



GERMAN  
HABITAT  
FORUM

Berlin, 1 – 2 June 2016

URBAN SOLUTIONS

# Innovations in Urban Mobility

June 1, 16.30 – 18.30 pm

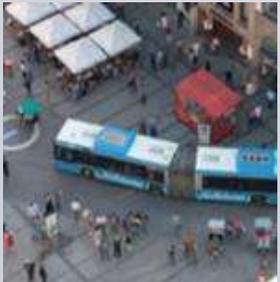
Room M8



Partnership on Sustainable  
Low Carbon Transport

Presenters:

- Cornie Huizenga / SLoCaT
- Clarence Rupingena / Windhoek
  - Dario Hidalgo / WRI
  - Isabel Flores / Ally
- Steven Dale / Creative Urban Projects



# 4 Key Global Processes targeted by SLoCaT and PPMC in 2016



**Implementation of  
Paris Agreement on  
Climate Change**



**Implementation of 2030  
Sustainable Development  
Agenda (SDGs)**



**Habitat III**



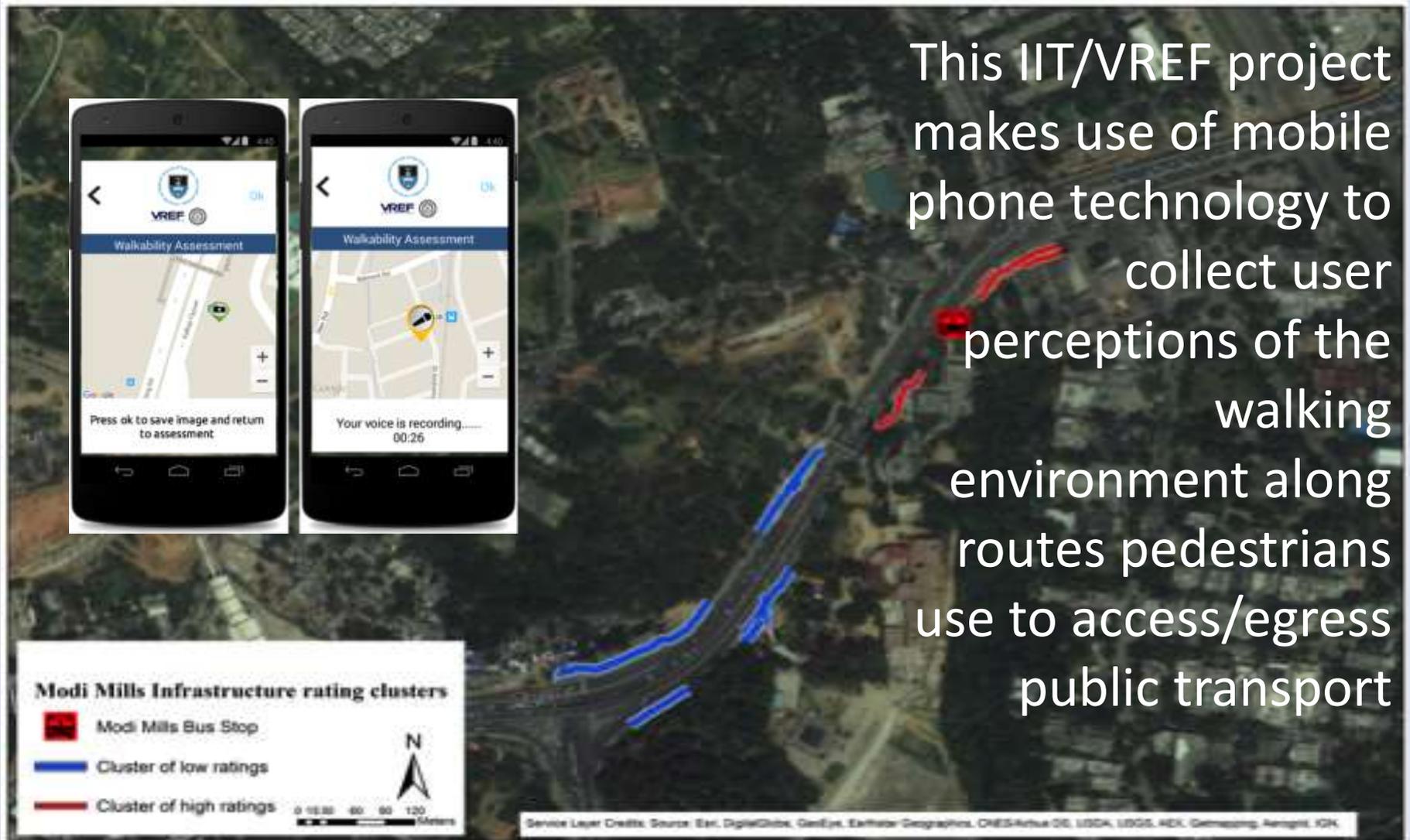
**14<sup>th</sup> United Nations  
Conference on Trade and  
Development**

# Discussion Topics

- 1. What constitutes innovation in urban mobility?**
- 2. How do developed and developing cities view urban transport innovation?**
- 3. What are the key drivers of and barriers to innovation?**
- 4. How does innovative urban mobility support the New Urban Agenda (NUA)?**

# (1) Transport Technology Solutions

## Measuring walkability in the global South: Applications in Cape Town and Delhi



This IIT/VREF project makes use of mobile phone technology to collect user perceptions of the walking environment along routes pedestrians use to access/egress public transport

# (1) Transport Technology Solutions

## Smartfusion: Smart Urban Freight Solutions

The screenshot displays the 'Smartfusion' software interface. At the top, there are navigation tabs: (0) Introduction, (1) Scenario, (2) Results, and (3) Documentation. The status 'Ready' is shown in the top right. The main interface is divided into a left-hand control panel and a right-hand map view.

**Planning Scenario:** A dropdown menu is set to 'Depot - Close to City' with a 'Plan' button next to it.

**Vehicles:**

- Type: 'Truck 7.5t - Electric' (dropdown menu)
- Number of vehicles: '3' (input field)
- Operating interval: A slider with two red markers.

**Orders:**

- Number of orders (random allocation): '100' (input field)

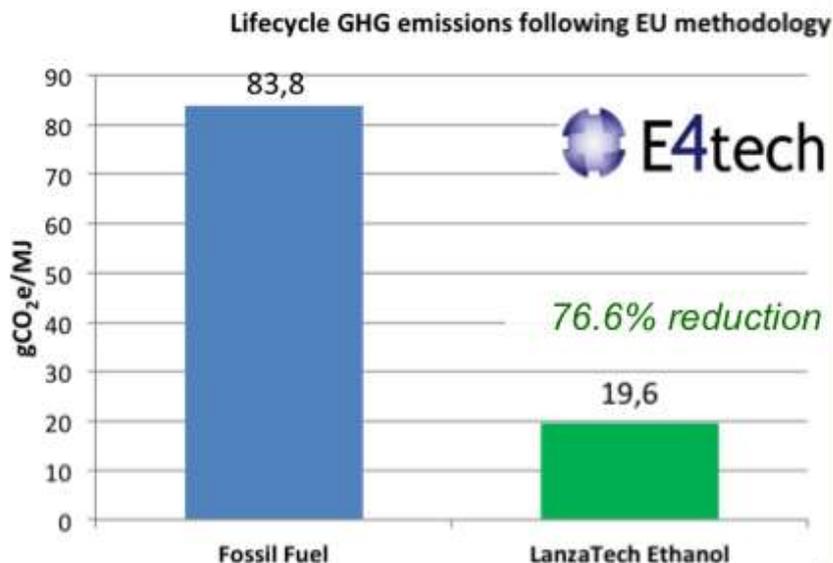
**Stops:** A section header with no visible input fields.

The map on the right shows a city street grid with a depot location marked by a blue pin on the left. Three colored routes (green, red, and orange) originate from the depot and spread across the city. Labels on the map include 'Newcastle Upon Tyne' and 'Gateshead'. A small inset map in the top right corner shows the location within the UK. The bottom of the map has a copyright notice: '© PTV, TomTom (LUX), HERE (USA-RI), HERE (AU-TAS)'.

The Smart Urban Freight Designer tool simulates logistics scenarios, allowing operators to optimize (inter-)urban shipments and assess the potential for electro-mobility.

# (1) Transport Technology Solutions

## Industrial Waste Gas Fermentation: Carbon Recycling for Fuel Production



*Key Assumptions:*

- Cradle-to-pump lifecycle of ethanol
- EU's RED methodology
- BOF gas considered as waste gas by steel industry and as residue by RSB.
- GHG emissions for LanzaTech ethanol from steel mill waste gas (BOF)

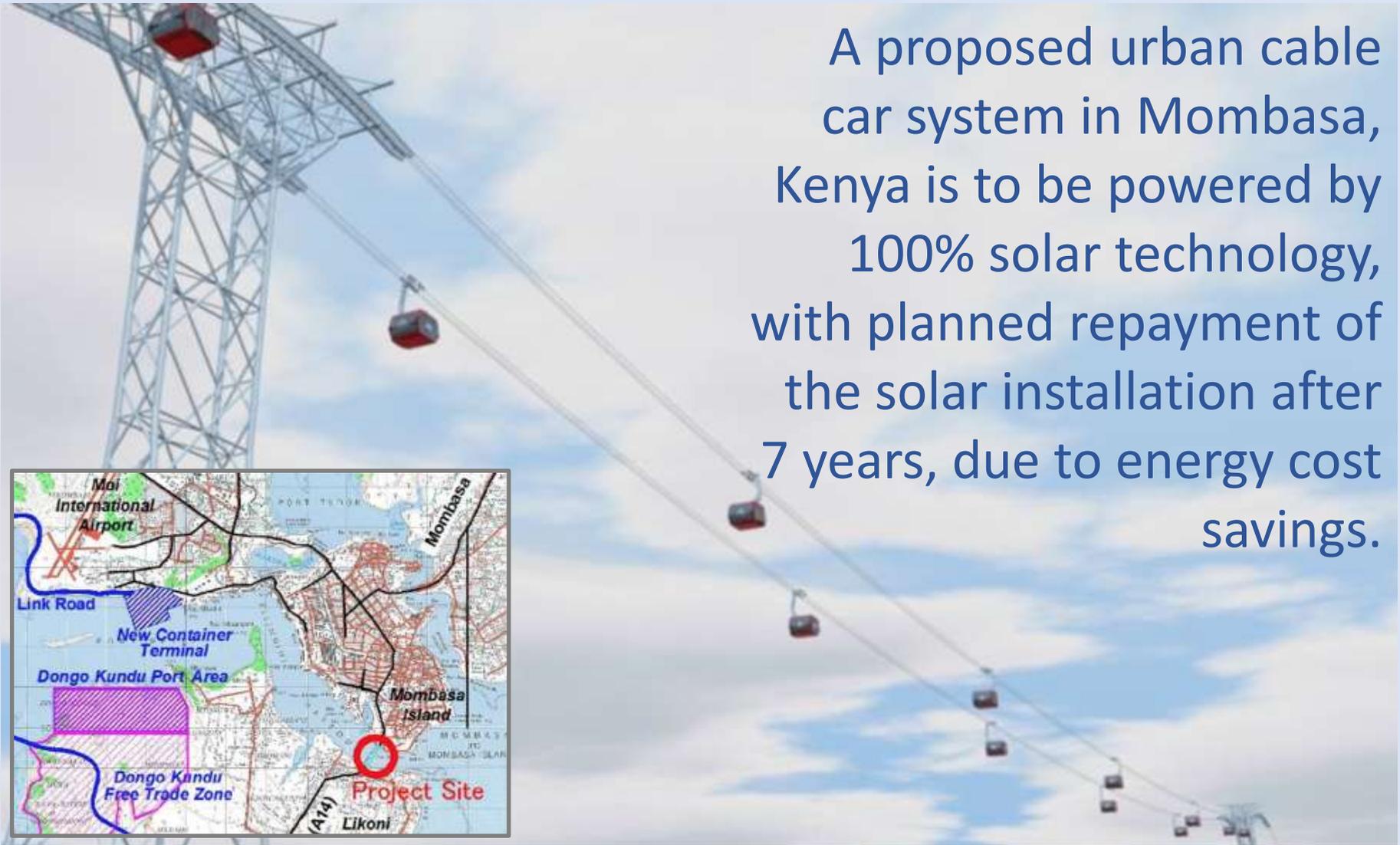
LanzaTech has led an innovative approach to converting carbon-rich waste gases from the steel industry into ethanol and 20 other products. Recycling waste gas from China's steel industry alone can produce enough carbon fuel to power 10 million cars.



## (2) Scaling Up E-Mobility

# Mombasa Cable Express

A proposed urban cable car system in Mombasa, Kenya is to be powered by 100% solar technology, with planned repayment of the solar installation after 7 years, due to energy cost savings.



## (2) Scaling Up E-Mobility

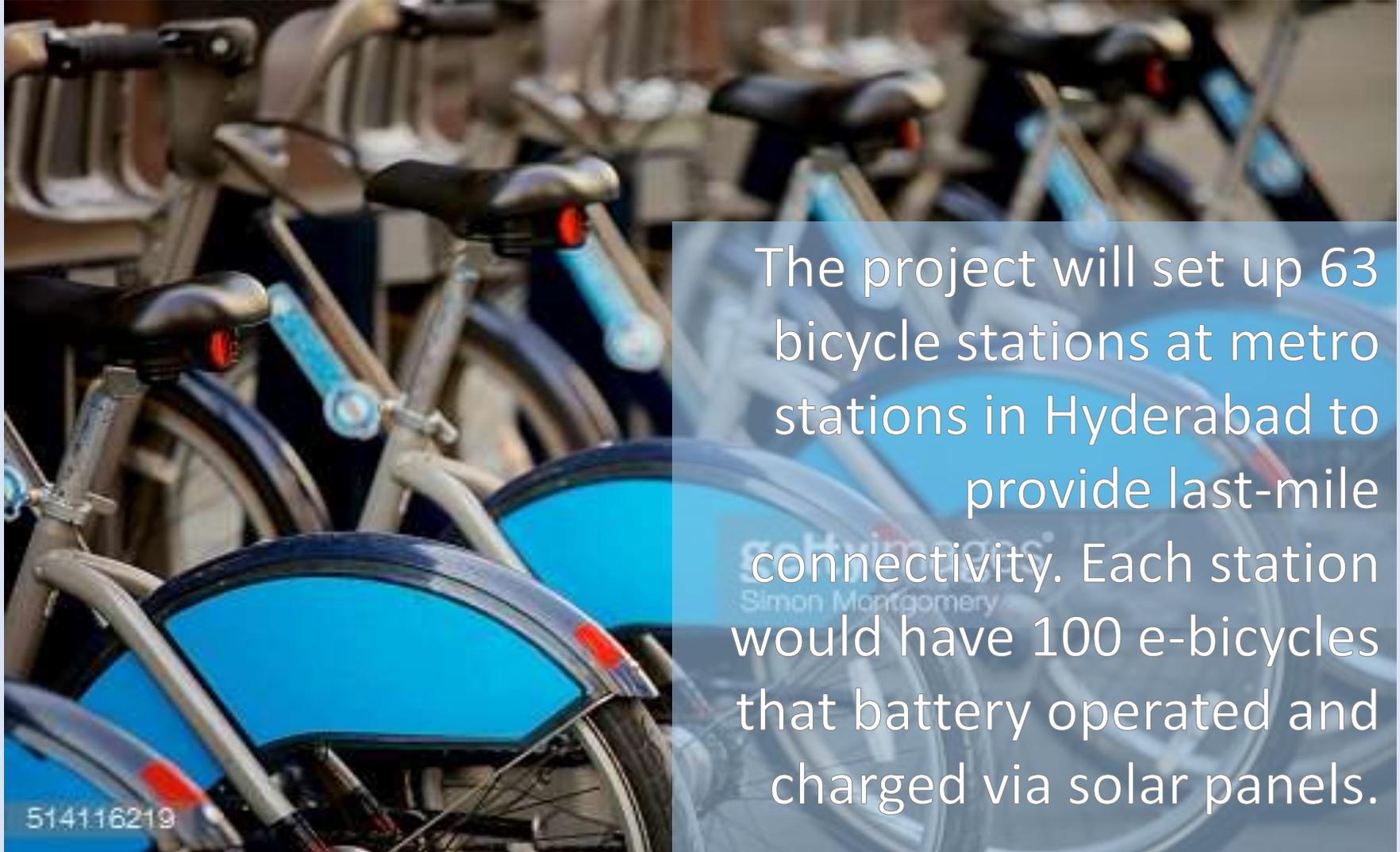
# Electrification of Utrecht Bus Transport



Utrecht is piloting an Inductive Power Transport (IPT) system for charging the vehicles while in operation. It is expected that this project will be scaled up from 3 to 11 buses as the business case has shown that the capital investments in the vehicles can be comparable to diesel buses with energy savings.

## (2) Scaling Up E-Mobility

# Hyderabad India Last-Mile Connectivity (E-)Bicycle Share System



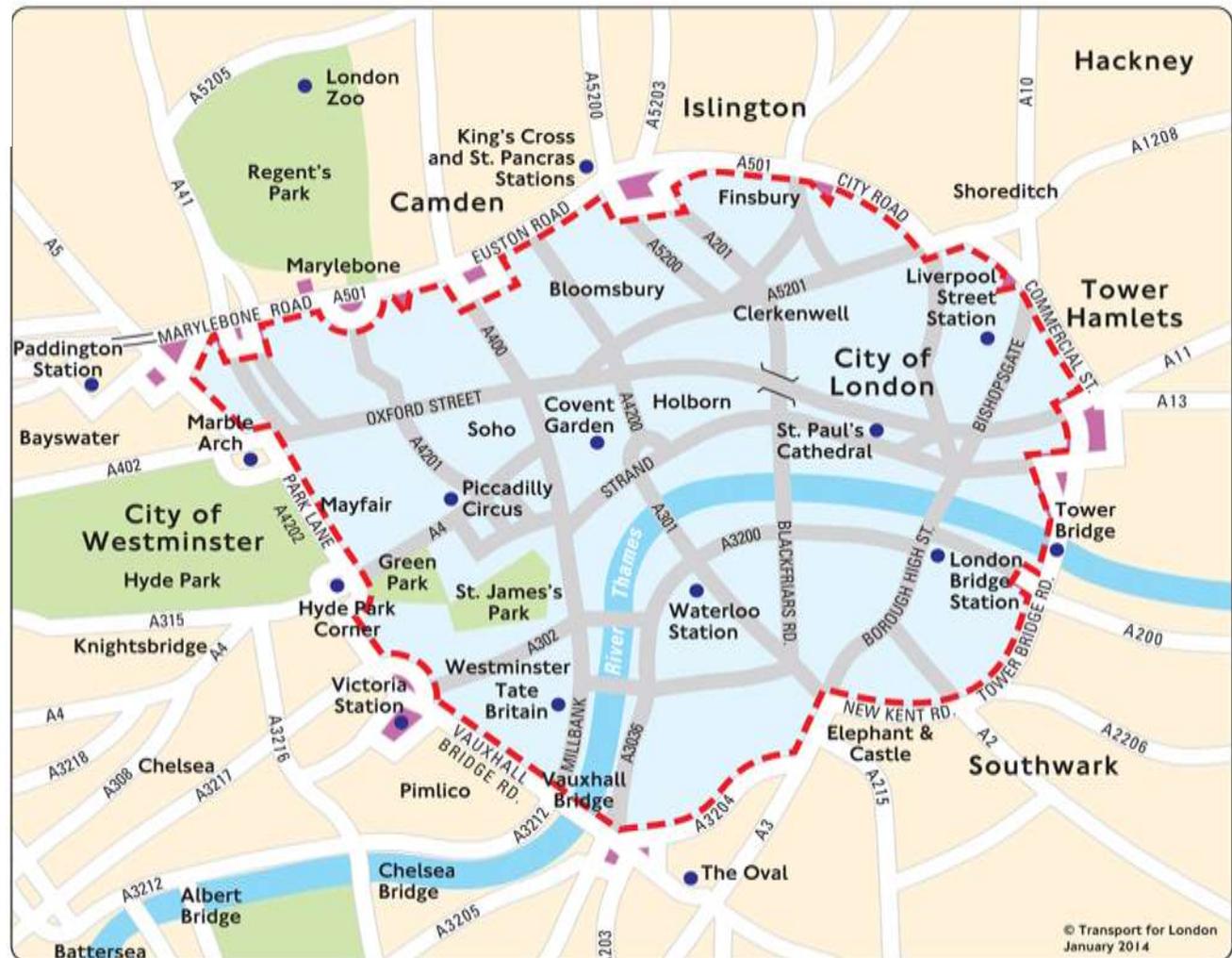
The project will set up 63 bicycle stations at metro stations in Hyderabad to provide last-mile connectivity. Each station would have 100 e-bicycles that battery operated and charged via solar panels.

# (3) Progressive Management Policies

## London's Congestion Charge and Ultra Low Emission Zone

The Ultra Low Emission Zone will be introduced in 2020 It will require all vehicles in the zone to meet emissions standards or pay a charge.

-  Ultra Low Emission Zone (ULEZ)
-  Congestion Charging zone boundary
-  Additional residents' 90% discount area
-  Main roads within the ULEZ



## (3) Progressive Management Policies

# Supporting Sustainable Transport Management in Dushanbe, Tajikistan



This project aims to improve public transport services and promote walking and cycling through technical measures, regulatory reforms, capacity building and awareness raising activities among decision makers and the public.

### (3) Progressive Management Policies

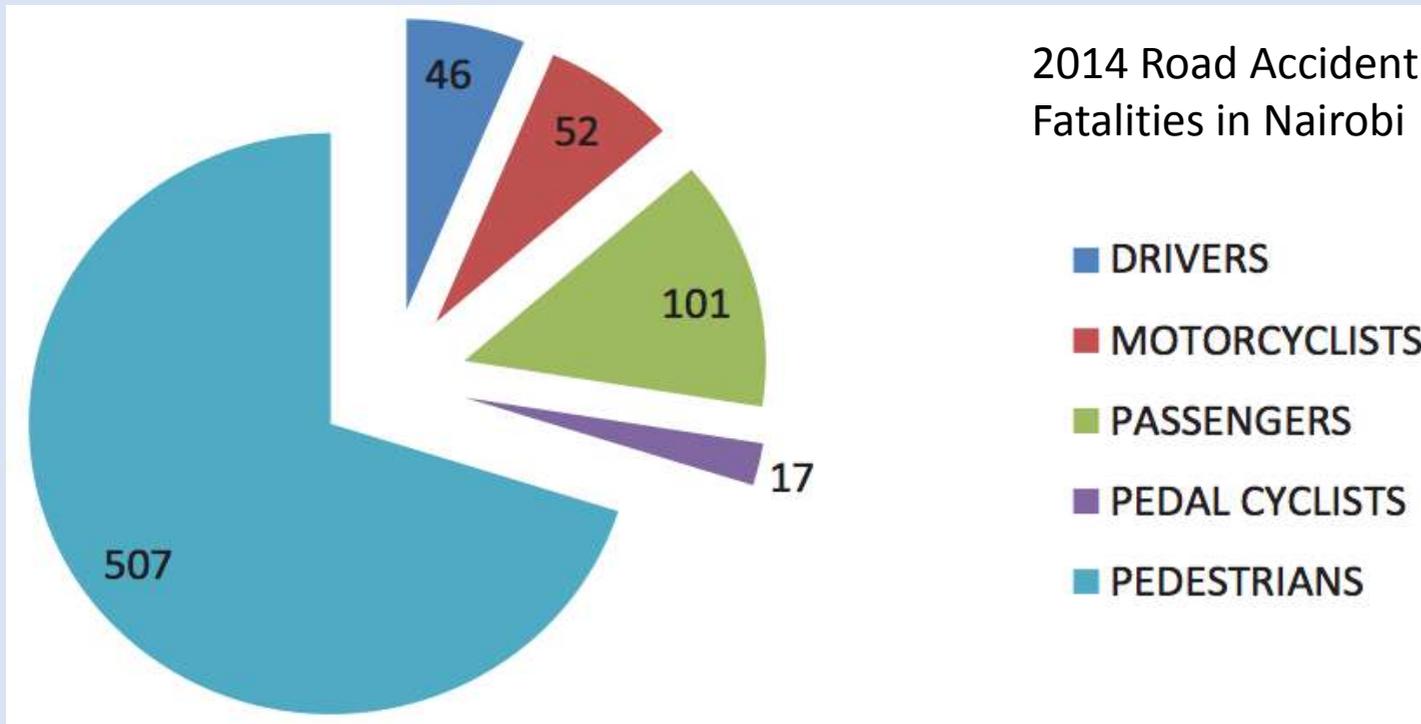
## Pedestrian Safety in Mexico City: Tactical Urbanism, #YoMeMuevo, and Vision Zero



Local transport activists have launched a range of campaigns, including MiPlaza (MyPlaza), #Camina (#Walk) and YoMeMuevo (I Move). Mayor Miguel Mancera recently announced a new Vision Zero policy aimed at improving safety and comfort for pedestrians.

# (4) Strategic Planning/Infrastructure

## Share the road – prioritizing walking and cycling in Nairobi



The Nairobi City County government will commit 20% percent of all road construction funds from 2015 onwards to be allocated to NMT infrastructure and facilities to catalyse the creation of safe, cohesive and comfortable network of footpaths and cycling lanes.

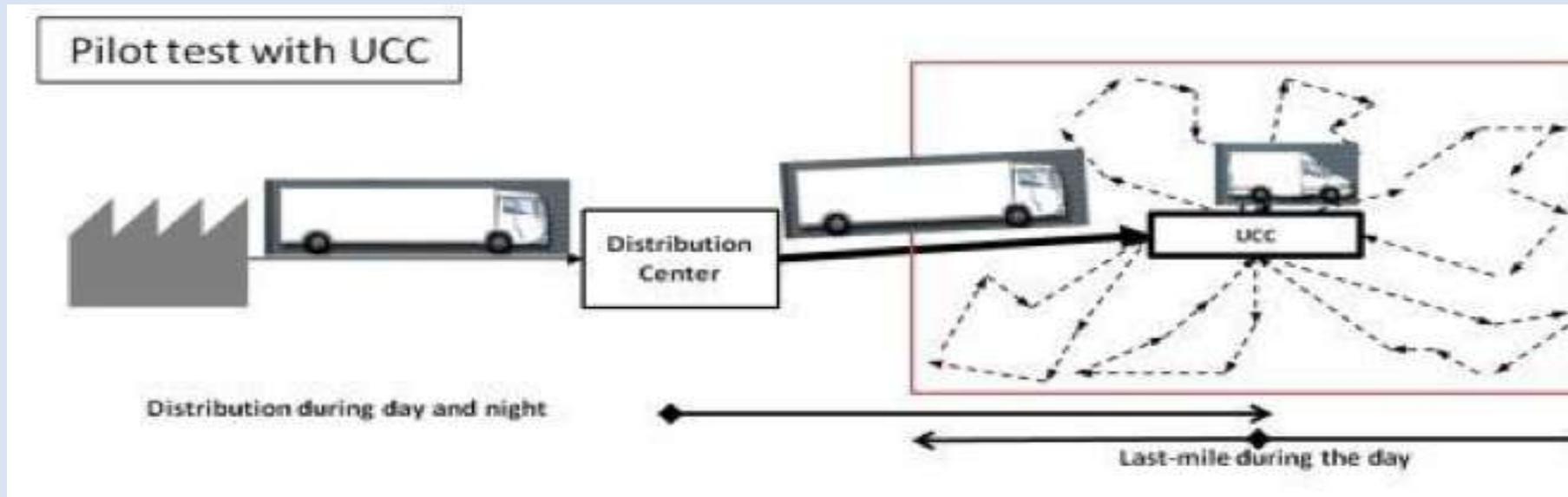
## (4) Strategic Planning/Infrastructure

# World Bank Resilient Cities Program: CityStrength Diagnostic



Based on this diagnostic, Can Tho, Vietnam has reprioritized its transport investments, choosing to build a bridge connecting the new city bus terminal with the traditional city center along with a ring road allowing traffic to avoid the city center.

## (4) Strategic Planning/Infrastructure Urban-Consolidation Centre in L'Hospitalet de Llobregat, Spain



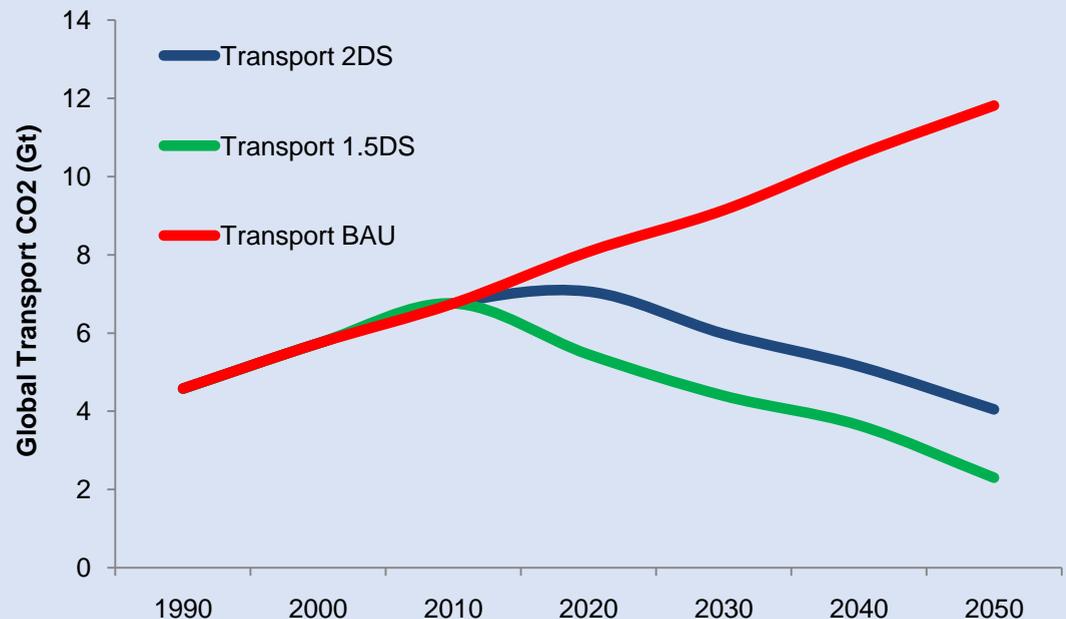
To improve urban freight deliveries in L'Hospitalet de Llobregat, DHL's 'Supply Chain Spain' set up an urban consolidation centre to reduce the number of vehicles entering the inner urban area (or last-mile distribution area) while maintaining required service levels.

# Discussion Topics

## 3. What are the key drivers of and barriers to innovation?

**2.5 Billion additional People in cities by 2050**

Moving to a target of well below the **two-degree Celsius scenario (2DS)** and pursuing efforts to limit the temperature increase to **1.5 degrees Celsius**



# Discussion Topics

## 4. How does innovative urban mobility support the New Urban Agenda (NUA)?

The zero draft NUA states, “...we need a massive transformation from the current pattern of ‘car-oriented’ development towards people-oriented development that improves urban access for all...”

Since cities are interlinked in regional, national, global networks, **urban transport innovations** have the potential to scale up quickly with sufficient sharing of knowledge and resources.