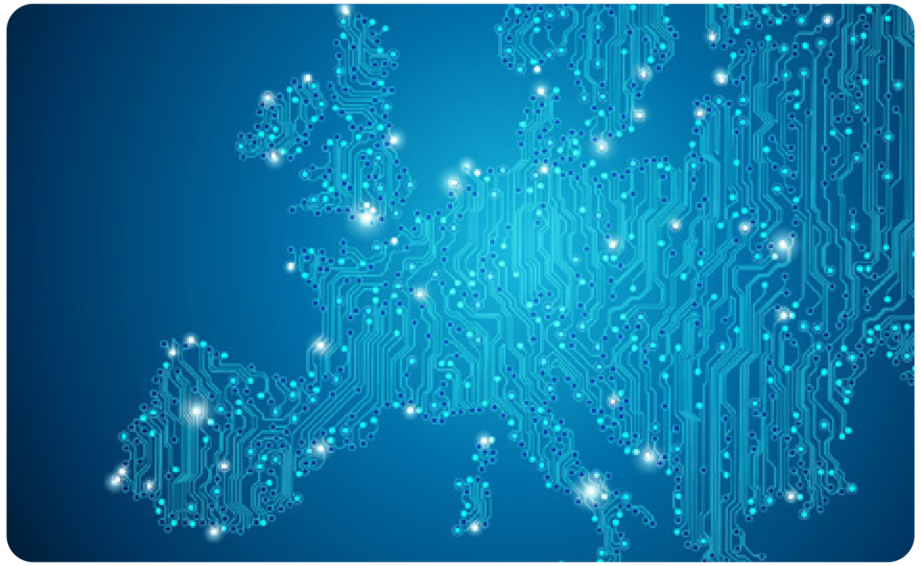
Philippe Vangeel

The EU's e-mobility sector is key to reaching the Green Deal's decarbonisation targets, creating high-skilled jobs, and increasing the competitiveness of the European economy

100% new zero-emissions vehicles by 2030

Fully decarbonised European road transport by 2050

Making Europe a world leader in electromobility



Membership

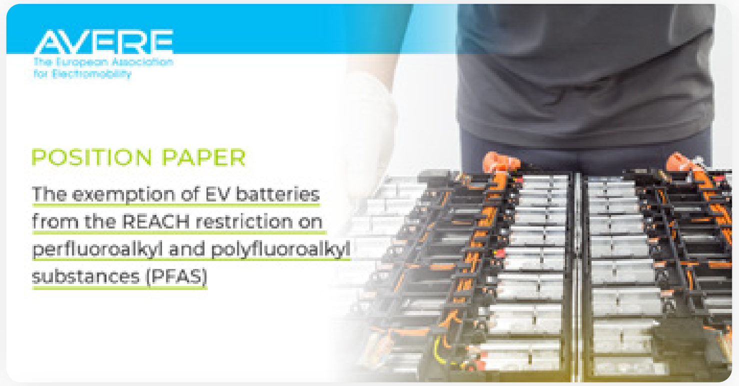
AVERE doubled the membership over the last 5 years to currently **+65 members** representing both EV industry and users

AVERE **continuously supported** members in their advocacy efforts at the national level

AVERE's **dedicated working groups** allow members to coordinate on top policy priorities and standardisation / regulations

→ **The working group structure is driven by our membership's priorities**

AVERE | Policy Priorities



Policy Priorities

- AFIR
- EPBD
- RED
- CO_2 Cars / vans
- CO_2 HDV
- Euro 7
- Battery Regulation
- ETS
- Fleets regulation
- TEN-T
- Driving License Directive
- Access to vehicle data
- Raw materials act
- Count Emissions EU
- Energy Taxation Directive
- End of Life Vehicles Directive
- PSD II

WE DRIVE NEW MOBILITY.

Sustainable new mobility now!

2023

pspa.com.pl

The largest economic organization, representing many industries and sectors, creating the new mobility market in Poland and the CEE region

2016
Year of establishment

250+
Members of PSPA, leaders of sustainable transport in Poland

100+
institutional Partners

500
reports, opinions and content analyses

400
trainings and industry events

1.8 million
medium reach of media publications based on PSPA announcements

12
research and pilot projects

500 k
parameters in databases

PSPA | Full representativeness of the organization

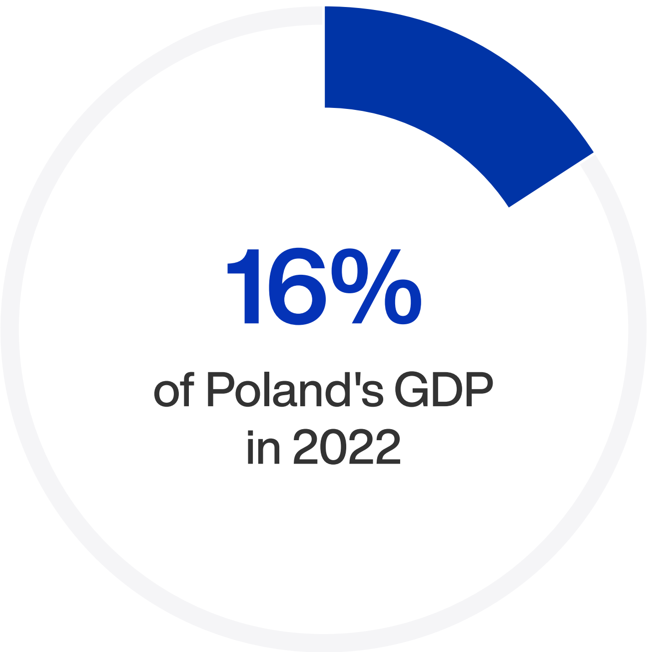
- Automotive
- Operators
- Station producers
- Infrastructure ecosystem
- Batteries
- Financial Institutions
- New Mobility
- Sharing
- Logistics
- Retail
- Power engineering
- Law firms
- Consulting, training
- Local government
- Photovoltaics
- Other

0.5 million

Member companies employment

500 bln

Member companies revenue (2022)



PSPA
Members

- Automotive
- Operators
- Station producers
- Infrastructure ecosystem
- Batteries
- Financial institutions
- New Mobility / Sharing
- Logistics/Retail
- Power engineering
- Law firms
- Consulting/training
- Local governments
- Photovoltaics
- Other

PSPA Members

Automotive

Operators

Station producers

Infrastructure ecosystem

Batteries

Financial institutions

New Mobility

/ Sharing

Logistics/Retail

Power engineering

Law firms

Consulting/training

Local governments

Photovoltaics

Other

PSPA Members

Automotive

Operators

Station producers

Infrastructure ecosystem

Batteries

Financial institutions

New Mobility / Sharing

Logistics/Retail

Power engineering

Law firms

Consulting/training

Local governments

Photovoltaics

Other

PSPA | Our structure

pspa | We drive new mobility!

AVERE
The European Association for Electromobility

PSPA OFFICES

- RESEARCH&ANALYSIS CENTER – Reports and analyzes
- LEGISLATIVE CENTER – Monitoring and advocacy
- COMPETENCE CENTER – Training and consulting
- INFORMATION CENTER – Education and promotion

PSPA CONTENT COMMITTEES

- Automotive Committee
- Public Infrastructure Operators Committee
- Local Government Committee
- Battery Committee
- Logistics and Transport Committee
- Financial Institutions Committee
- Producers and Installers of Charging Stations Committee
- New Mobility Committee
- Sustainable Transport Committee
- Hydrogen Technologies Committee

PSPA BRANDS

- Kongres Nowej Mobilności – New Mobility Congress
- EV Experience
- elektromobilni.pl
- EV klub Polska
- CEE GTI – Central & Eastern Europe Green Transport Initiative
- Polish EV Outlook
- Nowa Mobilność – Studia podyplomowe
- pspa | Akademia
- European Battery Alliance | EBA250 Polska
- Lider Elektromobilności

PSPA PROJECTS

- eHDV Infrastructure Lab
- EKOLOG Ekologiczna Logistyka
- ELAB
- Misja Zerowa Emisja
- Flota z energią
- Elektromobilność w praktyce
- Barometr Nowej Mobilności
- Katalog pojazdów elektrycznych
- Licznik elektromobilności
- elektromobilni.pl Mapa elektromobilności
- Autostrada do elektromobilności
- Biała Księga Nowej Mobilności
- emobility media awards
- Zero Race
- EV Drivers' Choice
- Global e-Mobility Forum
- Atlas elektromobilności
- Każda podróż ma znaczenie.pl
- CEE Cities Center
- mobility city
- EVerywoman
- Interreg Baltic Sea Region – HyTruck

PSPA | Strategic goals

1

Transforming Poland into a leading production hub for the e-mobility sector

2

Development of public and private infrastructure

3

Strengthening the position of Polish transport companies in the European value chain

4

Development of renewable energy sources (RES) and acceleration of the Polish energy sector transformation towards zero emissions

5

Increasing the innovativeness of the Polish economy as part of support for R&D work and staff training

6

Increasing the efficiency of R&D funds allocation, coordinating research and projects, as well as directing them to the possibility of industrial implementation

7

Providing investment financing and system support for the electric car market

#5%GDP

5% of the e-mobility sector's GDP in 2035

We drive new mobility!

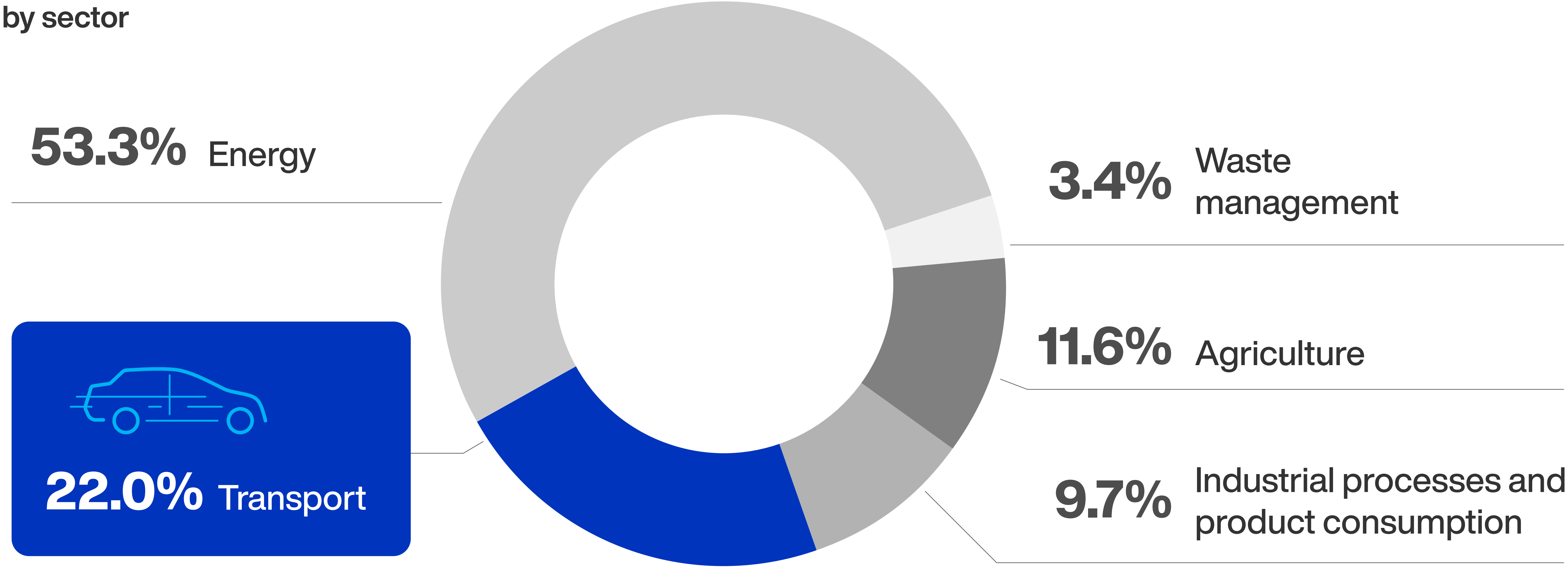
E-mobility market in Europe and Poland

2023

pspa.com.pl

Why e-mobility?

EU greenhouse gas emissions by sector

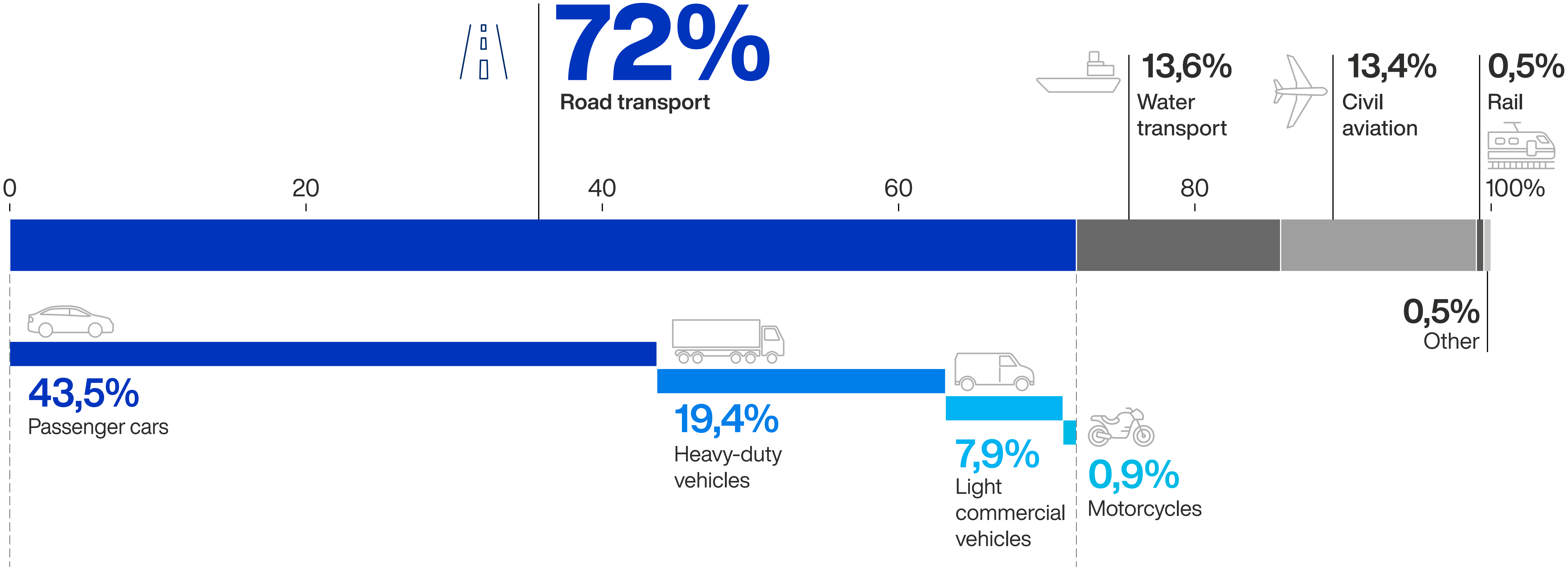


* The energy sector covers emissions from:
the energy industry, manufacturing and construction industries, diffuse emissions and others (e.g. residential/private)

Source: European Environment Agency

Why e-mobility?

EU emissions in the transport sector by mode of transport

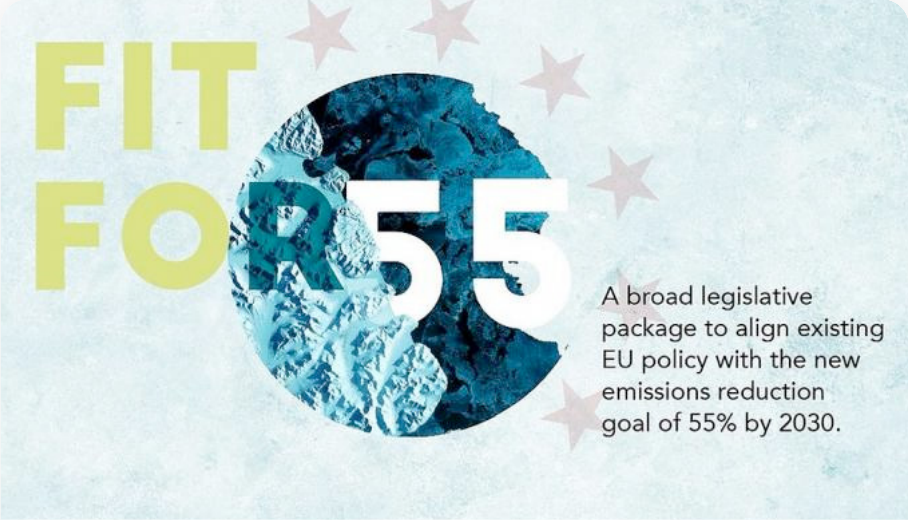


Source: Transport and environment report 2021, Decarbonising road transport — the role of vehicles, fuels and transport demand, EEA, 2022

Background: EU EV Charging Legislations

European Green Deal and Climate Law

- “European Green Deal” as main project of von der Leyen Commission
- 2021 “Climate Law” inscribes 2050 carbon neutrality into law, and adds 2030 interim target of 55% reductions compared to 1990



Fit for 55

- Major legislative package presented throughout 2021 in two parts to translate Climate Law into concrete actions
- Many key files currently in the late stages within Parliament and Council

RePower EU

- 2022 plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition
- Includes additional measures on corporate fleets and freight transport

Alternative Fuels Infrastructure Regulation (AFIR)

Timeline

14/07/2021	2/06/2022	3/10/2022	19/10/2022	28/03/2023	12/10/2023	13/04/2024
COM presentation	Council compromise	Lead committee (TRAN) vote	Plenary vote	Trilogue agreement	Entry into force	Application starts

Importance

- Sets a framework for the **rollout of public recharging infrastructure in the EU, including binding rollout targets** for Member States and requirements on payment and pricing

Key concerns

- Rollout target ambition
- Payment & other technical requirements
- Retroactive effects
- Pricing & price transparency

State of play

- **Adopted** – awaiting implementation
- Balanced differentiation of payment requirements between slow and fast chargers
- Extended data obligations + European Access Point
- Application foreseen from March 2024

Energy Performance of Buildings Directive

Timeline

14/12/2021	10/10/2022	10/10/2022	9/02/2023	15/03/2023	Ongoing	TBC
COM presentation	Council General Approach	TRAN committee vote	Lead committee (ITRE) vote	Plenary vote	Trilogues	Entry into force

Importance

- → Modernizes the EU's framework climate legislation on buildings, notably including targets to roll-out **pre-cabling and charging infrastructure in residential and non-residential buildings**, either new or renovated

Key concerns

- → Include existing buildings
- → Establish the right definitions (pre-cabling)
- → Include HDV
- → Strengthen right to plug
- → Address fire safety

State of play

- → **Council**: Member States found a compromise in October, but many Member States do not find the compromise ambitious enough
- → **Parliament**: Report passed in plenary in March.
- → **Trilogues** ongoing

Main issues of divergence

- → Including existing buildings in the scope
- → Setting ambitious pre-cabling target vs pre-ducting (myth of the cost of pre-cabling, scarcity of resources, etc)
- → An ambitious right-to-plug
- → Including HDV
- → Mandating V2G

Renewable Energy Directive (RED III)

Timeline

14/07/2021	05/2022 (ENVI) & 07/2022 (ITRE)	12/09/2022	24/06/2022	30/03/2023	20/11/2023
COM presentation	Lead committee vote	Plenary vote	Council compromise	Trilogue agreement	Entry into force

Importance

- The Renewable Energy Directive establishes **common rules and targets for the development of renewable energy** across all sectors of the economy, including transport. **Fuel-neutral credit trading** provides a great potential revenue opportunity for CPOs and users.

Key concerns

- Maintaining a level playing field between renewable electricity and other fuels (notably through appropriate energy efficiency ratios, EERs)
- Extend the scope of fuel-neutral credit trading to include private charging
- Account RES beyond national grid average

State of play

- **31/10/2023**
  Published in the Official Journal of the European Union
- **Adopted** – awaiting implementation

Why does the EPBD matter for EV charging ecosystem?

Most charging sessions happen at home or the office

Currently and at least until 2030, EV users charge their vehicles on average 70% of the time at home, at the office or at destination charging stations

Home charging is cheaper for EV users

Numbers from the European Alternative Fuels Observatory (EAFO) show that charging at home is cheaper than any other charging option

The 2035 deadline will increase the sales of EVs

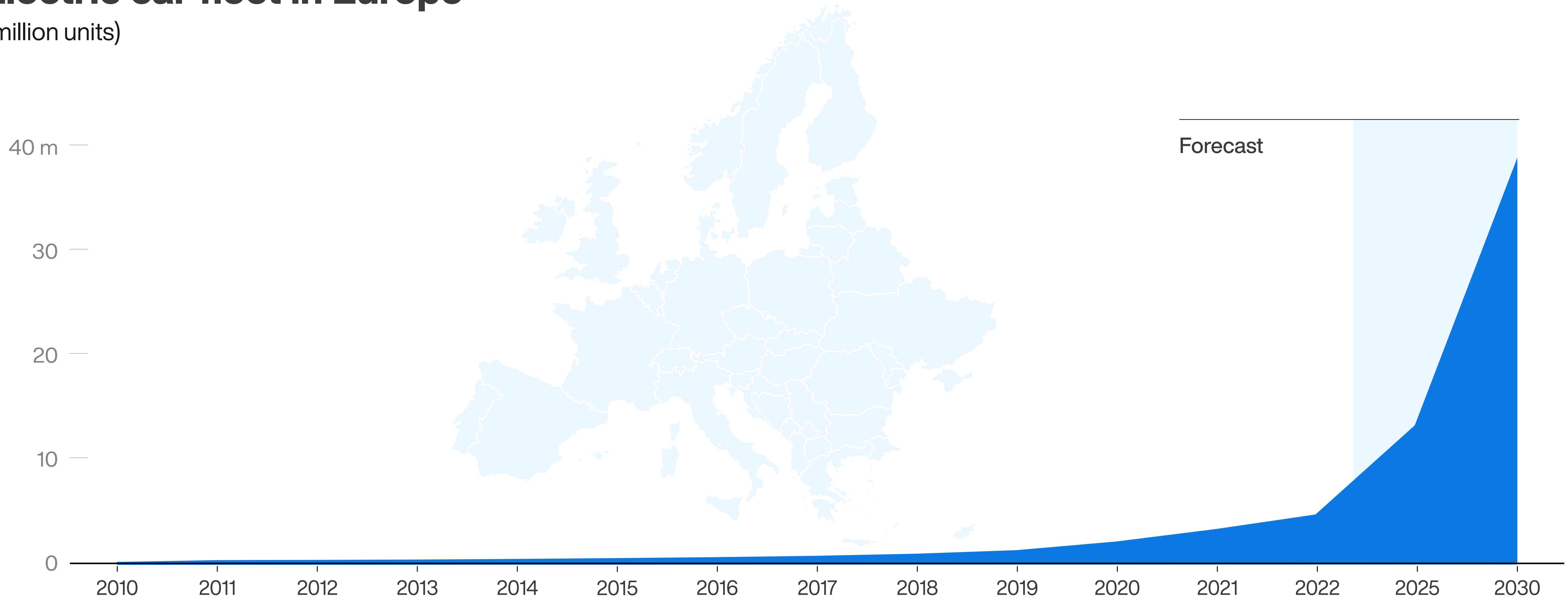
The EPBD is an enabling factor helping current and future EV users to charge their vehicles in parallel to publicly accessible stations

EVs can bring flexibility to the grid

EVs should be seen as batteries on wheels which will help integrate renewables and balance the grid through smart charging and, soon at a large scale, bi-directional charging. Home and destination charging is a prime application, as vehicles remain parked for extended periods of time

Electric car fleet in Europe

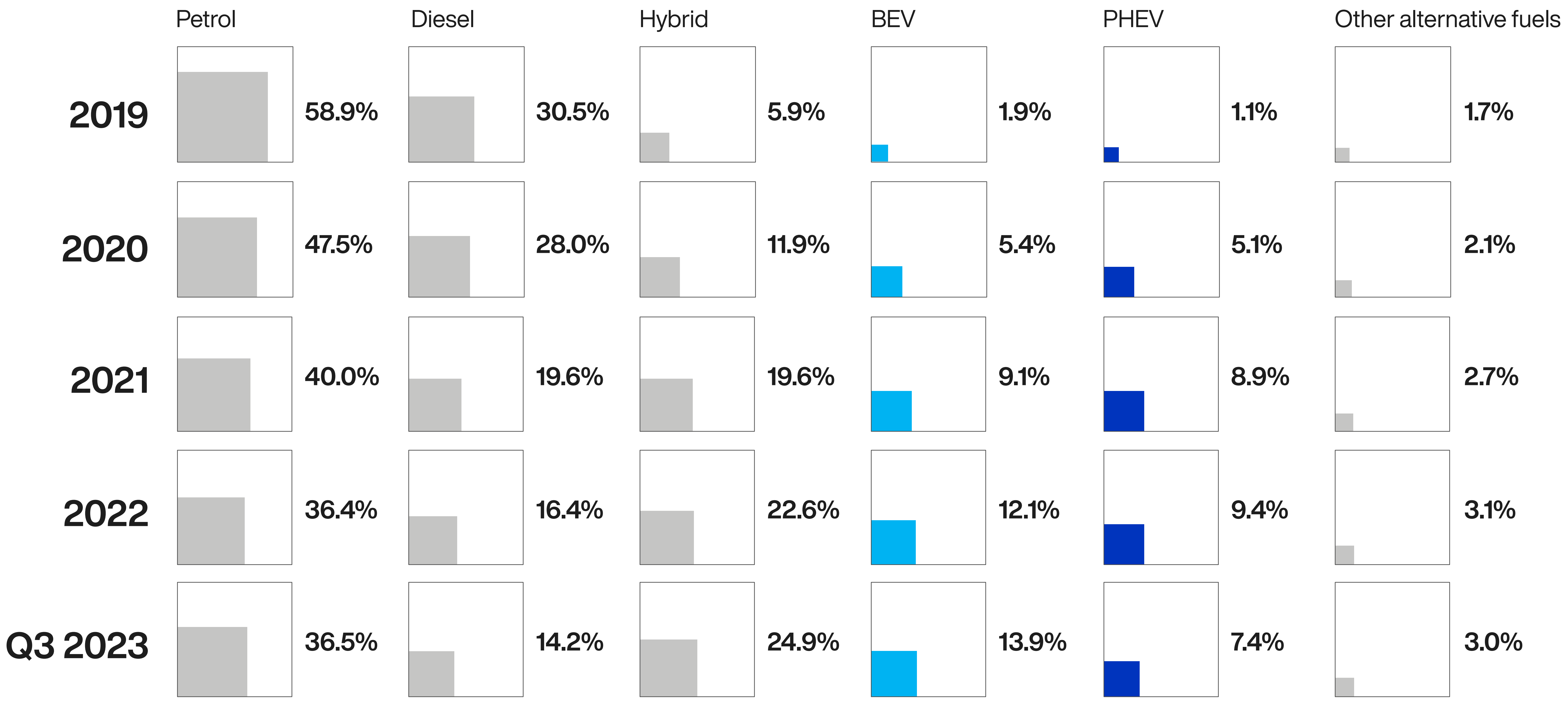
(million units)



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2025	2030
Fleet	0.007	0.017	0.037	0.068	0.13	0.21	0.30	0.43	0.63	0.97	1.8	3.0	4.0	13.0	38.0
Growth YoY		139%	118%	84%	91%	62%	43%	43%	47%	54%	86%	67%	47%		

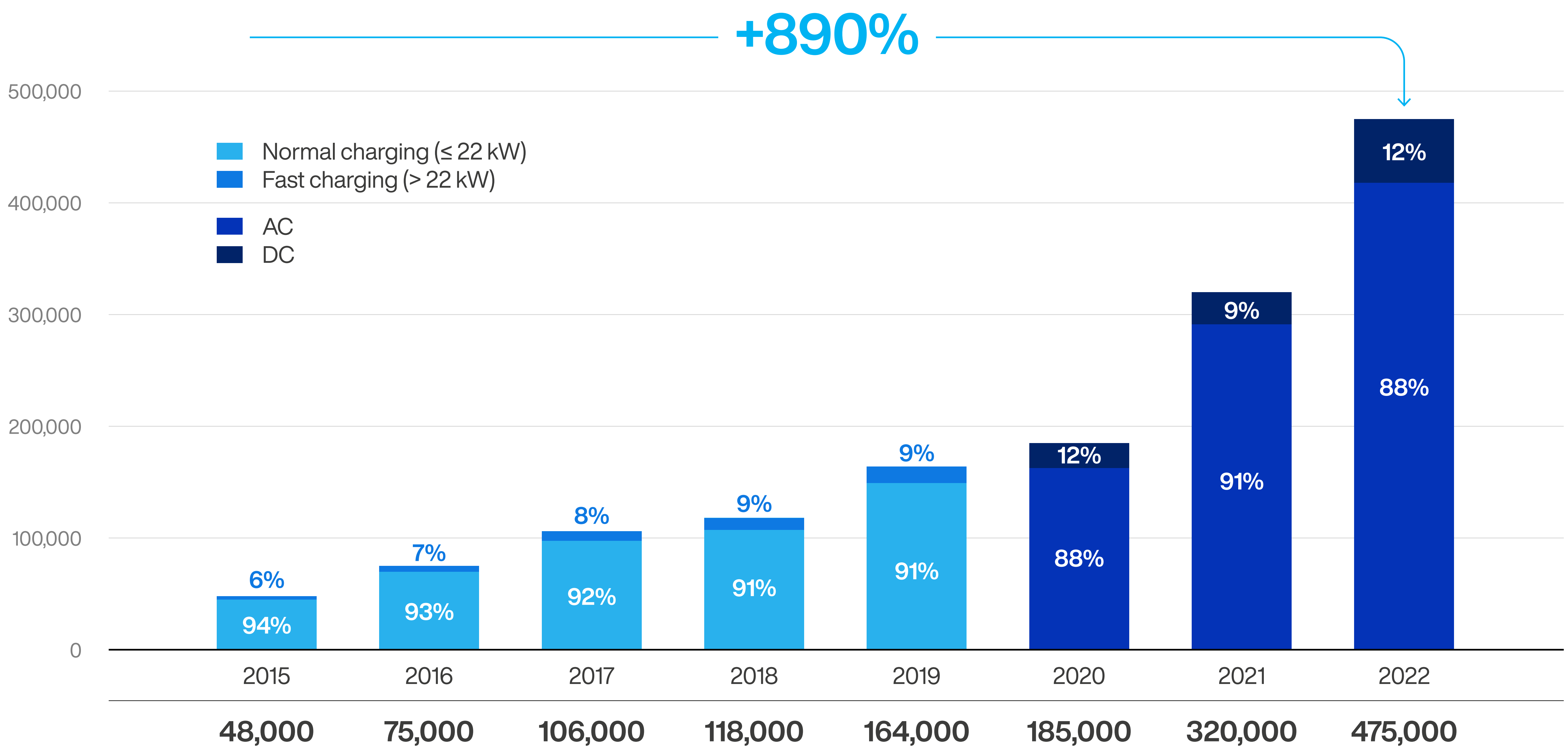
Source: Global EV Outlook 2023

Share of types of drives on the European market of new passenger cars



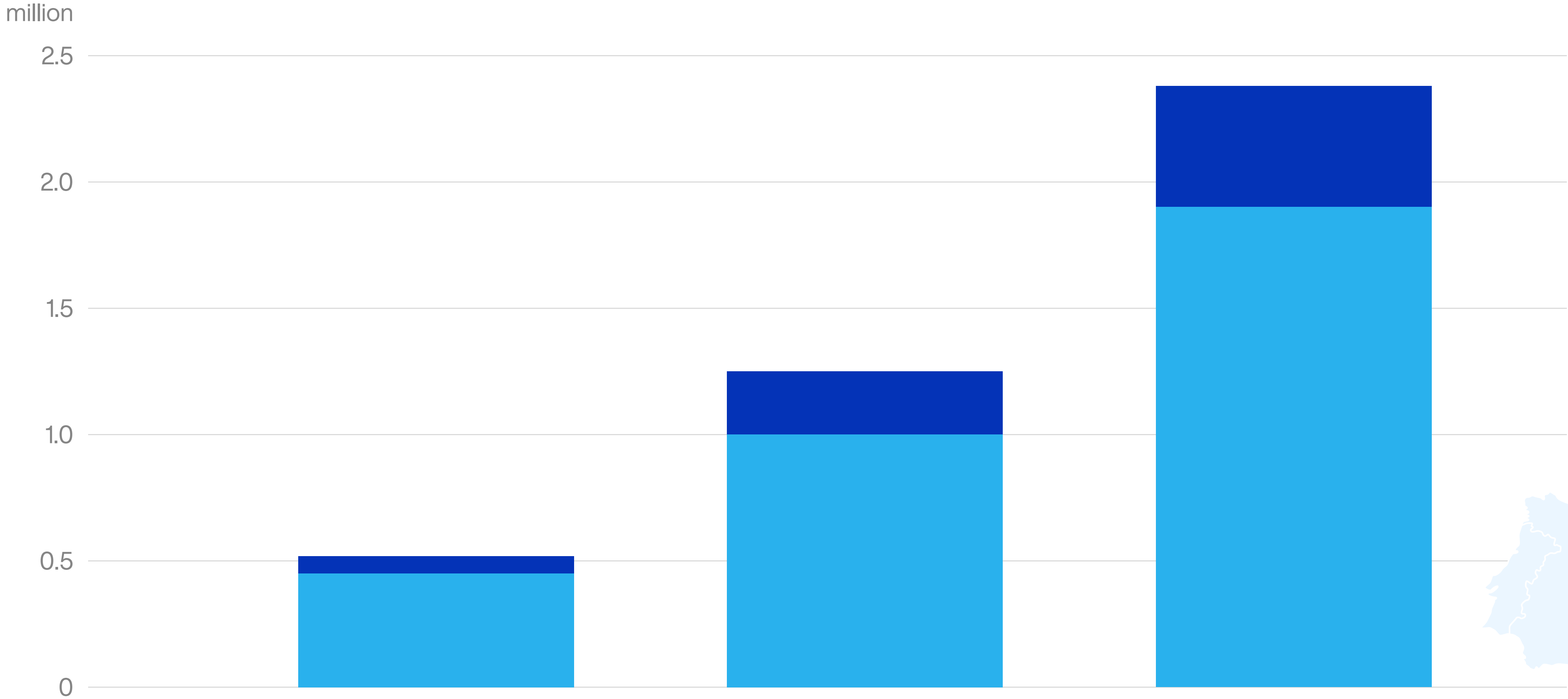
Source: ACEA

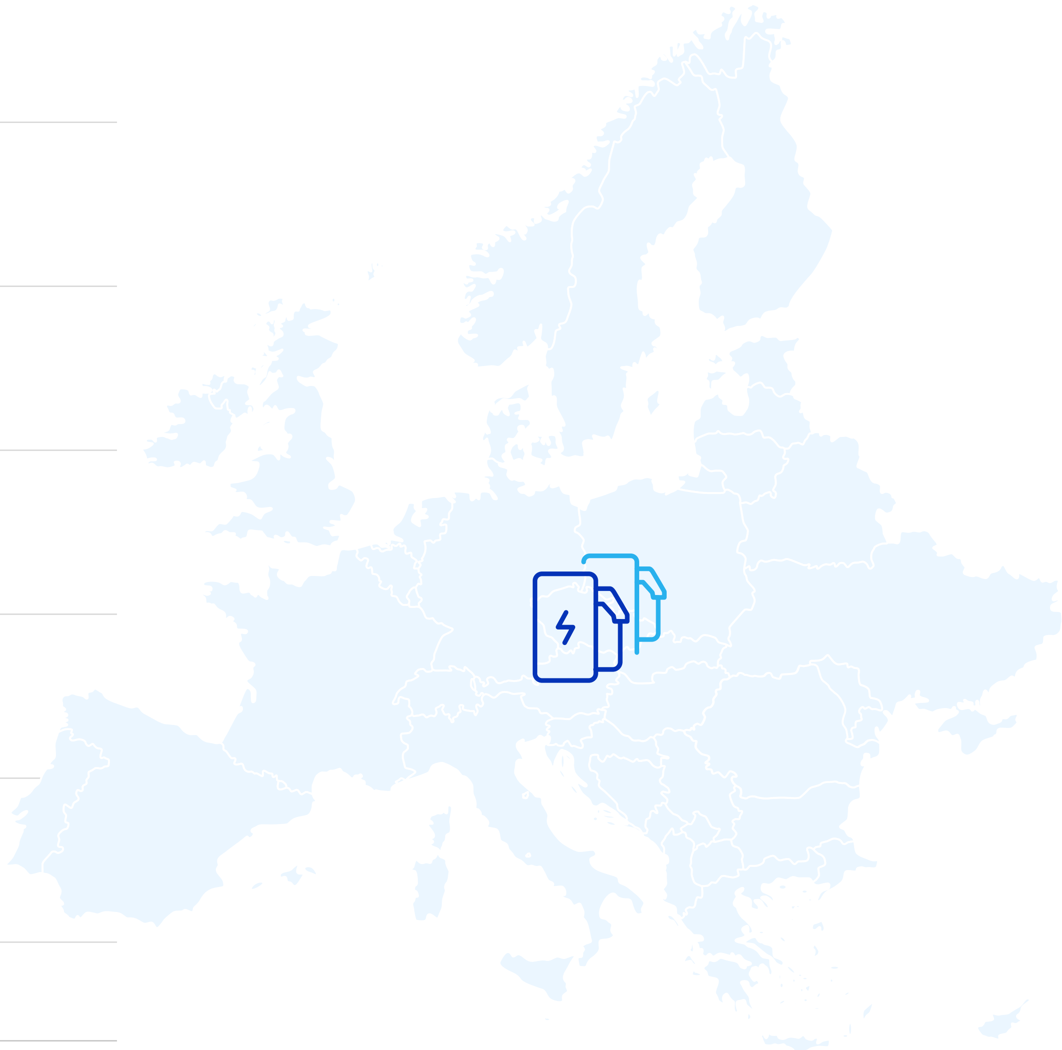
Number of public charging points in the EU-27 by point type



Source: ChargeUp Europe

Charging infrastructure market in Europe | Forecast





	2022	2025	2030
AC	450,000	1,000,000	1,900,000
DC	68,000	250,000	480,000
Total	**518,000**	**1,250,000**	**2,380,000**

Source: IEA

Electric car market in Poland | Current status

Number of electric passenger cars

87,724 **EV**

45,198 BEV

42,526 PHEV

Registrations of electric passenger cars

25,867 **I-IX 2023**

18,544 I-IX 2022

+39% YoY

Number of electric vans and trucks

5,212

Registrations of electric delivery vans and trucks

2,069 **I-IX 2023**

971 I-IX 2022

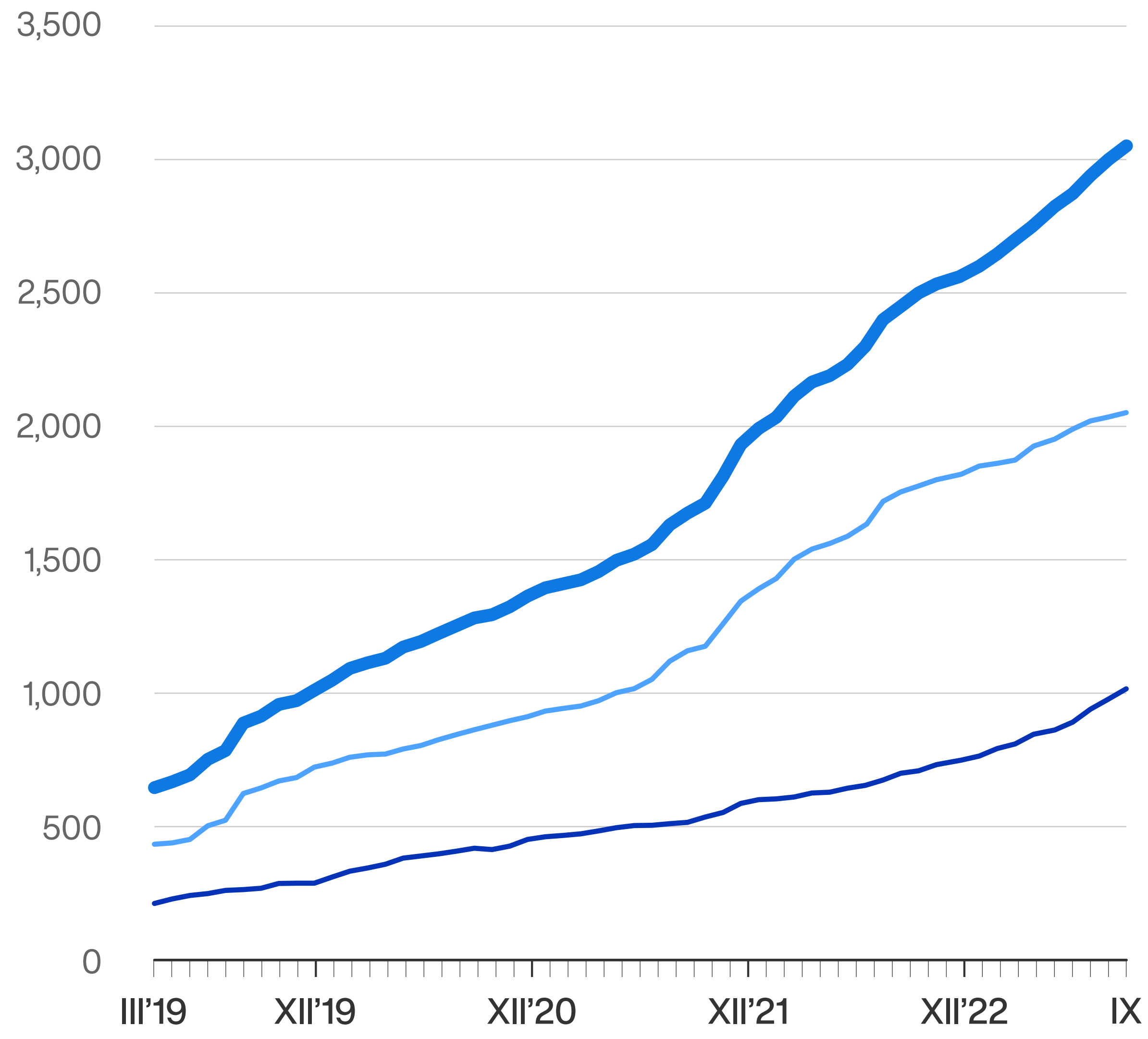
+113% YoY

Data as of 30/09/2023

Source: E-Mobility Index by PSPA & PZPM

Charging infrastructure market in Poland | Current status

Number of public charging stations in Poland



3,068
at the end of September 2023
▲ **+25%** YoY

2,060 67%
AC charging stations
▲ **+17%** YoY

1,008 33%
DC charging stations
▲ **+44%** YoY

Number of public charging points

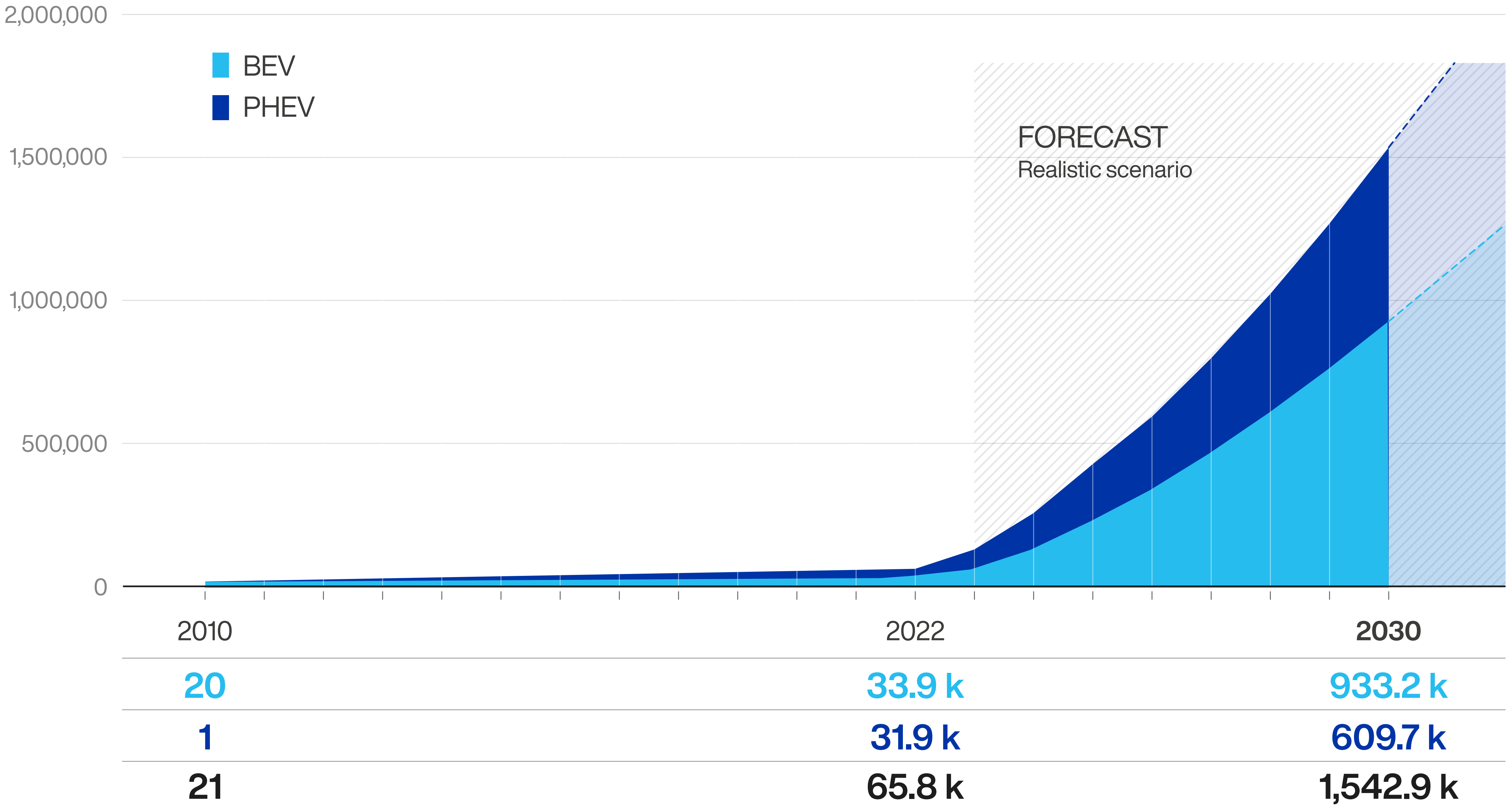
6,159
at the end of September 2023
▲ **+30%** YoY

Data as of 30/09/2023

Source: E-Mobility Index by PSPA & PZPM

Fleet of electric cars and vans | Development forecast

BEV + PHEV 2010–2030



Source: Polish EV Outlook 2023 by PSPA

Poland in the European supply chain of the e-mobility sector

Lithum-ion battery supply chain ranking – cell & components*

Global

2022
1 CHINA
2 POLAND
3 USA
4 HUNGARY
5 GERMANY

European

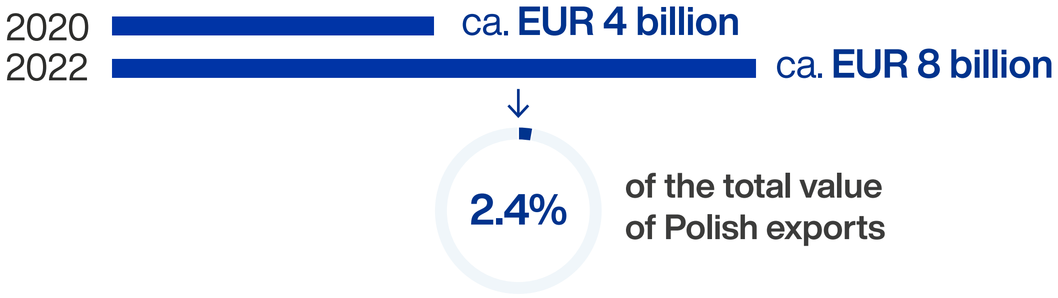
2022
1 POLAND
2 HUNGARY
3 GERMANY
4 SWEDEN
5 FRANCE

The largest lithium-ion cell factory in Europe

LG Energy Solution

Location	**Biskupice Podgórne**
Year of commencement	**2017**
Target employment	**+7,000**
Target potential	**86 GWh per year (currently) 115 GWh (in 2025)**
Selected contractors	**Audi, BMW, Fiat, Ford, Porsche, Volkswagen**
Public financial support	**95,000,000 EUR**
Total investment value	**3.1 bln EUR**

The value of exports of the Polish battery sector

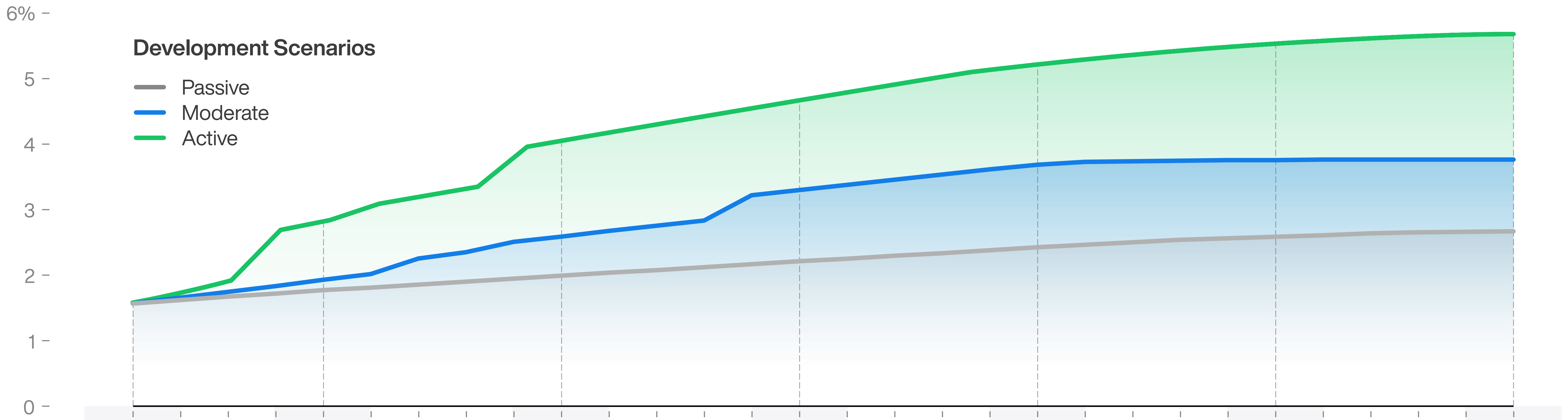


* Source: BNEF

E-Mobility: a historic opportunity for Poland's economic development

The global shift from internal combustion engines to electric propulsion could ensure that the Polish automotive sector maintains its strong position in the national economy and that Poland becomes a production hub for the e-mobility sector in Europe

Share of the e-mobility sector in the value of Poland's GDP | Forecast



	2021	2025	2030	**2035**	2040	2045	2050
	1.44%	1.71%	2.00%	2.29%	2.57%	2.78%	2.89%
	1.44%	1.85%	2.60%	3.41%	3.85%	3.93%	3.94%
	1.44%	2.69%	3.96%	**4.60%**	5.19%	5.53%	5.68%

Thank you!

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