



17/09/2019

e-mobility

Uno sguardo all' Europa

Michele Tozzi

International Association of Public Transport, UITP

UITP AT A GLANCE

We are the only **worldwide network** to bring together all public transport **stakeholders** and all sustainable transport **modes**.

- Operators
- Authorities
- Policy decision-makers
- Research institutes
- The public transport supply and service industry



1,600

MEMBER COMPANIES



FROM
99
COUNTRIES



17

OFFICES

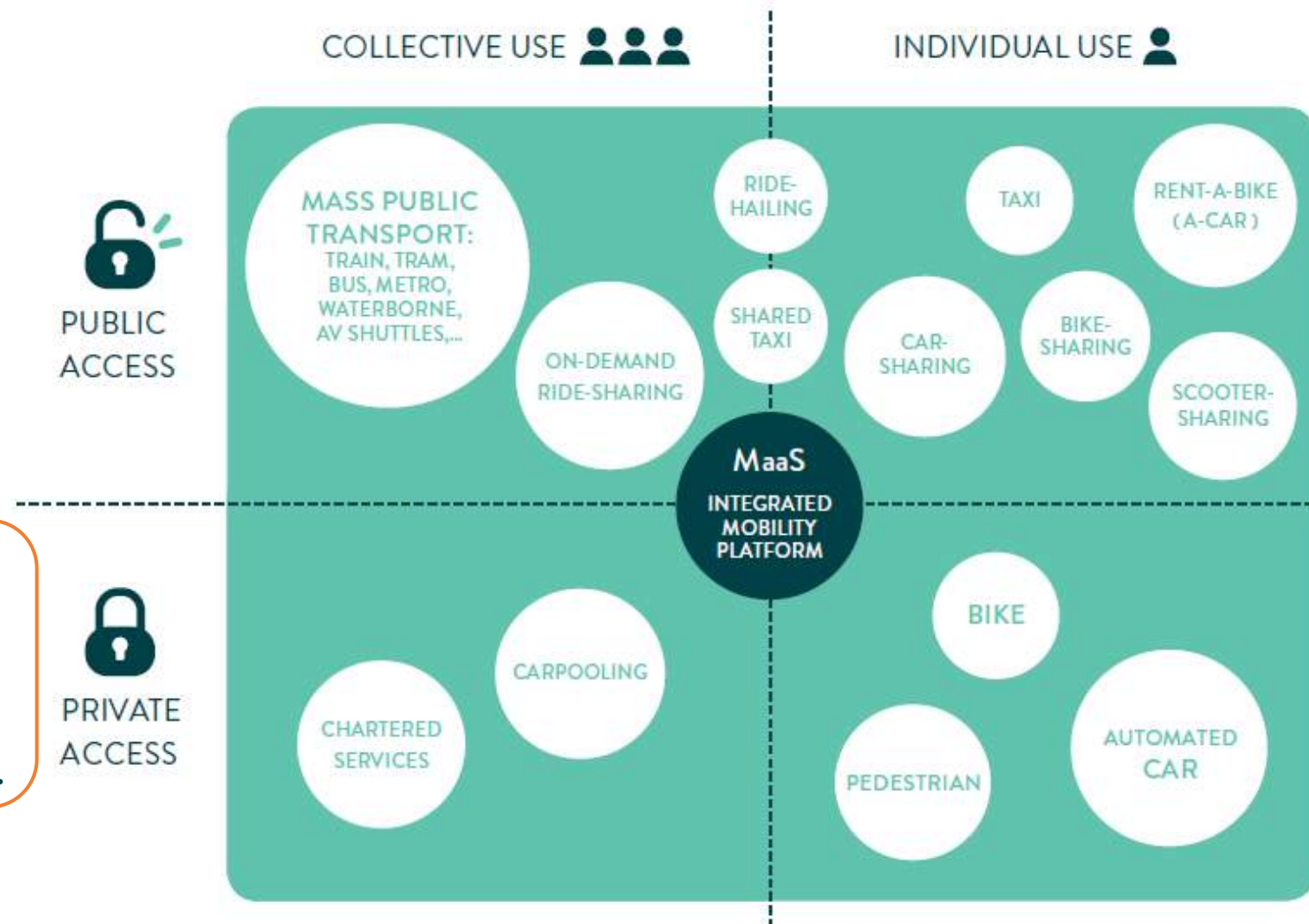


➤ REDEFINING PUBLIC TRANSPORT

Urban mobility services

- Pushing the boundaries
- A people-driven mindset.
- New governance models

Without public transport, other sustainable & innovative mobility services cannot offer an affordable alternative to car ownership.





ELECTRIFICATION



➤ ELECTRIFICATION



New generation of BRT systems

Vehicle design



Healthy and liveable cities

Shared charging infrastructure



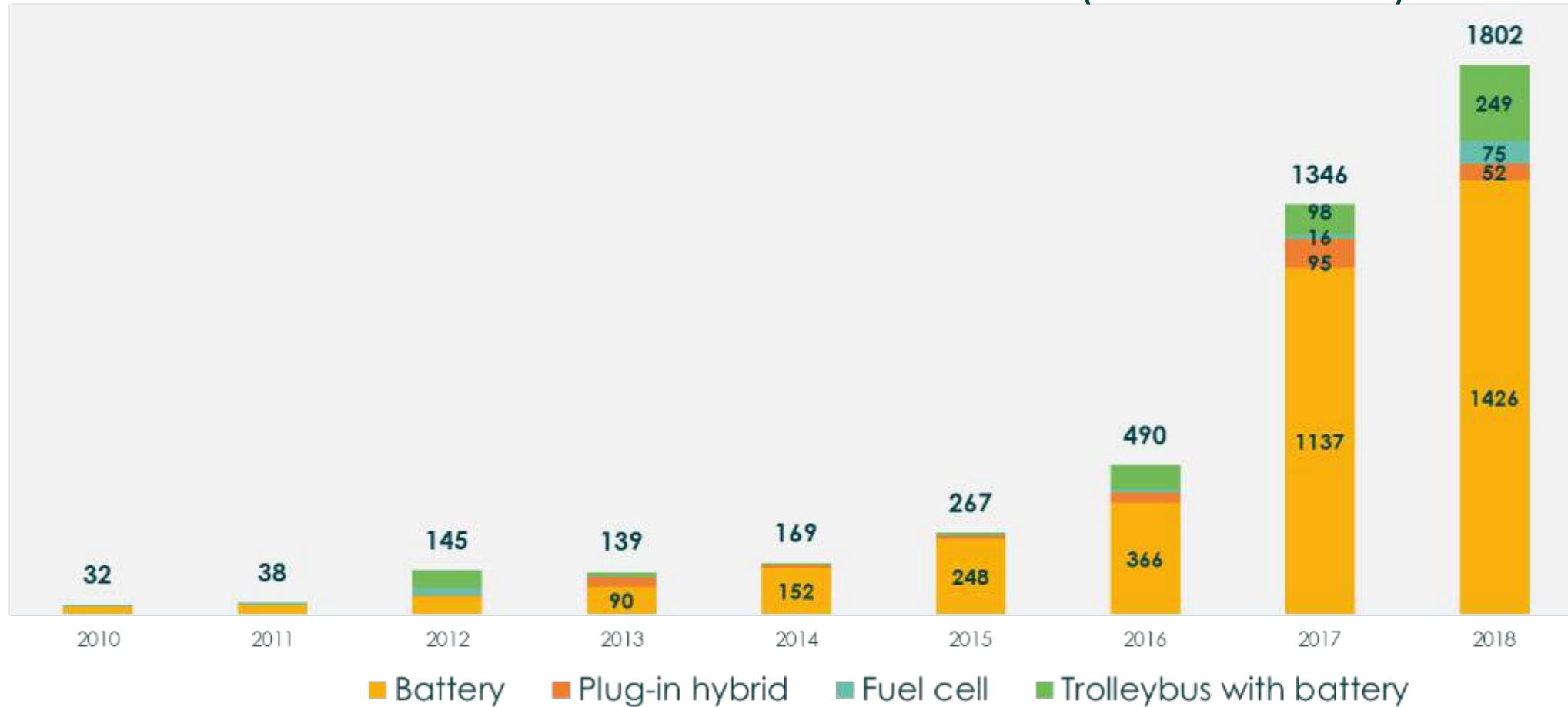
Integrated planning of system extension & renewal

Integration urban landscape



➤ E-BUS OBSERVATORY: MARKET (ORDERS BY TYPE)

- **4,428 electric buses** delivered or on order (1,802 in 2018)



Sales & tests > = 1 year including Turkey & Israel, without CIS countries

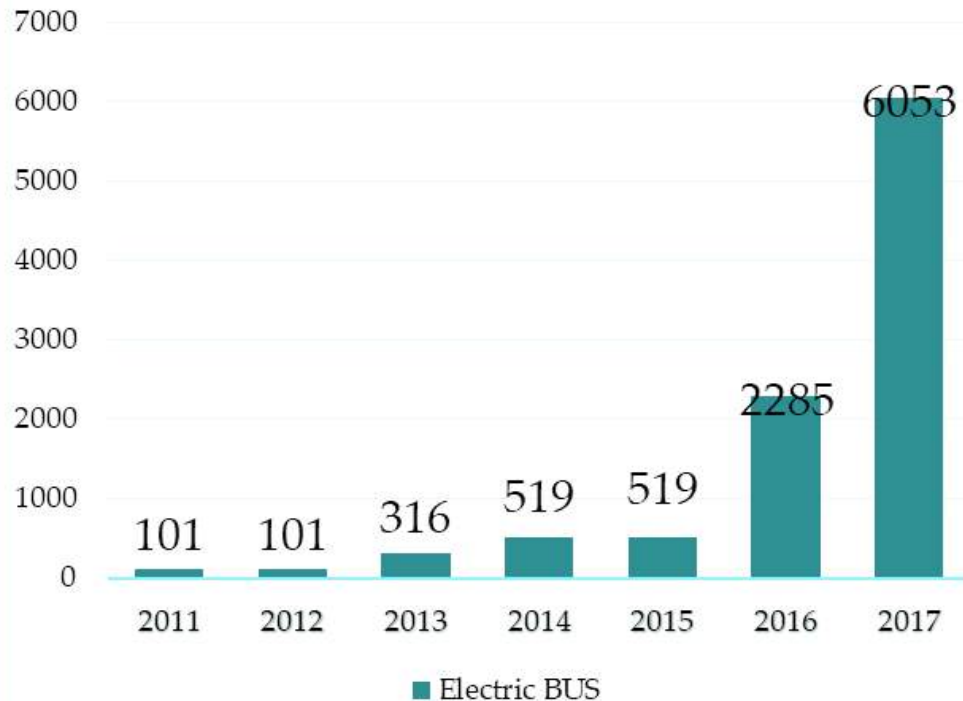


SHENZHEN E-BUS DEPLOYMENT



SHENZHEN BUS

SZBG Electric Buses

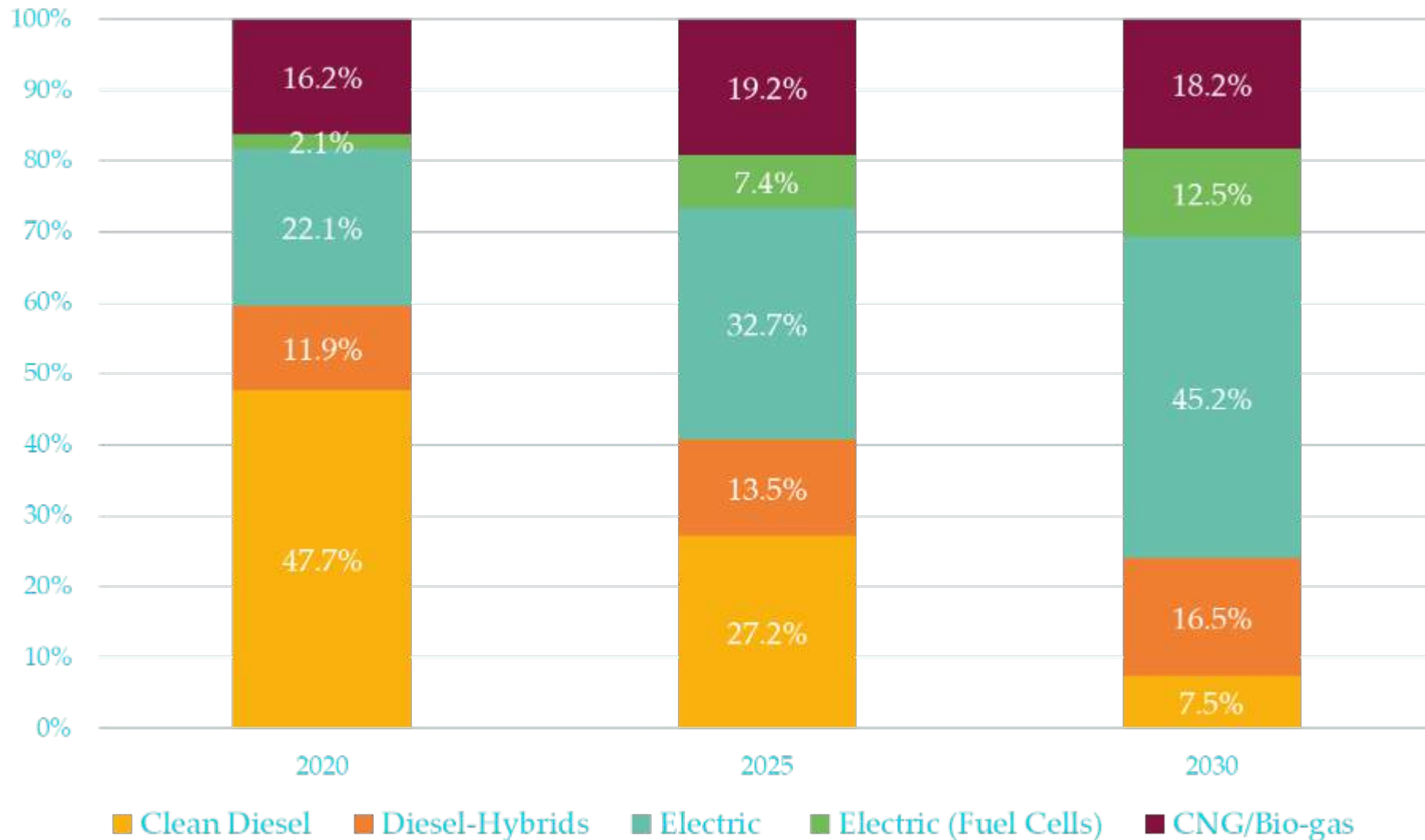


- **Demonstrate (2011-2012):** 101 electric buses introduced at the World Universiade Games in 2011 for the first time
- **Expansion (2013-2015):** 519 pure electric buses introduced in 2015. Only 418 units deployed between 2011-2015
- **Comprehensive Implementation (2016-2017):** National policy to promote electrification between 2015-2017. Today is operating 6,053 e-buses and 4,681 e-taxis.





INDUSTRY VIEW: MARKET SHARE PROJECTIONS



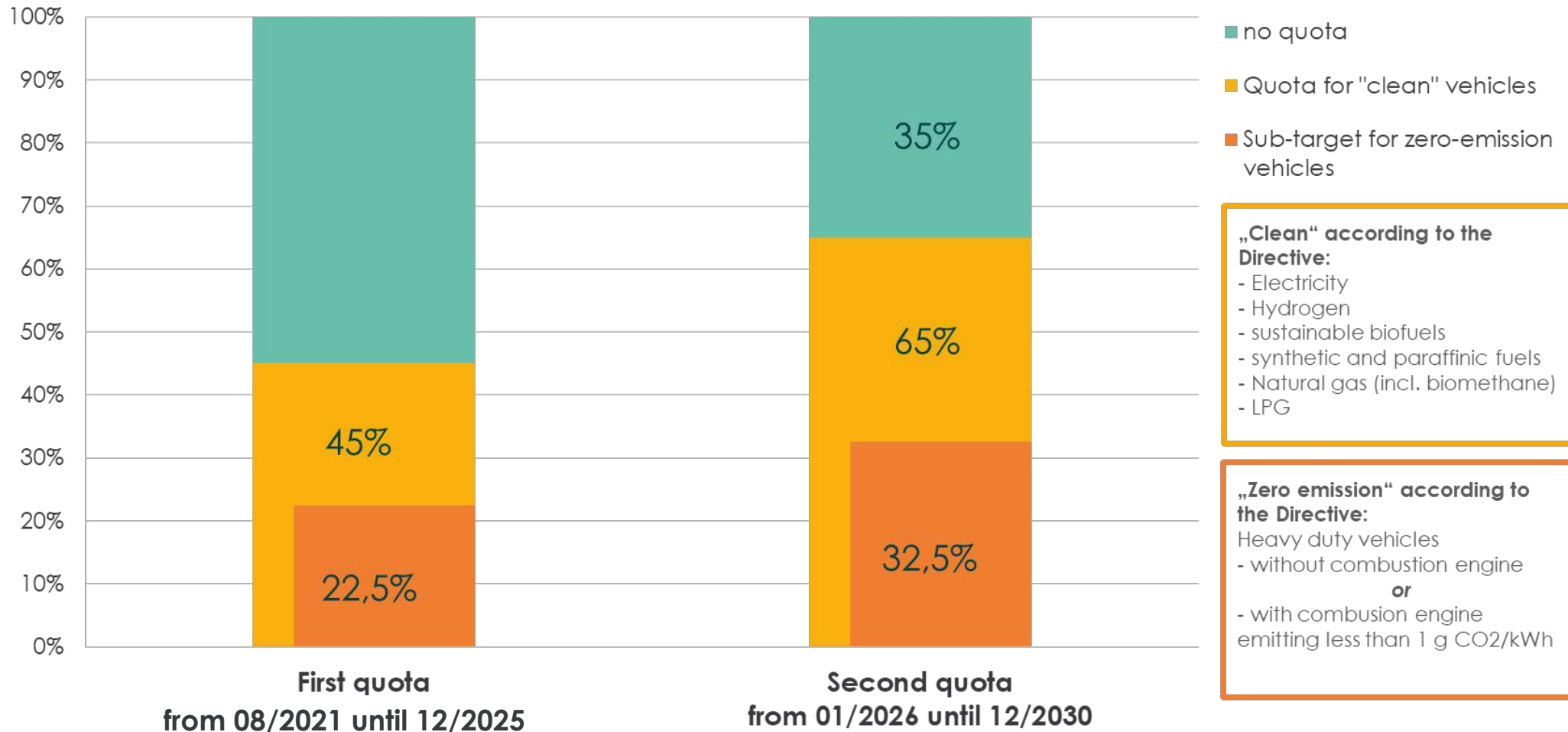
Source: www.zeeus.eu and UITP VEI Committee - 2017





CLEAN VEHICLE DIRECTIVE (07/2019)

Mandatory Procurement quotas



► Applicable for: LU, SE, DK, DE, UK, NL, AT, BE, IT, IE, ES, CY, MT



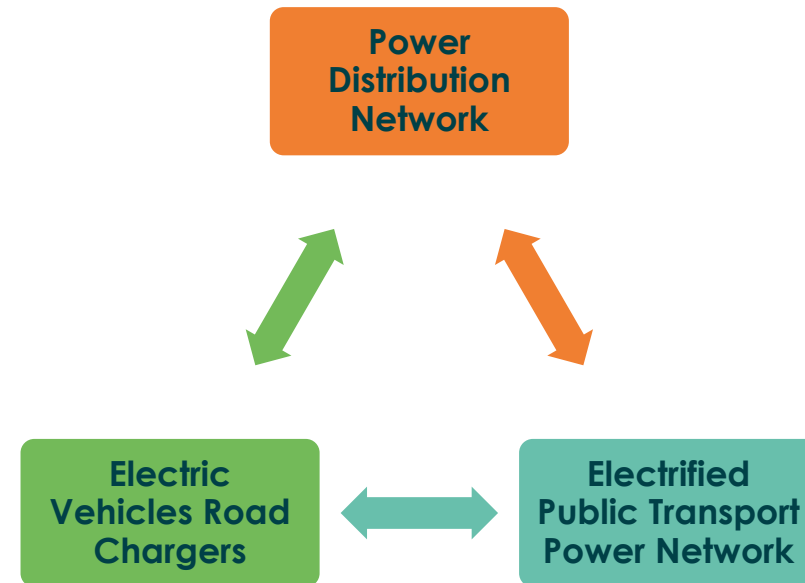
➤ UITP RESEARCH TO SUPPORT THE UPSCALE



- **Modular high power charging systems** up to 600 kW and high transfer efficiency.
- **Charger-vehicle interoperability and standardisation** test protocols.
- **Smart charging for large fleets.**



- **Smart management** of power distribution networks, electrified public transport networks (metro, trams...) and charging stations for EVs.



CLEAN BUS DEPLOYMENT PLATFORM



- UITP is in charge of a **new platform** under the **European Clean Bus Deployment Initiative** of the European Commission
- Brings together **European transport authorities and operators** to support the exchange of knowledge and expertise on clean bus deployment
- Assists them in the learning and transition process.
- Ensures that **technical, procedural and operational know-how** on clean bus deployment is passed on beyond the circle of front-runners cities.



Knowledge building and monitoring results of on-going projects and other initiatives.

50+ UITP members from 20 countries representing the whole sustainable mobility community:

- Public transport operators
- Public transport authorities
- Combined Mobility providers
- Research institutes and universities
- Industry

<https://space.uitp.org/>

World wide Observatory



All the SPACE initiatives

39 worldwide initiatives



SmartShuttle

Sion
SWITZERLAND



Alphaba Smart Bus

Shenzhen
CHINA



Living Lab Mobility

Aachen
GERMANY



Autonomous Driving

Bad Birnbach
GERMANY



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