Cost-effective and Environment-friendly VTOL Logistics for Remote areas

AeroSense

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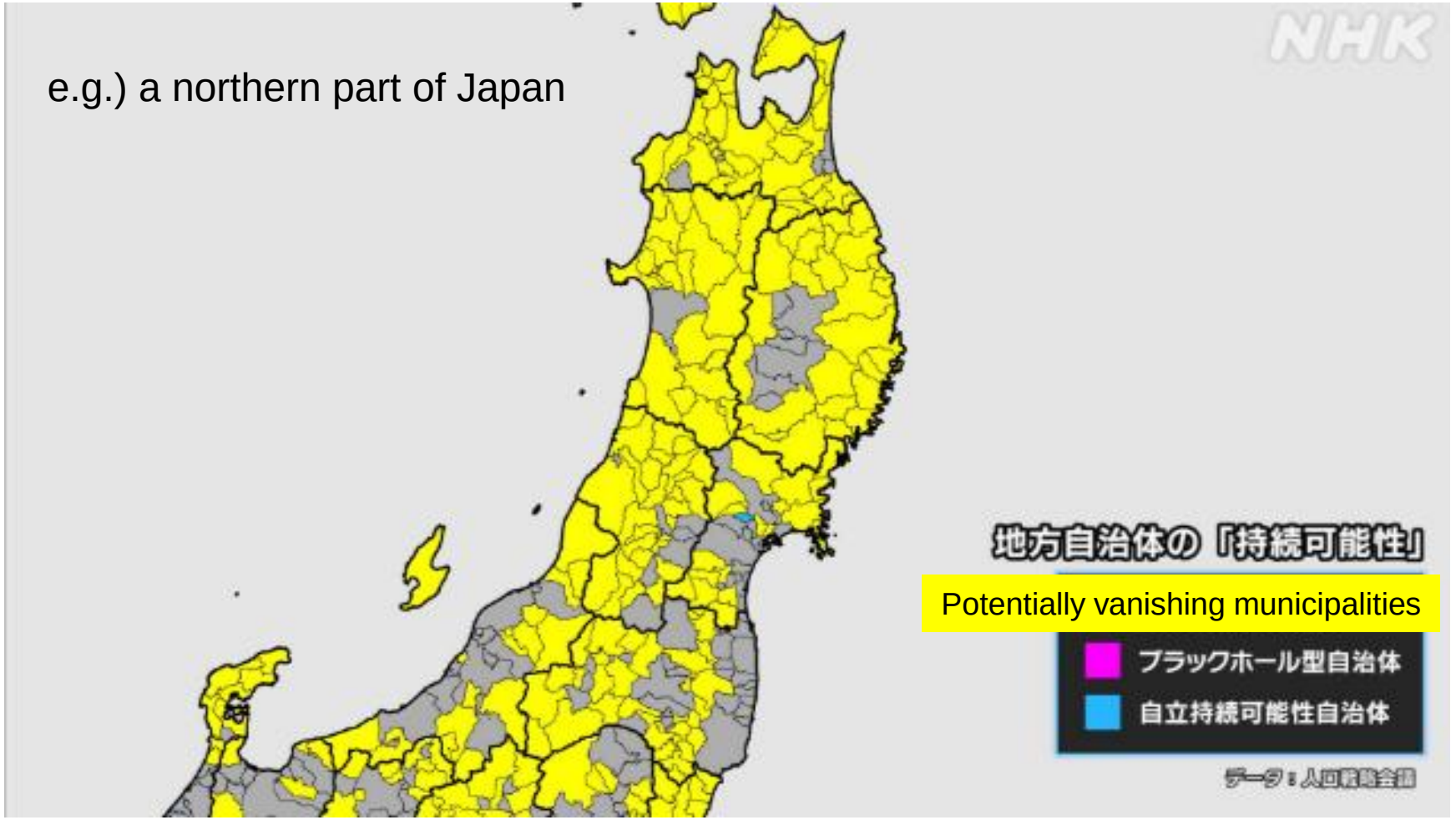
Japan's issue: Population aging & declining

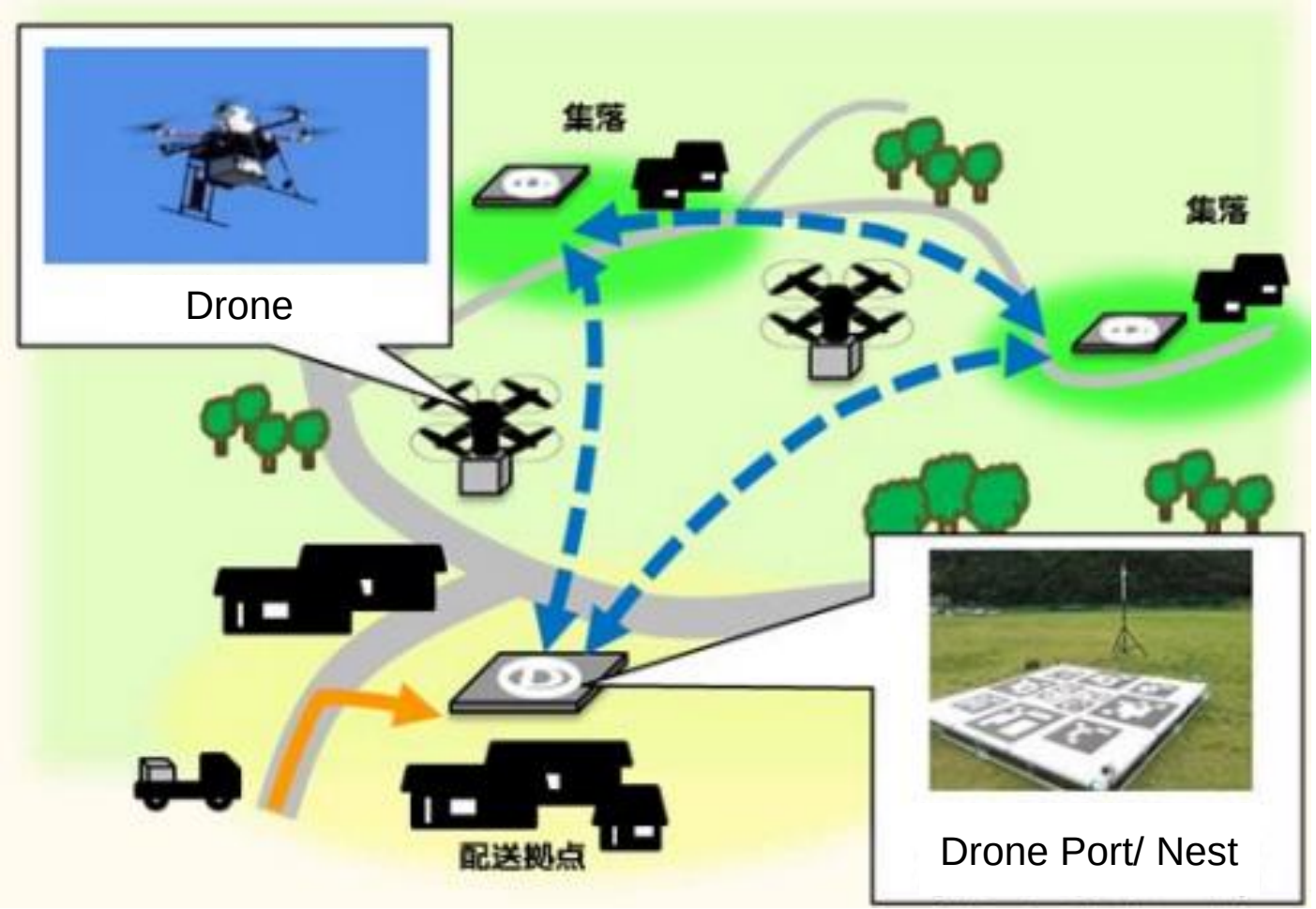
After 2050, about 40% of current municipalities potentially vanish.



Source: NHK, Population Strategy Council

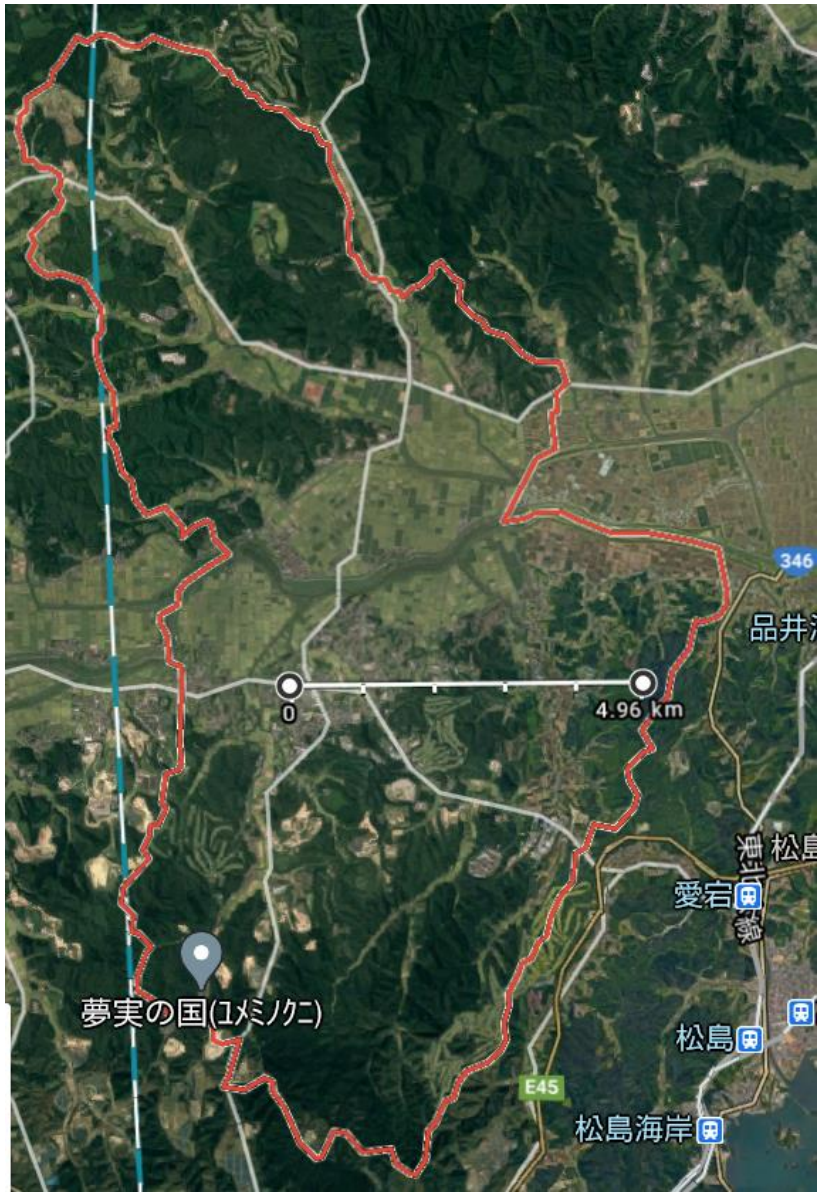
Solution for sustainable lives in remote areas

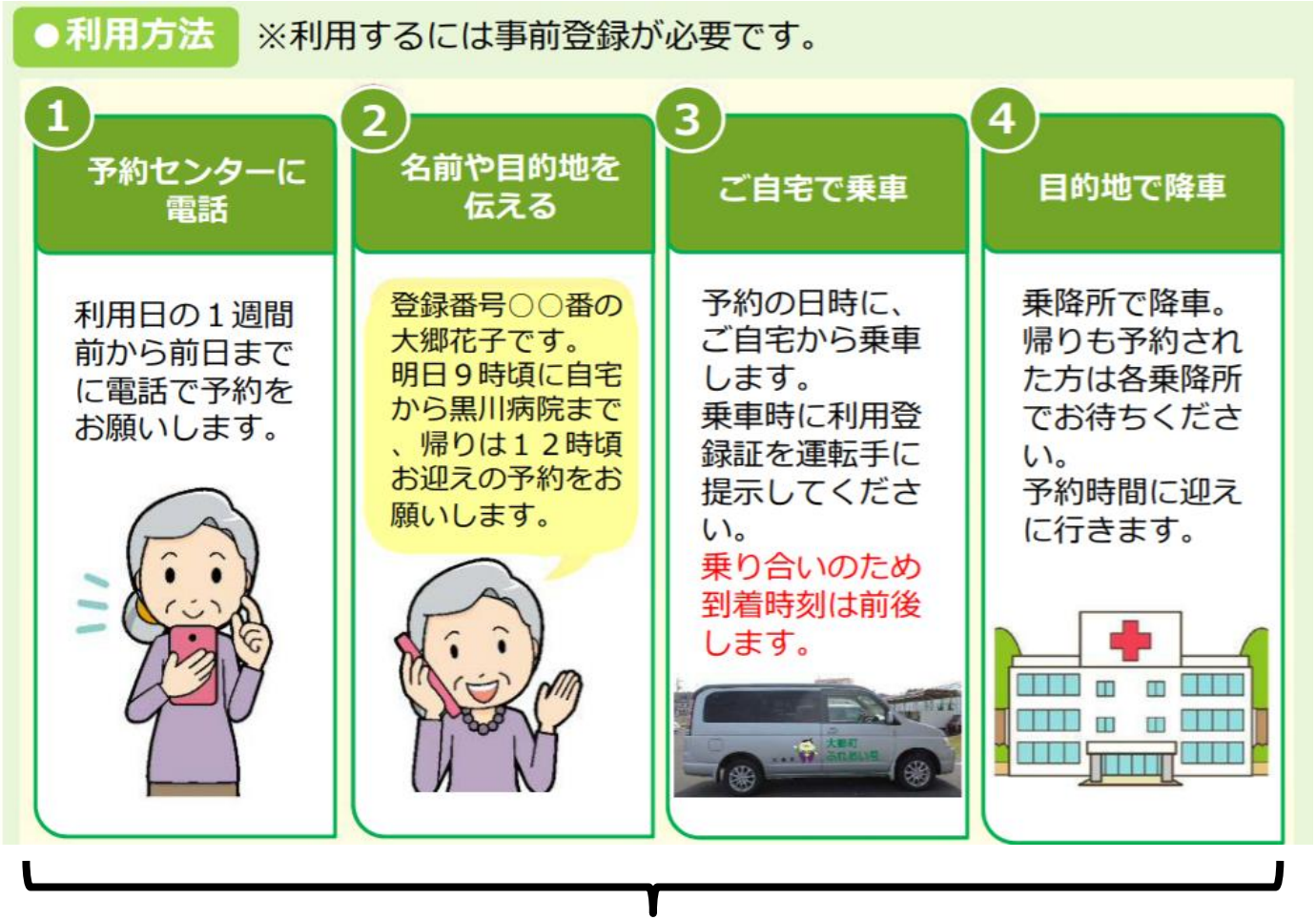
MLIT & MOE supports drone delivery for rural areas in 2020-2025.



Source: Ministry of Land, Infrastructure, Transport and Tourism (MLIT) & Ministry of Environment (MOE)

Current: Taxi delivery run by town office





<u>80%</u> of their use for shopping & getting medicines

Future: Drone Delivery for rural areas

CO2 reduction estimate

Taxi Delivery Mileage/year **50,000** km × Replacement by Drone Delivery **△ 80%** × CO2 emission factor for petrol car **0.18** kg-CO2/km = **△ 7,200** kg-CO2

CO2 emission factor for battery charge **0.018** kg-CO2/km = **720** kg-CO2

∴ Net CO2 emission reduction = **△ 90% (△ 6,480 kg-CO2/year)**

Cost reduction estimate

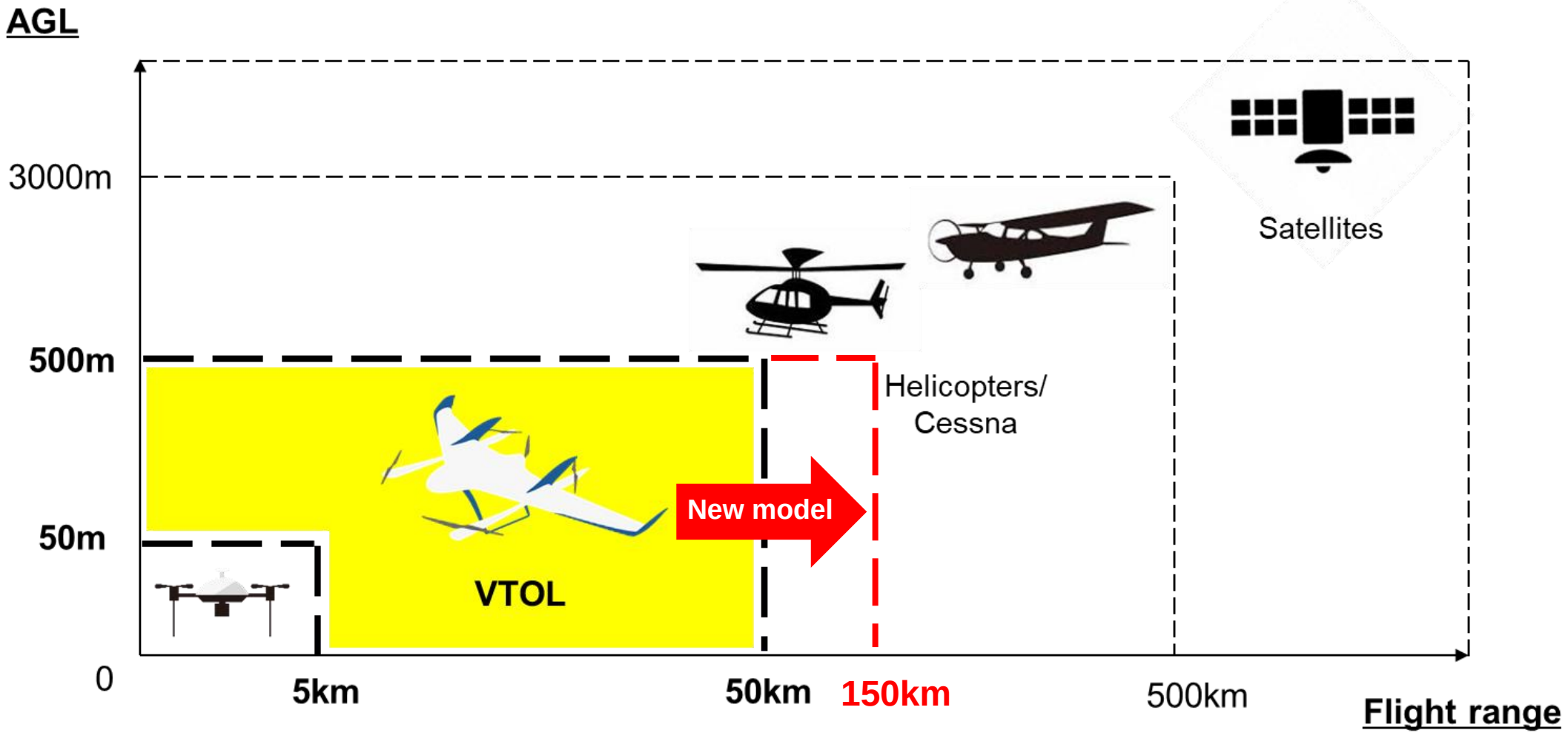
Taxi Delivery cost/year **15** M yen × Variable cost ratio **80%** × Replacement by Drone Delivery **△ 80%** = **△ 10** M yen

Drone Delivery Cost/year = **5.5** M yen

∴ Net cost reduction = **△ 30% (△ 4.5 M yen/year)**

Platform comparison

VTOL can be more frequent, accurate, and reasonable than aircrafts & satellites.



Drone as a First Responder (DFR)

Providing First Responders with situational awareness as an integrated solution

AEROBO cloud

with LTE

Immediate & Safer

AEROBO wing

World Drone Competition 2023 winner

https://youtu.be/IX33u5cBBlE

Bigger VTOL in 2026 (Battery-driven)

Fly further

with more payload

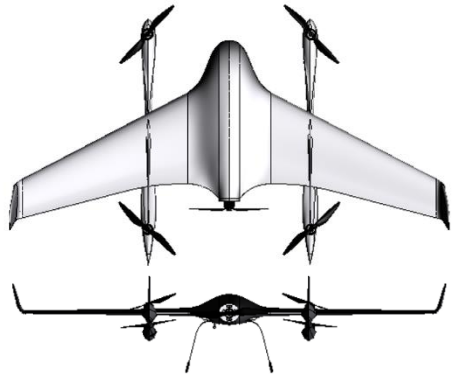
Funded by;

Ministry of Education

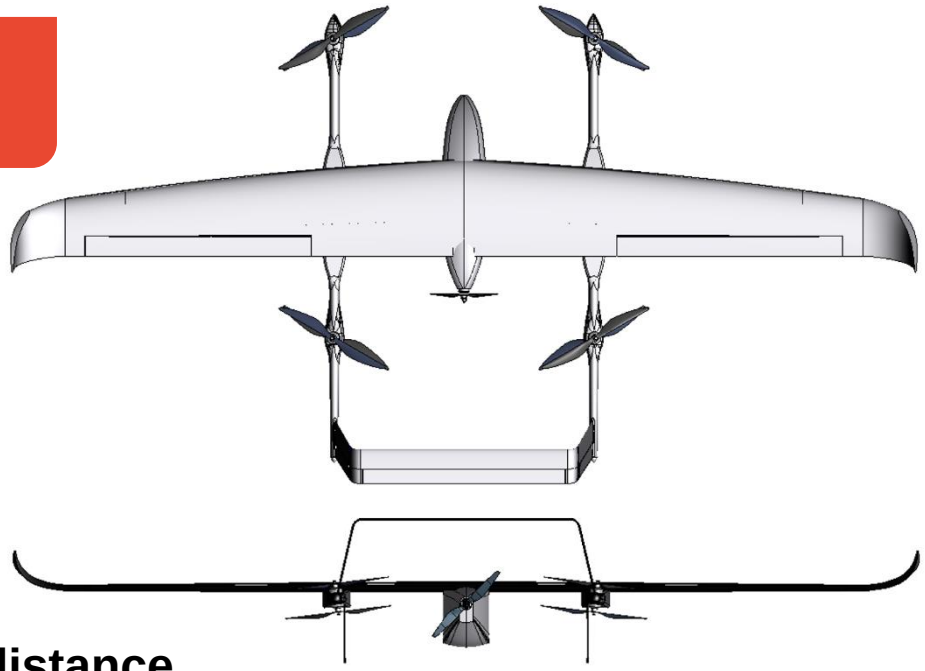
(JST K Program) in Japan

2020 ~

1 kg payload
&
50 km flight distance



2026 ~



10 kg payload
&
150 km flight distance

Bigger VTOL for Inter-Island Logistics

- Unmanned automatic system
- Cheaper and quicker delivery
- Alternative logistics when/ where manned aircrafts/ ships cannot go

AeroSense

Website

Please contact me to learn how Aerosense can provide an integrated solution for your agency.

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