

Innovative Approaches to E-Mobility:

LEV for Urban Logistics in Latin American Cities

Global Conference on Electric Two- and Three Wheelers

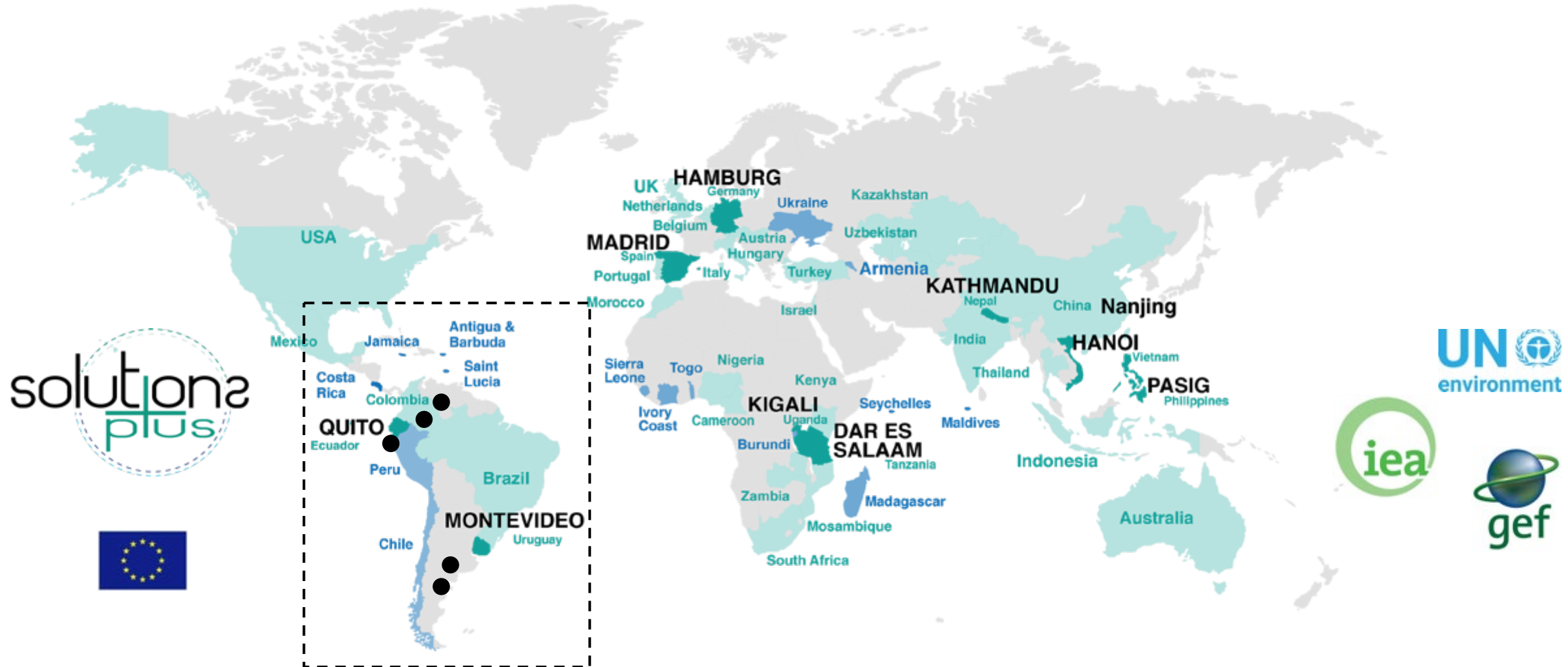
Bangkok, 9-12 October 2023

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Wuppertal Institute of Climate, Environment, and Energy



SOLUTIONSplus Projects in Latin America



Focus of SOLUTIONSplus Projects in Latin America



Last Mile Logistics



Local Design and Assembly of Light
Electric Freight Vehicle (LEFV)

Local Design and Assembly of LEFV in Quito and Montevideo

Quito

- 3 start-ups selected: ECargoBikeUIO, Sidertech & Grupo Miral
- 10 e-cargo bikes finished
- 10 e-quadricycles in assembly
- 2 e-vans in assembly
- 20 Expression of Interests from local companies



Montevideo

- 3 start-ups selected: CargoBikeUY, Wheele & GreenStar
- 8 e-cargo bikes & 2 e-tricycles finished
- 2 e-quadricycles awaiting the arrival of 2 Valeo kits



E-Cargo Bikes Pilots in Quito and Montevideo

Quito



10 E-Cargo Bikes



2 Months (Nov-Jan)



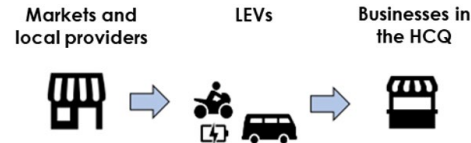
229 Trips

Key Findings

- 5 out of 7 logistics operators rate the solution as excellent and would like to continue using it
- The efficiency gains in all operating scheme reveal an immense scale-up & replication potential

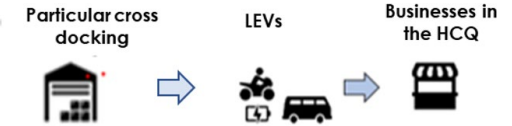
Scheme 1

Supply deliveries from markets and providers to businesses



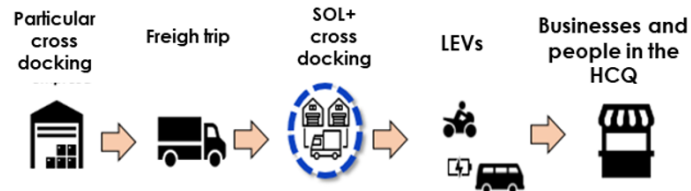
Scheme 2

Freight trips from particular storage to the local business



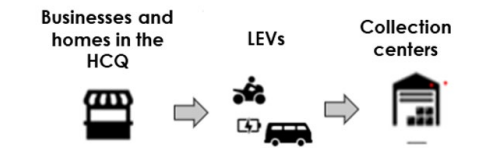
Scheme 3

Couriers and postal services



Scheme 4

Recycling associations



Montevideo



2 E-Cargo Bikes



2 Weeks (14-23 Dec)



156 Trips

Key Findings

- The current model of PedidosYA focuses on individual deliveries for which e-cargo bikes are too big
- They are planning to start a new business line by which consolidation will be required






Result and Impact: The Example of Quito




-  10 e-cargo bikes
-  2 months (7 nov- 6 jan)
-  1 accident
-  16 Tons
313,7 kg/day
min: 2 kg / max: 600 kg
-  956 packages
19 per day
-  154 recycled materials collection points
3 per day
-  229 trips
-  491.74 kg CO2e
-  1,071 km
21 km/day



Scheme 1


-  **75%** ↑
Income per hour
-  **43%** ↓
Working hours
-  **100%** ↑
Packages per trip

Scheme 2

-  **50%** ↓
Working hours
-  **100%** ↑
Packages per trip
-  **100%** ↑
Volume transported



Scheme 3

- 
- From 8 to 35** ↑
Packages delivered from the beginning to the end of the pilot

Scheme 4

-  **25%** ↑
Monthly income
-  **56%** ↓
Working hours
-  **100%** ↑
Packages per trip



Thank You!



More information:

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