

LAMILO

sustainable city logistics

Michael Darchambeau, Co-Funder & CEO

THE GREEN LINK

+33 (0) 6 75 77 56 05

michael.darchambeau@the-green-link.com



Customers

THEY TRUST US...



Executive Summary

- The Green Link (TGL) is a business of parcels deliveries and pick-ups in central Paris with a fleet of 100% battery electric vehicles ;
- The Green Link started operations in 2009 and is now operating 3 urban delivery centres (green hubs) in Paris and is starting to develop in other towns and other countries ;
- The company has more than 80 Green Messengers and recently acquired its cargo bikes supplier named Trikescity ;
- End of 2013, the volume of parcels distributed was 2,500 per day, and the business is profitable on the market and expected to grow ;
 - We work for companies for whom the last mile is becoming less efficient due to congestion, new regulations regarding the quality of air in cities, and evolution of the business with more B2C deliveries with a 35% growth per year ;
 - Our solution is ecological and more efficient in city centre for parcels of less than 30 kg ;
- The Green Link aims to become the Europe's preferred and most successful supplier, both for businesses and local city authorities, for efficient and ecological city logistics ;

The Green Link Analysis

Observations

Traditional Logistic Model

- High congestion in urban area
- No pooling and low efficiency

Urban Goods Delivery

- 20% of urban transport (and resulting CO2 emissions) (1)

Communication

- Need for alternative models

Potential Solutions

Outsource the last mile activities through intra-city hubs (deliveries and collect)

Shift to ZERO emission small vehicles (3 wheels electric bikes)

Use an innovative communication tool

Results

- *Sustainable and profitable growth*
- *Value creation for all stakeholders (Municipalities, clients, suppliers, communities and shareholders)*

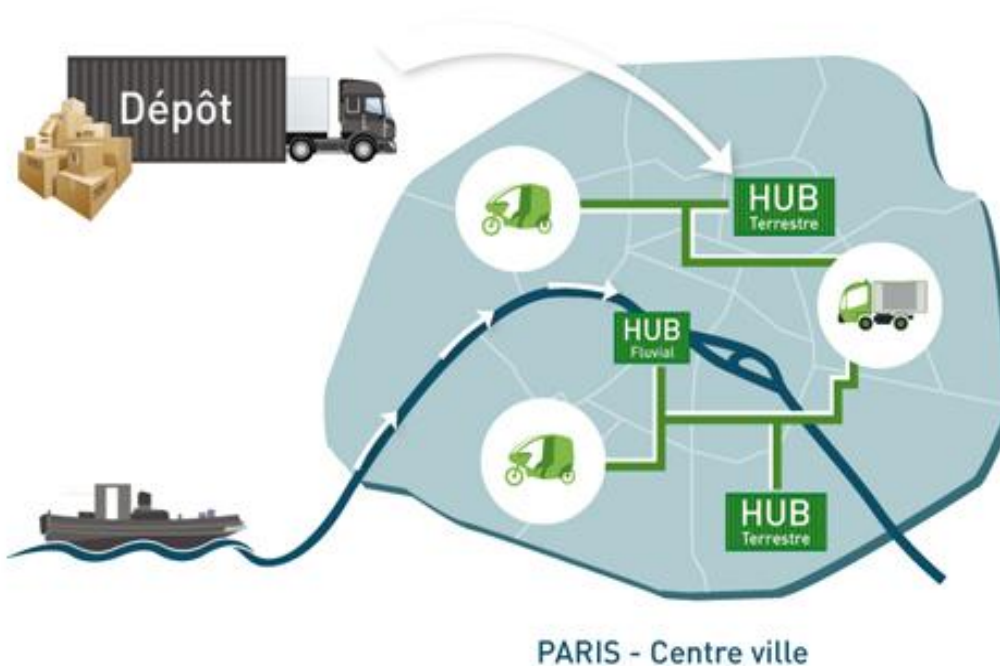
The Green Link Concept

- 1** Creation of an intra-city network of Hubs...
 - Located in the city instead of outside of it
 - Pooling of goods and flows
 - Refill of City Hubs is done very early morning
- 2** ...from which the Outbound “Last Mile” is exclusively performed with « Green » Vehicles...
- 3** ...carrying high impact Advertising for our partners contributing to their corporate social responsibility (optional)



- Objective to launch operations in the main European cities
- Pan-European expansion

The Green Link Concept



- The Green Link operates 3 Green Hub and a fleet of electrically assisted cargo bikes and electric vans ;
- The 3 hubs are supplied outside rush hours either by truck and/or boat by us or by our customers ;
- The parcels are consolidated in the hub before being optimized into rounds and being delivered exclusively with clean vehicles

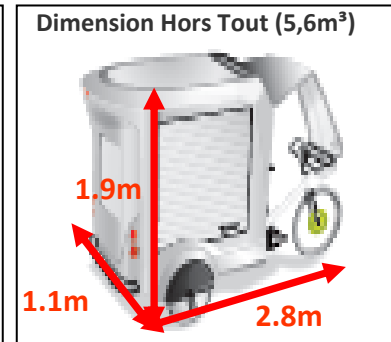
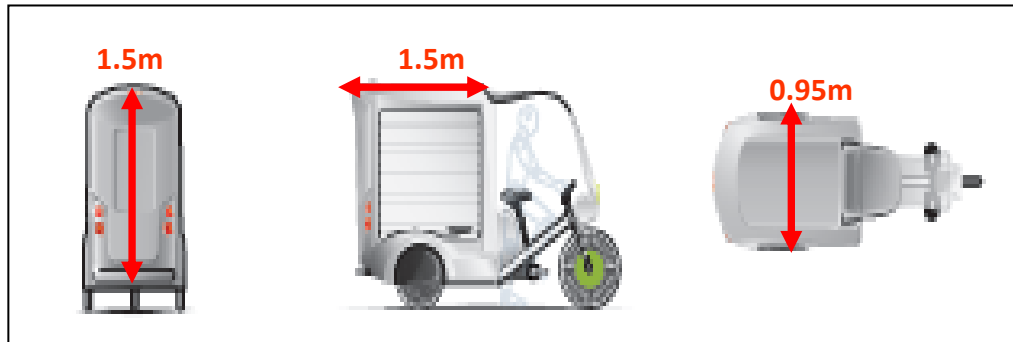
the **green link**
urban mobility solutions



The Electric Feeders



The Green Link *Fleet*



Performance

Real Operational Data

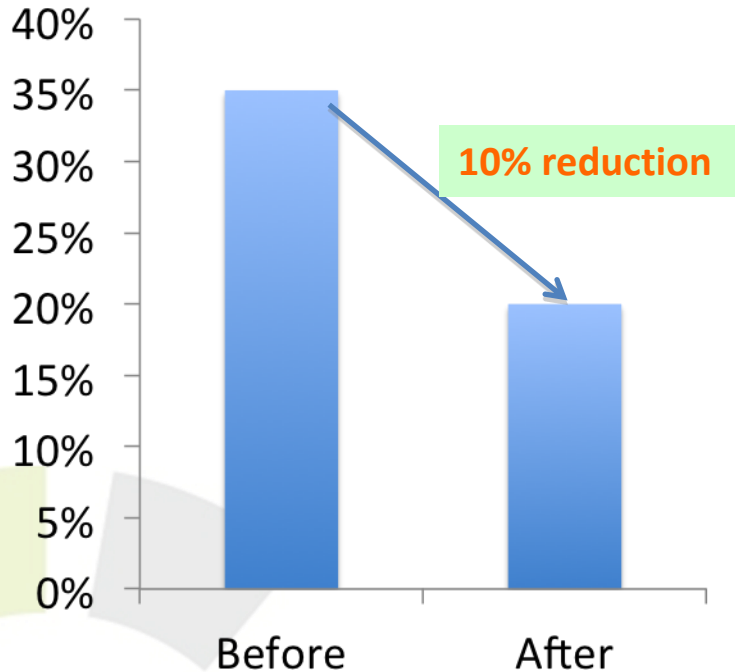
Loading Capacity	2,3 m3 / 350 kg (max 30 kg/package)
Speed	25 km per hour
Autonomy	15 km (6 hours to reload) – <i>Pocket size lithium batteries with possibility to carry extra ones in the bike for replacement</i>



Challenges & Solutions

Challenge No 1. Reduce CO₂ Emissions on last mile

CO₂ Emissions due to Transport



The Green Link is offering an innovative approach to deliver parcels....

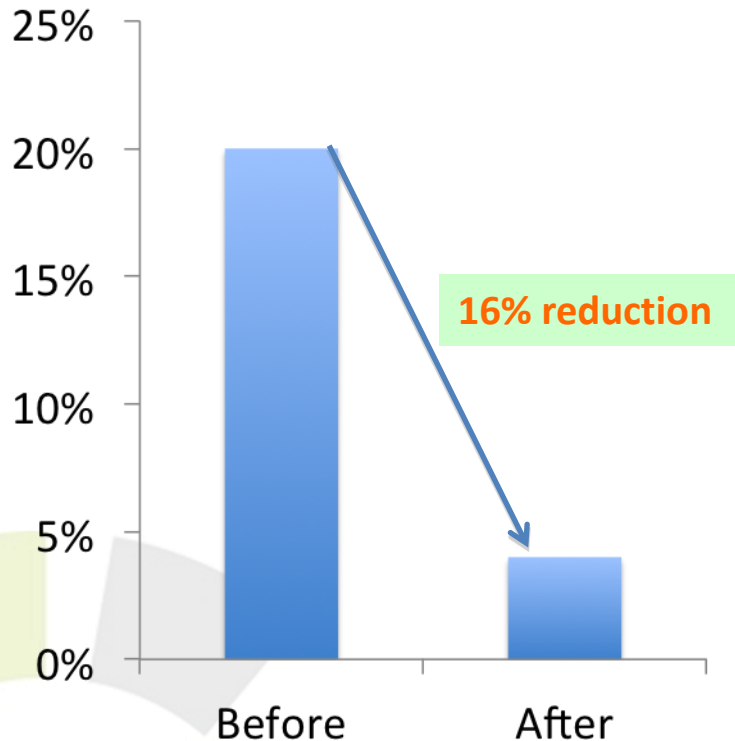
- 1 Creation of an intra-city network of Hubs
Pooling of goods and flows / Bundling
- 2 Use of assisted Electric Cargo Bikes
- 3 Innovative & Collaborative approach from Leaders



Challenges & Solutions

Challenge No 2. Reducing not-at-home B2C delivery failures

B2C Delivery Failures



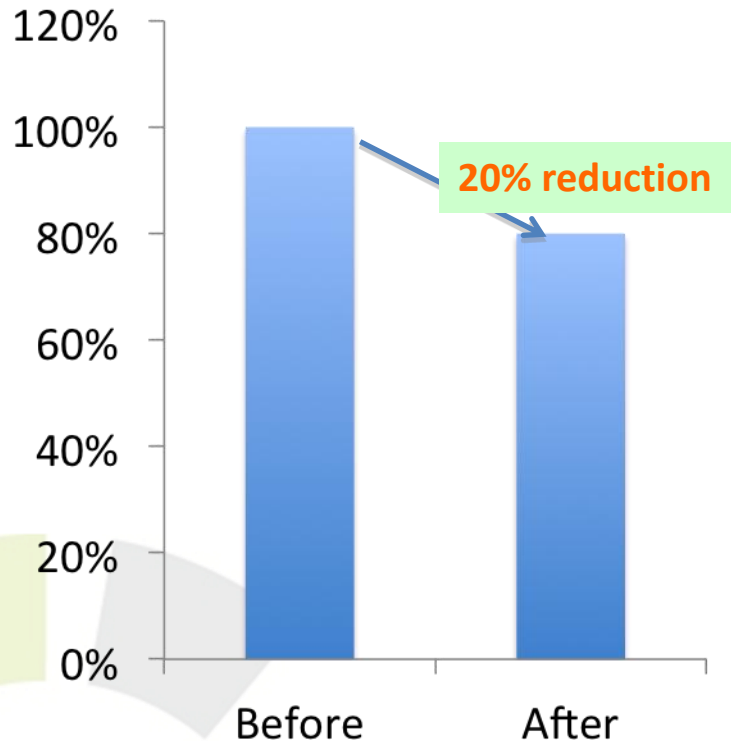
The Green Link is offering additional services...

- 1 Deliveries : before 8 AM, after 6 PM
- 2 Send an SMS 60 minutes before coming
- 3 Deposit Point in one of our Green Hub

Challenges & Solutions

Challenge No 3. Reduce the cost of distribution

Distribution Cost



The last mile is more efficient by passing through intra-city hub and use cargo bikes...

- 1** **Tour Optimization** (Minimizing Distances of Tours / Taking into account the specificities for bikes / Minimum stops per round in order to be profitable)
- 2** **Use of bike lanes, and bus lanes – no traffic**
- 3** **No additional charges for gasoil, CO2 taxes, congestion charges,...(related to future policies)**
- 4** **Combining delivery and pick-up**
- 5** **Multi-client deliveries**

The Information System

TOUR OPTIMISATION

(1)
Early warning file

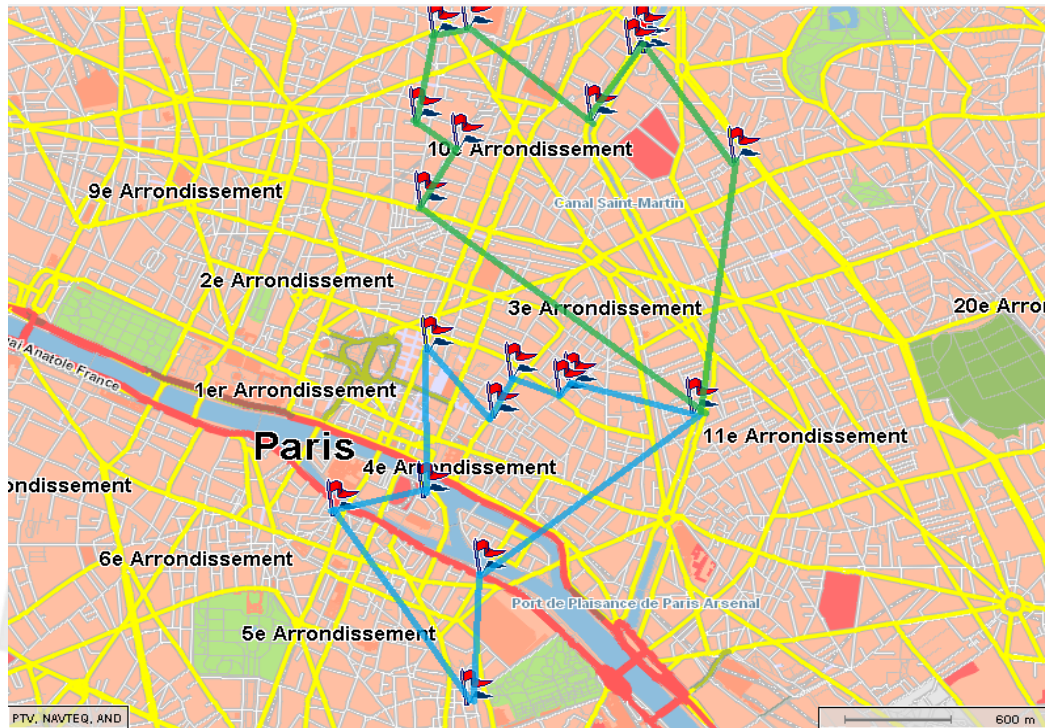
(2)
Tour Optimisation

(3)
Dispatch

(4)
Proof of Delivery

(5)
Real Time
Information

(6)
Reporting Business



Parameters :

- Minimizing Distances of Tours
- Taking into account the specificities for bikes
- Maximum duration per round
- Minimum stops per round in order to be profitable

The Information System

MOBILE APPLICATION

(1)
Early warning file

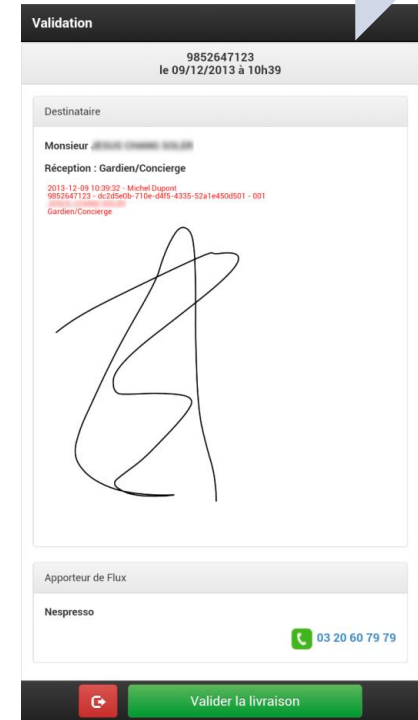
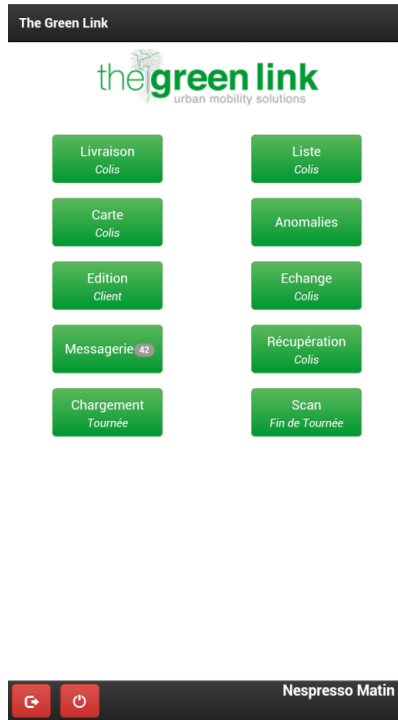
(2)
Routes Optimisation

(3)
Dispatch

(4)
Proof of Delivery

(5)
Real Time Information

(6)
Reporting Business



The Information System

REAL TIME INFORMATION



the green link Home Livreurs Tournées Statistiques Anomalies admin Déconnexion

Livreurs

06/12/2013 Tournée Nespresso Matin

Colis de Michel Dupont
13 / 16 / 0

Destinataire	Apporteur	Statut
PHILIPPE LEPREVOST	Nespresso	DELIVERED
CYRILL DAVY	Nespresso	DELIVERED
SAMUEL H	Nespresso	DELIVERED
MARGAUX BERTIN	Nespresso	DELIVERED
CHRISTOPHE HARRER	Nespresso	DELIVERED

1 2 3 > >>

Story Board

1 - FEEDERING



TNT Truck 1 leaves their Sorting Center a 5:30am



Truck arrives at The Green Link city hub at 7am



Unloading and unwrapping of pallets



Dispatching per rounds starts immediately

Story Board

2 - SEQUENCING



Bikers arrive at 7:45 am for warm up



Sorting per round is finalized with the help of the IT system and the dispatcher



Bikers scan and load the parcels in the sequencing order prepared by the dispatcher



Story Board

4 - LOADING AND GO!



Biker rigorously loads his bike (2 cubic meter).....Reverse order of delivery (LIFO Method) and then GO !



1st Delivery takes place 15 minutes later

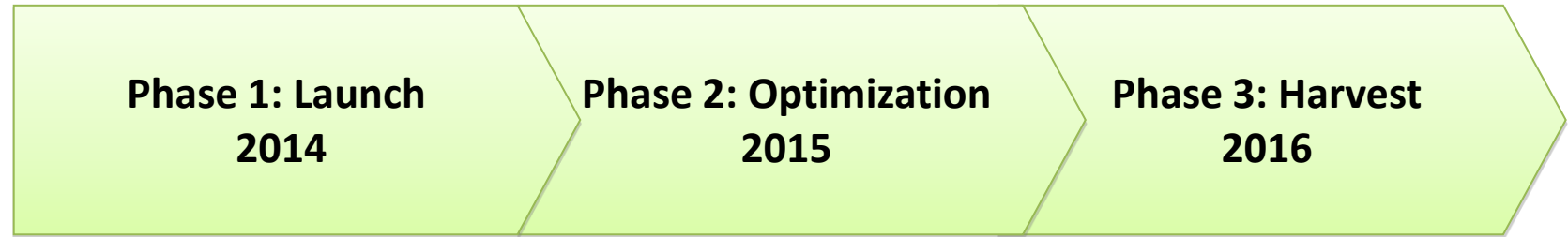


1st Client is successfully delivered and signs the Proof of delivery



Next Steps

THE GREEN LINK DEVELOPMENT PLAN



- | | | |
|--|--|--|
| <ul style="list-style-type: none"> • Develop network of intra-city hub network • Operate single and multi-client recurrent delivery rounds with light and clean vehicles. Launch pick-up rounds • Develop software and other tools • Optimize tools, best practices • Develop European Network • Develop consulting approach to... • ...Consolidate partnerships with clients, municipalities (real estate) and financial community | <ul style="list-style-type: none"> • Multiply number of hubs, explore new geographies • Test multi-client recurrent delivery rounds, combine with pick-up rounds, negotiate security and quality requirements • Further build European network • Develop pool of expertise, share best practices across network • Initiate early contacts with municipalities to build pooling centers outside city | <ul style="list-style-type: none"> • Saturate existing cities, launch other geographies if applicable • Roll out of multi-client recurrent delivery rounds, test multi-sector feasibility, launch combined rounds • Include client service level tool • Standardize and optimize network • Start building of dedicated facilities |
|--|--|--|

For further information, please contact:

Michael Darchambeau, PDG

THE GREEN LINK

+33 (0) 6 75 77 56 05

michael.darchambeau@the-green-link.com

