

# Cleaning Urban Logistics

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Cross River Partnership

# Why Urban Logistics?

- Significant generator of trip mileage
  - Goods vehicles travelled 5.1 billion vehicle kilometres in 2009.
  - 80% undertaken in light goods vehicles
- LGV mileage has been increasing while other sectors have been dropping
- Road transport is responsible for
  - 47% of PM<sub>10</sub> emissions
  - 41% of NO<sub>x</sub> emissions
  - 25% of CO<sub>2</sub> emissions





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# Why Electric? – Myths?

- Available
- Operationally effective
  - Ranges – up to 160km+
  - Load – 500kg , 3.5t, 12t, 19t (?)
  - Charging infrastructure at depot
- Financial and non-financial benefits
  - Reduced operating costs
  - Marketing & CSR opportunities



**Business Van Leasing**

Please use the dropdowns on the left to filter these results

Finance deals are based on Contract Hire with 10,000 miles per annum. For other mileages and options click on 'Details'

	Monthly Rentals			
	2yr Contract	3yr Contract	4yr Contract	Select a vehicle
<b>Alkerm Mega Lwb Electric Van</b>	£439.95	£325.04	£262.15	<a href="#">View Details</a>
<b>Citroen Berlingo L1 Electric 635kg L3 56kg Auto</b>	£636.04	£488.14	£405.02	<a href="#">View Details</a>
<b>Smith Edison 3.5t Mwb Electric Medium Roof Van</b>	£2,897.35	£1,527.78	£1,216.06	<a href="#">View Details</a>
<b>Allied Elexor L2 3.5t Electric 19 Van</b>	£2,161.55	£1,574.34	£1,253.00	<a href="#">View Details</a>
<b>Mega Evoxer Lwb Electric 11,500L Decade</b>	Call Us	Call Us	Call Us	<a href="#">View Details</a>

**8 locations across Europe:** Amsterdam, Lisbon, London, Madrid, Milan, Oslo, Rotterdam and Stockholm

**15 industry partners**

**6 research organisations**

**127 electric vehicles**

**Duration:** Mar 2013 - 2017

**Total budget:** €14.2 m

**EU Contribution (FP7):** €8 m

**Freight applications** include a wide range of:

- Goods deliveries
- Innovative logistics systems and ICT
- Test of different vehicle types
- Diverse climate conditions



# Consortium



## City + Policy

Cross River Partnership  
(Co-ordinator)

City of Amsterdam

City of Lisbon

City of Madrid

City of Milan

City of Oslo

City of Rotterdam

City of Stockholm

Swedish Transport Adm.

EMEL

Transport for London

## Co-ordination and Dissemination

Hyer

Polis

## Research

Imperial College  
London

TNO (NL)

SINTEF (NO)

## Logistics



## ICT Partners



## Vehicle Manufacturers



## Grid Operators



Delivering Regeneration Together



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# Amsterdam/ Rotterdam



- Activity
  - All electric parcel distribution centres – no ICE
  - Trialing large 18t and 12t vehicles
  - Consolidation activity in smaller retail market
  - Suitable charging facilities – induction and/or rapid



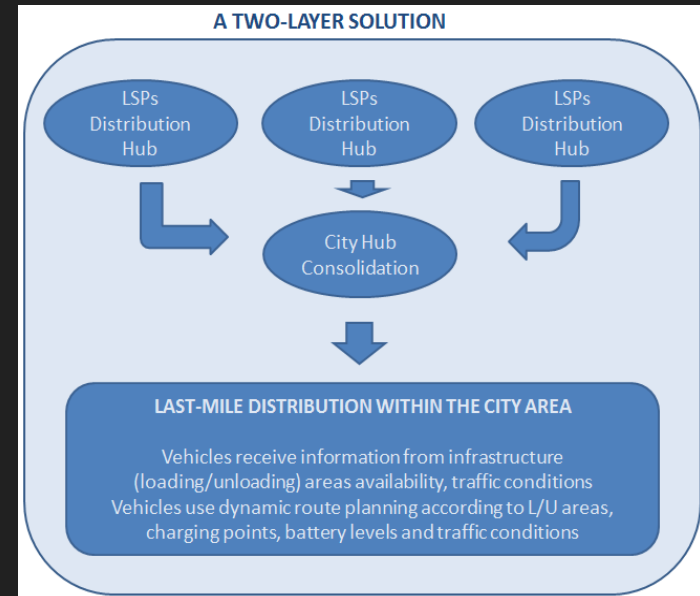
- Actions
  - Electric light goods vehicles for:
    - Municipal servicing
    - Postal services
  - ‘Smart’ on-street loading bays
  - New regulations for loading and unloading



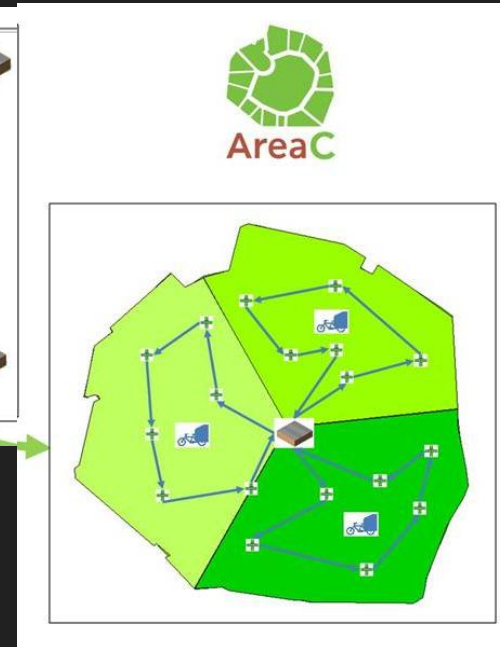
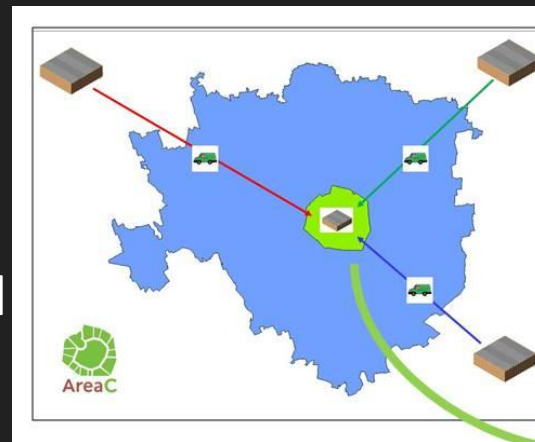
- Activity
  - Enhance consolidation centres through EV operation
  - Expand beneficiary pool from consolidation centres
  - Address energy grid constraints
  - Optimise existing EV logistics operations



- Activity
  - Consolidation centre servicing food/drink, post and retail clients
  - Light commercial through to heavy goods vehicles
  - Dynamic fleet management integrated with public parking/charging facilities



- Activities
  - Implementation of freight consolidation centre
  - EFV linking depots to consolidation centre and end customer
  - Route and delivery regime optimised to reflect daily conditions



- Activities
  - Large potential market for EV logistics
  - Extreme climatic conditions
  - Evaluate vehicle range and effectiveness in logistic operations
  - Manage charging requirements in 24 hour operational environment



- Royal Seaport Area
  - Consolidation centre during construction and when completed
  - Zero/ Low Emission Vehicles
  - Fast and standard EV charging facilities
  - ICT integration
  - Policy & Regulation



# Key Challenges

- Vehicle Availability
  - Scoping vehicle requirements
- Maintenance and Support
- Operational Environment
  - Fleet manager mind-set
  - Logistic models
- Policy Framework
  - Regulations based on ICE vehicles
- Charging needs



# Delivery Programme

- 2013/14
  - Assessment Framework
  - Vehicle Order and Delivery
- 2014 – 2016
  - Demonstration
  - Data Collection
- 2016 - 2017
  - Reporting and Closout



# Conclusions

- Electric freight vehicles can be:
  - **Operationally effective**
  - **Financially viable**
- Recharging infrastructure can be easily installed\*
- Can provide a significant opportunity for reducing transport emissions
- Does require greater consideration by:
  - Fleet managers
  - Local authorities
  - Customers

For more information, please contact:

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[www.crossriverpartnership.org](http://www.crossriverpartnership.org)

[www.frevue.eu](http://www.frevue.eu)

[www.lamiloproject.eu](http://www.lamiloproject.eu)