URBAN ELECTRIC MOBILITY TOWARDS SDG 11

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The Global Agenda and Sustainable Mobility

Sustainable Development Goals

SDG 11 Suitable Cities & Communities

New Urban Agenda

Urban Dimensions & Localization

Paris Climate Agreement

Sendai Framework

Addis Ababa Action Agenda
Cities

5% of the land mass

70% of the CO2 emissions
Will E-Mobility solve our Problems?
Which pathway to take?

Let’s avoid the evolutionary mistakes of other cities… and instead leapfrog to sustainable mobility!

Source: Roger Teoh, Imperial/UCL 2016. UITP data 1995
Decoupling GDP from Transport Emissions and Motorization

SINGAPORE ECONOMIC VS. TRANSPORT GROWTH (1991 TO 2014)

Source: SLoCaT, 2018
Urban Electric Mobility Initiative: UN Climate Summit 2014

Pledge between...

Supply Side

Industry: “Increase the global market share of EV in cities to reach at least 30% by 2030.”

Demand Side

Cities/ Govt.: “By 2030, EVs will form 30% of the fleet of light duty vehicles (LDV), plying in their cities.”

MDBs / National Governments to increase investment for Electric Mobility

Cities/ Govt.: “By 2030, EVs will form 30% of the fleet of light duty vehicles (LDV), plying in their cities.”
Operationalizing UEMI: Linking Investments, Knowledge and Policy Action Plans

The Urban Electric Mobility Programme Cycle

- Seed fund for UEMI
- Capacity Building
- Demo. Projects
- Investment in city Infrastructure
- Policy and Regulatory Actions
- Greater uptake of EVs
- Industry investments in Research, manufacturing, marketing

Urban Electric Mobility Initiative Timeline

- **EGM Barcelona 24-25 April 2014; Communiqué**

- **“Ascent Meeting” Abu Dhabi; 4-5 May 2014; High Level Dialogue**

- **Climate Summit 2014, New York; Launch of Platform and initial Pledges**

- **Michelin Challenge Bibendum, Chengdu, Nov 2015**

- **Post Summit continued pledge making and experience sharing**

- **SOLUTIONSplus (2019-2023)**

- **Urban Pathways (2018-2021)**

- **Resolution in UN-Habitat Governing Council, Apr 2015**

- **2019: Climate Summit – Launch of ACT**

- **EST, Colombo, Sri Lanka, Nov 2014**
ACT has 4 components:

- **Component 1:** Connecting innovative approaches with integrated long-term planning and policy-making processes.
- **Component 2:** Enabling architecture for a mass rollout of electric buses.
- **Component 3:** Creating a mass-market for zero-emission freight vehicles.
- **Component 4:** Setting up global dialogue arenas with the private sector.
Getting the ACT Together: Regulation, Innovation and Collaboration

**National Government**
- Sustainable urban, energy, transport, environment policies; regulatory and environmental standards
- Fuel prices, duties on batteries; vehicles; incentives for change; capacity building and training; dialogue with industry; encouraging innovation

**Industry**
- Compliance with regulatory and environmental standards; long range planning for business sustainability; investments in innovation, research and development; dialogue with government;

**Local Government**
- Local taxes and incentives e.g. congestion pricing; charging infrastructure; for EVs; effective business models for public transport; “parking” as a private good; prioritizing infrastructure investments in walking, cycling and public transport; encouraging innovation
Aim: Develop policies, implement business models and operate e-mobility solutions in developing and emerging economies ("any solution other than the private car")
SOLUTIONSplus: Innovative and Integrated Electric Mobility

- Innovative business models, vehicles, services, policies and operations that help boosting all types of electric mobility
- Adaptation to a specific context which requires a real rethinking or redesign of the processes or products.
- International partnerships to replicate innovation and support upscaling

Kigali, Rwanda
Start January 2020
E-bus, e-moto, e-bike sharing

Dar es Salaam, Tanzania
Start January 2020
E-3 wheelers connecting to BRT
## Business Models and Associated Tools

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<td>Innovative charging solutions of high-capacity bus-systems</td>
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<td>Use of existing systems and grids for the charging of electric vehicles</td>
<td>Eco-routing</td>
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<td>Retro-fitting Electric (mini)-buses</td>
<td>Seamless Charging</td>
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Local Innovators
Latin America – South East Asia – East Africa
Integration at the core of SOLUTIONSplus

- Physical and digital integration between transport modes

- Breaking silos between transport, energy, Resource management (e-waste)
Piloting e-mobility/ Wide range of options

No one-size fits all

Segment
- Passenger (taxi, shared, private)
- Freight/deliveries

Modes
- Buses
- 2&3 wheelers
- Bikes
- Etc.

Infrastructure
- Charging home or residential area
- Public or private charging station
- Swapping station

Vehicles
- New imported
- Retrofitting of vehicles used on the market
- Local assembly in combination with electric motor

Energy
- Connection to the electric grid
- Combination of off-grid solar energy

E-waste
- Connection with e-waste stakeholders
- 2nd and 3rd life of batteries
Example Kochi, India: Kick Starting uptake of electric tuk tuks

Financial Support to Autoriksha Union

Reduce rental cost of e-tuk tuks

Cost matched with conventional vehicle

Greater market presence

Can cities use parking fees/congestion pricing to catalyse change?
Example Pasig, Philippines: Can cities catalyze innovation?

Can cities catalyze innovation?

Support to bike share entrepreneur to deploy e-bikes

Market presence of e-bikes

Greater uptake of e-bikes

Source: Melbourne City
Achieving progress on SDG 11 – A collaboration opportunity with partners in Asia

Indicator 11.2.1  UN-Habitat Custodian Agency

“Proportion of the population that has convenient access to public transport by sex, age and persons with disabilities”

Contribute to and Take Forward Proposed EST Declaration 2021

Share of population with access to public transport

- Global Average: 49
- Sub-Saharan Africa: 35
- Central Asia and Southern Asia: 37
- Eastern Asia and South-eastern Asia: 41
- Western Asia and Northern Africa: 48
- Latin America and the Caribbean: 54
- Northern America and Europe: 72
- Australia and New Zealand: 80

Core Indicator: 500 m walking distance to Public Transport (Service Area)
Thank You For Your Attention