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URBAN GROWTH SOLUTION PRECURSOR: URBAN LAND COVER

URBAN LAND COVER

General solution description:

• It's a land cover classification based on satellite images (Sentinel-1 and Sentinel-2) at 10m resolution

• It could be used as input data for EODESM system.

Input data:

• Sentinel 1, 2

Satellite data:

• Sentinel 1, 2

In-situ and auxiliary data:

• ISPRA/SNPA National built-up map (10 m, binary classification). *Copernicus Land Monitoring Services*: Corine Land Cover, Urban Atlas, HRL

URBAN LAND COVER

Methodology:

• The land cover classification will be based on the EIONET EAGLE concept (ref. "Technical specifications for implementation of a new land monitoring concept based on EAGLE", https://land.copernicus.eu/user-corner/technical-library/clcplus-draft-technical-specifications-v4) and the classes identified are:

1. Sealed surface (buildings and flat sealed surfaces)
2. Woody – coniferous
3. Woody – broadleaved
4. Permanent herbaceous (i.e. grasslands)
5. Periodically herbaceous (i.e. arable land, natural grassland with periodic vegetation cover)
6. Non-vegetated bare surfaces (i.e. rock and screes, mineral extraction sites)
7. Water surfaces
8. Snow & ice
• Integration S1 and S2

Expected results:

• Land cover map (10m)

• (Potential application) elaboration of specific indicators such as fragmentation

• Interaction with local stakeholders

–Monitoring of the coastal areas with integrated – inter-municipal coordinated "VAS - strategic environmental assessment to foster inter municipal policies.

Timeframe and scalability:

• A first intermediate product will be available on June 2019, scalability from local to national level

GROUP ON EARTH OBSERVATIONS

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