Key Facts about Deutsche Post DHL

EXAMPLES

Approximately 480,000 employees in more than 220 countries/territories (including nearly 60% outside Germany)

64m letters/3.4m parcels each workday in Germany/more than 27,000 sales outlets in Germany

Group revenues1): EUR 55.1bn/Group EBIT1): EUR 2.86bn Market capitalization2): EUR 32.039bn

~ 650,000 international express shipments per day (2013) (Time Definite International) (+8% vs. previous year)

3.9m tons of air freight/2.8m TEU3) of ocean freight in 2013

23m square meters of warehouse space in contract logistics

1) Financial year 2013
2) As of 12/31/2013
3) TEU = Twenty-foot equivalent unit

DPDHL GoGreen Programme

Deutsche Post DHL was the first globally operating logistics company to set itself a concrete CO_2 efficiency target

– DPDHL CO_2 Index –

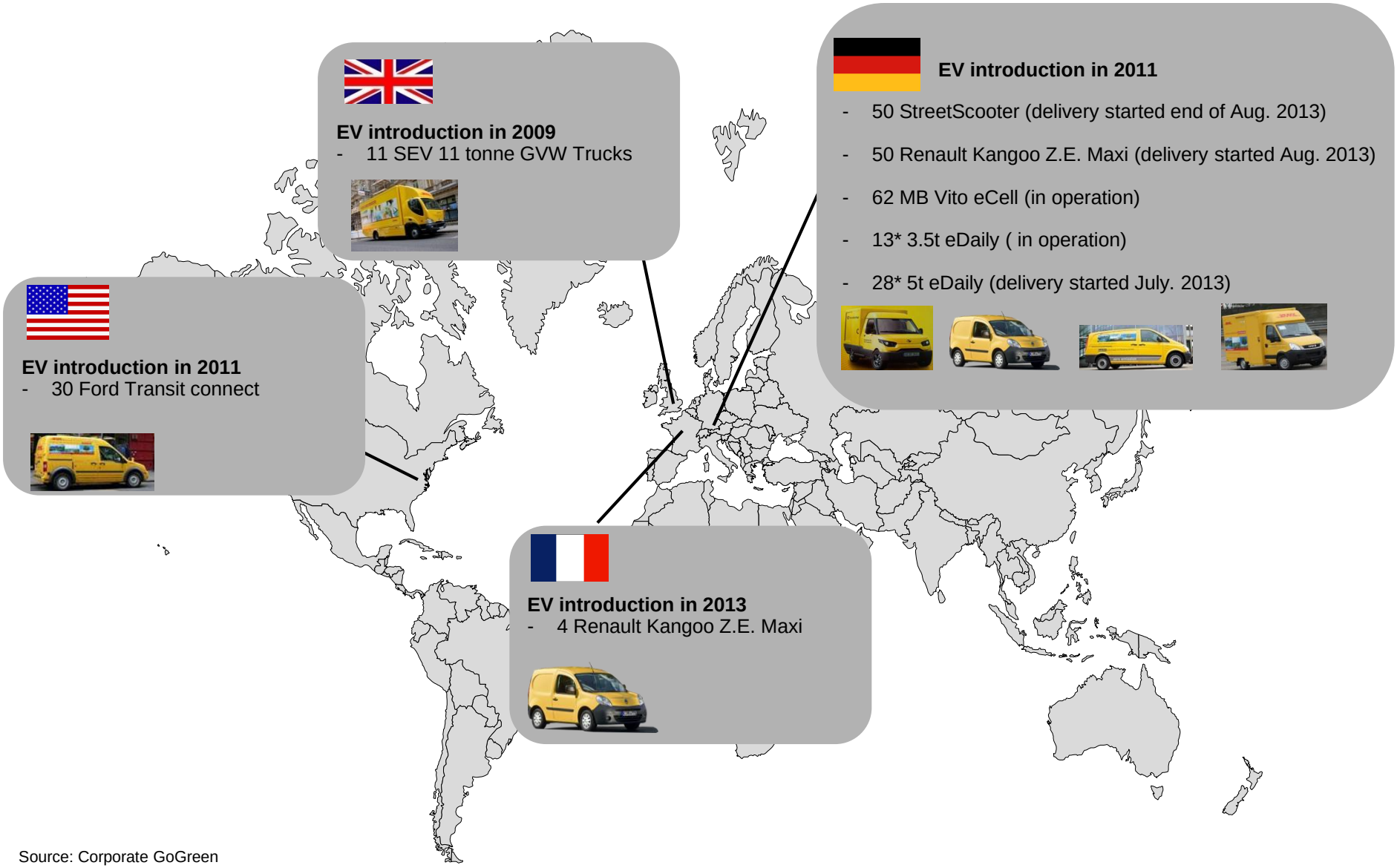
We aim to improve our CO2 efficiency including subcontractors by 30% by the year 2020, compared to our 2007 baseline.

GOGREEN
Environmental protection with Deutsche Post DHL

At the end of 2012 we had surpassed our interim target and delivered 16% improvement.

Source: GoGreen, Deutsche Post DHL, Green Strategy 1) Direct and indirect emissions Scope 1, 2 and 3

DPDHL Global E-Mobility Fleet



EV introduction in 2009
- 11 SEV 11 tonne GVW Trucks

EV introduction in 2011
- 30 Ford Transit connect

EV introduction in 2011
- 50 StreetScooter (delivery started end of Aug. 2013)
- 50 Renault Kangoo Z.E. Maxi (delivery started Aug. 2013)
- 62 MB Vito eCell (in operation)
- 13* 3.5t eDaily (in operation)
- 28* 5t eDaily (delivery started July. 2013)

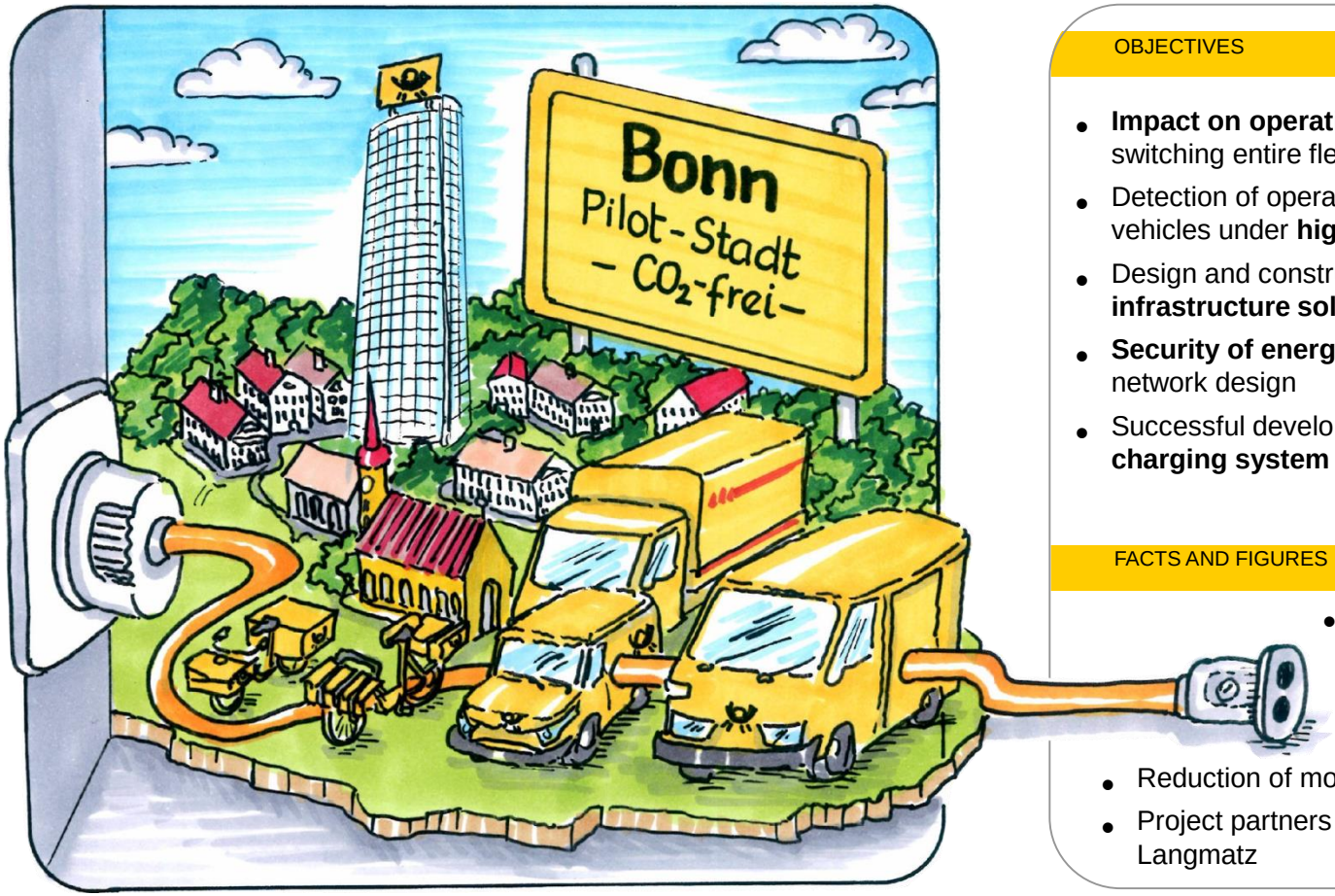
EV introduction in 2013
- 4 Renault Kangoo Z.E. Maxi

Source: Corporate GoGreen

CO_2-free delivery – Bonn - Germany

From July 2013 onwards the first 79 electric vehicles for mail and parcel delivery are being deployed in pilot city Bonn

Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit



OBJECTIVES

- **Impact on operation processess** when switching entire fleet to electric vehicles
- Detection of operational applicability of vehicles under **highest load condition**
- Design and construction of c**harging infrastructure solutions** to major fleet
- **Security of energy supply,** including energy network design
- Successful development of **intelligent charging system software**

FACTS AND FIGURES

- First Phase with **79 vehicles** (more than 140 vehicles planned before 2015)
- Reduction of more than 500 tCO_2 p.a.
- Project partners University of Aachen, Langmatz

Quelle: Deutsche Post AG, GoGreen 1) Subsidized by Federal Ministry for Environment

Intermediate vehicle test results

Overall functionality generally fits to operations, smaller issues could be solved short-term, payload challenge key to success

Electric vehicle classes

2,3t

VW Caddy

Renault Kangoo

2,8t

MB eVito

3,5t

Ford Transit

Iveco eDaily

Range and Charging

Between **90 and 130 km** - not a challenge across all driving cycles and vehicle classes. **Fast charging** to be confirmed.

Payload

Across all vehicle types load capacity is **300kg less** compared to conv. vehicle which does not allow a 1:1 replacement.

Noise

Inside noise **lower** than in conventional vehicle – challenge: **outside** noise in urban areas

Electrical heating system

General positively assessed if managed by vehicle automatically; challenging if driver needs to switch on. **Energy consumption is challenging**.

Visualization

1. **Cockpit display** with: range/batt. capacity, driver behaviour, recuperation
2. **Outside display**: vehicle charging, remaining time, charging failure

Charging and communication

Charging of large fleets causes **challenges** to local energy infrastructures and safety of **local energy supply**

Source: GoGreen, Deutsche Post DHL 1) Comprehensive winter testing results outstanding

DHL Supply Chain – UK - Electric Trucks

DSC UK have had eleven Smiths electric trucks between 9-11 tonnes in operation for the past 5-6 years.
Seven of these are on specific City deliveries for TK Maxx, the remainder are working to complement our pilot projects in Retail Consolidation Centres.

In the early years the trucks suffered from poor reliability, largely due to the original “Zebra” Nickel Chloride batteries. Since converted to Li-ion they have proved to be reliable through both summer and winter periods.

Charge times are typically 8 hrs for up to 160km driving.

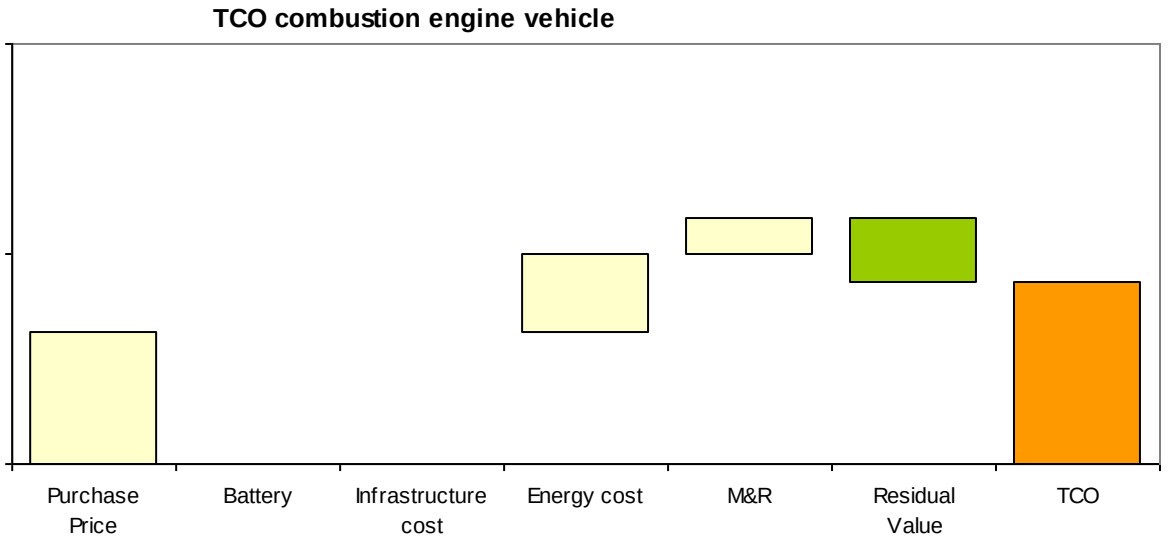
Payloads are limited leading to specification of higher gross weights where 7.5t conventional trucks may have been adequate.

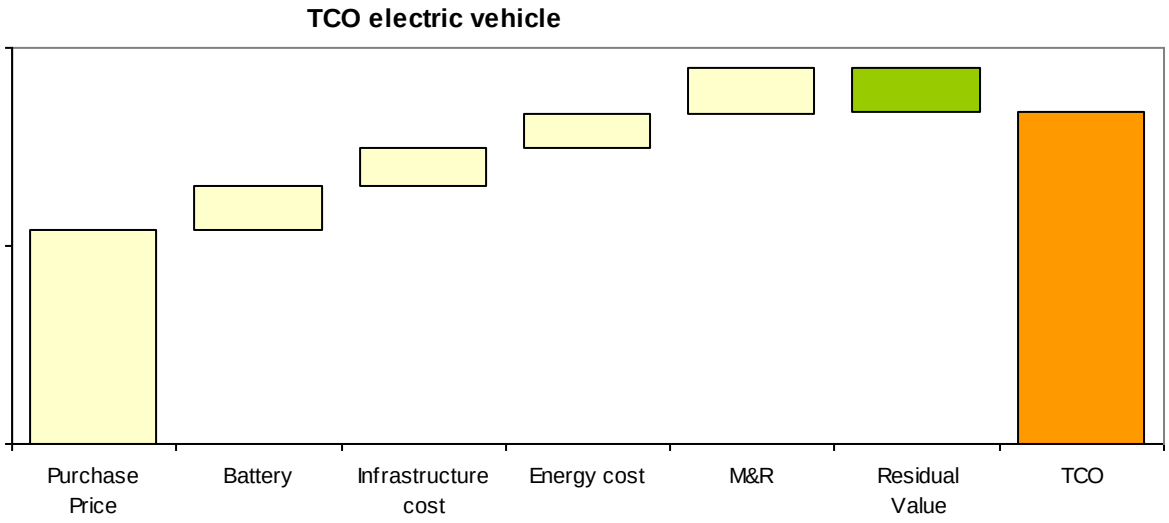
Costs of the vehicles when new were around three times that of a conventional vehicle

Sites from which the trucks operate are mainly contracted to electricity from renewable sources, so can effectively be said to be zero emission.

Cost Components of Diesel Engine vs Electric Truck

Illustrative





Source: Corporate Procurement

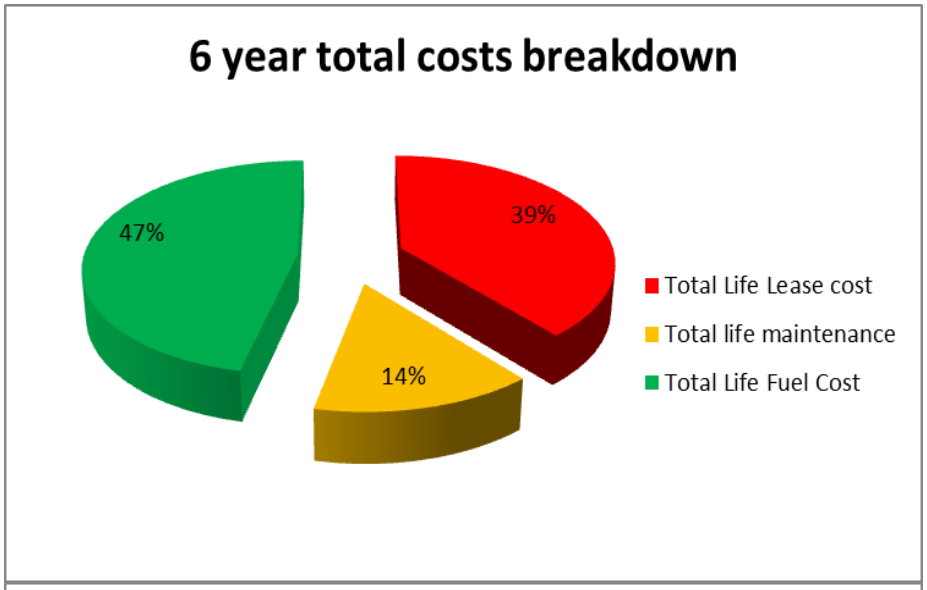
Combustion Engine

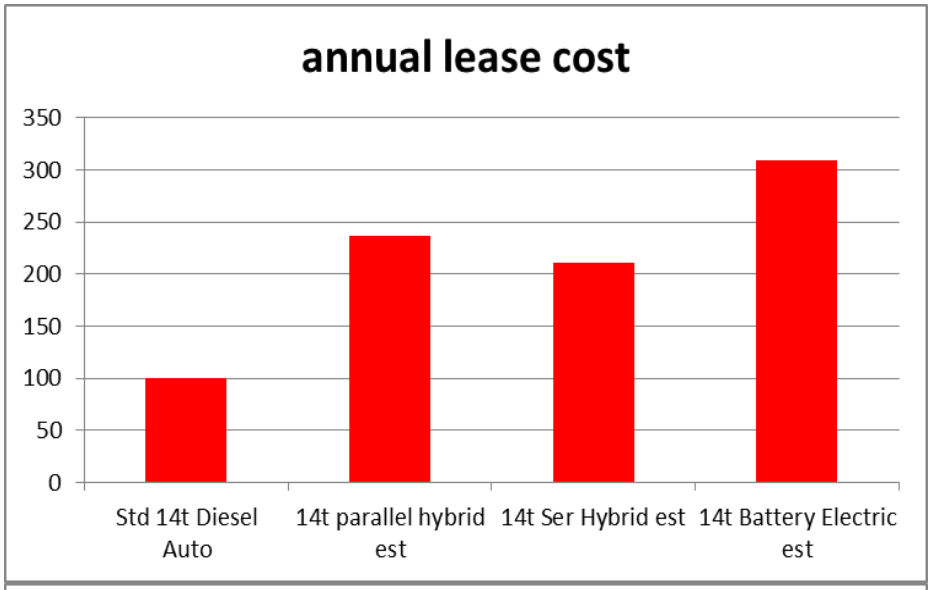
- Total lifetime costs highly predictable
- Residual value reasonably predictable – established, stable after-market
- Manufacturer underwrites on M&R, residual values

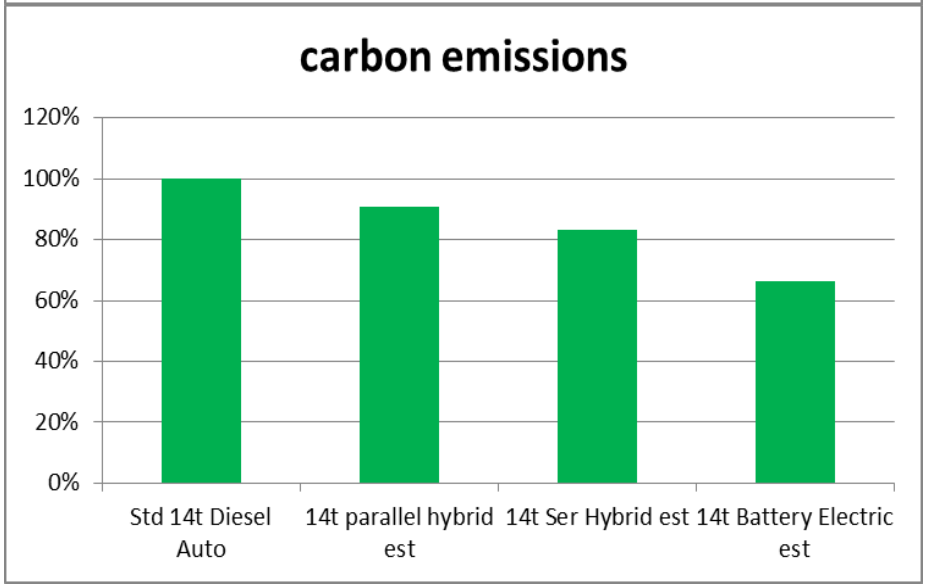
Electric Power

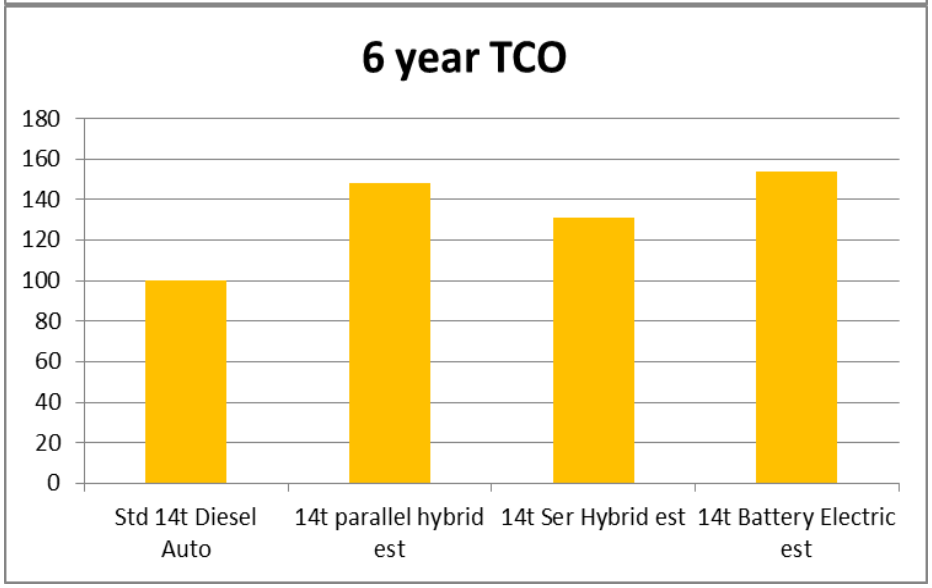
- Total lifetime costs not currently predictable
- Higher initial cost, battery and infrastructure are additional components
- Residual value predictions unreliable – no established after-market for SCV
- Manufacturer underwrites on M&R, residual values not widely available

Urban Truck Comparison

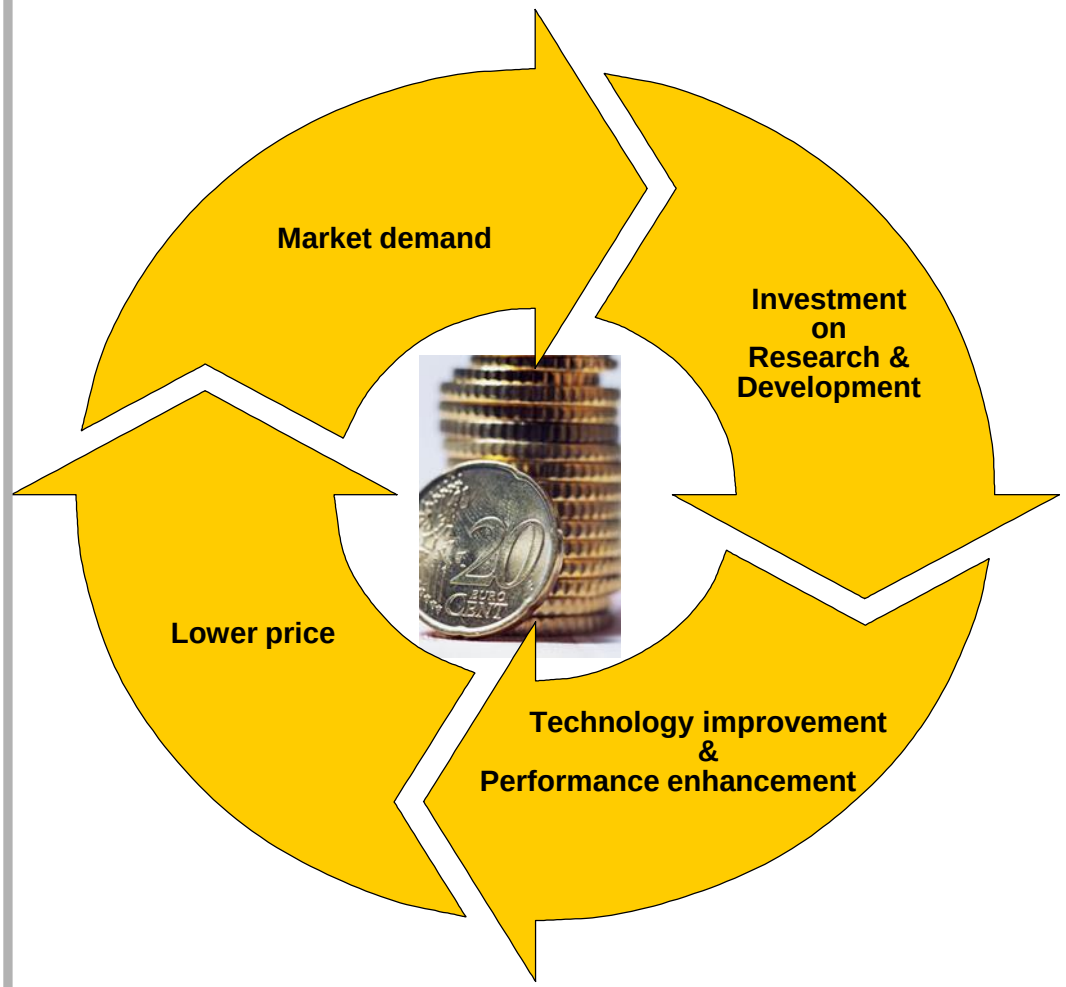








Original Equipment Manufacturer (OEM) Positioning



- Market demand drives further investment on R&D
- More investment leads to technology improvement and performance enhancement
- Better technology leads to lower price
- Lower price makes the product affordable for more customers and drives demand

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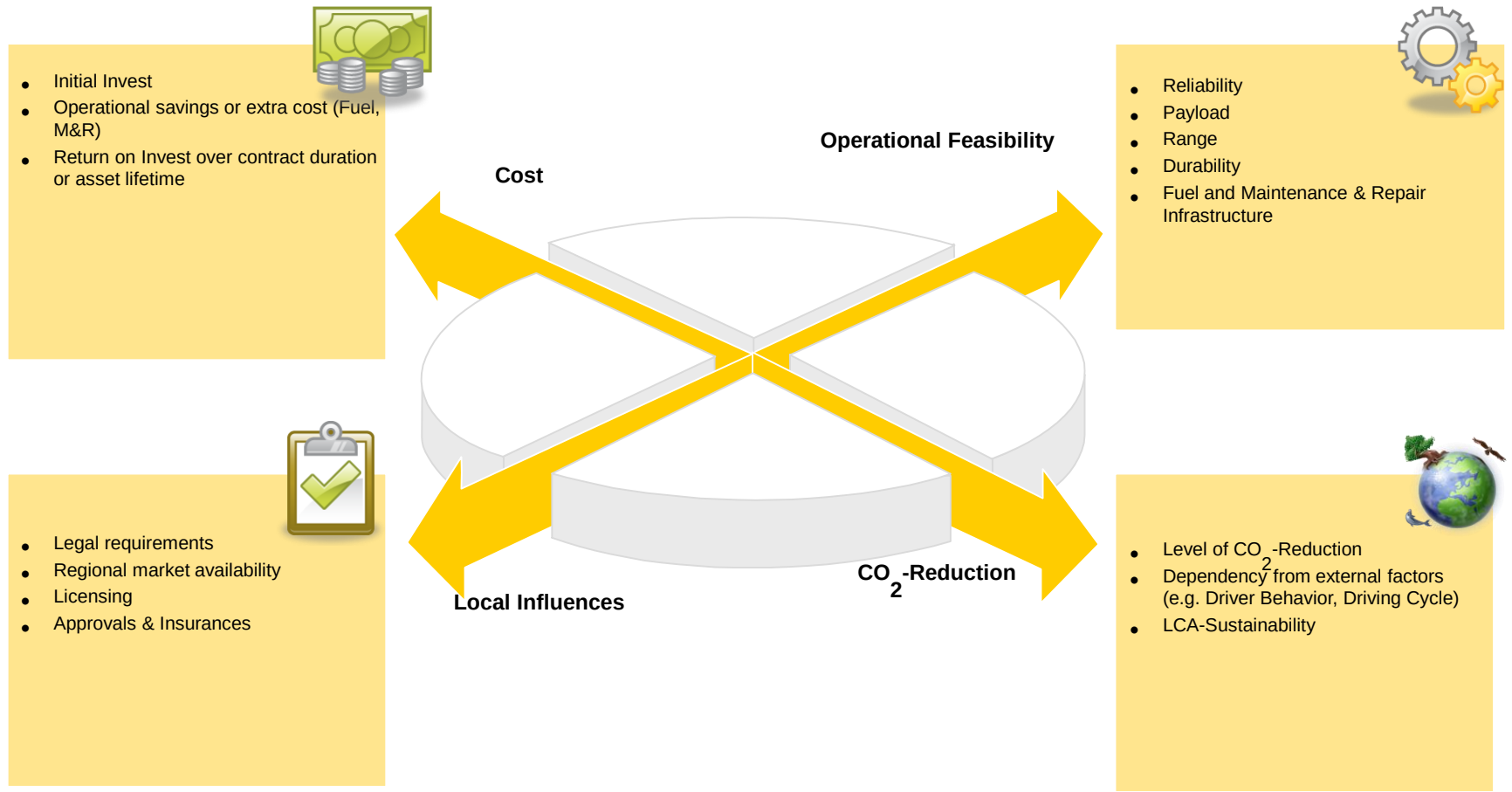
- Due to the limitation of battery technology, electric vehicles are not in a positive cycle of development
- OEMs are therefore reluctant to develop further the electric vehicle and are therefore committing limited R&D investment
- The cycle is only likely to be broken by legislative restrictions on fossil fuels or a quantum leap in battery performance

Green Supply Chain Design Process

4 factors determine the suitability of solutions and lead to diversified approaches in different regions, operations and vehicle classes



- Initial Invest
- Operational savings or extra cost (Fuel, M&R)
- Return on Invest over contract duration or asset lifetime

- Reliability
- Payload
- Range
- Durability
- Fuel and Maintenance & Repair Infrastructure

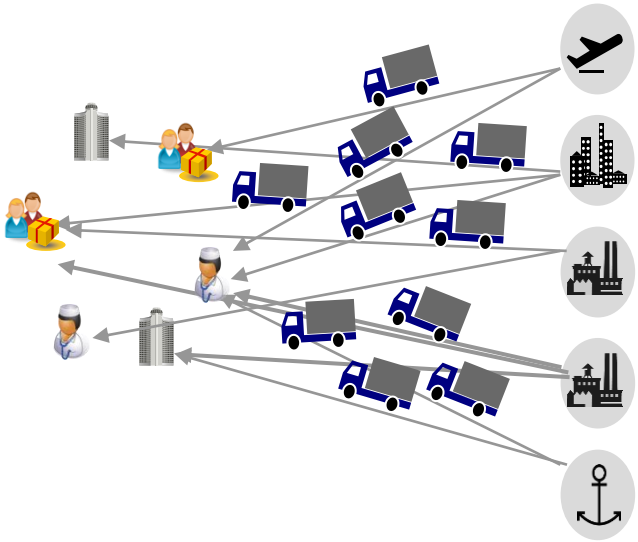
- Legal requirements
- Regional market availability
- Licensing
- Approvals & Insurances

- Level of CO_2-Reduction
- Dependency from external factors (e.g. Driver Behavior, Driving Cycle)
- LCA-Sustainability

Source: DPDHL, 026 GoGreen

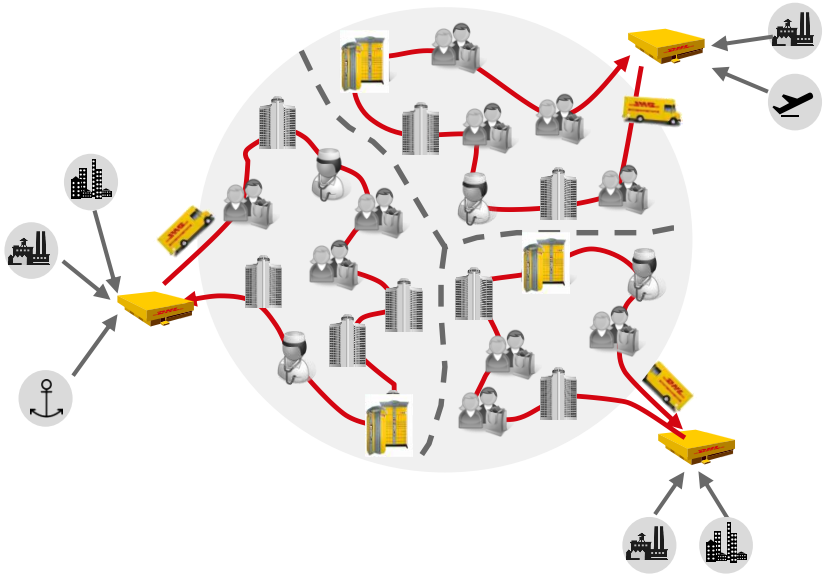
Urban delivery consolidation centres

Current situation



Multiple trucks/vans from suppliers deliver direct to urban locations
Multiple vehicles often to the same delivery point at different times
Multiple resources poorly utilised whilst negotiating urban traffic and delivery points
Trucks/vans of standard build to cover stem mileage and delivery

Vision DHL's City Logistics



Goods from suppliers delivered to urban consolidation centres outside congestion area
Deliveries consolidated into loads for multi-drop into sensitive areas
Vehicle movements significantly reduced
Final delivery vehicles low/zero emission & better attuned to urban deliveries

DHL SUPPLY CHAIN

GOGREEN

Environmental protection
with Deutsche Post DHL

Thank You !