



Application of Drone Technology in Postal Logistics Benefits & Regulatory Prerequisites

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Yellow in motion.

SWISS POST 

E-Commerce 2.0 is a reality. Swiss Post offers online and offline solutions.



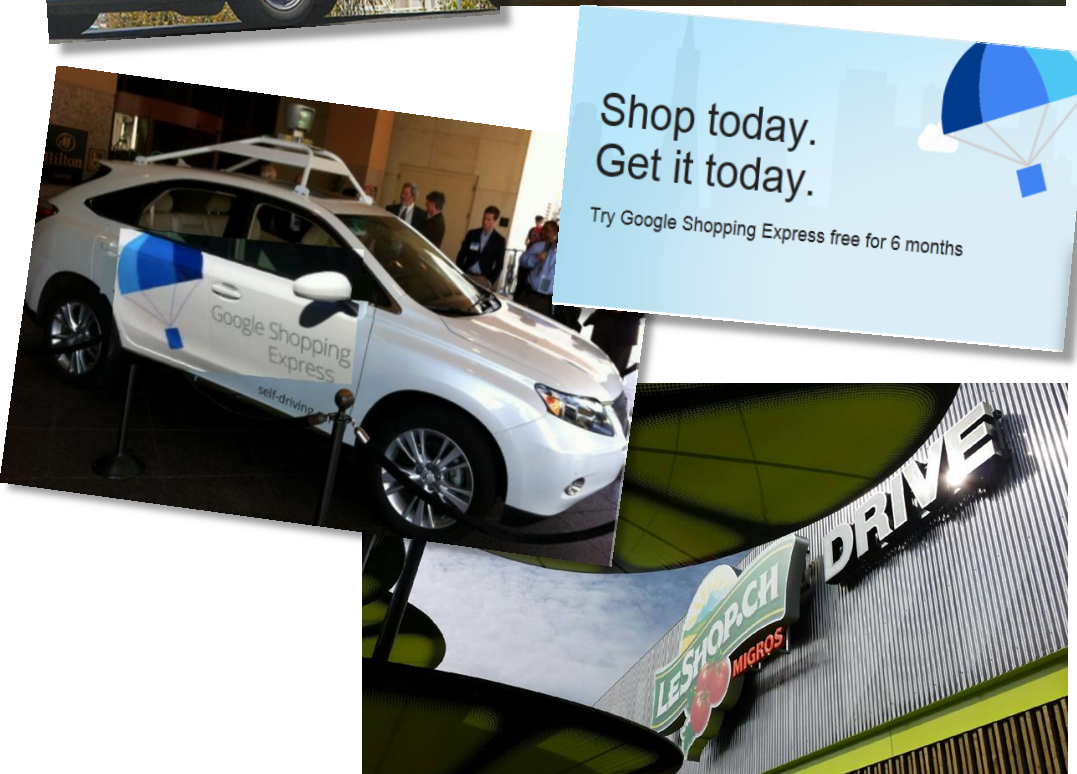
- My Post 24
- pick@home
- Evening and Saturday delivery
- SMS notification
- Online receipt management of missed parcels
- Installation service
- YellowCube logistics solution
- etc.

E-Commerce 3.0 generates new customer requirements...



- **Mobile** is the future: strong growth in mobile orders
- **Quick delivery:** same day delivery, etc.
- Receipt **anywhere, any time and 24/7**
- Individual **parcel management**
- **Cross-border e-commerce** (internationalization)
- **Solutions** instead of individual products, e.g. ThermoCare and customs clearance

... and new challenges.



- Players from outside the sector such as **Google, Amazon and eBay** combine core competencies (data handling, networking, analytics, etc.) with logistics services, turning them into **competitors**
- They do not need to **achieve any profits** from their logistics operations
- They ARE digital: high level of **customer trust** in their competencies in the digital world
- Major distance sellers are investing in **their own logistics systems**
- **In-store retailing** is emerging from its state of shock

... and challenges logistics.



- **Drone and GPS** delivery
- **Sunday delivery**
- Delivery during a **specific time slot**
- **Transparency** by announcing delivery
- **Personalization:** complete self-determination and individual online management of consignments

Drones: testing

First test phase in July 2015 in the Seeland region has been completed

- Flights of up to 9.5 km were conducted successfully
- No incidents, no drone crashes
- Positive perception among the population
- Drone technology as a useful addition to current local distribution

The second test phase is currently being planned for autumn 2015

- Flights with larger differences in altitude
- Flights of more than 10 km
- Other tests concerning technical stability

Drones: current regulatory restrictions for flights

- Announce NOTAM for the planned region
- Flights prohibited above an area with a population density over 5 p/ha
- Each flight has to be announced to FOCA
- Maximum flight altitude 150 m
- Vehicle must be certified for BLOS flight by FOCA (GALLO)

Drones: feasible approach in Switzerland

Based on our testflight experiences

- Establish specific altitude layer for commercial, autonomous, drone flights
 - e.g. 70 – 100 meter above ground level
- Each drone communicates its position to a centralized information system (cloud)
- Access to information system granted for every concerned entity
 - e.g. FOCA, Air Force, civilian air navigation service, drone operators, rescue services
- Define technical and organizational prerequisites to pass areas with a population density beyond 5 p/ha

Drones: possible applications at Swiss Post



- A wide range of possible applications
- Technical and regulatory challenges: lack of legal framework, very busy airspace, battery life, device's limited perception of the environment.
- Actual implementation in 5-10 years is realistic
- Focus on uses in special situations or for transporting special items
- Swiss Post helps shape the new technology

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