The e-volution, POLIS 19/06/2023

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Approach & results

- Support policy makers EU: AFIR national/regional level
- Consumers' intentions to adopt BEVs
- e-mobility and recharging behaviour
- Challenges & needs





EUROPEAN ALTERNATIVE FUELS OBSERVATORY





10 countries

Austria, Belgium, Germany Denmark, France, Hungary, Italy, Netherlands, Slovenia, Spain

BEV	non-BEV	TOTAL
1,378	16,611	17,989



EU aggregated results





- The 'EU BEV driver'
- Driving a BEV: BEV and non-BEV drivers 'pros & cons'
- BEV drivers and public recharging infrastructure/AFIR
 - Use
 - Needs
 - Issues
- How can the EAFO consumer monitor support you?
 - Understanding (potential) consumer needs
 - Identify opportunities, evaluate impact
 - Have a look, have a say!





The EU BEV driver

- 81%: Male
- 51%: 33-55 years old
- 39%: 2,000-3,999 €
- 50%: University or other higher education
- 62%: Detached house

Need to consider groups less represented: females, income, education, accommodation...



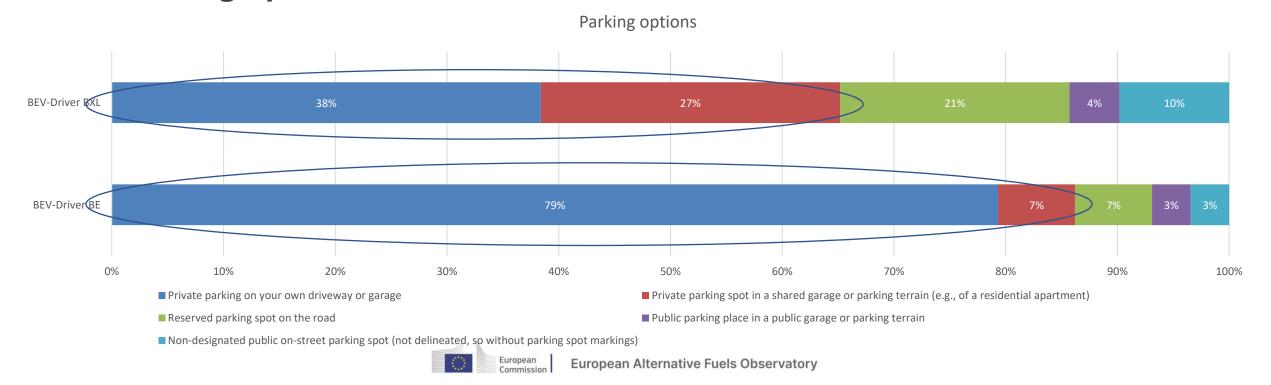


European Alternative
Commission Fuels Observatory

Key results examples & policies

National vs. local level (BE vs BXL)

- Car sharing (BXL)
- Frequency use public recharging infrastructure
- Parking options BEV-drivers



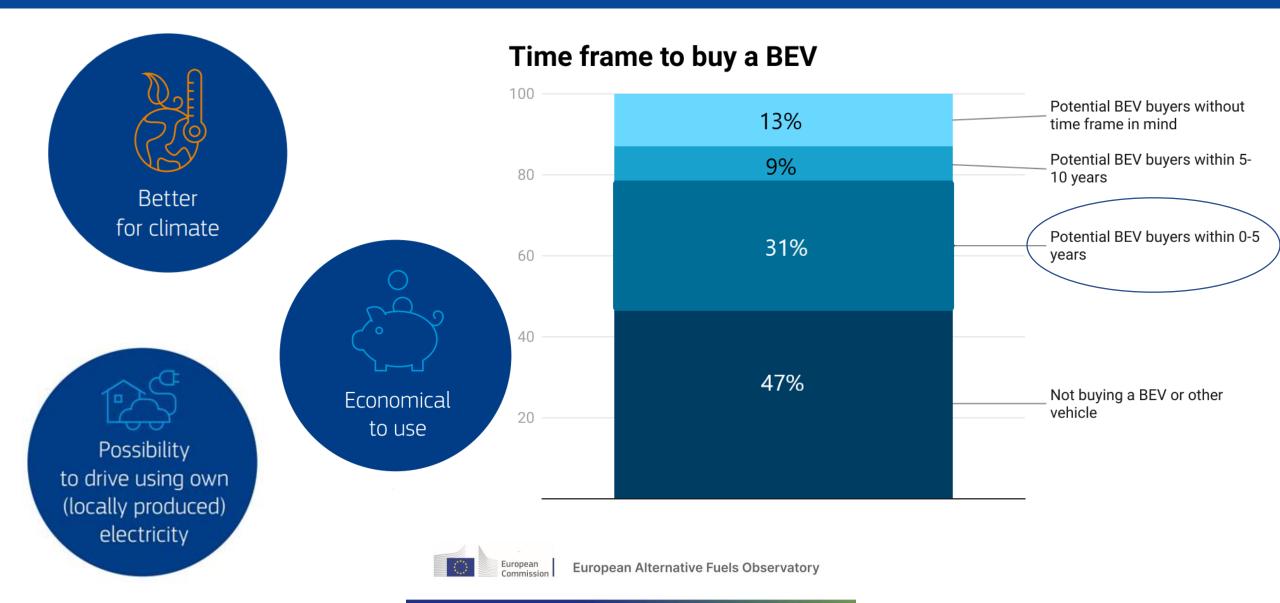
EAFO Consumer monitor (EU results)





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BEV and non-BEV drivers pros



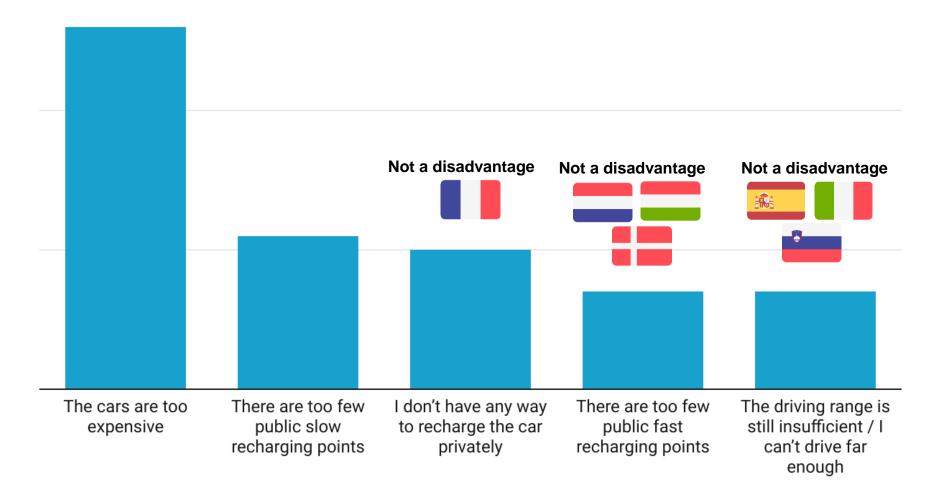
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Top-5 disadvantages BEVs

Disadvantages driving a BEV



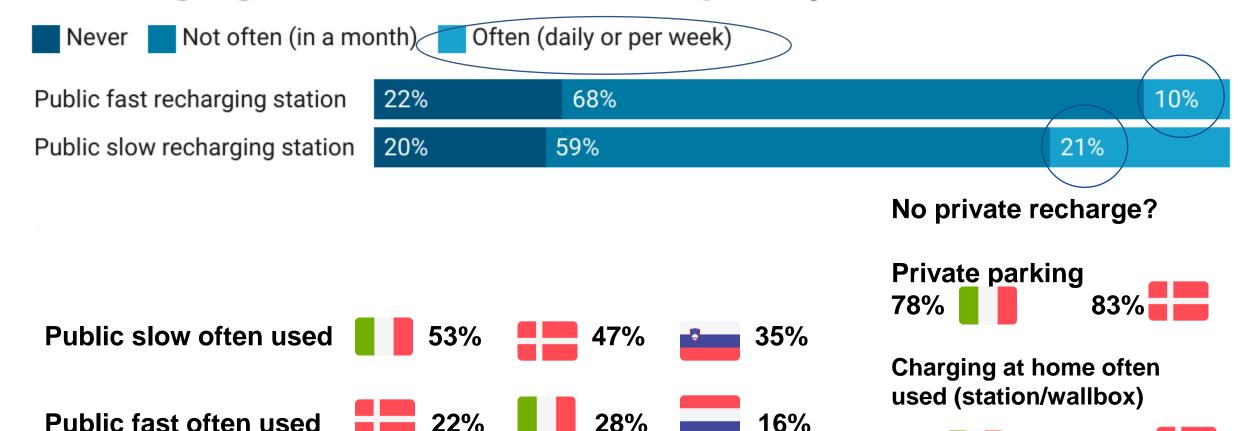
EAFO consumer monitor (EU results)





BEV drivers, public recharging infrastructure: AFIR

Recharging infrastructure use frequency



European Alternative Fuels Observatory

EAFO consumer monitor (EU results)





BEV drivers, public recharging infrastructure: AFIR

Important characteristics public recharging infrastructure

	Ranking
Recharging speed, so I can get the quickest possible recharge	1
Easy access and payment via my recharging subscription (pass/app)	2
Possibility to pay per kWh only	3
Short/no waiting time to access the recharging point	4
Clear and transparent price information	5
Convenient on the spot payment options (e.g. debit/credit card)	6
Possibility to do something else while your car recharges/amenities on site	7
Integrated cable	8





European Alternative Fuels Observatory

BEV drivers, public recharging infrastructure: AFIR

Public recharging points main issues

Not a clear overview public recharging points vicinity

Don't know how long it will take to fully recharge my car

Not sufficient choice between operators/mobility providers

Article 18

Data provisions

- 1. Member States shall appoint an Identification Registration Organisation ('IDRO'). The IDRO shall issue and manage unique identification ('ID') codes to identify, at least operators of recharging points and mobility service providers, at the latest one year after the date referred to in Article 24.
- 2. Operators of publicly accessible recharging and refuelling points or, in accordance with the arrangement between them, the owners of those points, shall ensure the availability of static and dynamic data concerning alternative fuels infrastructure operated by them and allow accessibility of that data through the National Access Points at no cost. The following data types shall be made available:
 - (a) static data for publicly accessible recharging and refuelling points operated by them:
 - (i) geographic location of the recharging or refuelling point,
 - (ii) number of connectors,
 - (iii) number of parking spaces for people with disabilities,

EAFO consumer monitor key facts



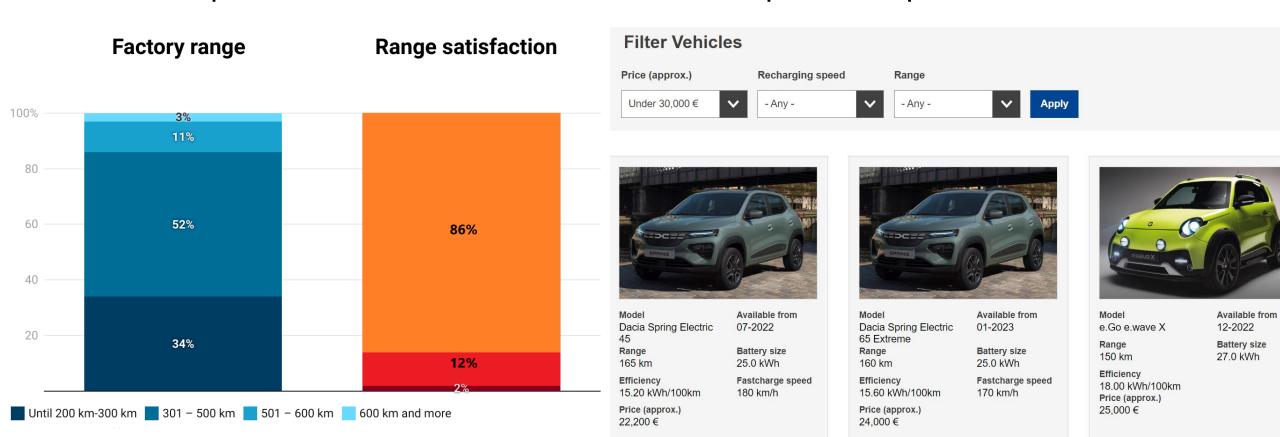


European Alternative Fuels Observatory

Supporting electromobility policies & strategies

Understand (potential) consumers' needs:

- a. Batteries and/or driving range
- b. Costs comparison with fossil fuel cars: 44% BEV purchase price 10,000-30,000 €



EAFO consumer monitor key facts





European Alternative Fuels Observatory

Supporting electromobility policies & strategies

Understand (potential) consumers needs:

- a. Batteries and/or driving range
- b. Costs comparison with fossil fuel cars: TCO, leased/second-hand BEVs?

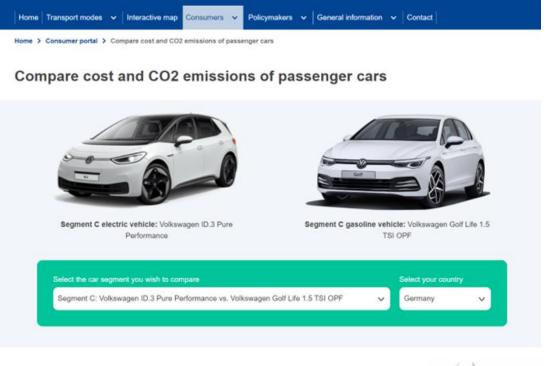


Table 8: Mobility & ownership of car BEV driver (merged datasets)

Country	3 years to 5 years or longer as BEV driver	BEV drivers using vehicle daily / several times a week	Leased BEV (business or private)	BEV compa- ny car (if employee)	Privately owned BEV	New BEV	Second- hand BEV
Austria	42%	95%	29%	11%	60%	73%	27%
Belgium	11%	90%	17%	28%	55%	60%	40%
Denmark	15%	90%	3%	3%	94%	50%	50%
France	46%	99%	20%	3%	77%	77%	23%
Germany	20%	92%	26%	9%	65%	79%	21%
Hungary	47%	99%	16%	9%	75%	49%	51%)
Italy	28%	91%	16%	13%	71%	87%	13%
Netherlands	28%	97%	21%	16%	63%	70%	30%
Slovenia	45%	93%	61%	8%	31%	60%	40%
Spain	63%	97%	4%	12%	84%	77%	23%
EU 10 countries	38%	97%	22%	8%	70%	67%	33%

EAFO consumer monitor key facts





European Alternative Fuels Observatory

Supporting electromobility policies & strategies

Identify opportunities, evaluate impact

- Second-hand BEVs
- b. Affordable leasing options
- c. New technologies
- d. Less represented groups
- e. Financial incentives

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EU-AFIR

- Art. 20 Identification & data provision
- Choice between operators and mobility service providers
- Investing & funding innovation and deployment

Table 7: Barriers and opportunities BEV driving (general population)

Country	Main disadvantage	% BEV potential drivers	Not aware of subsidies for electric driving	Existing financial incentive (end 2022) ⁹
Austria		48%	34%	VAT deduction and exemption from tax for BEVs. No CO ₂ tax. Purchase subsidies.
Belgium		47%	54%	Limited or exemption from registration and ownership taxes at the regional level. Federal deduction of investments for companies. Limited or exemption on road taxes.
Denmark		56%	49%	Registration tax reductions. Company car tax deduction. Taxes on ownership are based on CO2 emissions.
France		40%	35%	Registration tax exemption. BEVs, FCEVs (fuel cell electric vehicles), and PHEVs (Plug-in Hybrid Electric Vehicles -with a range of > 50km) are exempt from the mass-based malus. Purchase subsidies. Exemption from CO ₂ -based tax components.

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Have a look, have a say ec-alternative-fuels-observatory@ec.europa.eu

1 EU report, 10 country reports, more detailed results & policies

https://alternative-fuelsobservatory.ec.europa.eu/

THANK YOU!