

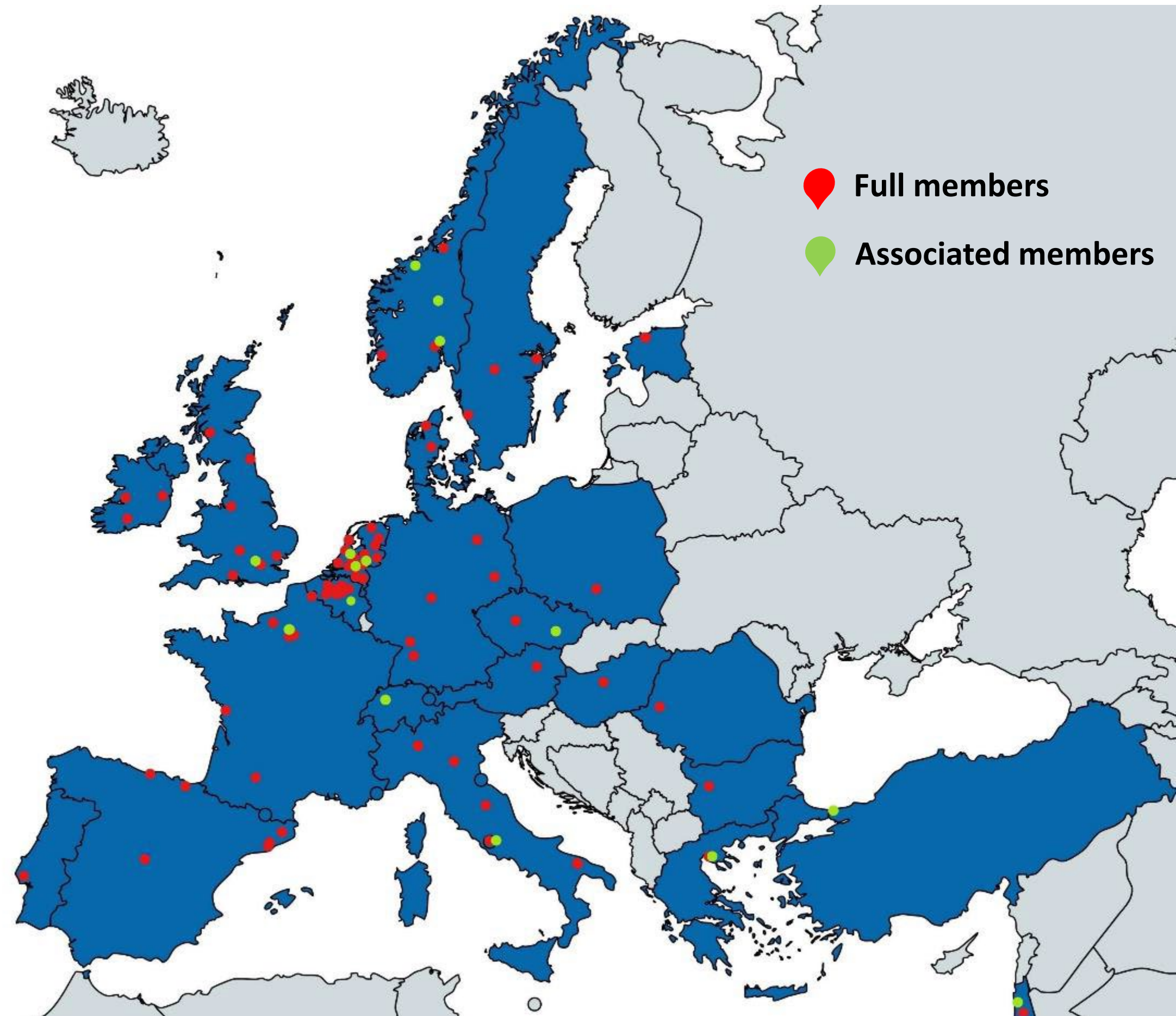
E- mobility in cities: challenges and good practices

Pedro Gomes
September 5th 2022





What is POLIS





Introduction

'Historic decision': EU to end sale of polluting cars from 2035

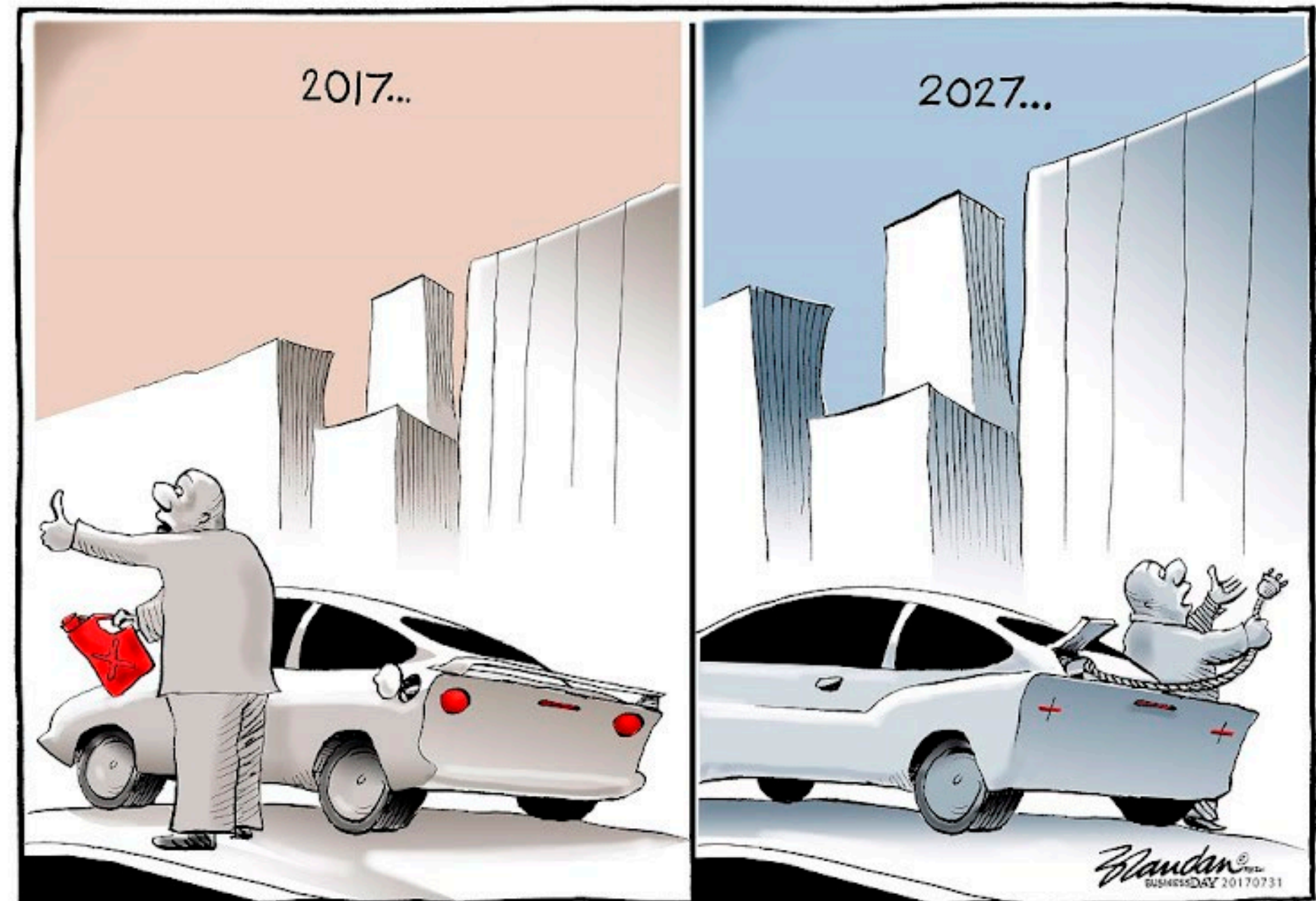
Wednesday, 29 June 2022

By Maïthé Chini

Sales of electric cars hit 6.6 million in 2021, more than tripling their market share from two years earlier

A LONG RACE

By 2038, the world will buy more passenger electric vehicles than fossil-fuel cars



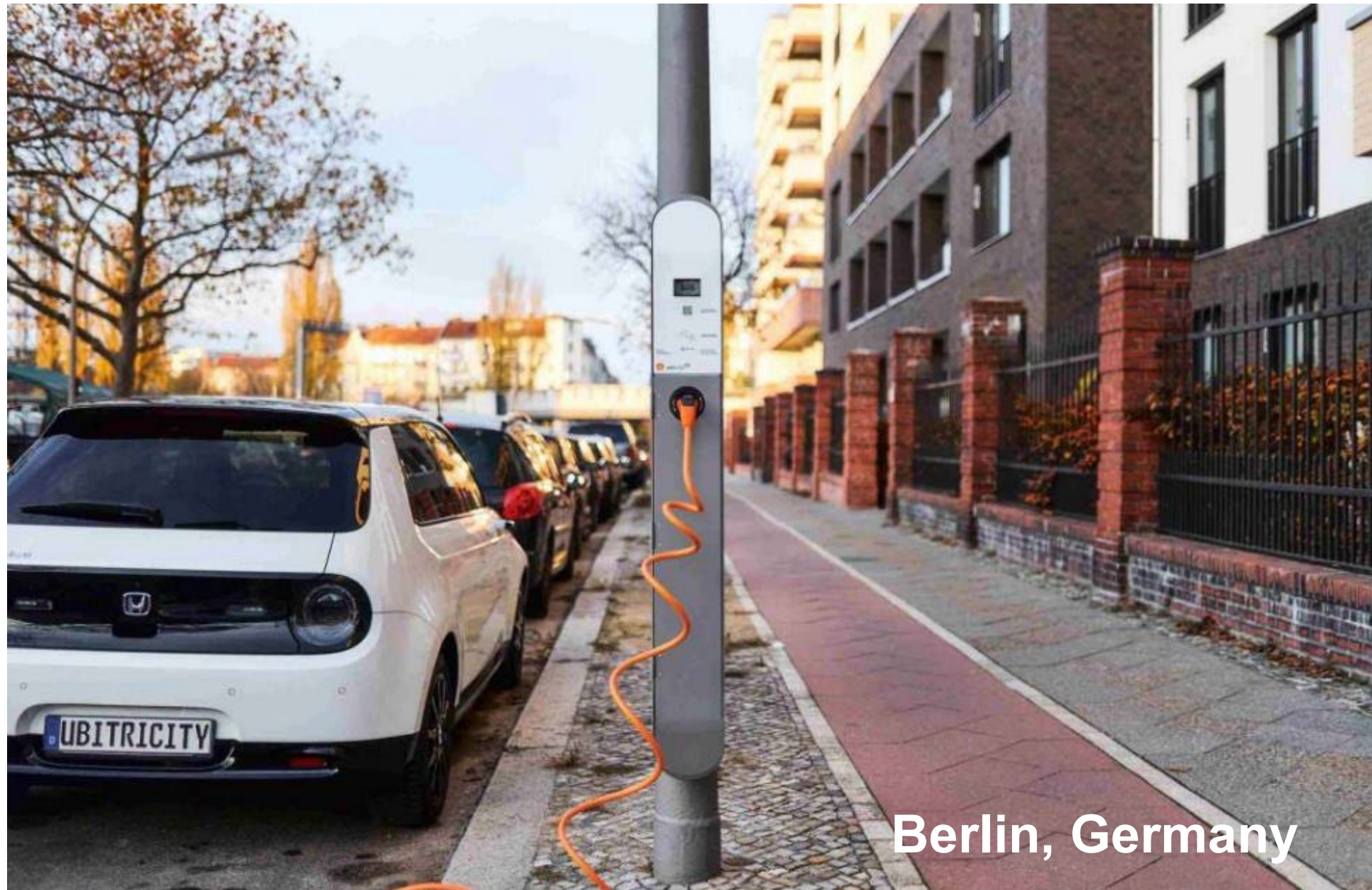


Introduction

- As part of the “**Fit for 55 Package**” (55% less GHG emissions until 2030), the proposal for an **Alternative Fuels Infrastructure Regulation** (AFIR) will play a major role in the uptake of electromobility in the EU, by ensuring there is sufficient public charging infrastructure to follow the deployment of zero-emission cars
- However, AFIR is mostly a “**Top-down approach**”, and not all of its drivers are in the control/competence/hands of local authorities. **Cities need to be ready for the rollout of charging infrastructure** and face a series of challenges including:
 - Urban planning and parking regulations
 - Management of the public space and accessibility of charging infra
 - Regulatory frameworks for new and shared e-mobility services, including safety
 - Integration with the power grid

Management of public space

Integration with existing urban furniture



Berlin, Germany



London, UK



London, UK

Management of public space



No curbside occupancy = Safer streets for all citizens, including people with disabilities



Oslo, Norway



Brussels, Belgium

E-mobility is not just about cars...

Is part of the mobility ecosystem of urban areas



... And it brings new challenges

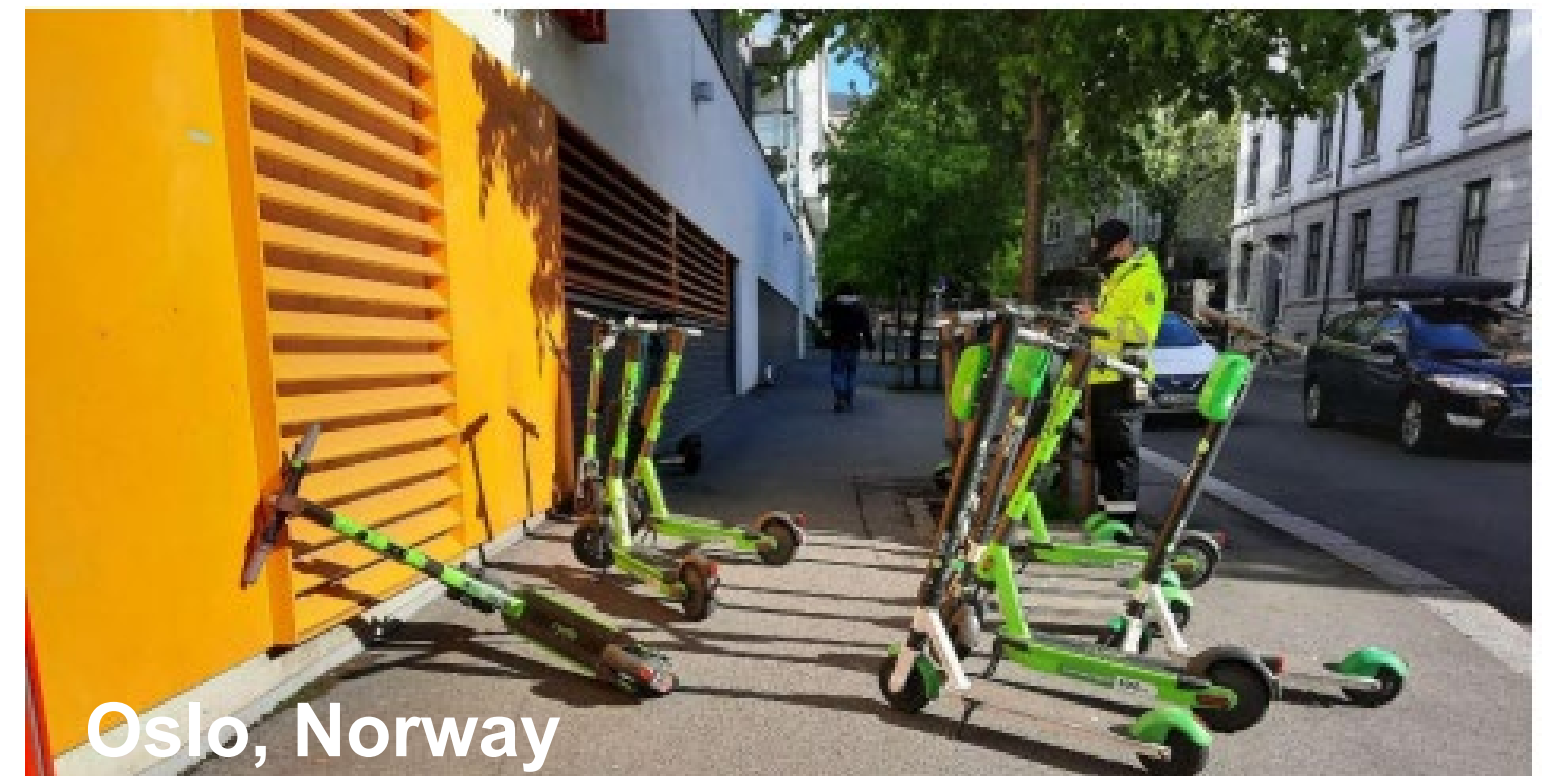
E-scooters: surge during the pandemic, but “Honeymoon” phase is over



Lisbon, Portugal



Brussels, Belgium



Oslo, Norway



Cities are facing these challenges

New Parking & Regulatory Frameworks:

- **Caps** on operators' number and fleet sizes
- **Geofencing** and “no parking” zones
- More stringent **enforcement**
- Operations **closed during the night**
- **Innovations** and partnerships:
 - eCharge4Drivers
 - eHUBS
 - SOLUTIONS+
 - MOBI-MIX

España

El Ayuntamiento de Madrid pincha la burbuja de los patinetes con unas 350 multas al día

El Consistorio madrileño puso 122.000 sanciones en 2021 a estas empresas por los patinetes mal aparcados: «Representaba una conducta problemática y creciente en la capital que urgía corregir»



Noticias relacionadas

Ossorio considera que quienes han traspasado las líneas de la «moralidad y la decencia» en el PP «deben verse afectados»

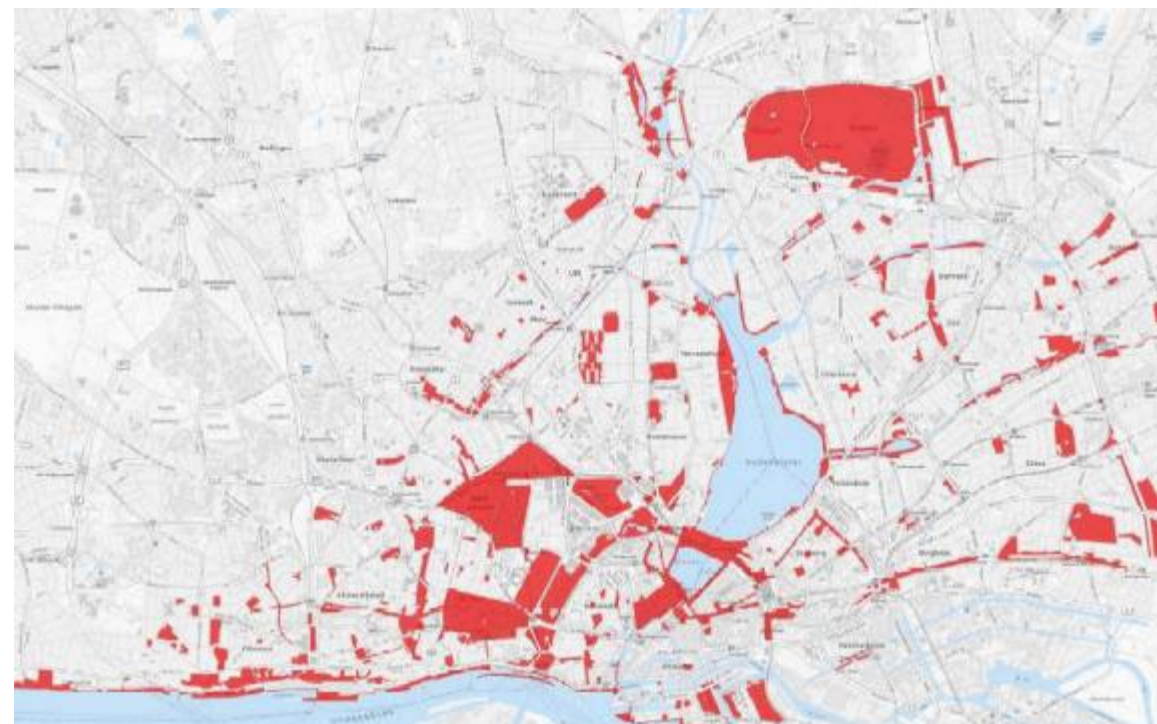
Europa Press

Ayuso envía a la Fiscalía la documentación del contrato de su hermano

Petra Fernández

El Gobierno no ejecutó un tercio del presupuesto del IMV en 2021 (1.000 millones)

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Innovations and partnerships

Interreg 
North-West Europe
eHUBS
European Regional Development Fund



Leuven, Belgium



Amsterdam, Netherlands



Berlin, Germany



Development of e-mobility Hubs

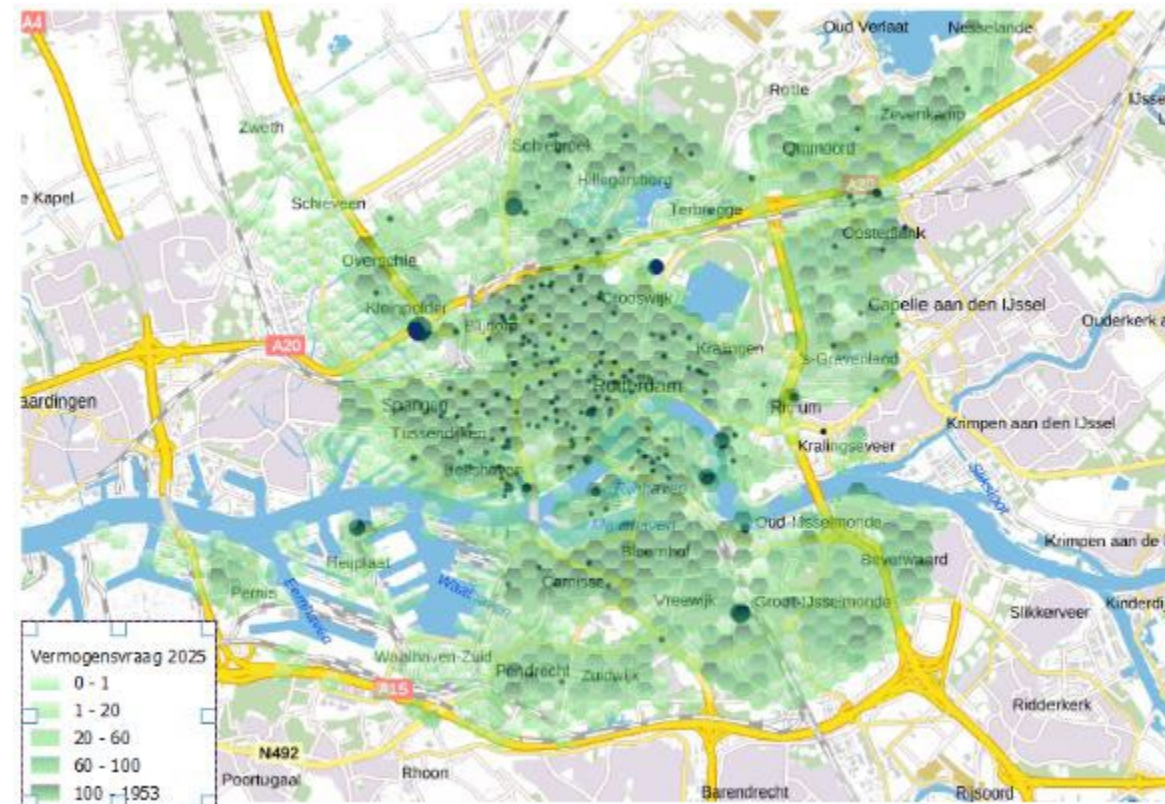
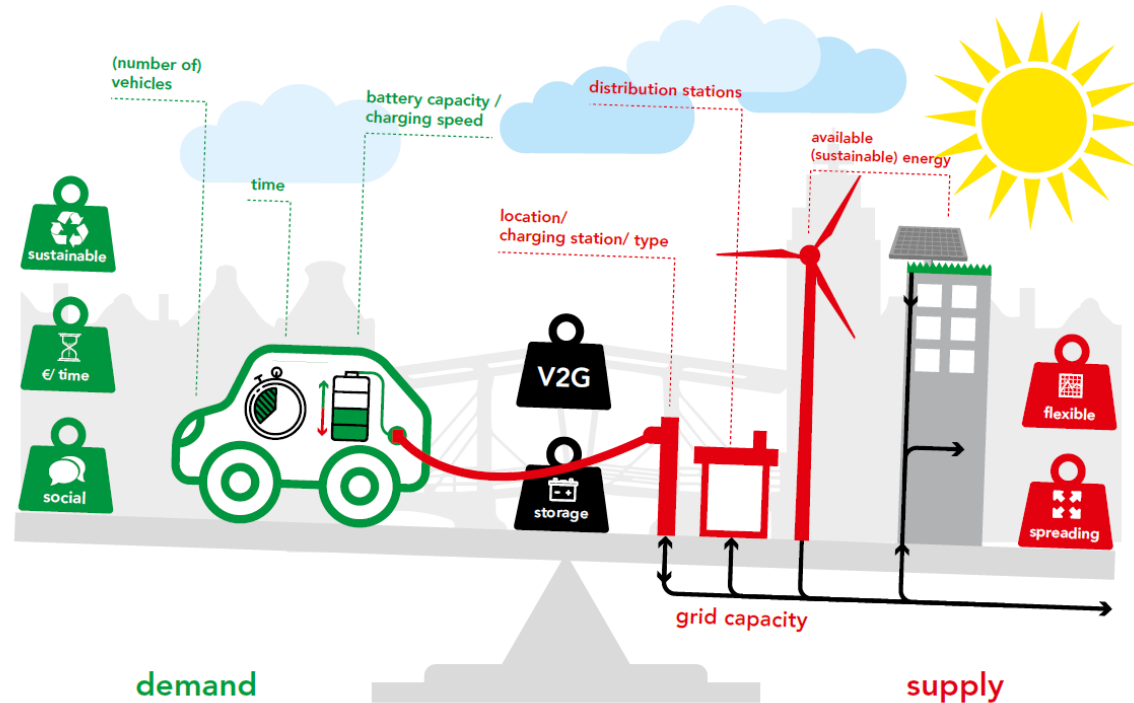
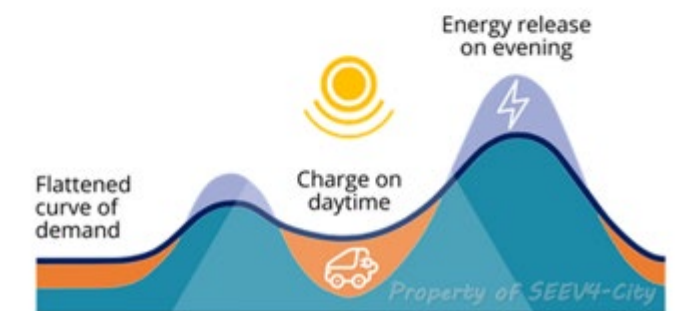
Interaction with the grid

- Predictive model assess future needs (e.g., Amsterdam, Rotterdam)
- Tariff schemes, smart charging and V2G (“batteries on wheels”)
- Local RES production to balance grid needs (energy communities)
- Opportunity charging (for captive fleets e.g., taxis and eBuses)
- Innovation and partnerships (projects CleanMobilEnergy, SCALE...)

Without Vehicle to Grid:



With Vehicle to Grid:





Conclusions

- **Sales of EVs are growing** – charging infra needs to keep pace with demand
- **The rollout of EV charging infra brings challenges to cities** – how to integrate additional urban furniture in an already crowded urban space?
- **Charging infra must be accessible for all** – not everyone has a driveway and home charger; Also, consider the needs of people with disabilities and other vulnerable citizens
- **Urban Planning, Parking strategy** and **Charging strategy** must be aligned
- **Can the electricity grid cope with the increased demand?** Yes, with smart charging and V2G solutions
- **Innovation** and **partnerships** are key





But remember...



