

# Wrap-up

# ➤ Which KPIs may be used to evaluate these kind of services?



Map resolution

From 10m x 10m to 1000m x 1000m. Variable with height of the operation?



Data refresh rate

Between 1 and 30 minutes for real-time



Data Source

Multiple including Census, mobile phones/network, commuting data



Interval of confidence

Multiple methodologies under evaluation

# Privacy

For the purpose of getting information on population density, it would not be required to have information related to specific persons, but just aggregated data.

- How many person's data should be in a group of aggregated data to ensure privacy?
- The timeframe in which data are stored does not appear to be an issue

# ➤ Interval of confidence

When collecting information on population density, it has to be ensured that they are representative enough of the real population density:

- multiple methodologies under evaluation
- For dynamic data, providers sometime have access to a fraction of the real population present, is there a minimum threshold to ensure that the information are reliable?
- When getting historical dynamic data, is there a recommended interval of time to get a good cover?

# ➤ EU commission activities

- EUROSTAT is working on the development of a methodology to standardize mobile network operator data (MNO) and assess the fidelity of the data. Project started in January 2023 and going on until mid 2025. Additional project planned to start later in 2023
- When using mobile telephone data, use of data coming from multiple operators is recommended
- COPERNICUS
  - Public available maps with settlement and population density data sourced by CENSUS
  - Plan to evolve to Grid maps with estimated population in daytime and nighttime per month
  - Proposal to define the acceptable level of uncertainty of data

# Possible approach

→ We might identify 3 levels of service:

1. **No need for dynamic pop density maps:** identify types of operations (e.g. VLOS) or when operation over areas where the population density is always fixed in the year (e.g agricultural operations)
2. **Historical dynamic maps:** they may be sufficient when operating over areas where the variation of the pop density is predictable during day
3. **Real time dynamic maps:** required in all other cases.

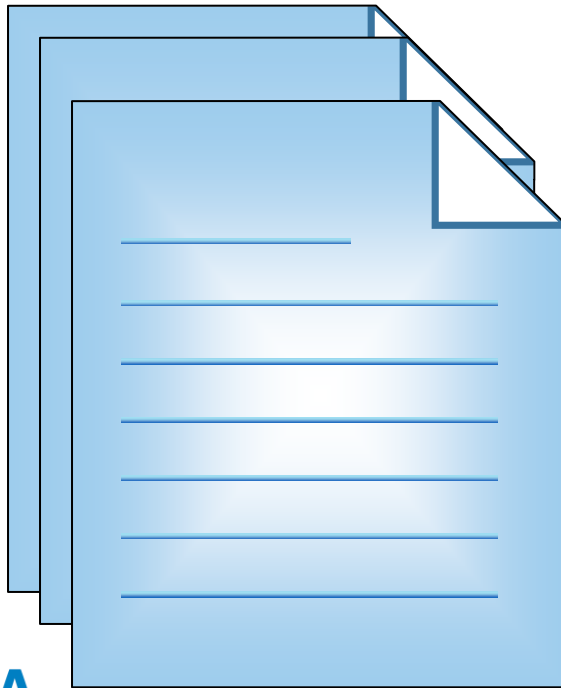
Triggering of the different level to be defined

Methodology to assess acceptability of services to be defined

When information on sheltered is required

# Outcome of the workshop

Establish a working group to draft guidelines to assist UAS operator to identify what type of population density data may be needed and competent authorities to evaluate the acceptability a population density services.



Parameters to be considered to assess the service  
Minimum performance  
How the service will be recognised by the NAA

**Cost of the service is an important factor!!**

**Thanks for your  
participation!**