



North Carolina House Select Committee on Strategic Transportation Planning and Long Term Funding Solutions

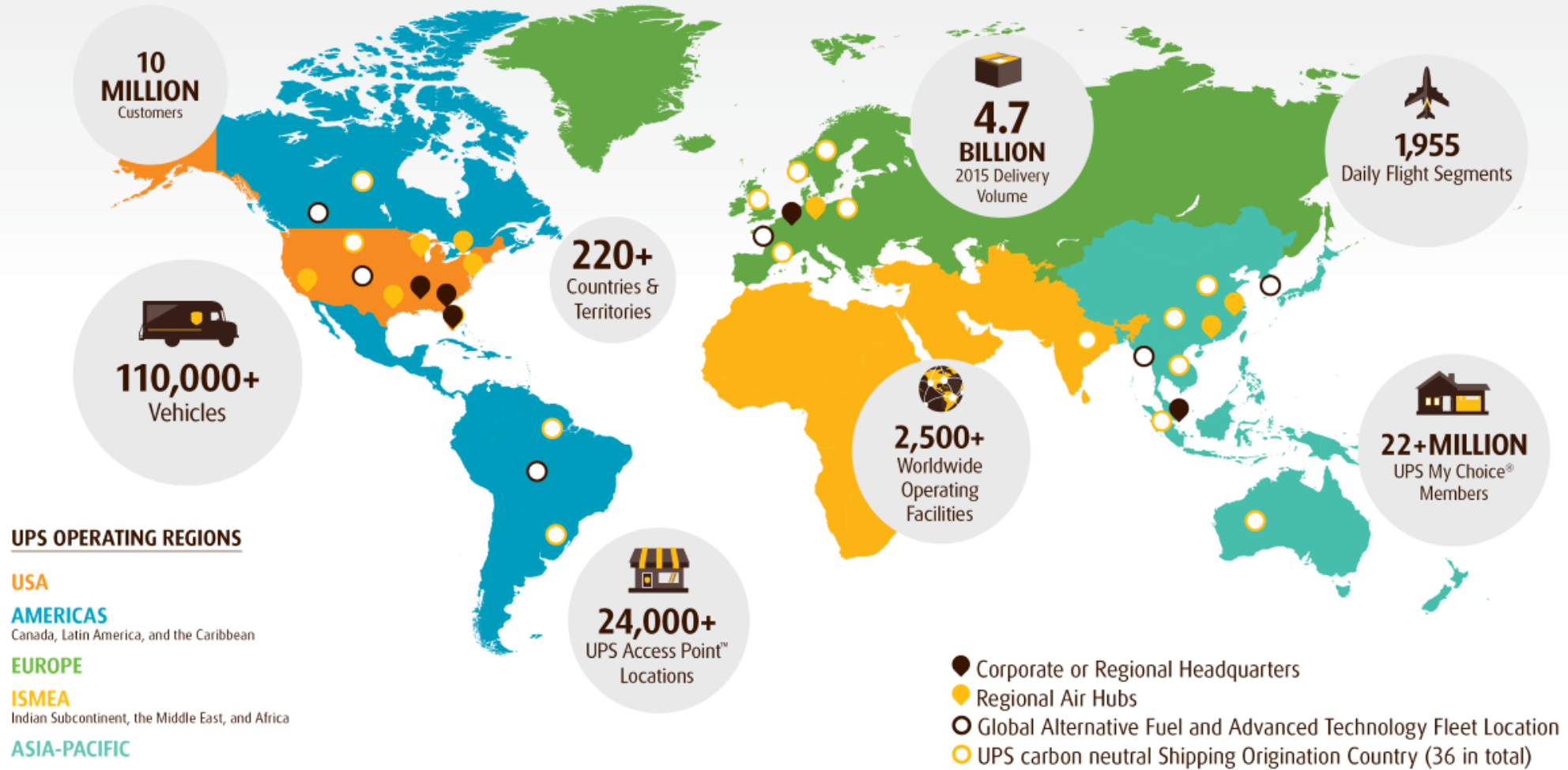
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January 8, 2018



Where We Go

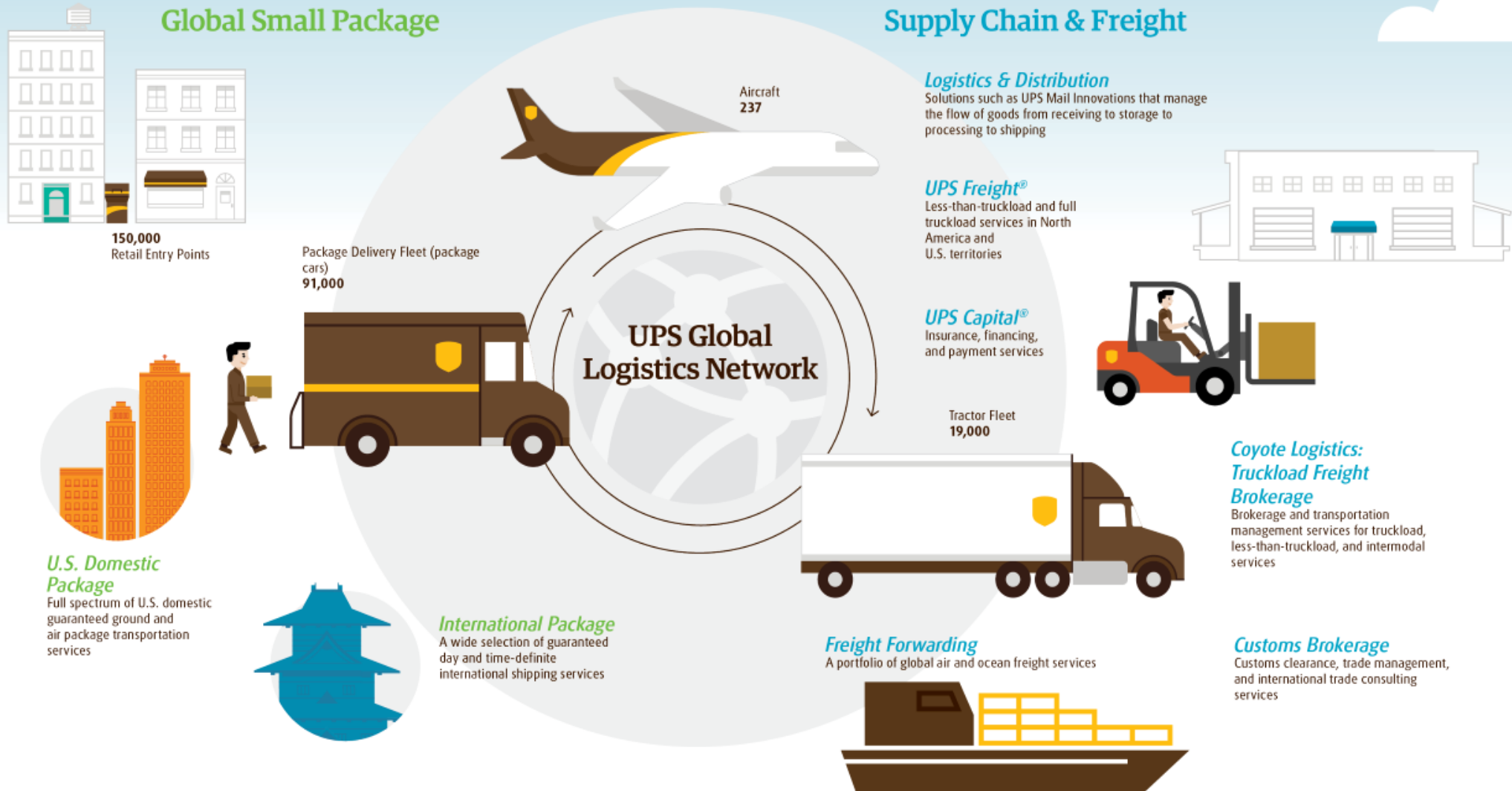
We provide domestic delivery services within 54 countries and export/import services to more than 220 countries and territories.





What We Do

We are the world's largest package delivery company and a premier provider of global supply chain solutions.



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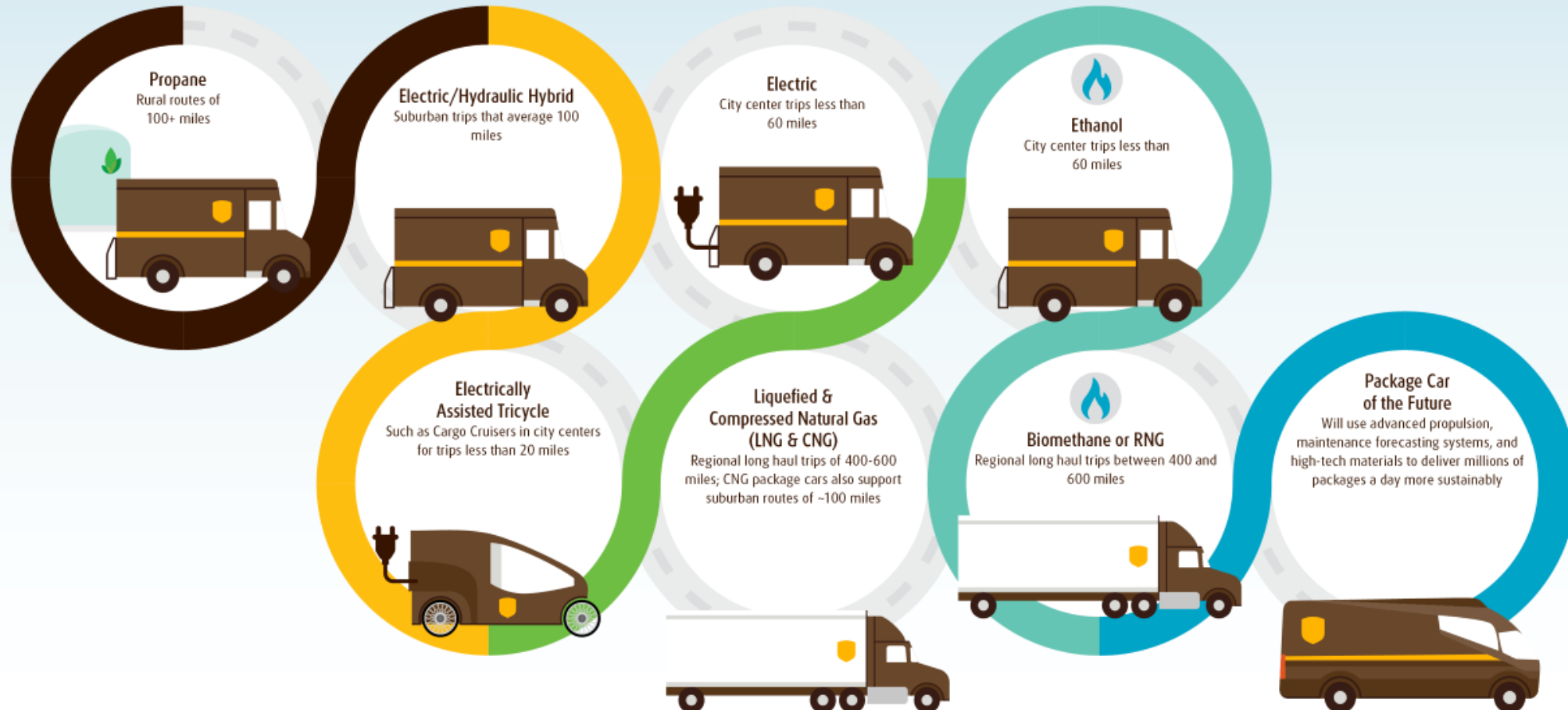




UPS Rolling Laboratory

A diverse fleet of alternative fuel and advanced technology vehicles.

Through our rolling laboratory, we can determine how alternative fuels and advanced technologies perform in real-world operating conditions, quickly deploy viable options at scale, and spur market growth for alternative solutions.



North Carolina Alternative Fuel & Advanced Technology Vehicles

Greensboro Hub:

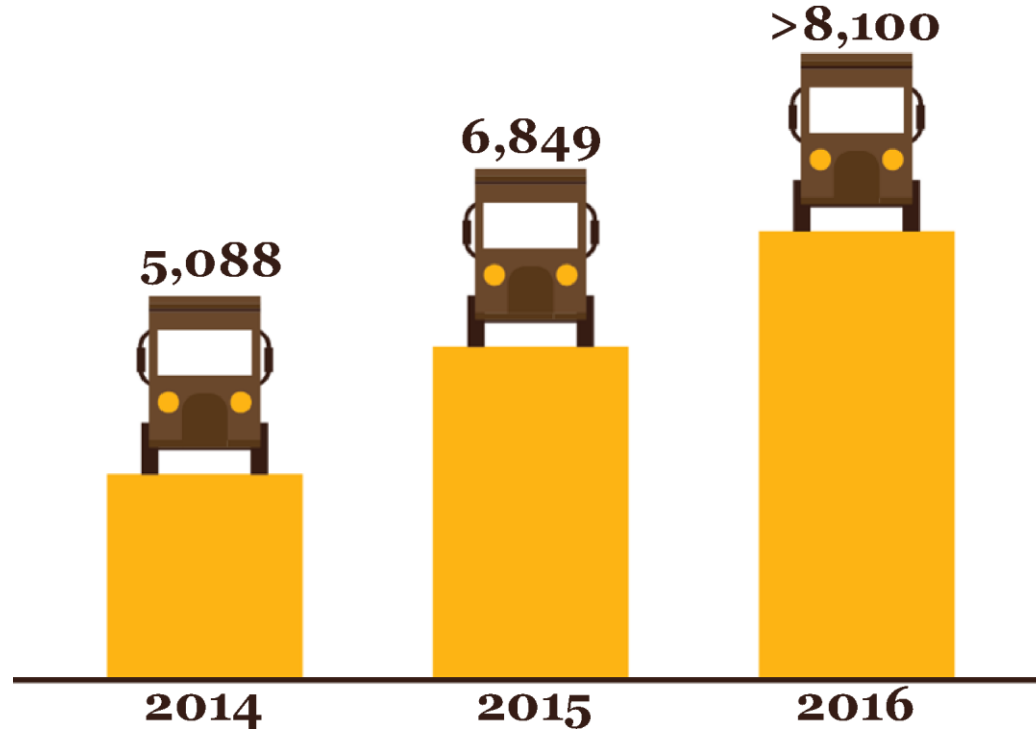
- CNG Tractors: 115
- 12L, 600+ miles
- On property fueling

Additional equipment:

- Propane Package Cars: 31
- HEV Package Cars: 63



Alternative Fuel and Advanced Technology Fleet Continues to Grow



Compressed Natural Gas (CNG)



Liquefied Natural Gas (LNG)



Propane



Electric



Ethanol



Biomethane (RNG)



Hydraulic Hybrid



Electric Hybrid

By 2050, nearly 70 percent of the world's population will live in cities.

How will those residents get around, get to work, get to school and get the things they need?



In this new paradigm,
it's essential to
understand that freight
and e-commerce
delivery services
facilitate quality of life.

In fact, they are
essential to the
neighborhoods of
tomorrow.



Quality of life:

reduced congestion
and personal
automobile use

better air quality and
lowered
environmental
impact

walkable and bikeable

robust retail and local
business growth

sense of place



But the key will be how cities and companies can work together to solve mutual challenges:

- REDUCING PERSONAL AUTOMOBILE USE - THE TRUE DRIVER OF CONGESTION
- NEW TECHNOLOGIES, NEW VEHICLES AND NEW APPROACHES TO URBAN DELIVERY
- BETTER INTEGRATION OF ALL MODES - TRULY COMPLETE STREETS
- CURBSIDE MANAGEMENT AND LOADING ZONE CHALLENGES - BOTH FOR DELIVERY COMPANIES AND UBER/LYFT MODELS
- PROACTIVE PLANNING APPROACHES FOR NEW TECHNOLOGIES - FROM AUTONOMOUS VEHICLES TO DRONES TO E-TRIKES TO SMART SENSORS
- BIG DATA - AND HOW TO LEVERAGE PRIVATE SECTOR BEST PRACTICES



UPS is already working with cities to develop future delivery solutions that promote quality of life:

- MORE THAN 20 ONGOING PILOT PROJECTS IN EUROPE - INCLUDING HAMBURG, DUBLIN, LONDON, MUNICH AND MANY MORE
- IN THE U.S., UPS HAS LAUNCHED E-TRIKE PROJECTS IN PORTLAND, PITTSBURGH, FT. LAUDERDALE, AND MORE TO COME LIKE WASHINGTON DC AND SEATTLE
- WORKING WITH ACADEMIC PARTNERS LIKE UNIVERSITY OF WASHINGTON URBAN FREIGHT LAB, GEORGETOWN UNIVERSITY AND THE MIT MEGACITIES LOGISTICS LAB
- PLUS, EXISTING SUSTAINABLE SOLUTIONS LIKE ORION ROUTE NAVIGATION (100 MILLION MILES ANNUALLY), MORE THAN 8500 ALTERNATIVE FUEL VEHICLES (RECENT TESLA PURCHASE!), ACCESS POINTS, DELIVERY LOCKERS, AND MY CHOICE



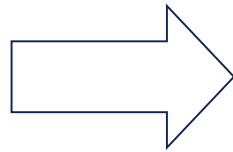
There's no silver-bullet solution to urban delivery

- OUR GOAL IS TO DEVELOP BEST PRACTICES IN THE APPLICATION OF TECHNOLOGY, OPERATION, LONG-TERM PLANNING, AND CITY POLICY FOR SUSTAINABLE URBAN DELIVERY - NOT JUST THE LAST MILE, BUT THE LAST 50 FEET, TOO
- WE KNOW A FEW PARTS OF THE TOOLKIT, BUT DON'T HAVE ALL THE ANSWERS YET - NEED FOR TRANSPARENT PARTNERSHIPS WITH CITIES AND ACADEMICS
- HUGE RANGE OF POTENTIAL APPROACHES - IT'S NOT JUST E-TRIKES - IT COULD BE ZONING OR BUILDING CODE, LOCKERS / ALTERNATIVE DELIVERY LOCATIONS, PARKING REGULATIONS, ENFORCEMENT, CURB CUTS, INNOVATIONS IN HANDCART DESIGN, DATA SHARING OR EVEN JUST WALKING INSTEAD OF DRIVING
- HUGE POTENTIAL FOR ACADEMIC RESEARCH AND EXPLORING OUTSIDE THE BOX URBAN DELIVERY SOLUTIONS
- HOW CAN WE COLLABORATE TO DELIVER MUTUALLY BENEFICIAL RESULTS?



Innovation & Challenges Go Hand-in-Hand

- CONGESTION
- SUSTAINABILITY CONCERNS AND CLIMATE CHANGE
- SURGING E-COMMERCE DEMAND
- CONSUMER BEHAVIOR
- NEW BUSINESS MODELS AND TECHNOLOGY OUTPACING REGULATORY ENVIRONMENT
- LACK OF FREIGHT PLANNING / GOODS MOVEMENT VISIBILITY IN LONG-TERM GOAL-SETTING AND VISIONING
- NEW COMPETITORS AND MARKET DISRUPTION



- ALTERNATIVE DELIVERY MODELS AND NEW TECHNOLOGY
- UNPRECEDENTED GROWTH
- CIRCULAR ECONOMY AND RETURNS
- ABILITY TO INFLUENCE AND CHANGE STATUS QUO
- IF WE CAN OPTIMIZE OUR OPERATION, CAN WE OPTIMIZE THE WORLD?
- TRANSFORMING RISK INTO OPPORTUNITY
- MUTUAL BENEFIT FOR CITIES, UPS AND OTHER STAKEHOLDERS
- TRANSFORMATIVE INFLEXION POINT



A drone made by CyPhy Works carried a UPS package to Children's Island off the coast of Beverly, Mass. 2 pound package of medicine, 3 miles.



A drone made by Workhorse Group launched from a Hybrid Electric Package carried a UPS package autonomously to a home then returned to dock with the package while the driver completed a delivery.

