Urban Air Mobility: overview of drone pilots in Helsinki

Photo: Pexels

Jätkäsaari Mobility Labin webinaari

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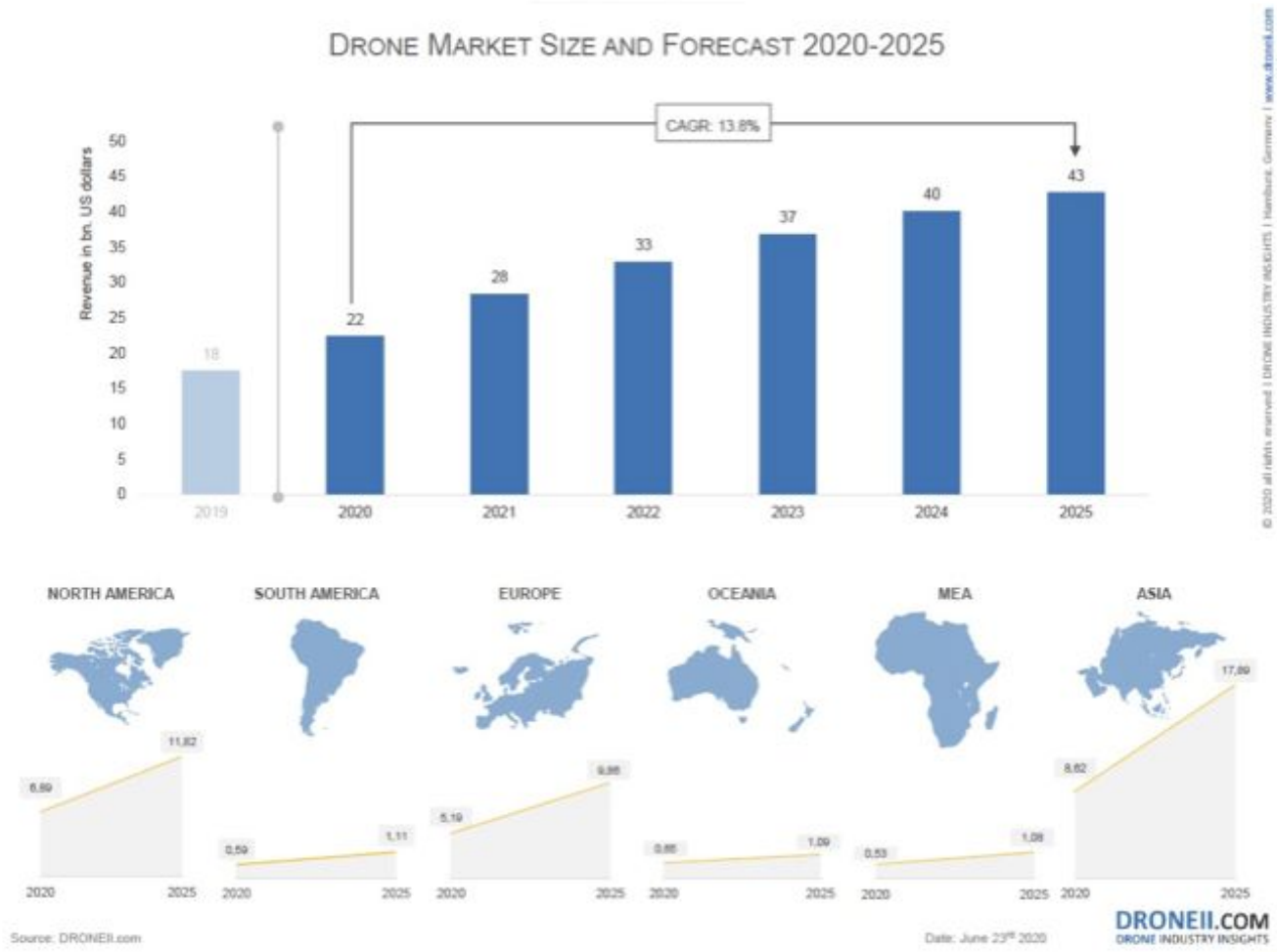
FORUM VIRIUM HELSINKI

Expanding smart mobility into the third dimension – the airspace

Drone markets are expected to grow 14-20% annually



Source: DII, Robots Expert analysis

On Demand unmanned aerial delivery pilot in collaboration with Lauttiksen Apteekki, Forum Virium, Third Space Automation, Fly by Guys, Future Sky and Pink Tape Media

Drone pilots in Helsinki

- Jätkäsaari drone pilot: pharmacy products (not prescription medicine) (August 2021)
- Carbon Neutral Drone Service Solutions in Southern Finland Project (2019-2021, ERDF)
  - Autumn 2020: Mapping of invasive species on Suomenlinna, installation of oil spill booms, counting of park benches, mapping of storm damage
  - Defibrillator transport by drone at Malmi airport (September 2021)
  - Counting traffic at Jätkäsaari intersection (Clarion Hotel) (November 2021)
  - 5G remote operations in Postipuisto in Pasila (November 2021)
- Digitalisation funding city of Helsinki
  - 3D modelling Jätkäsaari intersection (November 2021)

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Drone pilots in Helsinki - upcoming

Digitalisation funding city of Helsinki: 3D modelling Postipuisto (coming soon)

Large European AiRMOUR project: drones for Emergency Medical Services (end 2022 and/or beginning 2023):

- AEDs (defibrillators) and/or blood or tissue samples
- Medical specialists to accident scene (by eVTOL, i.e. passenger drone)

AiRMOUR

Lessons learned

- The flights and deliveries are heavily dependant on weather conditions. Irregularities disrupt the economic viability of the solution
- Time savings are significant
- Service needs to be well-integrated with existing services and staff needs to be trained in the process of ordering a drone, packaging, logging orders etc

Lessons learned

- Good connectivity (4/5G) needs to be ensured, especially when flying beyond the visual line of sight and/or when flying in urban areas where buildings potentially block the signal
- For (cost-)efficiency, one person should be able to remotely manage, supervise several drones. Technology is developing rapidly

Lessons learned

- Public acceptance will play an increasingly important role, when more drones take to the air
- There is in general a lack of knowledge on this topic and not all necessary systems (like and urban air traffic management system) are in place yet
- The regulatory field is rapidly changing - and often dependant on EU legislation. There are not many benchmarks for flights beyond the visual line of sight. Roles are not always clear yet (e.g. City vs Traficom vs EU)

Kaupunki | Liikenne

Lennokki kuljettaa sydäniskureita kokeilussa Helsingissä – Lennokki voisi nopeuttaa avun saamista

Kokeiluja on tehty Malmin lentokentällä, ja lennot tekee ruotsalainen Everdrone AB.

Sydäniskuria kuljettava lennokki Malmin lentokentällä. KUVA: VESA LAITINEN

Onwards and upwards!

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Thank you!

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