

SOLUTIONS: QUITO 19 OCTOBER 2016

Urban Electric Mobility Initiative

Presented by

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Urban Electric Mobility Initiative (UEMI)

www.uemi.net

<http://urban-mobility-solutions.eu/>



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Urban Electric Mobility Initiative (UEMI)

Jointly Initiated by UN-Habitat and SOLUTIONS, UEMI was launched at the UN Climate Summit in New York in September 2014. The **initiative** aims at:

- Decreasing urban CO₂ emissions by increasing the market share of electric vehicles in cities to 30% of annual vehicle sales (incl. LDV and motorized 2-3 wheelers)
- Integrate electric mobility into a wider concept of sustainable urban transport that achieves a 30% reduction of GHG emissions in urban areas by 2030



Eltis, UN

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UEMI Partners and Actions

The UEMI is an international partnership programme that supports the:

- Deployment of electric mobility and sustainable transport by:
 - Feasibility studies
 - Knowledge sharing events
 - Development of project proposals
 - Identify key innovations and examine transferability
- For selected cities implementation concepts will be developed, including:
 - Technical and political feasibility
 - Finance (scalable projects, starting with pilots)
 - Integration in existing activities (added value of the solutions)

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AVERE



UEMI: An Integrated Approach to E-mobility

E-mobility as part of a balanced sustainable urban mobility concept

Avoid: reduce travel activity or reduce growth in activity

Shift: change travel structure through shifts to different modes of travel

Improve: lower vehicle energy intensity and reduce fuel carbon intensity



Potential Benefits of an Integrated Approach

- Cost effectiveness and higher level of socio-economic benefits
- Co-benefits, such as improvements in air quality, traffic congestion, safety and overall societal mobility



Key factors for low-carbon e-mobility

- Currently the well-to-wheel carbon intensity varies greatly among countries/regions.
- When electricity and hydrogen plug-in and fuel cell vehicles reach a substantial market share, they can serve strongly to decrease the average Light Duty Vehicles (LDV) fuel carbon intensity **after 2035**



Source: IEA

Different Options for E-mobility

E-mobility for car-sharing and public transport fleets

- Public procurement as enabler
- Direct control or indirect through contracts
- Leadership role and test-bed for good practice



Source: Eltis

Different Options for E-mobility

Low carbon taxi fleets

- E-tricycles in Manila (locally produced e-trikes)
- Electric taxis in Shenzhen (entire taxi fleet expected to be electric by 2016)



Source: ADB 2011

Different Options for E-mobility

Electric two-wheelers

- Rapid growth of electric two-wheelers in particular in China driven by regulation
- At the peak there were over 150 million electric two-wheelers on the road in China

Growing safety issues: the “Black Death”

- Now electric scooters are being banned in many cities for safety reasons



Source: ADB 2011

Different options for e-mobility

Basic Requirements

- Standardised charging infrastructure
- Battery costs (currently \$485/kW/h) and materials
- Battery replacement and recycling



Source: Eltis

A balanced Approach Vital for Success

- **Stronger shifts to low-carbon modes**, such as public transport and non-motorized transport would require less effort with regard to low-carbon technology and fuel uptake
- If **travel demand** is lower, fuel and technology switch targets are easier to achieve
- A balanced approach includes: reduction of travel demand and foster modal shifts (Avoid/Shift) AND improvements in vehicle technology and fuels (Improve)



Source: Eltis

Knowledge sharing and training

City Engagement Kick-off:

- Thematic cluster session
- Twinning session

Paris

Brussels

SUMP Training event
(SOLUTIONS/
TIDE/CH4ALLENGE)
EV-workshop
(UEMI/SOLUTIONS)

Barcelona

Mexico City

Chengdu

Michelin Challenge
Bibendum

Trainings:

- Network Management
- Clean Vehicles
- Public Transport

CITS

Trainings:

- City logistics
- Integrated Transport Systems / Public Biking Systems
- Public Transport

Istanbul

CODATU

Trainings:

- Clean vehicles
- SUMP
- City logistics

Casablanca

CIVITAS Forum

Trainings:

- Transport infrastructure
- SUMP
- Public Transport

Rio

Webinars & eLearning:

- Over 1800 participants of e-Learning courses and webinars



Take-up cities



Belo Horizonte, Brazil

Belo Horizonte, situated in the state of Minas Gerais in the south-eastern region of Brazil, is one of Brazil's most populous cities with around 5 million inhabitants.



Guiyang, China

Guiyang, situated in the Guizhou province in Southwest China, has a population of 4.4 million.



Kochi, India

Kochi, situated on the west coast of India in the state of Kerala, is a densely populated city with a population of 2.1 million.



León, Mexico

León is located in Guanajuato state of Mexico, with a population of 1.4 million.



Kocaeli, Turkey

Kocaeli province lies in Marmara region of Turkey with an urban population of 1.6 million.

City actions

Recent updates from take-up cities

Belo-Horizonte, Brazil:

- The pilot project in Belo Horizonte started with a speed limit (30 km/h) zone

Kochi, India

- The first car-free day in Kochi (India) to raise awareness for sustainable transportation
- Development of a e-mobility pilot zone as part of a Smart Cities project

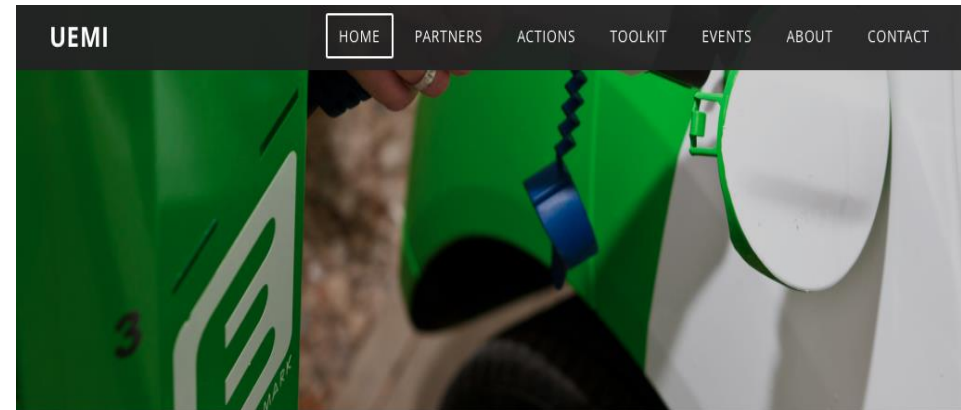
Tools and guidelines

- The team is currently working on a set of assessments, guides and tools that will help developing and integrating sustainable mobility



Join the Partnership

- Open to all countries, cities, industry, associations and knowledge institutions active in the area of electric mobility
- Join the partnership: www.uemi.net
- Contribute to the actions, tools and events



JOIN THE UEMI

Urban Electric Mobility Initiative

The Urban Electric Mobility Vehicles Initiative (UEMI) aims to help phasing out conventionally fuelled vehicles and increase the share of electric vehicles in the total volume of individual motorized transport in cities to at least 30% by 2030. The UEMI is an active partnership that aims to track international action in the area of electric mobility and aims to initiate local action.

Thanks !

www.uemi.net

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