

**→ MAPPING URBAN AREAS
FROM SPACE CONFERENCE**

**MUAS Session 2 Summary:
European Regional and National Mapping**

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Highlights , Key messages



- **European products:**
 - 2 Urban products from Copernicus are now operational: **Imperviousness** and **Urban atlas**.
 - The availability of **Sentinel 2 data** will allow to improve the production process especially for imperviousness and will provide additional support for the Urban Atlas (even though the base image source shall remain VHR data).
- **National products:**
 - 3 examples (France, Austria, Sweden) show that the **emerging use of satellite imagery** (SPOT, Pleiades) in the framework of national geoinformation programmes.
 - **Sentinel2 data** does not seem to get potentially used as a unique source of information but as an additional one , for instance to detect changes in land cover maps.
- **Quality assessment of space derived products** should be known , described and properly documented (validation method)
- **National Geoinformation data sets**, which provide more and more accurate and up to date information should be widely used, both as base layers for production or validation.

Recommendations



- **Very large scale mapping** at low frequency requires aerial photography or Pleiades and **medium scale mapping** at higher frequency will take benefit from Sentinel2 data.
- Urban related **future satellite missions** should be oriented towards a ground resolution in the **range of 1m to 3m**.
- **Systems with a 1-3m resolution** combined with a wide coverage capacity represents a very **smart compromise** since they are able to cover national and European needs in land cover / land use. In particular they allow to give a snapshot of each national territory every year ; if **data policy** is favourable, such systems will help develop the updating capacity for land cover and land use products and as consequence contribute to boost the use of satellite imagery as a whole (from VHR to MR).
- In order to better prepare the **user requirements for the years 2022-2025** it seems that a **cooperation between European and National agencies** should start as soon as possible **combining efforts and fostering synergies** to hopefully come up to a full autonomy of Europe in terms of EO systems.
- In parallel **R&D activities** should tackle the issue of **change detection** in general, whether it be anthropic, natural and agricultural features. Inside and around the settlements, planners and policy makers shall get **up to date information year after year** in order to measure evolutions in the framework of urban densification and ecological regulations.
- The production process should include a **sound statistical, transparent and documented process** to ensure **thematic and other accuracy metrics** are met.