

# How cities can support an equitable transition to electric vehicles and alternative transport modes

Dr. Sandra Wappelhorst, Senior Researcher & Transport Equity Cluster Lead

16/May/2024

Disruptive Mobility Conference, Berlin, Germany

## ABOUT THE ICCT & OUR MISSION

---

- An independent nonprofit research organization since 2005
- Providing exceptional, objective, timely analysis to environmental regulators
- Empowering them to improve the environmental performance of transportation to benefit public health and mitigate climate change

# Local governments can promote electric vehicles and alternative transport modes through low- & zero-emission zones (LEZs/ZEZs)

## LEZs and ZEZs

- Restricting polluting vehicles through priced and non-prices strategies

## Key goal

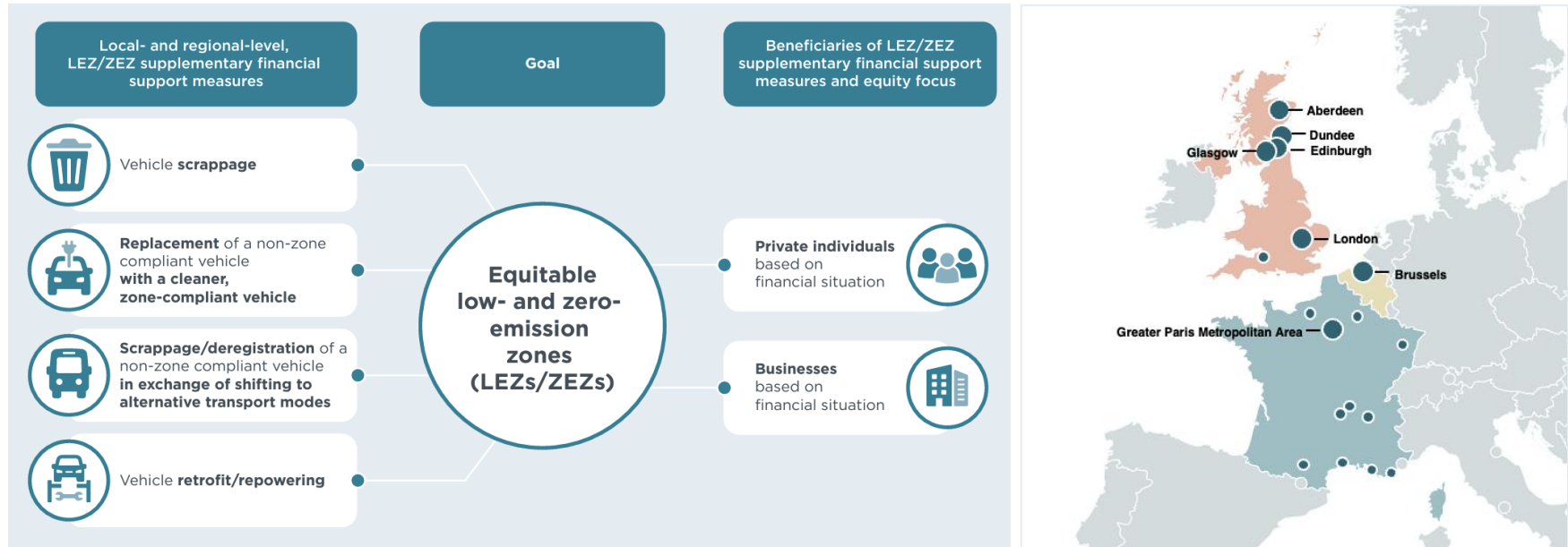
- Reducing air pollution and traffic congestion in cities by promoting the adoption of low- and zero-emission vehicles and mode shift from driving to walking, cycling, and public transport

## Key benefit

- Providing significant health benefits to residents in neighborhoods with high air pollution levels



# No one should be left behind – tailored financial support measures can help for equitable outcomes of LEZs/ZEZs



Source: S. Wappelhorst, A. Bui, K. Morrison, “Low- and zero-emission zones and social equity: supporting the urban transition to zero-emission vehicles and alternative transport modes,” <https://theicct.org/publication/low-and-zero-emission-zones-and-social-equity-oct23/>

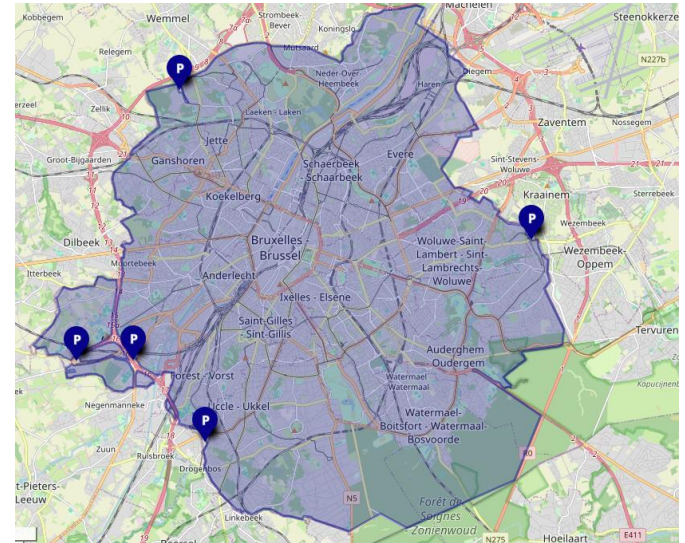
# In the case study of Brussels-Capital Region, the implementation of the LEZ involves a gradual phase out of non-zero emission vehicles

## Operation time

- 7 days per week, 24 hours a day

## Implementation schedule for zero-emission vehicle access only (BEVs and FCEVs)

- From 2030: Mopeds, scooters
- From 2035: Cars, vans, motorbikes, scooters, minibus
- From 2036: Minibuses, buses
- From 2036: Coaches and heavy goods vehicles with low-emissions only



**Boundaries of the LEZ covering an area of 161 km<sup>2</sup> with around 1.2 million inhabitants**

Sources: <https://www.lez.brussels/mytax/practical?tab=ZoneLEZ#ZoneLEZ>; <https://www.lez.brussels/mytax/practical?tab=Agenda>

# Private households in the Brussels-Capital Region can benefit from a mobility budget (Prime Bruxell'Air) to test alternative modes

## Objective

- To support households who reduce the number of vehicles in the household for (at least) one year



## Preconditions

- Private person living in the Brussels-Capital Region; deregistration of a private car which has been registered for at least 1 year; no member of the household can register an additional car or motorcycle for one year or benefit from a company car

## Bonus

- Bonus only granted once per deregistered car; the bonus is valid for two years

Sources: <https://environnement.brussels/citoyen/services-et-demands/primes-et-aides-financieres/la-prime-mobilite-bruxellair-pour-se-deplacer-autrement-dans-la-capitale#conditions-generales-dobtention-de-la-prime-bruxellair-et-controle>; <https://press.environment.brussels/nouvelle-prime-bruxellair-votre-budget-mobilite-multimodal>

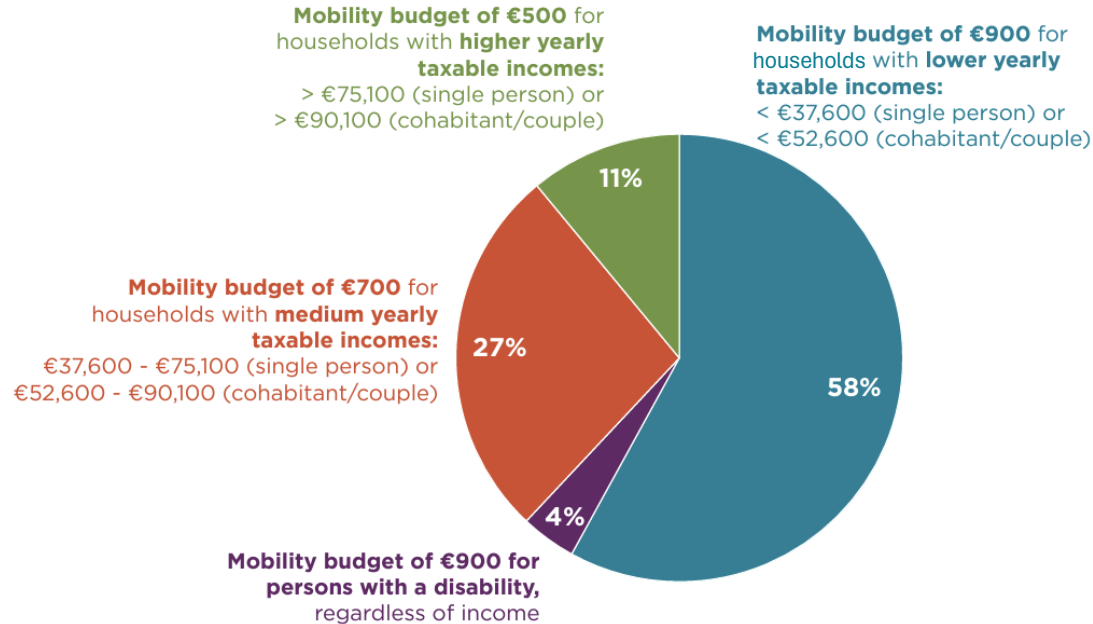
# The mobility budget includes a social component that is tied to the recipient's income since March 2022

**Table 2.** Brussels (Belgium) LEZ supplementary financial support measures by local government.

		Private individuals living in the Brussels Capital Region with a yearly taxable income of		
		< €37,600 (single person) or < €52,600 (cohabitant/couple) or person with a disability, regardless of income	€37,600 – €75,100 (single person) or €52,600 – €90,100 (cohabitant/couple)	> €75,100 (single person) or > €90,100 (cohabitant/couple)
<b>Car replacement with alternative modes of transportation</b>				
<b>Step 1</b>	Deregistration of a private car	<b>Yes</b>		
<b>Step 2</b>	<b>Mobility budget which can be spent on services by third parties supporting mode shift</b> including subscriptions for public transport and vouchers for TaxiBus, purchase of bike and bike equipment, coupons for a bike sharing system, subscriptions for (electric) carsharing, and coupons to access Mobility as a Service system	<b>€900</b>	<b>€700</b>	<b>€500</b>
		Minimum amounts to be spent on each service depending on the relevant third party offers		

Note: Aid amounts reflect maximum values; grant amounts applicable if applying for a grant between March 2022 and February 2024.

# In 2022, the maximum allocation of the mobility budget was granted to 58% of individuals falling within the lower income brackets



**2,045 applicants**  
between March and  
December 2022

Sources: <https://environnement.brussels/citoyen/la-prime-bruxellair-pour-mieux-respirer-en-ville-rapport-annuel-2022>;  
<https://theicct.org/publication/low-and-zero-emission-zones-and-social-equity-oct23/>;



# Conclusions

---

**To promote alternative modes of transport, reduce the number of motorized vehicles, and support the transition to zero-emission vehicle technologies through LEZs and ZEZs, it takes efforts by**

- National governments:
  - Legal frameworks that make LEZs/ZEZs mandatory for certain cities (examples: France, Spain, Poland, Netherlands)
  - Alternatively voluntary or non-binding schemes (examples: Santa Monica, Montréal)
- Local governments:
  - Incentives that address barriers to zero-emission vehicle technologies or alternative transport modes in terms of e.g., costs, acceptance and that take social justice components into account
  - Investments into walking, cycling, public transport, and electric vehicle charging infrastructure

**Questions / thank you**  
**Contact [s.wappelhorst@theicct.org](mailto:s.wappelhorst@theicct.org)**

