





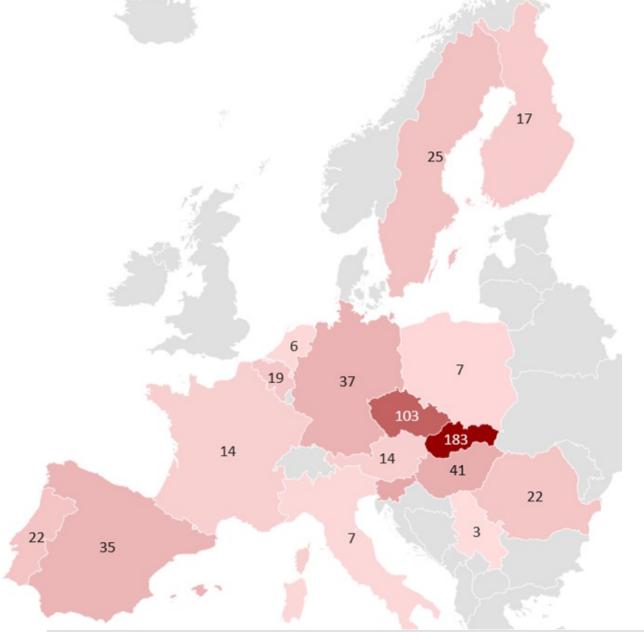
Introductory remarks



- Monika Ladmanová, Head of the European Commission Representation in Czech Republic
- Maroš Šefčovič, Vice-President for Inter-institutional Relations and Foresight, European Commission
- Eduard Muřický, Deputy Minister for Industry, Entrepreneurship and Construction, CZ Ministry of Industry and Trade







How many passenger cars are produced per 1000 citizens in the European countries?

Slovakia is the absolute leader, Czechia takes second.

These two countries also already produce many electrified vehicles.

Country	Share of BEVs and PHEVs in production
Czechia	11%
Slovakia	16%

Source: OICA, EAFO, AutoSAP, SEVA, data retrieved 10/2022

2021 passenger cars - produced cars per 1000 citizens



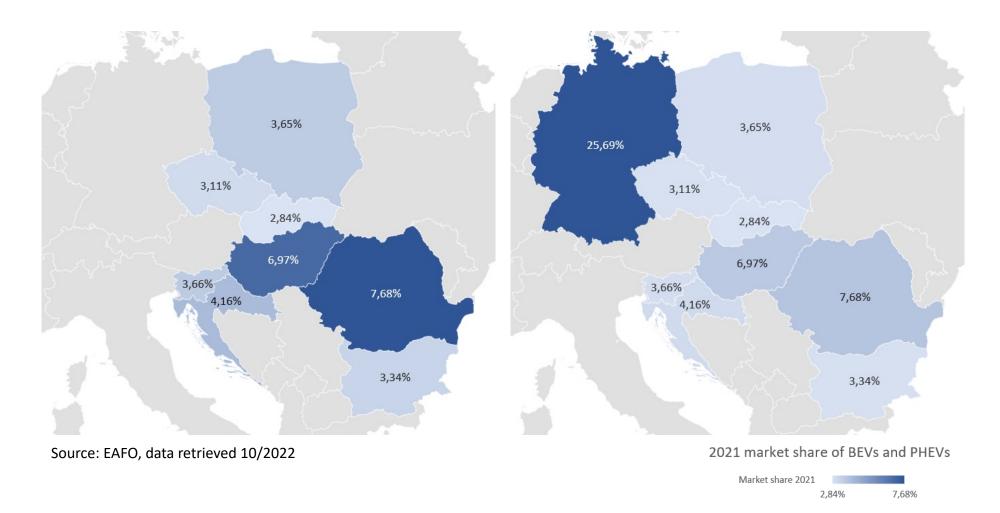








What was the market share of BEVs and PHEVs in the 2021 sales of passenger cars? From the CEE region, Romania takes the lead. What if we compare it to Germany?

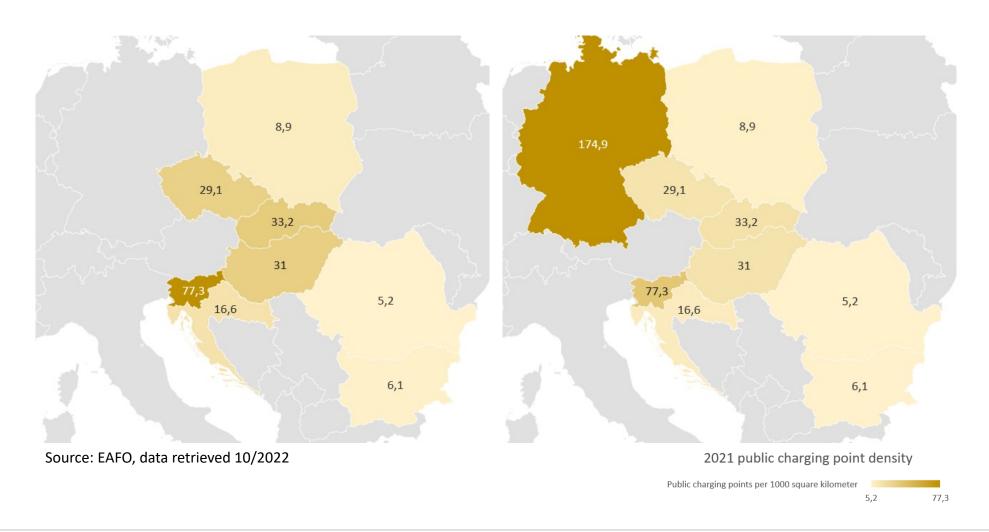








How dense was the public charging point infrastructure in 2021 per 1000 square kilometer? V4 countries seem to be equal with the exception of Poland. Germany is far ahead.









Case Studies from CEE Region



- Tomáš Dzurilla, Chairman of the Board, Czech E-mobility Platform
- Patrik Križanský, Director, Slovak Electric Vehicle Association
- Aleksander Rajch, Deputy Director, Polish Alternative Fuels Association
- Rudolf Matúš, Coordinator of External Affairs, Škoda Auto

Moderated by: Aneta Zachová, Editor-in-Chief, EURACTIV.cz







EVCharging

Supporting the Development of E-mobility in the Czech Republic

Tomáš Dzurilla, Chairman of the Steering Committee E-mobility Platform

Conference E-mobility: Opportunity for Central Eastern Europe 17 Oct 2022

Time Rev .1ing

Our members

Mission





















We are a proud member of



Be the single point of contact for the Government (on any level) to discuss e-mobility-related topics through cross-industry cooperation

Despite relatively dense and robust infrastructure in Czechia...

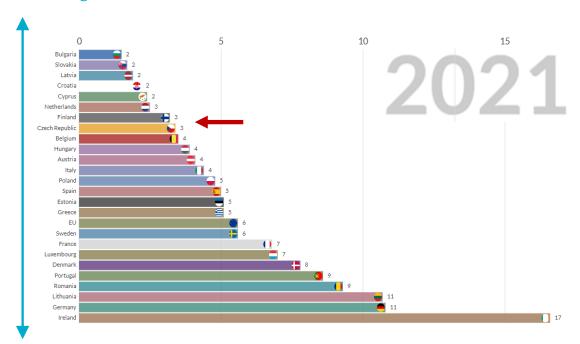


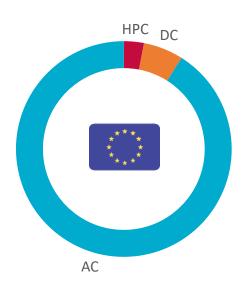
BEVs per public charging point

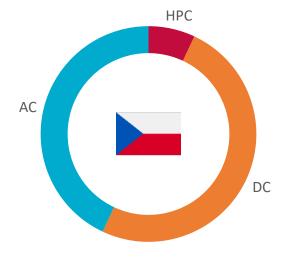
[#, 2021]

Structure of the infrastructure in the EU and CZ [%, 2021]

More chargers for 1 electric car







Less chargers for 1 electric car

...we are lagging in terms of EV adoption resulting in low utilization of public infrastructure

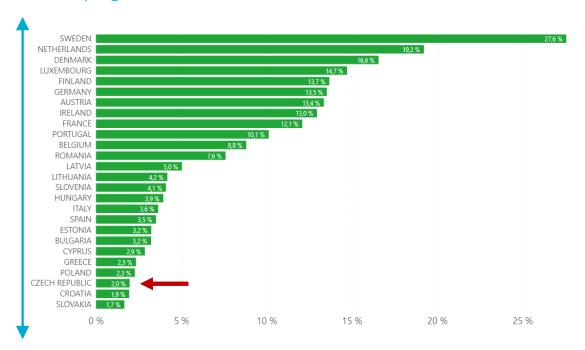


BEVs in new passenger car registrations

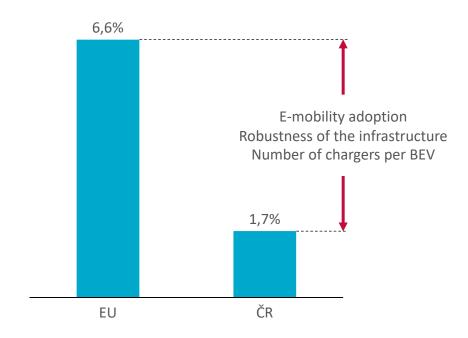
[%, 2021 - 2022]

Comparison of the public infrastructure utilization rates [%, energy utilization, 2021 - 2022]

More newly registered BEVs



Less newly registered BEVs



What needs to be done? (1/2)



Infrastructure

- 5bn CZK (200 mil. EUR) in Operational program Transport ("Operační program Doprava")
 - Speedy and effective use, reflecting AFIR
- Harmonise / Simplify / Accelerate building and approval processes
- Ensure trouble-free charging
 - International roaming
 - Parking space marking / Enforcement

Adoption of EVs

- Increase the availability of electric cars for
 - Corporate persons
 - Private persons
 - Government and public fleets
 - Municipalities
- Boost the market
 - With the use of **CZ / EU financing mechanisms**

Source:

What needs to be done? (2/2)



Government strategies & Legislation

- An ambitious new National Action Plan Clean Mobility
 - Preparation (by end 2023)
 - Implementation
- Reasonable **fire safety** norms

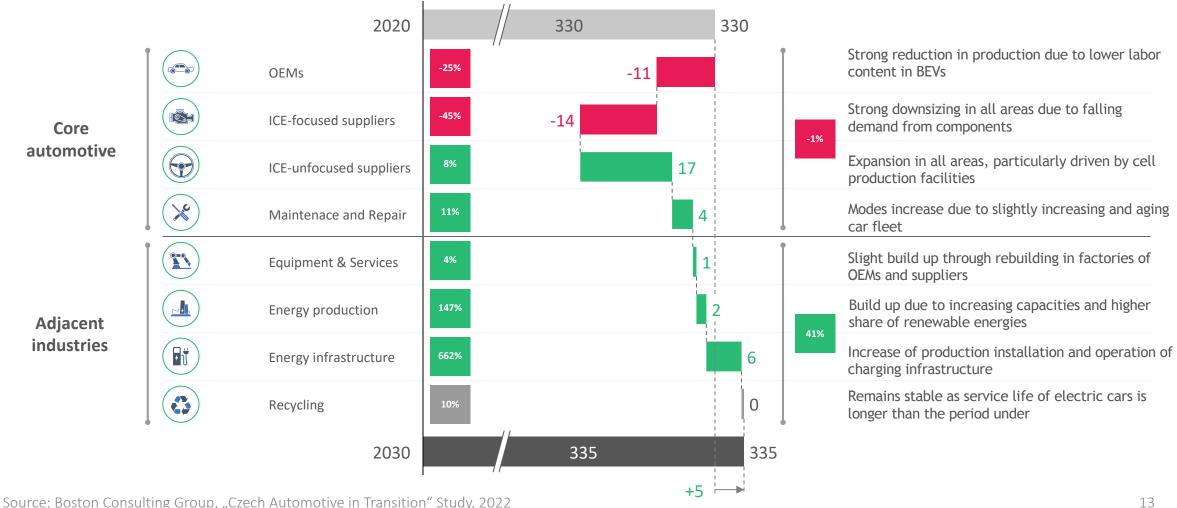
R&D, Education, Cooperation

- Support R&D
- Update of curricula, support re/up-skilling
- Face myths, disinformation
- Foster cooperation
 - National
 - International / EU

Development of the e-mobility ecosystem represents significant opportunities for the Czech labour market...

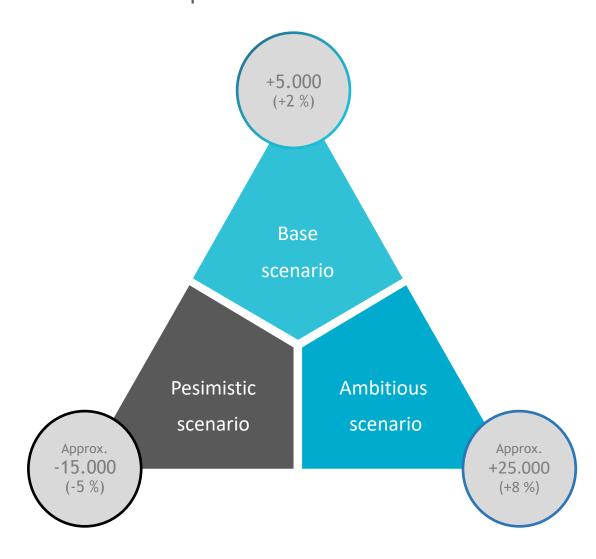


Job losses and job gains (in thousands) across different industries



...<u>IF (!)</u> the Government actively supports e-mobility: charging infrastructure and EV adoption







Thank you!

Contacts:

tajemnik@ePlatforma.cz



Transformation to e-mobility: Perspective from automotive powerhouse

Patrik Krizansky, Slovak Electric Vehicle Association



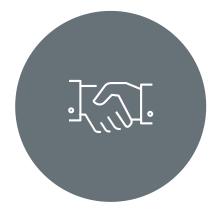
Voice of Slovakia's e-mobility industry since 2012



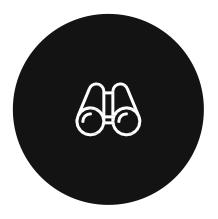
Advocacy and regulations



Awareness, visibility and projects



Networking and cooperation



Market intelligence







































































We need to address the challenges

Growth of EV market

Incentives and benefits for EV users

Systematic change to promote green behavior

Early-stage of charging infrastructure development

More chargers in every segment

Administrative hurdless and bottleneck

Distribution grid capacity as key bottleneck

Automotive industry transformation

Innovations and new technologies made in Slovakia



To seize the opportunities in e-mobility transition

E-mobility
Action Plan
2.0
as policy
reform
to address
challenges

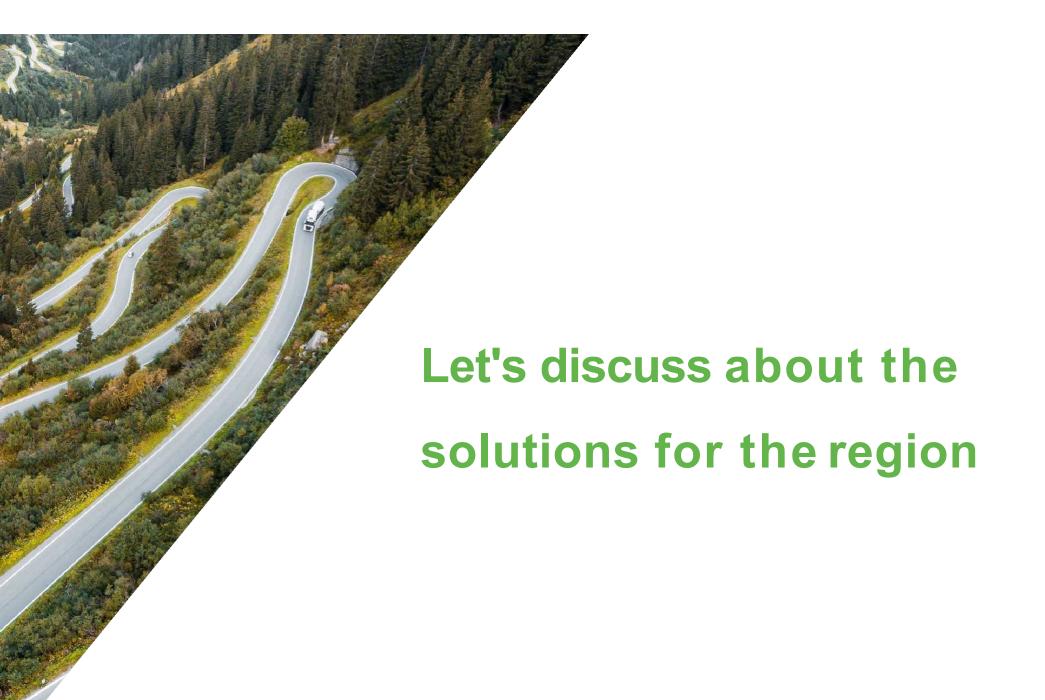
€50 mil. for charging stations if policy reform is implemented

for distribution grid upgrades

National-level consortium to generate innovations and talent

We open
new topics
such as
electric
trucks







E-Mobility: An OPPORTUNITY for Central-Eastern Europe

Polish Alternative Fuels Association

Prague, October 17th, 2022



PSPA | About us

The largest industry organization, creating the emobility and sustainable transport market in Poland and in the CEE region

vears of active efforts to develop the e-mobility market

200+

Members of PSPA. leaders of sustainable transport in Poland

institutional partners

73

reports

140

trainings

145

own events 25k+

participants of organized and co-organized events by PSPA

10

research and pilot projects

1500+ 37k+

amendments and comments to draft legal acts

media publications based on PSPA press releases in 2020-22



PSPA

Members

















































































8





































































































































Integracja 28





























































▼i4B







EKOCEL













Sun Son



Y zefir



KEREL



4









Inbalance



CHARGEFURDER



SE













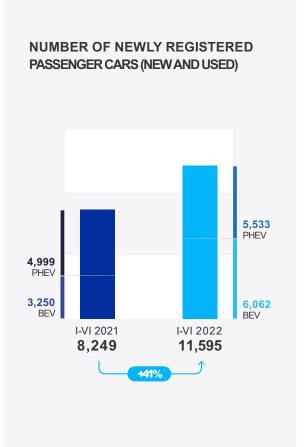


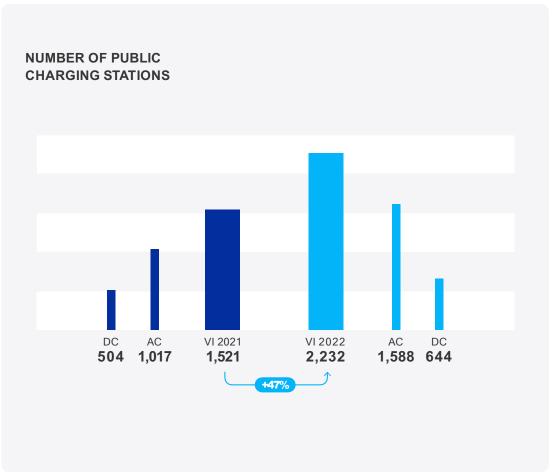




Polish e-mobility in numbers







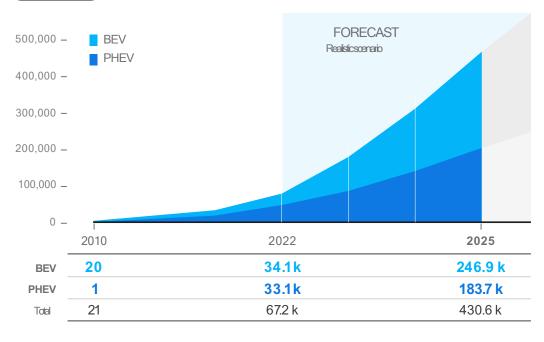


Polish e-mobility: near future

Forecast for the development of e-mobility in Poland

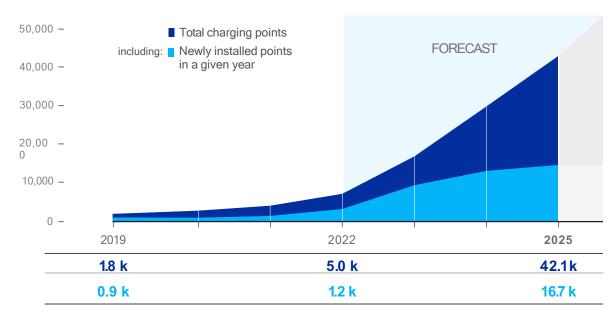
Electric vehicle fleet in Poland (passenger cars and vans)

BEV + PHEV 2010-2025



Network of charging points in public stations in Poland

AC + DC 2019-2025



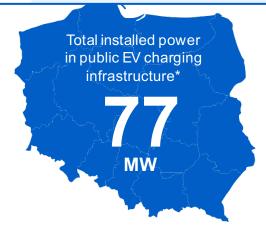


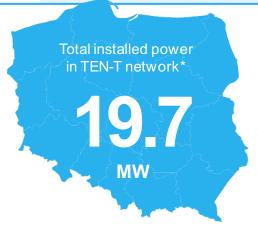
The grid and grid connection challenge



The installed grid capacity challenge in the context of AFIR

Installed power in relation to vehicle AFIR targets (BEV + PHEV)			Installed power in relation to TEN-T AFIR targets (LDV + HDV)				
	2025	2030	2035	(250 1150)	2025	2030	2035
EU Commission AFIR basic text	435,8 MW	1383,5 MW	2613,1 MW	EU Commission AFIR basic text	217,6 MW	665,3 MW	857,6 MW
EU Parliament Committee on Transport and Tourism Amendments	1166,7 MW	2773,6 MW	4316,1 MW	EU Parliament Committee on Transport and Tourism Amendments	406,6 MW	1013,9 MW	1235,9 MW
EU Council Compro mise proposal	435,8 MW	1383,5 MW	2613,1 MW	EU Council Compr omise propos al	83,2 MW	665,3 MW	702,2 MW







Key barriers for the charging infrastructure market in Poland









1.

Excessive connection time (DSO connections time + approvals) – in extreme cases up to 36 months **2**.

Unfavorable conditions for public operators. Indicating locations that generate connection costs, lack easy accessibility to main roads and highways and cause pre-installing costs which affect rational ROI

3.

Transfer of connection costs, transformer costs and cabling (medium voltage) costs to operators (by DSO's)

4.

Lack of adequate grid and network base along highways and expressways for fast charging infrastructure to be installed

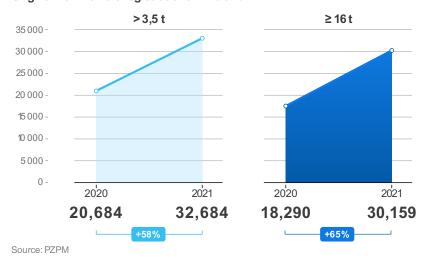


The HDV challenge



Poland as the European center of heavy road transport

2,684 HDV's (3.5 tons+) were registered in Poland in 2021 – a historic record high Original new vehicle registrations in Poland



Every 5th HDV and delivery vehicle over 3.5 tons in the EU is registered in Poland

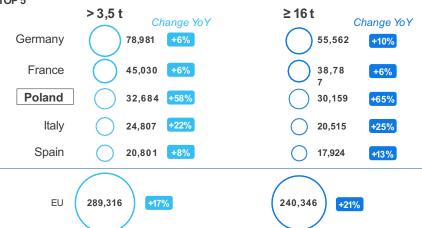
HDV car park in Europe (over 3.5 t) TOP 5



Source: ACEA

Poland is one of the key markets in terms of HDV registrations in Europe $\,$

Original HDV registrations in Europe TOP 5

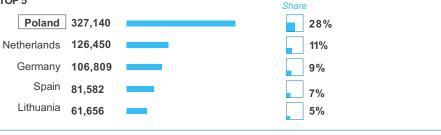


Source: ACEA

Poland records the largest road transport loads in the EU

- in 2020 Polish logistic operators transported ca. 330 million tons of goods

Mass of transported cargo TOP 5



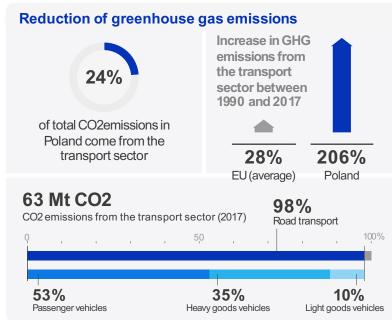
EU **1,188,345**

Source: Eurostat

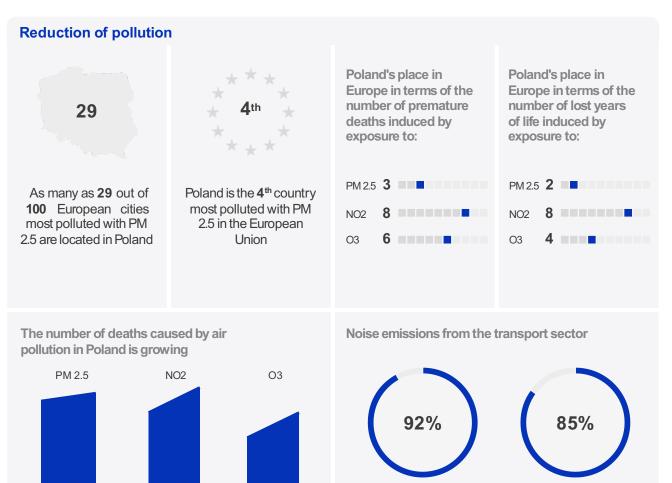


The challenge of awareness

Challenges | The transport sector in Poland







On 92% of roads, the level

of noise exceeds 60 dB

during the day

On 85% of roads, the level

of noise exceeds 55 dB

during the night



0

1,100

2016

1,50

201

1,500

2016

1,900

2018

46,300

2018

43,100

2016

Case Studies Success stories



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

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

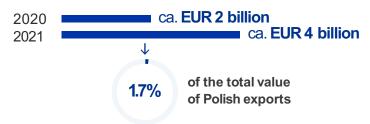




The largest lithium-ion cell factory in Europe

Location	Biskupice Podgórne		
Year of commencement	2017		
Target employment	10,000		
Target potential	100 GWh per year		
	1,000,000 EV per year \rightarrow 60% of EU demand		
Selected contractors	Audi, BMW, Fiat, Ford, Porsche, Volkswagen		
Public financial support	95,000,000 EUR		
Total investment value	3.1 bln EUR		

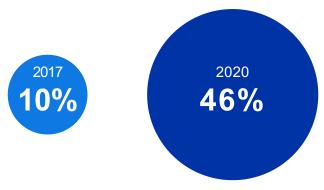
The value of exports of the Polish battery sector





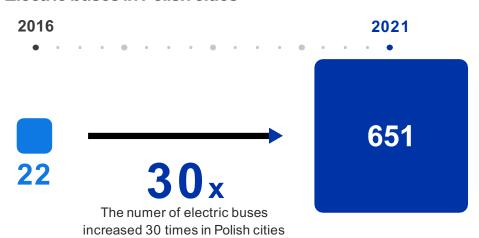
Poland as the European production center of electric buses

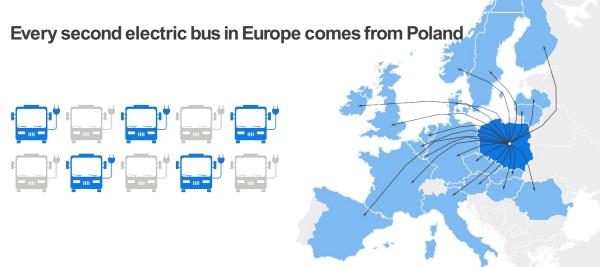
Poland's share in the electric buses export in the European Union

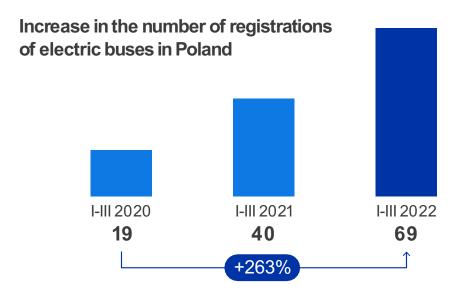


Poland is the largest exporter of electric buses in the EU (Belgium is the second largest exporter with 36% share)

Electric buses in Polish cities







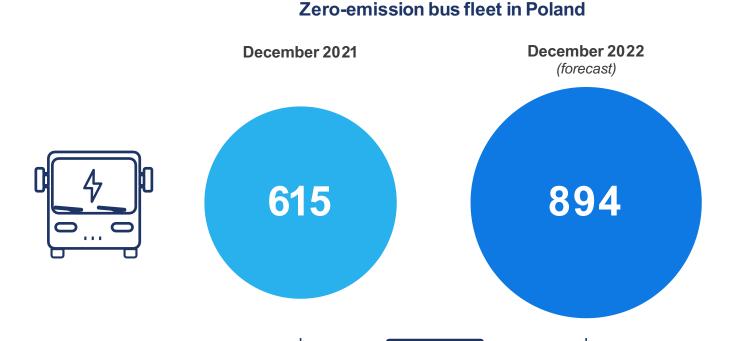


Synergy between stakeholders of the zero-emission public transport sector in Poland



Local government units

Local government units create internal demand Polish e-bus manufacturers are directly supported by the growing demand from local government units, which are steadily working towards electrifying their bus fleets



+69% YoY



E-Mobility as an opportunity!







Thanks!

Aleksander Rajch

Board Member, PSPA | Coordinator, CEE GTI

aleksander.rajch@pspa.com.pl

POLISH ALTERNATIVE FUELS ASSOCIATION

Fabryczna 5A Street, 00-446 Warsaw, Poland

biuro@pspa.com.pl

+48 507 686 158

NIP 5252684377

REGON 365877690

KRS 0000643156



ŠKODA AUTO and eMOBILITY

"We embraced eMobility as the integral pillar of our activities."

Enyaqs in service of ŠKODA AUTO

5 mil. t.

Saved CO2 emission (2020-2022)

EL7º65AL

1 650 Charging points on our premises powered with green energy

104 515

Nr. of charging sessions in last 12 months

Additional charging point will be offered in our dealers network

15,7 mil. km

Total mileage of company BEV fleet



324

CUSTOMER JOURNEY

"We bring customers Simply Clever solutions in our BEV models."

Total no. of ŠKODA BEV cars registered in CZ

Total no. of ŠKODA BEV cars registered in CZ

+ 1 607 PHEV

Of customers would prefer BEV, when price similar to ICE

BEVs in CZ according to NAP Clean mobility in 2030



eMOBILITY ECOSYSTEM



"Dense and affordable charging infrastructure is pre-condition in implementing eMobility."

1 906* Public charging points in total

1 086 Charging points above 50 kW

2 880 Powerpass charging points

2nd Public charger with second-life cycle battery technology

*August 2022



COOPERATION WITH CZECH GOVERNMENT

"Government posses means how to transform mobility."

216 mil. € **Investment to charging infrastructure till 2027**

0,5%

Reduced tax levy on BEV/PHEV company cars

Up to 35 000

Charging points by 2030

55

Enyags provided for CZ PRES

12 000 €

Subsidy for municipalities to purchase BEV

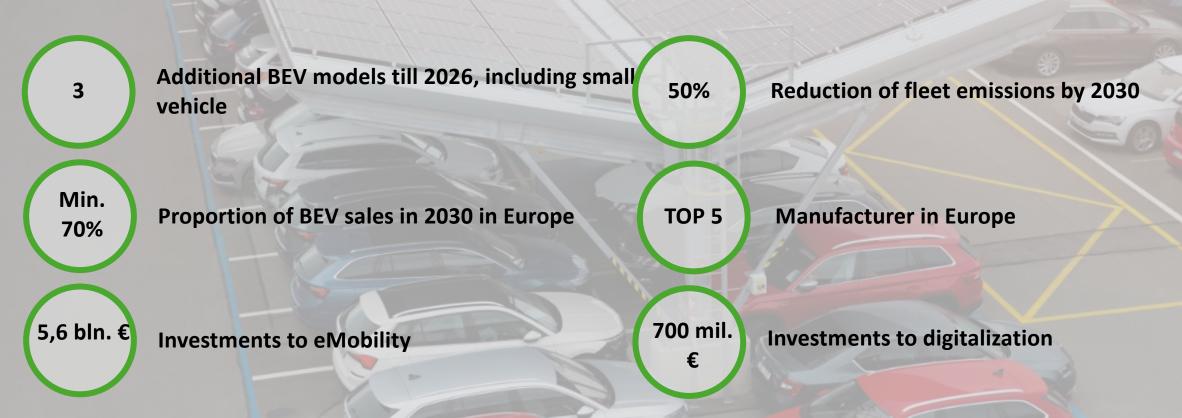
0 CZK

Vignette payments for BEV/PHEV



NEXT LEVEL ŠKODA STRATEGY 2030

"Sustainability and energy savings are not just current topics for us, but a long-term corporate strategy."









Coffee break









EU Policymaking as a Driver for CEE E-mobility



- Thomas Neumann, Policy Manager, AVERE European Association for Electromobility
- Kateřina Davidová, Senior Research Fellow, EUROPEUM Institute for European Policy
- Julia Poliscanova, Senior Director, Vehicles & E-mobility, Transport & Environment

Moderated by: Aaron Fishbone, Policy Director, GreenWay





Technical & Financing Tools for E-mobility in CEE



- Marián Nič, Innovation Life Cycle Officer, EIT Urban Mobility
- Andrea Ferjenčíková, EIB Group Representative in the Czech Republic, European Investment Bank
- Aaron Fishbone, Policy Director, GreenWay

• Moderated by: **Aneta Zachová**, Editor-in-Chief, EURACTIV.cz



EIT: The European Institute of Innovation and Technology

The EIT and its
Innovation Communities
together, find solutions to
global challenges and
empower innovators and
entrepreneurs to turn their
best ideas into products,
services, jobs and
growth.

The European Institute of Innovation and Technology (EIT) is an EU body created by the European Union in 2008 to strengthen Europe's ability to innovate. The EIT is an integral part of Horizon Europe, the EU's Framework Programme for Research and Innovation.

1st EU initiative bringing together the three sides of the 'knowledge triangle': businesses, education and research centres.

Aim to increase the cooperation and integration between higher education, business and research to facilitate the transition from:











V Žiline testujú mobilnú nabíjačku. Dovezú ju priamo k vám

Nabíjačka Nimbee vraj dokáže za 45 minút zvýšiť dojazd elektromobilu v priemere o 240 kilometrov. Aktuálne funguje v pilotnom testovacom režime.

md, Pravda, TASR • 02.05.2022 20:00











E-mobility: An OPPORTUNITY for Central-Eastern Europe EIB's Technical & Financing Tools for E-mobility in CEE



Andrea Ferjenčíková - EIB Group Representative in the Czech Republic

About the European Investment Bank (EIB)

General facts





- World's largest multilateral lender and the biggest provider of climate finance
- 90% of lending is within the EU
- Governed by EU Member States
- € 94.9 billion: EIB Group Financing in 2021
- In Czechia, the EIB and EIF provided financing worth € 1.2 billion in 2021 which accounted for 0.5% of the GDP.

Our investment priorities



INNOVATION € 20.7 billion



ENVIRONMENT

€ **15.**4 billion



INFRASTRUCTURE

€ **13.**8 billion



SMEs

€ 45.0 billion

EU Climate Bank objectives

- €1 trillion of investments in climate action and environmental sustainability in the critical decade from 2021 to 2030
- Increase the share of financing dedicated to climate action and environmental sustainability to reach 50% by 2025
- Align all financing activities with the principles and goals of the Paris agreement by the end of 2020



How does the EIB Support the Transport Sector

Transport is the largest sector of EIB activity

- Transport is the largest sector of EIB activity with over €325 billion in signed contracts up to the end of 2019;
- Approx. 23% of all EIB Group lending
- EIB is playing a major role in the decarbonisation of transport in Europe: lending to sustainable transport sectors has been steadily increasing and now constitutes the majority of our yearly transport lending.



• Financial support, technical assistance and advisory services provided to transport projects that are climate-friendly, sustainable, innovative and safe.



What makes a project considerable?

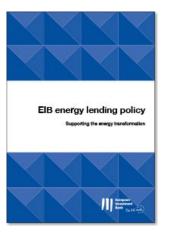
Technical and economic criteria

- Economic soundness (which may impact scalability and replicability)
- Degree of innovation vs. existing technologies or other emerging solutions (e.g., reference to SET plan in case of InnovFin EDP)
- Technical and industrial soundness informing among other things technology and operational risk for the lender
- Alignment with relevant eligibility criteria (e.g., reference to EU
 Taxonomy or mandate-specific criteria where applicable)



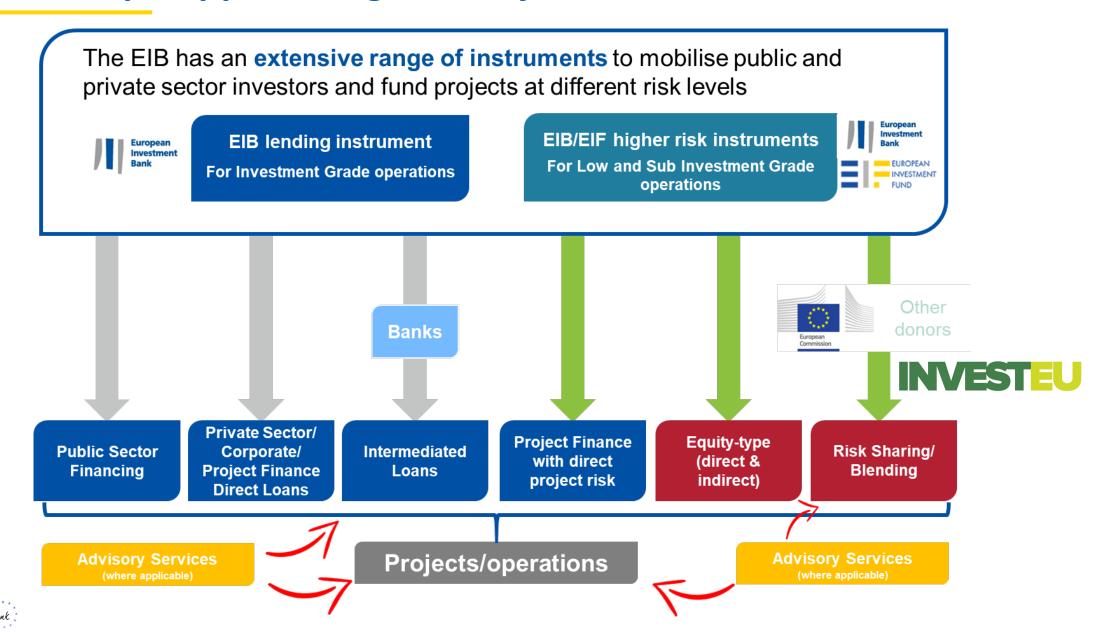
Financial criteria

- Predictable cash flows at adequate level to cover debt commitments,
 with offtake commitments providing clarity on future revenue
- Capital structure with appropriate equity and grant commitments,
 commensurate with underlying project risk
- Project contractual framework with sound allocation of risks
- Borrower legal structure limiting risks of cash flow leakage or exposure to other risks for the lender
- Shareholder profile and governance, in particular for early-stage innovative technologies



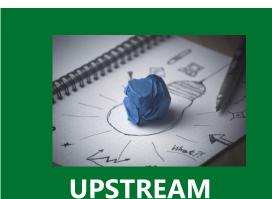


How EIB Group Supports Eligible Projects



EIB advisory offer covers support throughout the project cycle

From an enabling environment...



- Policy & programme development support
- Preliminary project assessment





PREPARATION

- Technical advice
- Financial advice incl. structuring and PPPs
- Selection & supervision of consultants

... to high quality projects on the ground



IMPLEMENTATION

- Advice on project implementation
- Enhanced monitoring

CAPACITY BUILDING

Knowledge-sharing on technical / financial issues – Practitioner communities and resources - Dissemination of best practices & case studies



Specific projects financed by the EIB















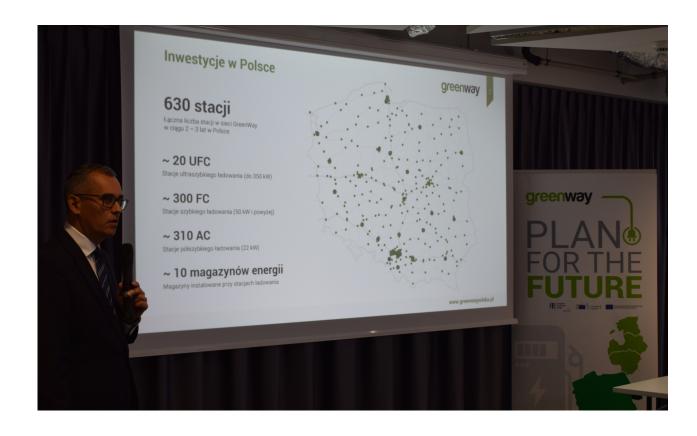
The GreenWay InnovFin Case Study

Innovative Financing of Projects to Support the E-Mobility Transition

The challenge: In 2018: GreenWay, a SME electric vehicle charging solutions provider needed capital to operate & grow

- CEE EV market was at very early stage of development
- EV charging was not a mature industry
- Low utilization, low revenues
- Lack of private investors
- Classic growth stage problems for an early market clean tech company

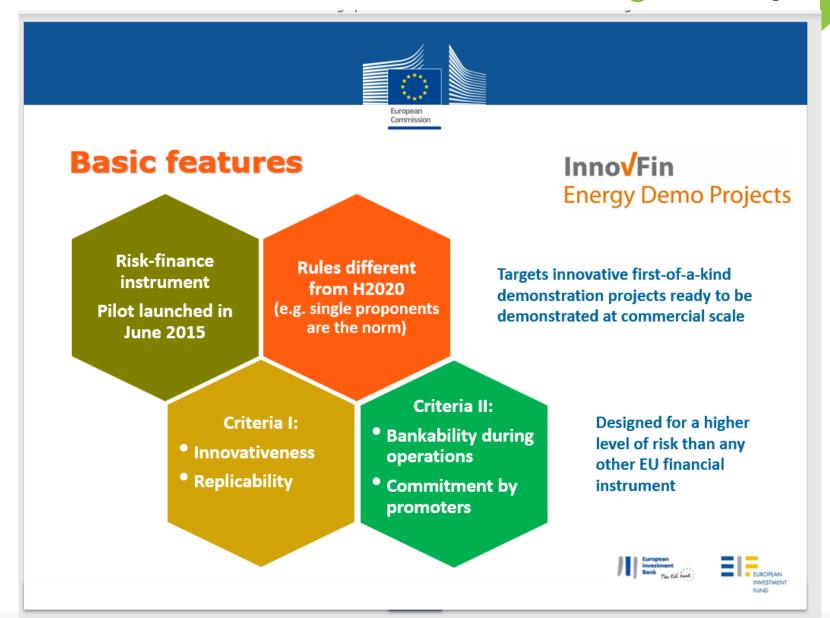
The Solution: Prepare a project – GreenWays "Plan for the Future" and submit to a new EIB facility – "InnovFin"



InnovFin Energy
Demonstration Projects
(EDP) provides loans, loan
guarantees or equity-type
financing typically between
€7.5 million and €75 million
to innovative demonstration
projects in the fields of
energy system
transformation,

Goals:

- Market failure in accessing risk-finance ("valley of death")
- Large investment needs
- Drive them to market



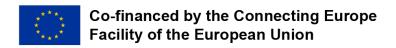






- Overall financing need calculated as Project funding gap between 2017-2020
- EIB covers 50% of the Project cost, remaining covered by pari passu investment of SIH, CEF and own revenues
- Two tranches 7mil EUR and 10mil EUR (second available in 48months)
- Repayments match the GreenWay cash flow generating capacity
- Participation on the growth of the company value additional revenue via Warrant
- Risk of bank is fully covered by InnovFin instrument











GreenWay Plan for the Future (2018)



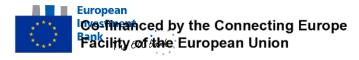
Outcomes/Lessons Learned of the Investment



- InnovFin provided needed financial support and was uniquely situated to do so
- Enabled the growth and scaling of our company at a critical time in our development
- Supports companies in growing to the next stage, which is necessary
- For EIB:
 - Esp when financing smaller deals helpful to be even simpler and more nimble, not create large administrative burdens on early/mid stage companies, so they can keep doing their primary work
 - Provide simple bridge loans/prepayments until the larger financing is unlocked, so companies can survive
 - More advisory & professional services not just how to apply, but also in structuring the deal
- For Applicants
 - Yes, EIB funding can be critical
 - Take full advantage of EIB advisory services
 - Being selected for the award is just the beginning of the process structuring the deal is itself lengthy and expensive so be prepared for that

Thank you. Questions?

<u>Aaron.fishbone@greenwaynetwork.com</u>



A call for action

E-MOBILITY: An OPPORTUNITY for Central & Eastern Europe









Thank you to our partners:







Find out about upcoming events and publications at:

europeum.org

eplatforma.cz

ceegti.com