

E-MOBILITY IN HUNGARY - OVERVIEW

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Jövő Mobilitása
szövetség

AGENDA

- Our association
- E-mobility in Hungary
 - Automobiles
 - EV charging
 - Car-sharing
 - Public transportation
 - Micro mobility
 - Supporting the spread of Micro mobility
 - E-mobility incentives



ABOUT FUTURE MOBILITY ASSOCIATION

Our purposes:

- Industry advocacy
- Education & promotion of
 - Electromobility
 - Micromobility
 - Sustainable development



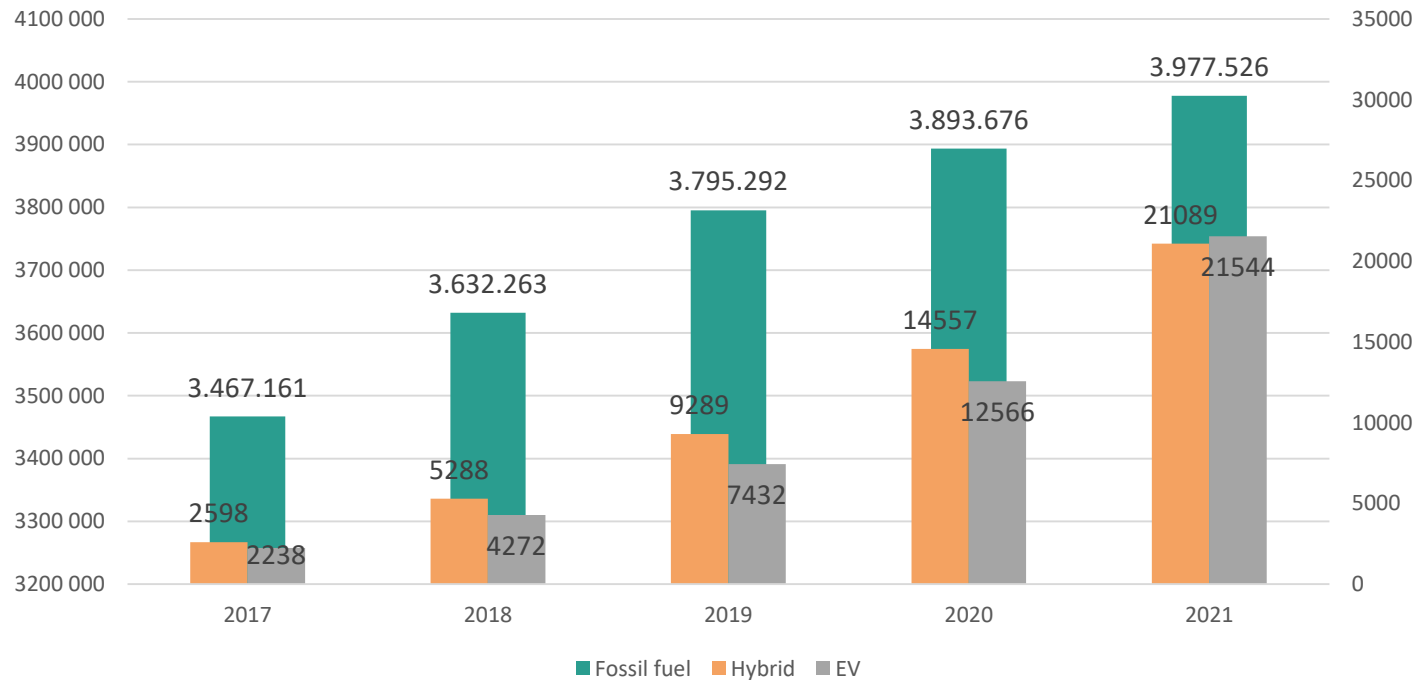
Members of the Association:

Stakeholders of different sustainable mobility solution services

- (Micro)Mobility sharing services
- Charger developers
- Electricity providers
- Fleet managers & Dealers & Importers
- Telco companies
- Insurance companies
- Fintech companies



AUTOMOBILES



- Average age - 14 years
- BEV/hybrid – 0,5%/0,5%
- 8.5x / 7x more EV/hybrid in 4 years
- Only 16% increase in case of fossil fuel cars

Most liked about EVs

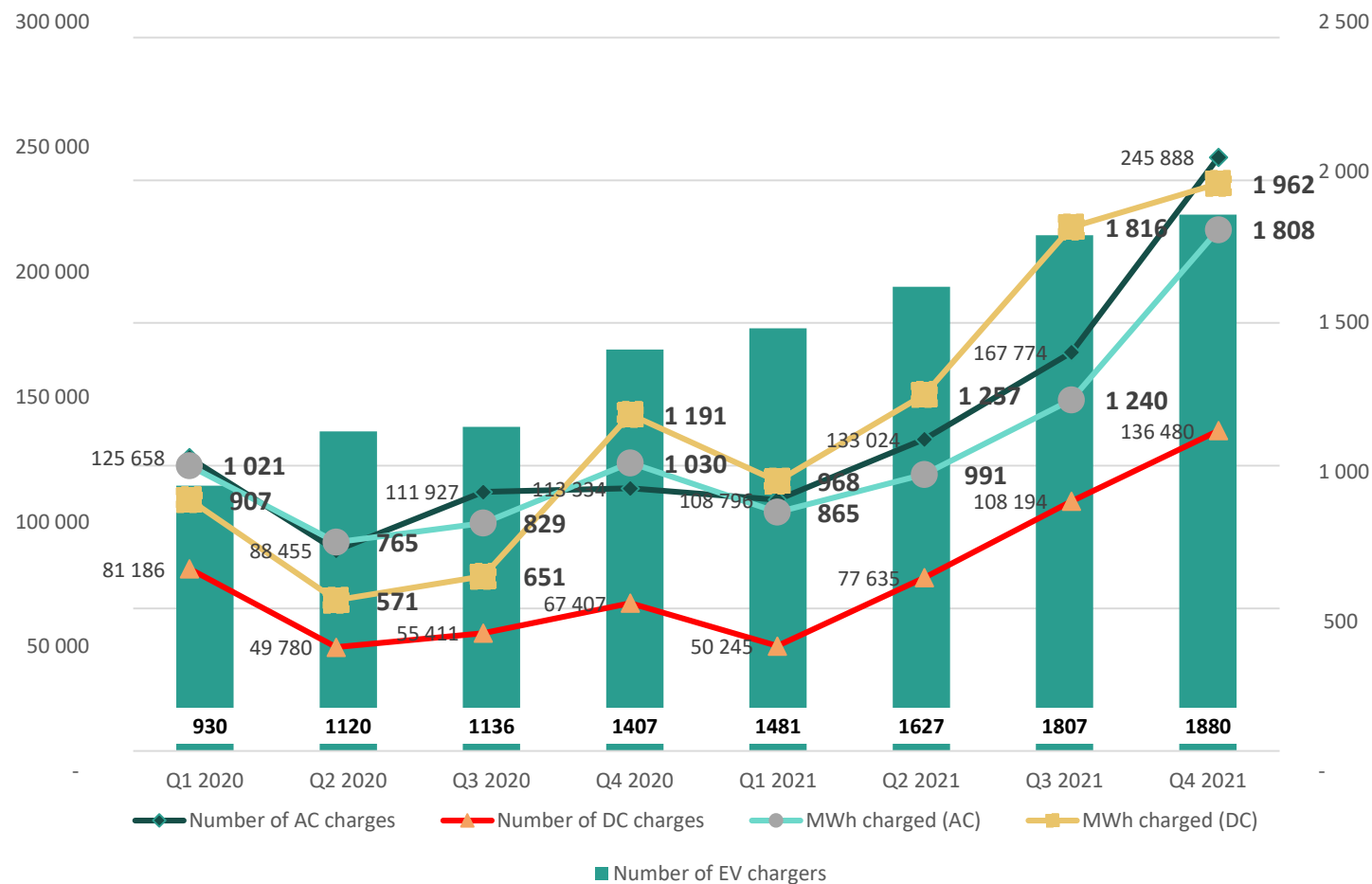
- No local pollution
- Silent
- Low operational cost
- Can be „fueled” by renewable sources
- Can charge at home

Most common concerns regarding EVs

- Too expensive
- Not enough range
- Not enough chargers / cannot charge at home
- Too slow charging
- No subsidy for used cars



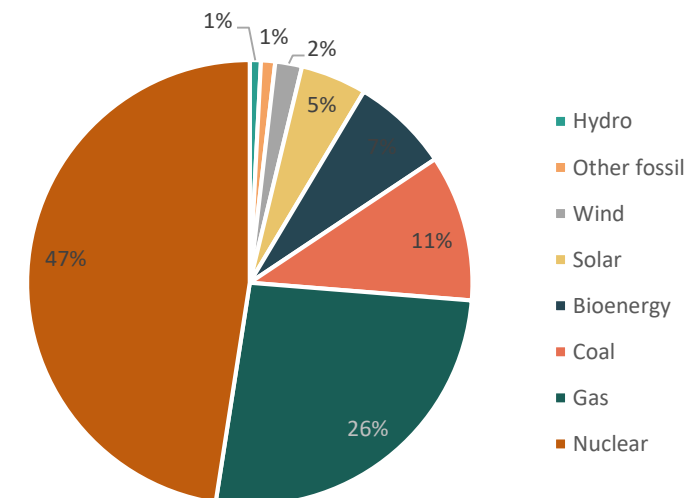
EV CHARGING



- 60% cannot charge car at workplace
- 70% of EV users use solar panels at home
- Almost no „free” chargers left
- Lacking charging culture

Hungarian „energy mix” in 2020

carbon intensity - 218gCO₂/kWh



CAR-SHARING



- 1st service in Hungary – since 2016
- Electric only
- VW UP & Skoda City GO
- Focus on sustainability
- First to launch second base (in Prague)



- Founded by MOL (oil & gas co) – since 2018
- Biggest fleet
- Diverse fleet ranging from Smarts to Mercedes CLA
- The cheapest car model in the sharing market is available at Limo



- International brand – since 2019
- Focus on premium brands at the beginning, now more diverse fleet
- Fastest growing
- Most flexible rental options (even 30 days)



PUBLIC TRANSPORTATION

Volánbusz – country side bus service provider

- Europe's biggest bus service provider - ~ 6350 buses – >25% German
 - Green Bus program – since November 2020
 - 40 fully electric buses in 2021
 - 87 additional in 2022
 - 1100 till 2029
 - Target: 50% EV by 2050



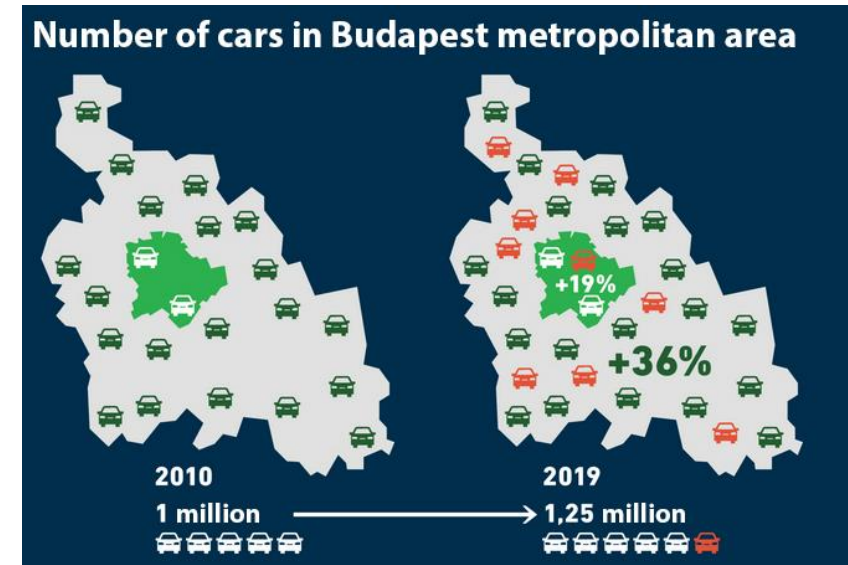
BKK – Budapest transportation center

- 2200 vehicles – 5600 stations – 1.5 bn passenger/year
 - 140 trolley buses
 - 600 trams
 - 100 subways
 - 1500 buses – 19 electric
 - 1500 bikes



MÁV – Hungarian state railways

- 7242 km tracks (37.5% electric) – 660 trains – 45% 40+ years old
 - 387 Electric engines – 150 by 2030
 - 148 Electric multiple-units – 254 by 2030
 - 119 Diesel engines & MUs – 80 by 2030
 - 98 HÉV – suburban railways

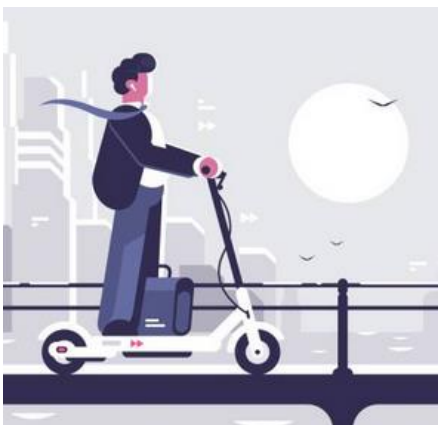


MICRO MOBILITY

- Bike sharing -> Bubi, Donkey Republic
 - Infrastructure issues
 - Model change
- E-scooter – Lime/ Bird / TIER + many seasonal providers with different vehicles
 - Ownership effect
 - Regulation gaps
 - Usage uncertainties
- E-mopeds – Blink City
 - Regulation gaps
 - Usage uncertainties
- Initially Budapest only – avoiding traffic & „last” mile becoming more important
- New cities in the country side are also launching with huge potential – e.g.: Székesfehérvár



SUPPORTING THE SPREAD OF MICROMOBILITY DEVICES



Multi-level education

- KRESZ education at primary schools
 - As part of the curriculum or facultation
 - Earning a micromobility driving license after exam
- Promoting micromobility devices
- Expanding the knowledge about fields of usage



Regulation and support

- Hungarian „rules of the road” (KRESZ) modification
- Categorization of micromobility devices
 - Proper definition for the devices
 - Access to public spaces/buildings
 - Micromobility devices on public transportation
 - Proper legal practice
- (further) financial support, incentives and subsidies



Charging solutions

- Public charging options
- In private:
 - Schools / Workplaces
 - Shopping Centres,
 - Restaurants / Hotels / Entertainment facilities



FORMER AND CURRENT E-MOBILITY INCENTIVES

- Parking for electric and hybrid vehicles is free*
- No vehicle, company car or registration tax, no ownership change fee for EVs and hybrid vehicles
- State subsidies since 2016 on EV & moped purchases – EUR 40 mn in total
 - 2021 EV & moped state subsidy – EUR 8 mn
 - Cars below EUR 32,000 - EUR 6,700 subsidy
 - Cars EUR 32,000-40,000 – EUR 4000 subsidy
 - Cars above EUR 40,000 – no subsidy
- State subsidies since 2020 electrically assisted bikes – EUR 5.4 mn in total
 - 2022 - 10000 E-bike subsidy – EUR 2.7 mn – EUR 54 mn in total
 - EUR 260 for pedal sensor bikes
 - EUR 480 for torque sensor bikes
 - 2022 E-cargo bike subsidy – EUR 1.1 mn

