



UNECE Inland Transport Committee

Automation, Connectivity and E-mobility side event

Expert roundtable on E-mobility

Geneva, 23 February 2022

International Organization of Motor Vehicle Manufacturers

**Yves van der Straaten
Secretary General**

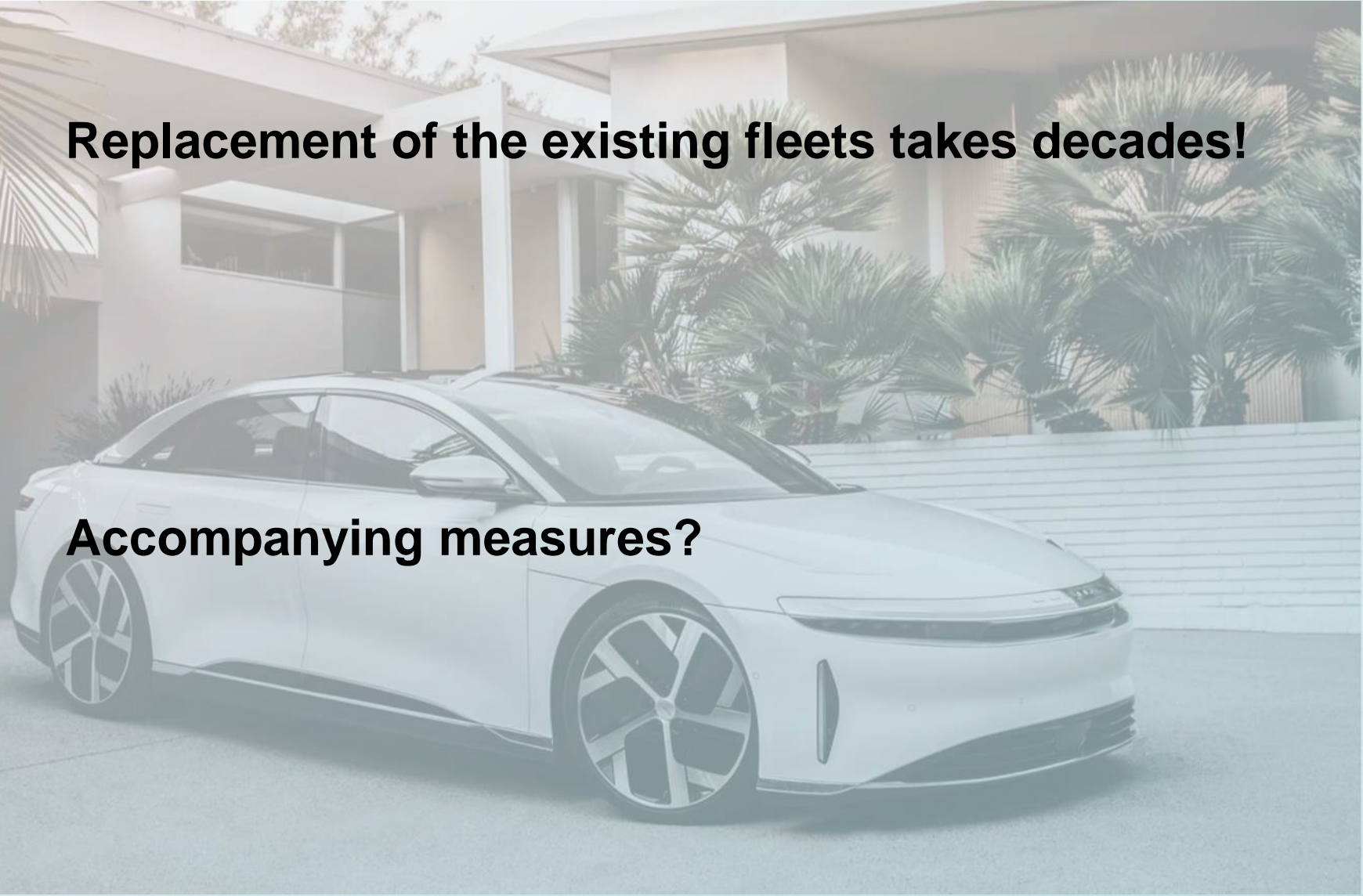


The replacement of existing vehicles ?



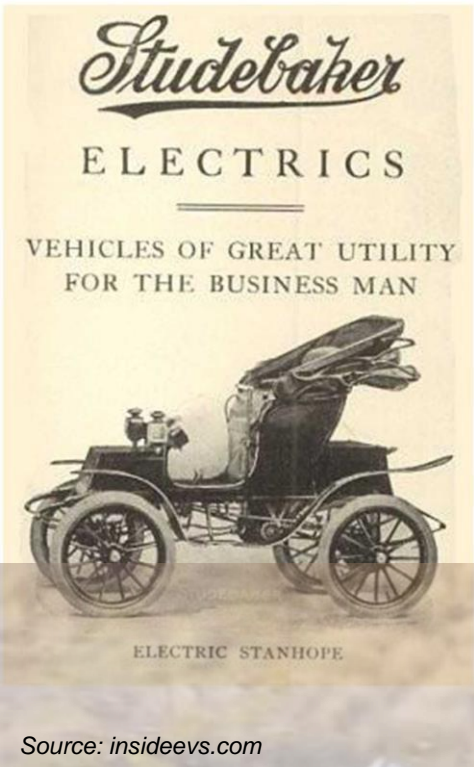
Replacement of the existing fleets takes decades!

Accompanying measures?





Battery Electric Vehicles: some remaining challenges



BEV: known and old technology

But

Range: OK for urban/semi-urban environment, not for long distances

- ➔ **Recharging infrastructure must be built up**
- ➔ **Recharging speed to be drastically improved**





Cradle to Grave Approach

Lifecycle analysis

Well to tank

Tank to wheel

Recycling

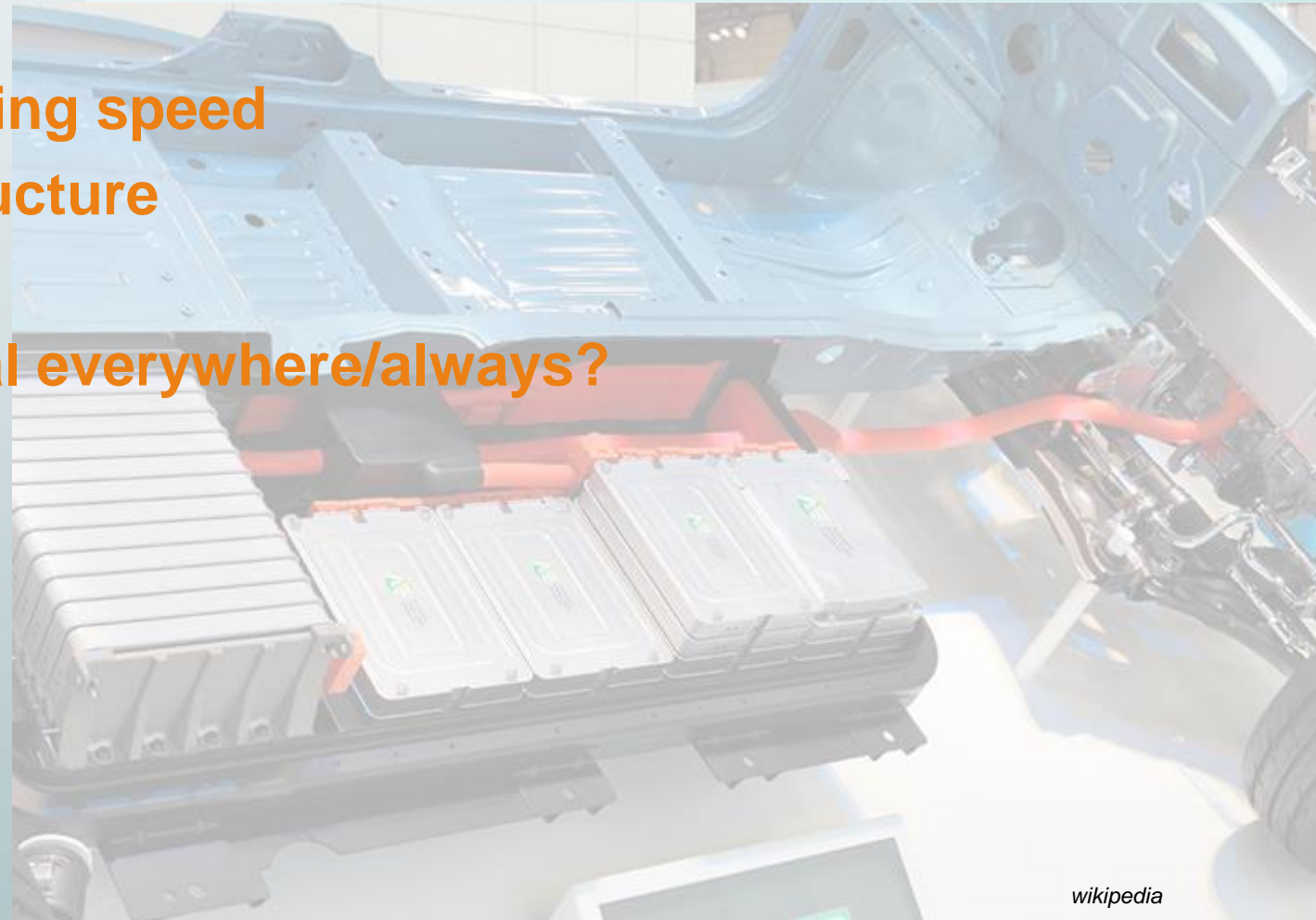
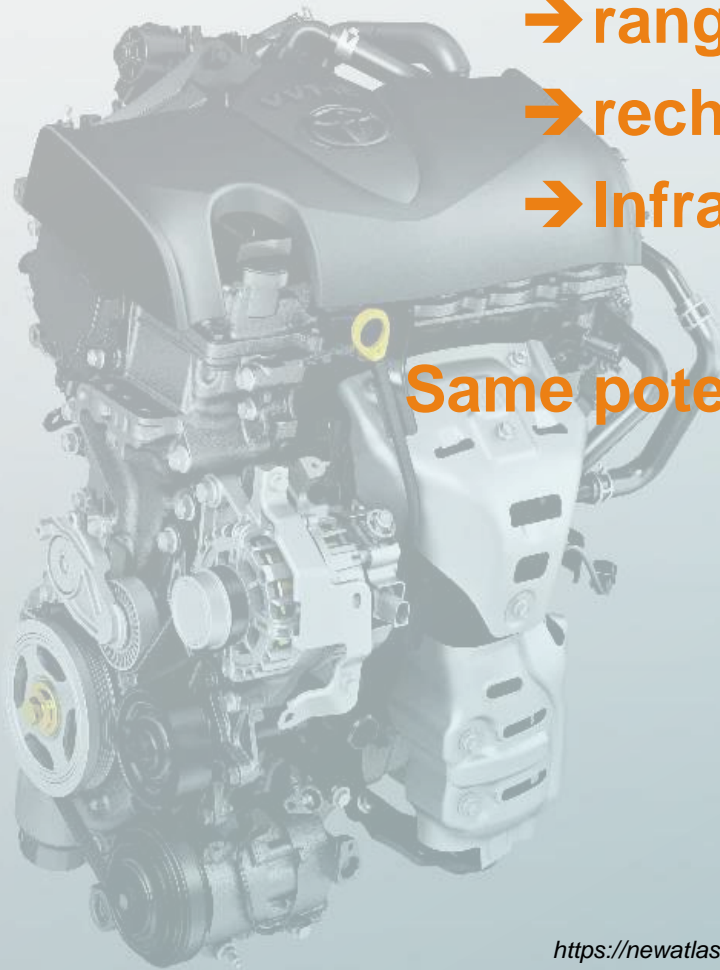


Battery Electric: yes, if ...

Clear potential of BEV if:

- range
- recharging speed
- Infrastructure

Same potential everywhere/always?





HFCV versus BEV?

No emissions

No noise

Full torque

Adequate range for all uses

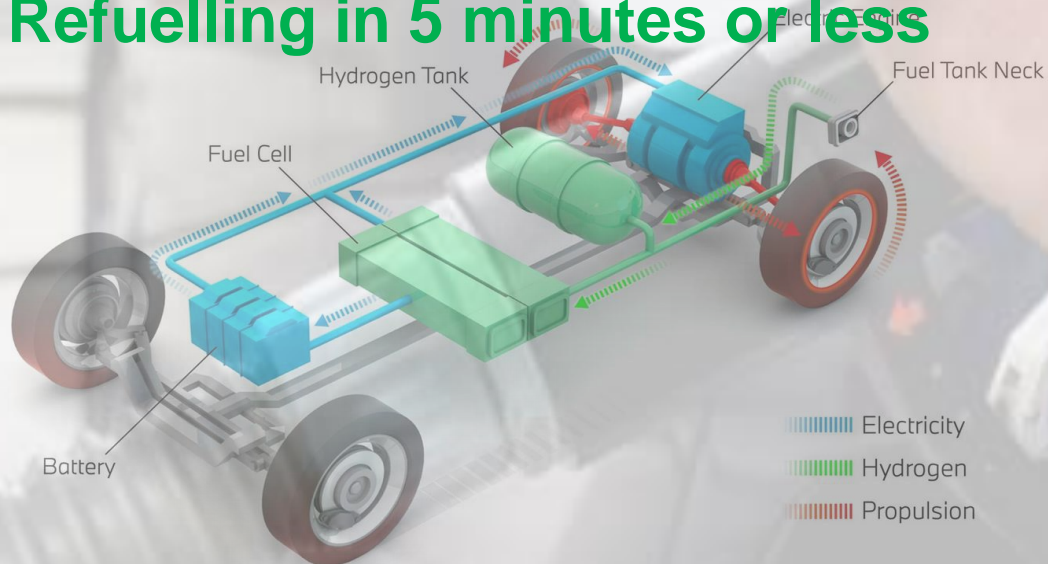
Cost

No infrastructure



Chicken and Egg

Refuelling in 5 minutes or less





Conclusion

Well to wheel approach can lead to several technologies, including ICE (alternative fuels)!

Electricity: BEV or HFCV or both?

- Each has advantages and disadvantages**
- Huge investments needed for development of both**
- BEV recharging infrastructure urgently needed**

Go electric?

OK, we'll do it, but we need help!



Thank you for your attention