

General Session - Presentation & Panel Discussion 7



Global Supply Chain Landscape: Current and Future



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Global Supply Chain Landscape: Current and Future

- Current and future landscape of global supply chains and its manifestations
- Digital commerce, 1st mile and last mile, LSP
- Geopolitics, visibility, inventory,
- Emerging technologies: Drone delivery, Blockchain, Al, Metaverse





Unmanned Aerial Vehicles in Logistics: Review of Current Regulatory Frameworks



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UAVs as Last-Mile Delivery Systems







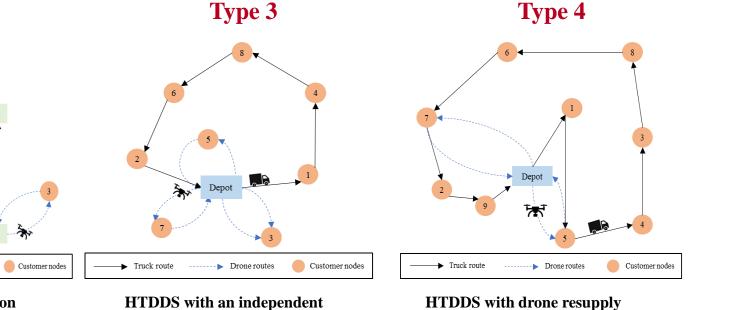


Country	o Company	Drone Provider	Description	Timeline	
	DHL	_DHL_	Parcelcopter delivering less than 1kg of medicine in rural areas	2013	
		772 圓通國際	Alibaba collaborates with Shanghai YTO Express to deliver tea to 450 consumers in certain Chinese cities.	2015	_
***	Flirtey	Flirtey	Domino delivers world's first ever pizza by drone in New Zealand	2016	
	デリD.京东 COM	プリD.京东 COM	JD has established four drone bases in outlying areas of Beijing, making it easier for rural peasants to participate in China's greatest sales event.	2016	
	amazon	amazon	Amazon made its first Prime Air drone in the UK	2016	
	aha	FLYTREX	AHA, Iceland's largest ecommerce website, has released drones in collaboration with Flytrex.	2017	
C	fetchr?	<i>ू</i> ⊜ Skycart	Fetchr has partnered a drone provider to offer the region's first autonomous drone delivery service.	2017	_
	Google	Wing	Google received an air carrier certificate from the FAA to provide drone services to the public	2019	_
	ups	S MATTERNET	UPS has a partnership with Matternet to launch a drone on a college campus in the US	2019	
-	zipline	zipline	Rwanda government collaborated with Zipline to transfer blood via drones	2020	_
**	Flirtey	Flirtey	Flirtey supplied aid kits and emergency medication	2021	
C	دائــــرة الــصـحــة DEPARTMENT OF HEALTH	S MATTERNET	Abu Dhabi Department of Health will delivery healthcare products	2022	
0	BIOGROUP Pathology Laboratory	RIGI TECH	RigiTech trials BVLOS medical drone delivery over Lake Geneva	2022	
	Walmart >¦<	FLYTREX Zipline DroneUp	Walmart has drone delivery hubs in 36 stores in the U.S. and more than 6000 deliveries are completed.	2022	









Collaborative HTDDS operation with truck and drone delivery

Drone routes

Customer nodes

Depot

Type 1

• Truck delivery

Truck route

- Drone delivery
- Truck is responsible for operating the drone

Collaborative HTDDS operation with drone delivery only

Depot

Drone routes

Truck stops

Type 2

• Drone delivery

Truck route

• Truck is responsible for operating the drone

HTDDS with an independent delivery operations

- Truck delivery
- Drone delivery
- Truck is not responsible for operating the drone

- Truck delivery
- Drone resupply
- Truck is not responsible for operating the drone





• His Highness Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum said,

"The Dubai Program to Enable Drone Transportation will create an advanced infrastructure that enables innovators and relevant entities to test prototypes of UAVs in designated areas and **develop legislation that optimizes their implementation**. The program aims to provide new economic opportunities and consolidate Dubai's leadership in advanced technology research and development across diverse future-oriented sectors. "





Current Research Project: Drone Adoption in Logistics Services



Companies in the logistics sector are implementing new strategies to improve responsiveness and efficiency.

Drone logistics is gaining popularity among academics and practitioners because of its ability to reduce costs and improve responsiveness.

Despite the potential benefits of drone logistics in terms of enhancing responsiveness and lowering costs, broad adoption of this revolutionary logistic technology is yet to be seen.

Drone-delivery, in its current form, is characterized by **implementation problems** that need attention. These problems necessitate the need to study critical factors influencing the adoption of drones in last-mile delivery services and may play a pivotal role in the employment of drone-logistics by companies.





The research aims to bridge the research gaps and help policymakers in the smooth adoption of drones:

- 1. To identify the key factors affecting the adoption of drones in the logistics sector.
- 2. To establish the causal relationships between the identified key factors and rank them into cause-and-effect factors for smooth adoption of drones in the logistics sector.

