

ITDP Webinar



Advancing E-Buses: Why Charging and Implementation Matter



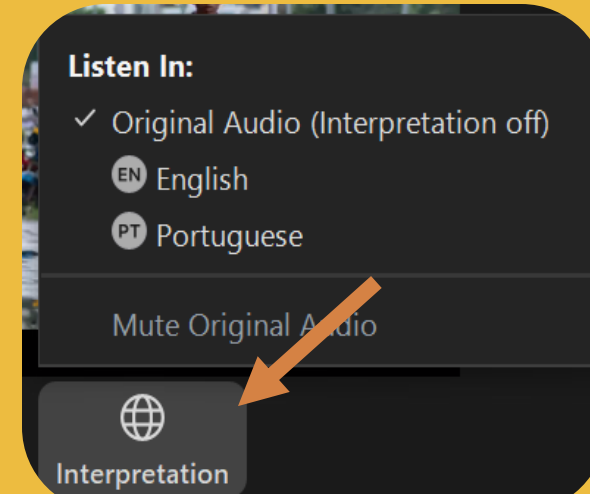
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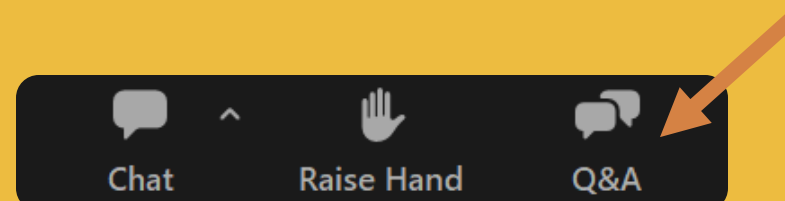
Instructions



1. Select the language you prefer



2. Submit questions through the Q&A box



How Batteries and Charging Strategy Decisions Shape Fleet Electrification

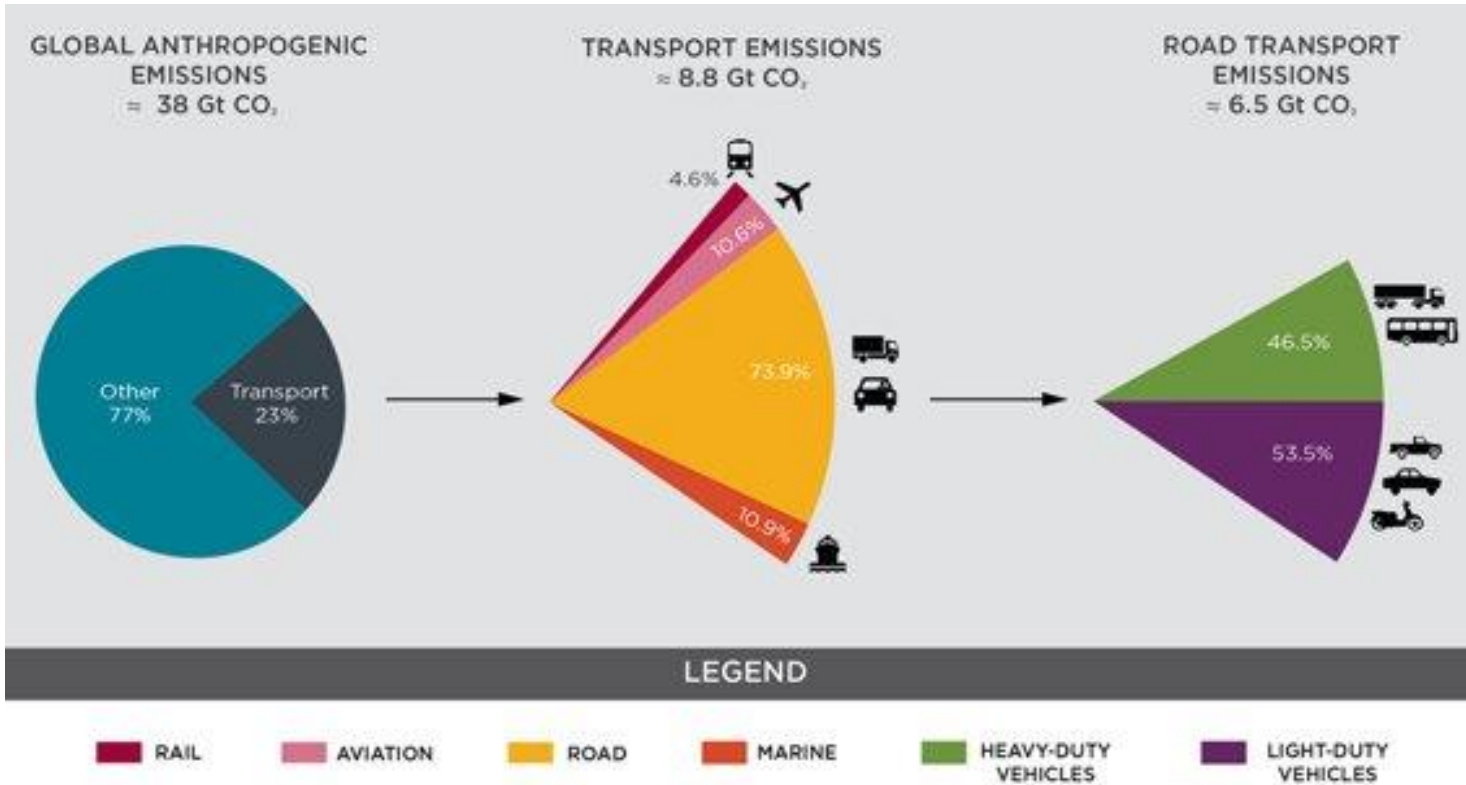
Beatriz Rodrigues, ITDP



Public Transport is critical for equity, resilience, climate and health



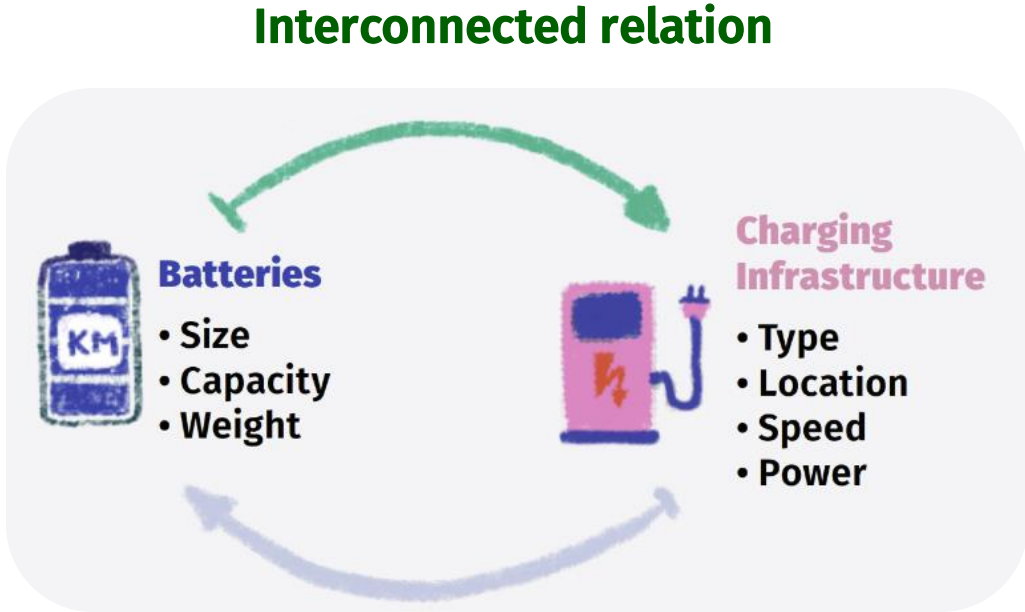
Public Transport is critical for equity, resilience, climate and health



Sources:
 ICCT (2014). Global Transportation Roadmap Model. Available from <http://www.theicct.org/global-transportation-roadmap-model>
 IPCC (2014). Summary for Policymakers. Climate Change 2014, Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.



Electrification means a whole new system



Grid capacity and power supply



Costs



Environmental benefits



Training and Workforce implications



User experience and quality



Depot design and capacity



Bus Capacity



Range



Service plan and performance

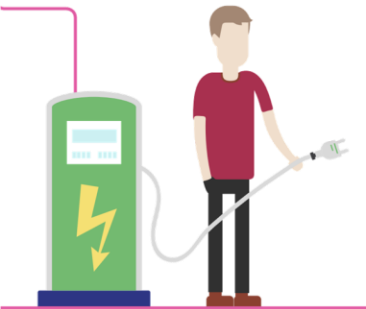


Financial plan and performance

Electrification means a whole new system

Component	Bus Operator (public or private)	Public Authority	Bus Manufacturer
Ownership of Vehicles	X	X	X
Maintenance of Vehicles	X		X
Vehicles Operation	X		
Depot Ownership	X	X	

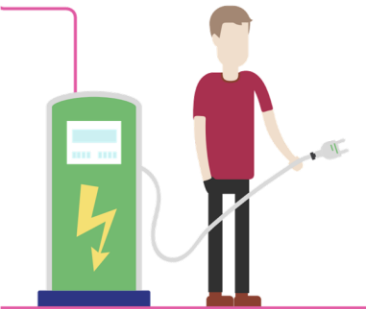
Source: Adapted from WRI Brasil



Electrification means a whole new system

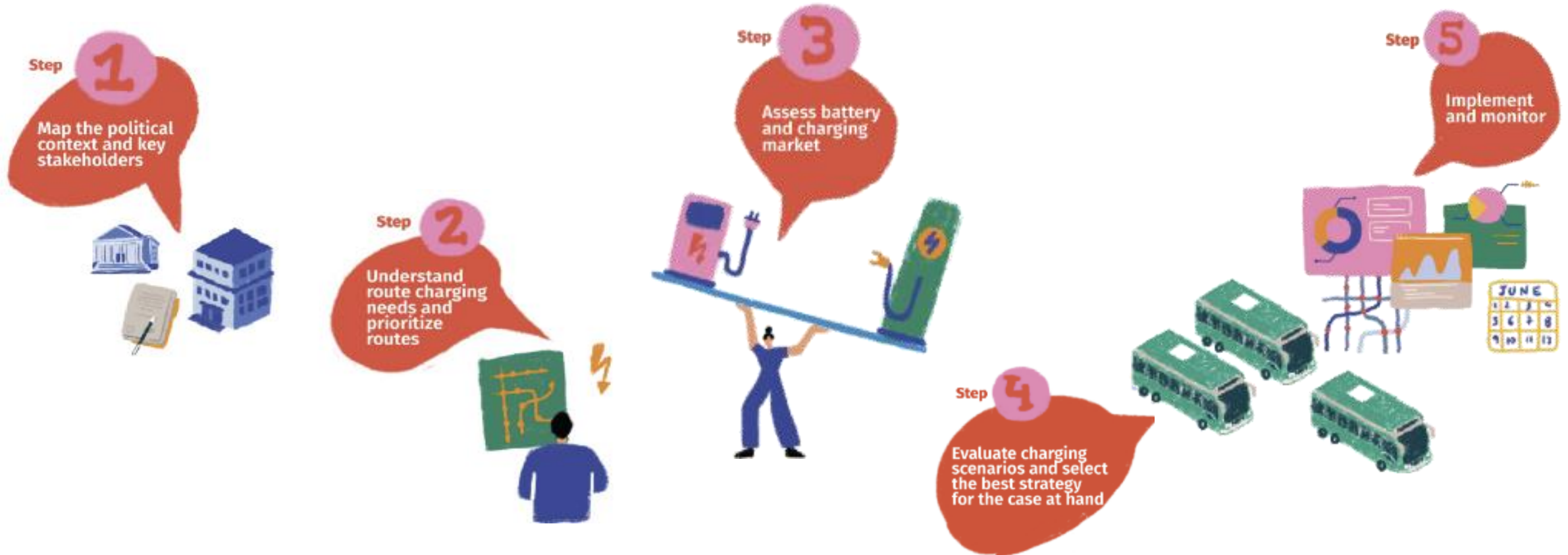
Component	Bus Operator (public or private)	Public Authority	Bus Manufacturer	Utility Company	Charging Infrastructure Manufacturer	Other Private Entities
Ownership of Vehicles and Batteries	X	X	X	X		X
Maintenance of Vehicles and Batteries	X		X			X
Vehicles Operation	X					
Depot Ownership	X	X				X
Charging infrastructure implementation	X	X		X	X	
Charging infrastructure operation	X	X		X		X
Charging infrastructure maintenance	X	X		X	X	X

Source: Adapted from WRI Brasil



Five steps for successful e-bus deployment

The implementation of e-buses is a **multidisciplinary process** that must be carried out with the goal of **ensuring service schedules are met** with **high quality for users** while **preserving the lifespan of vehicles and equipment** throughout the project cycle.



Key Recommendations



Plan Holistically

- **Pilot first** to minimize risks
- **Align charging and operations** for seamless integration
- **Engage energy providers** to optimize costs and infrastructure
- **Train** planners, operators and technicians



Strengthen Policies and Regulations

- **Set clear targets** with accountability
- **Monitor progress** through oversight bodies
- **Ensure financial transparency** in fare systems



Secure Financing and Partnerships

- **Leverage incentives and subsidies** to lower costs
- **Attract private investment** through asset separation
- **Work with manufactures** to scale supply and reduce costs

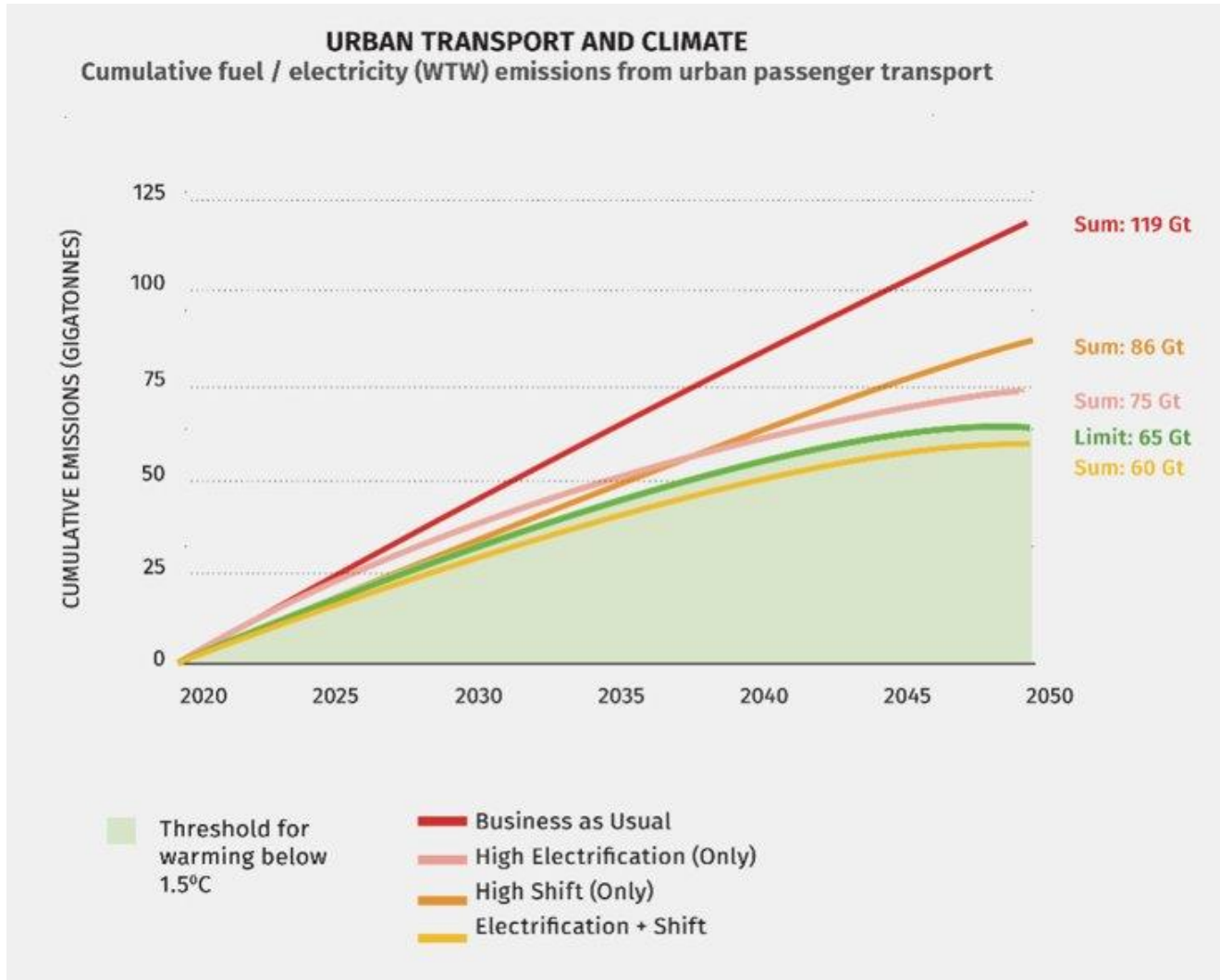


Engage the Public

- **Understand user needs** through surveys & outreach
- **Communicate the benefits** of e-bus adoption



The Right Combo for Vibrant, Inclusive and Resilient Cities



Compact cities

By 2030, 27% of travel in cities must shift to walk, bicycle, and public transport

and

Electric vehicles

Remaining vehicles must be electric



Thanks!



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::: itdp.org :::