



## **Sustainable last mile logistics**

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## GLOBAL SMALL PACKAGE

Full spectrum of ground and air package shipping services



Traditional and nontraditional financial and payment services through UPS Capital

## INSURANCE & FINANCING

## LOGISTICS & DISTRIBUTION

Solutions that manage the flow of goods from receiving and storage to processing and shipping



A global portfolio of brokerage, less-than-truckload and full truckload services, and air and ocean freight services

## FREIGHT FORWARDING



## Who We Serve

**10.5 Million+**  
Customers  
Daily

**46 Million+**  
UPS My Choice®  
Members  
(as of June 2018)

**220+**  
Countries and  
Territories Served

## Where We Go

**5.1 Billion**  
2017 Delivery  
Volume

Americas  
Asia-Pacific  
Europe  
Indian Subcontinent,  
Middle East, and Africa  
(ISMEA)  
USA

**20 Million**  
Package Deliveries  
Daily

## How We Do It

**454,000+**  
Global Employees

**2,240+**  
Daily Flight  
Segments

**119,000**  
Vehicles

**2,500+**  
Worldwide  
Operating Facilities

**27,500+**  
UPS Access Point™  
Locations

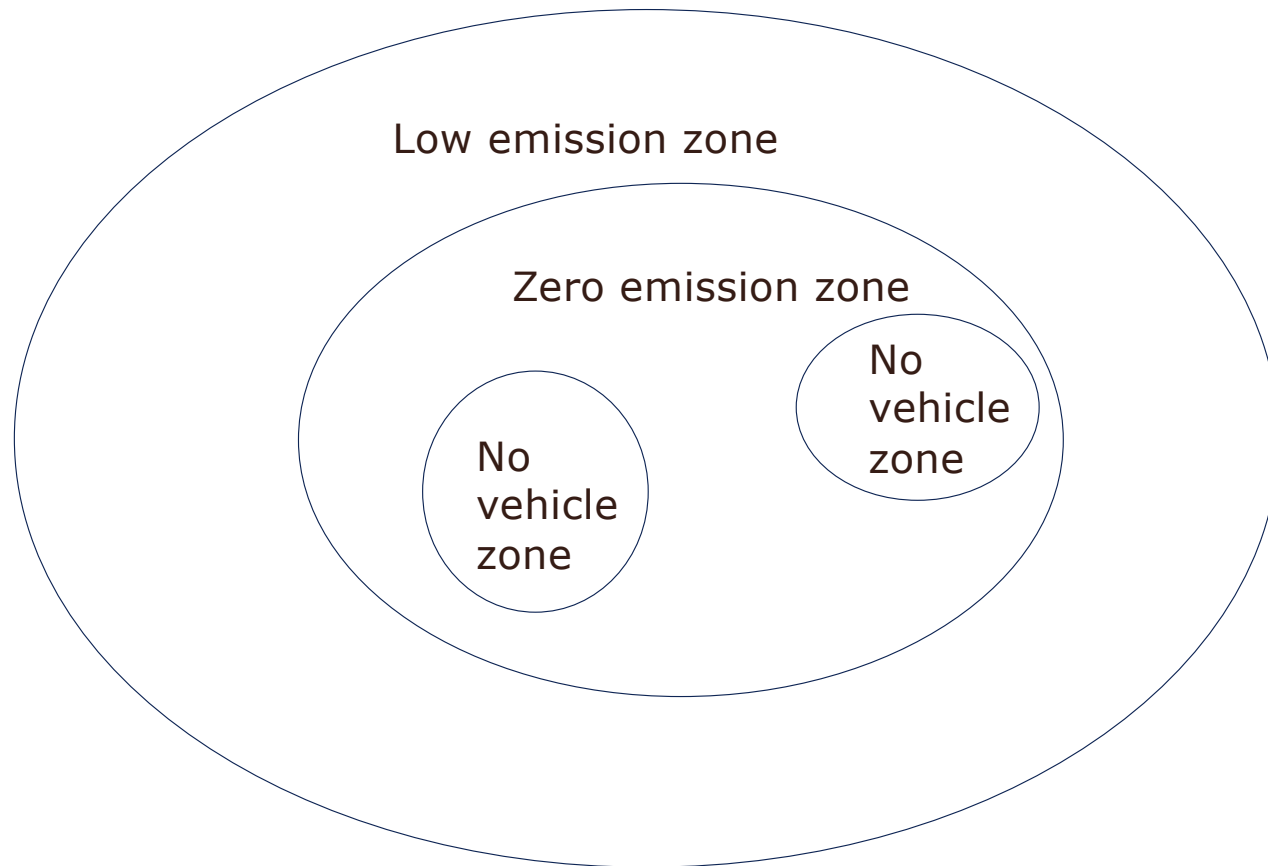
**-9,100**  
Alternative Fuel  
or Advanced  
Technology Vehicles

**580+**  
Owned and  
Leased Aircraft

# Priorities

## Emissions and congestion

## The future urban landscape we need to plan for...



# Alternative fuels and technologies: Rolling laboratory



	Collection and Delivery under 100 km per day	Collection and Delivery over 100 km per day	Feeder
Walker or tricycle	Good	Poor	Poor
Electrically assisted tricycle	Good	Poor	Poor
Electric	Good	Poor	Poor
Range extended electric or hybrid	Backup	Good	Poor
Biomethane	Backup	Good	Good
Biodiesel	Backup		
Natural gas (CNG, LNG)	Backup		
Hydrogen	Backup		Poor
Propane (LPG)	Poor		Poor
<b>Key:</b>	Good	Good sustainability, feasibility, payback balance	
	Backup	Backup	
	Poor	Poor sustainability, feasibility, payback balance	

**Collection and delivery: Electrification and cycle logistics**

**Long haul: Renewable natural gas**

## Cycle logistics: Eco-Hub I



# Hamburg





## The UPS-Fernhay e-quad: Breathe



- Friendly to other road users
- Rugged
- Productive
- Developed in partnership with Dublin, Belfast and the Enterprise Ireland SBIR programme
- To be launched in Dublin
- Two cab options and two box options



## The UPS-Fernhay e-walker: Air



- Friendly to pedestrians
- Rugged
- Productive
- Being developed in conjunction with Dublin, Belfast and the Enterprise Ireland SBIR programme
- Requires a legislative debate

## The UPS-Fernhay Eco-Hub II



- Carries six pre-loaded Fresh boxes
- Minimises to-from emissions and costs
- Two height options: low option compatible with operation from underground car-park
- Fresh could also travel by rail or water: under evaluation

## Conclusion

- Sustainable last mile logistics is not easy but it is possible, and we must succeed
- The ingredients of success are:  
A vision, partnerships and tenacity
- Let's go – there is no time to waste!

**Thank you**

**[www.sustainability.ups.com](http://www.sustainability.ups.com)**