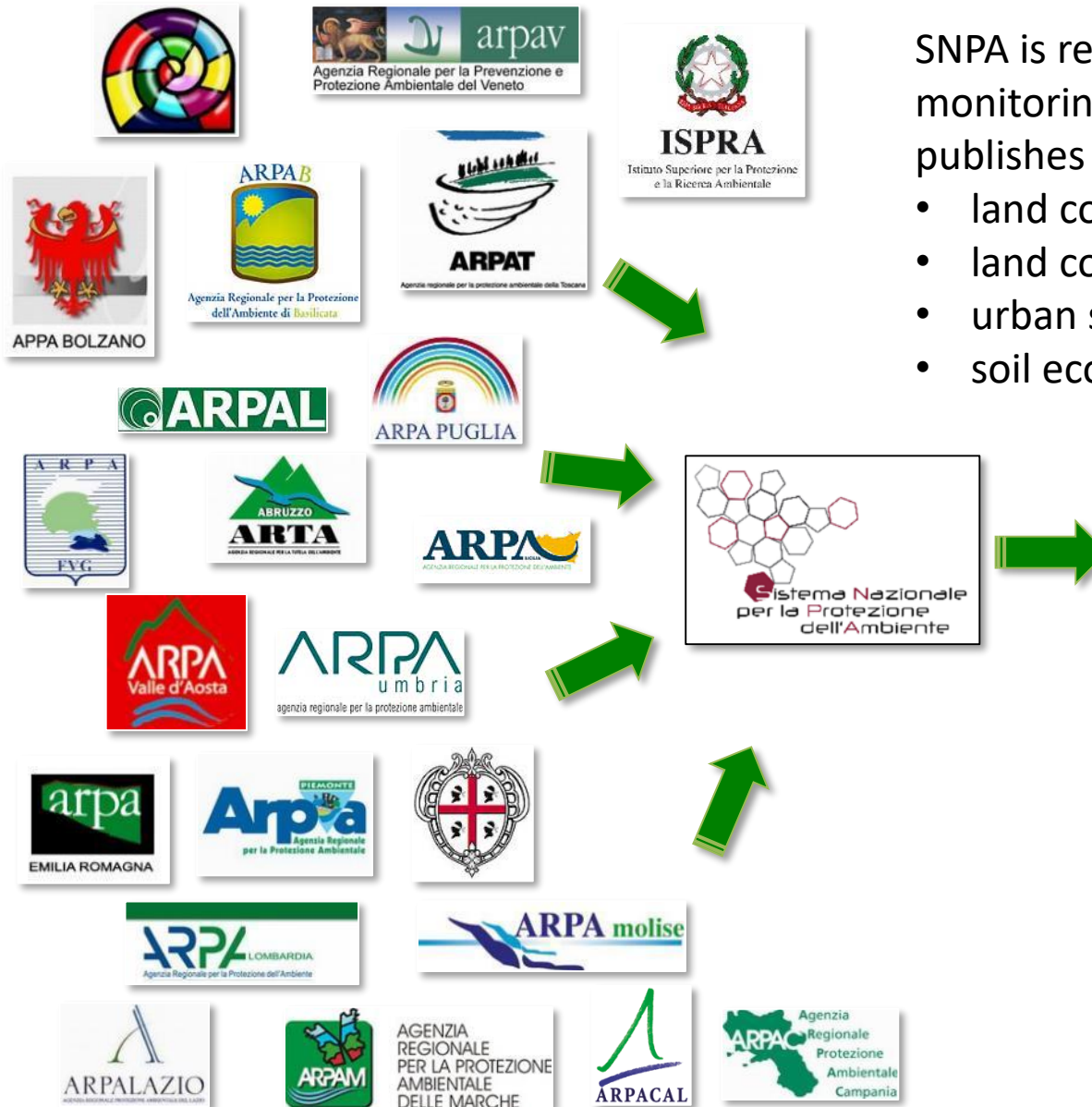


LAND MONITORING ACTIVITIES OF THE ITALIAN NATIONAL SYSTEM FOR ENVIRONMENTAL PROTECTION

Michele Munafò ISPRA

NATIONAL ENVIRONMENTAL PROTECTION SYSTEM (SNPA)

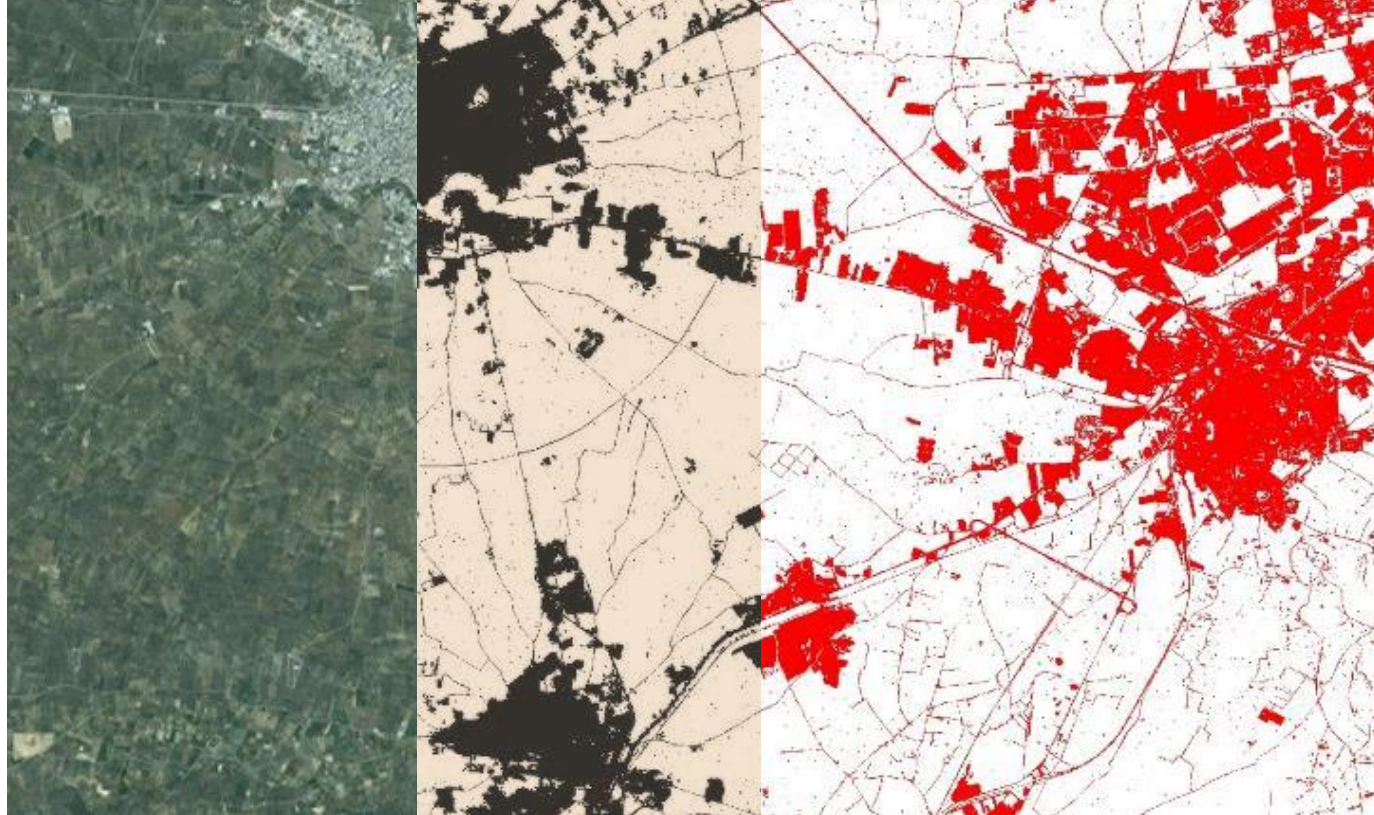


SNPA is responsible for land monitoring reporting in Italy and publishes a report every year on:

- land consumption
- land cover changes
- urban sprawl
- soil ecosystem services



LAND CONSUMPTION/SOIL SEALING



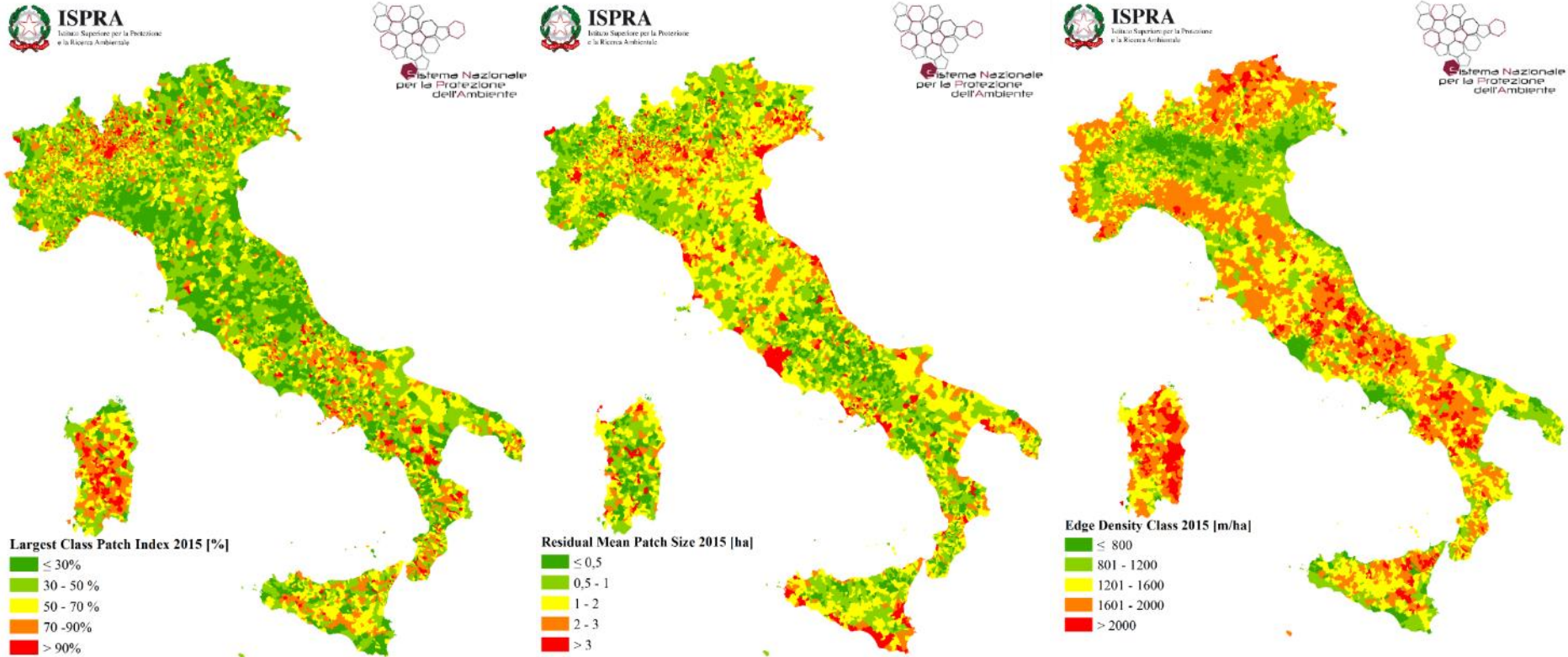
Copernicus HRL

National map
(ISPRA/SNPA)

National map on land consumption has a spatial resolution of 10 meters and a temporal resolution of 1 year.

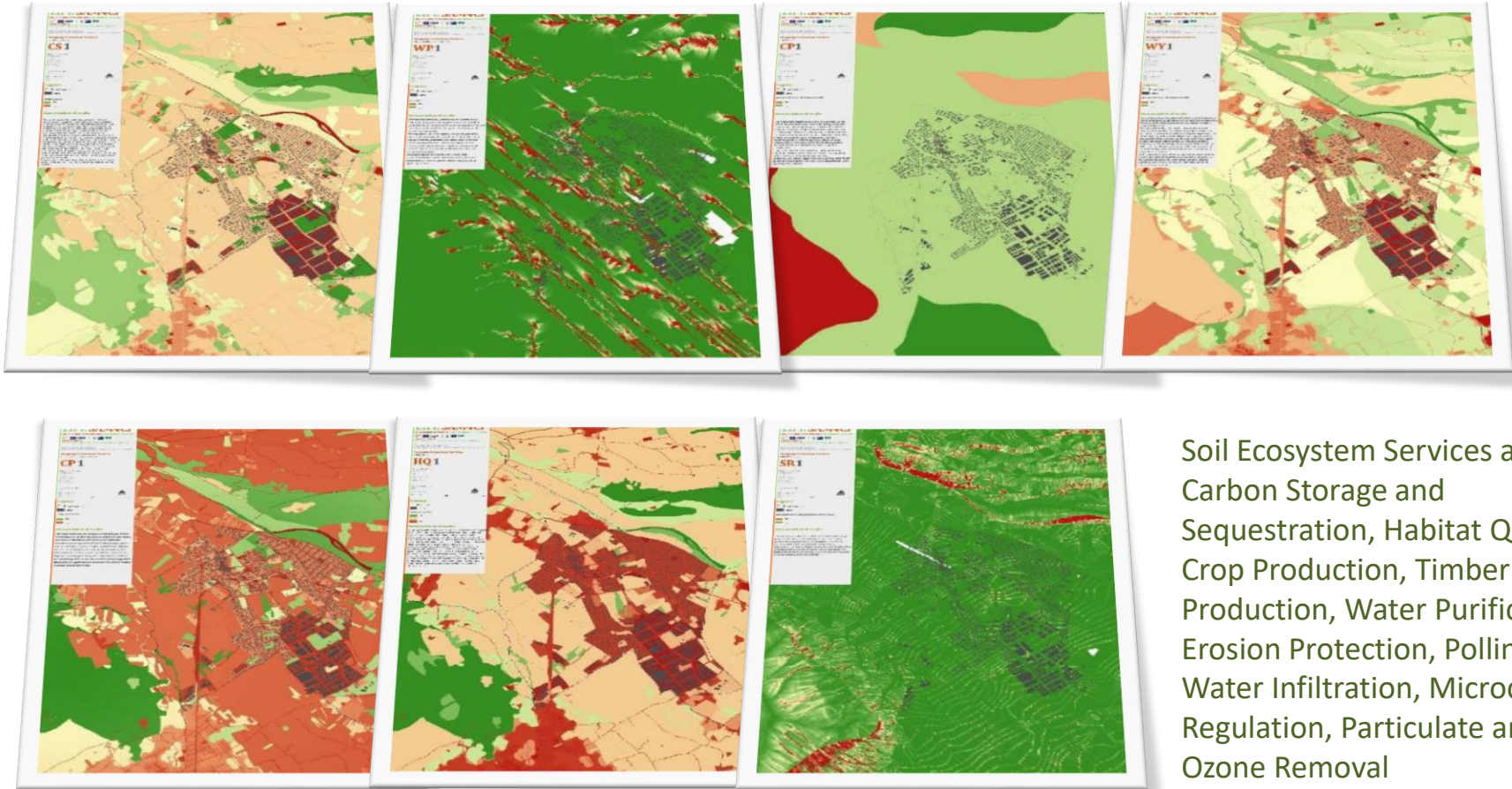
National data acknowledge Eagle classification system with a pure land cover system (using Artificial Surfaces and Constructions classes).

URBAN SPRAWL ASSESSMENT



Land consumption mapping is completed every year with the production of several indicators to assess urban dynamics, urban sprawl and landscape fragmentation. A Linked Open Data service is available to access more than 100 indicators at municipal level.

MAPPING AND ASSESSMENT OF SOIL ECOSYSTEM SERVICES



Soil Ecosystem Services analysed:
Carbon Storage and Sequestration, Habitat Quality, Crop Production, Timber Production, Water Purification, Erosion Protection, Pollination, Water Infiltration, Microclimate Regulation, Particulate and Ozone Removal

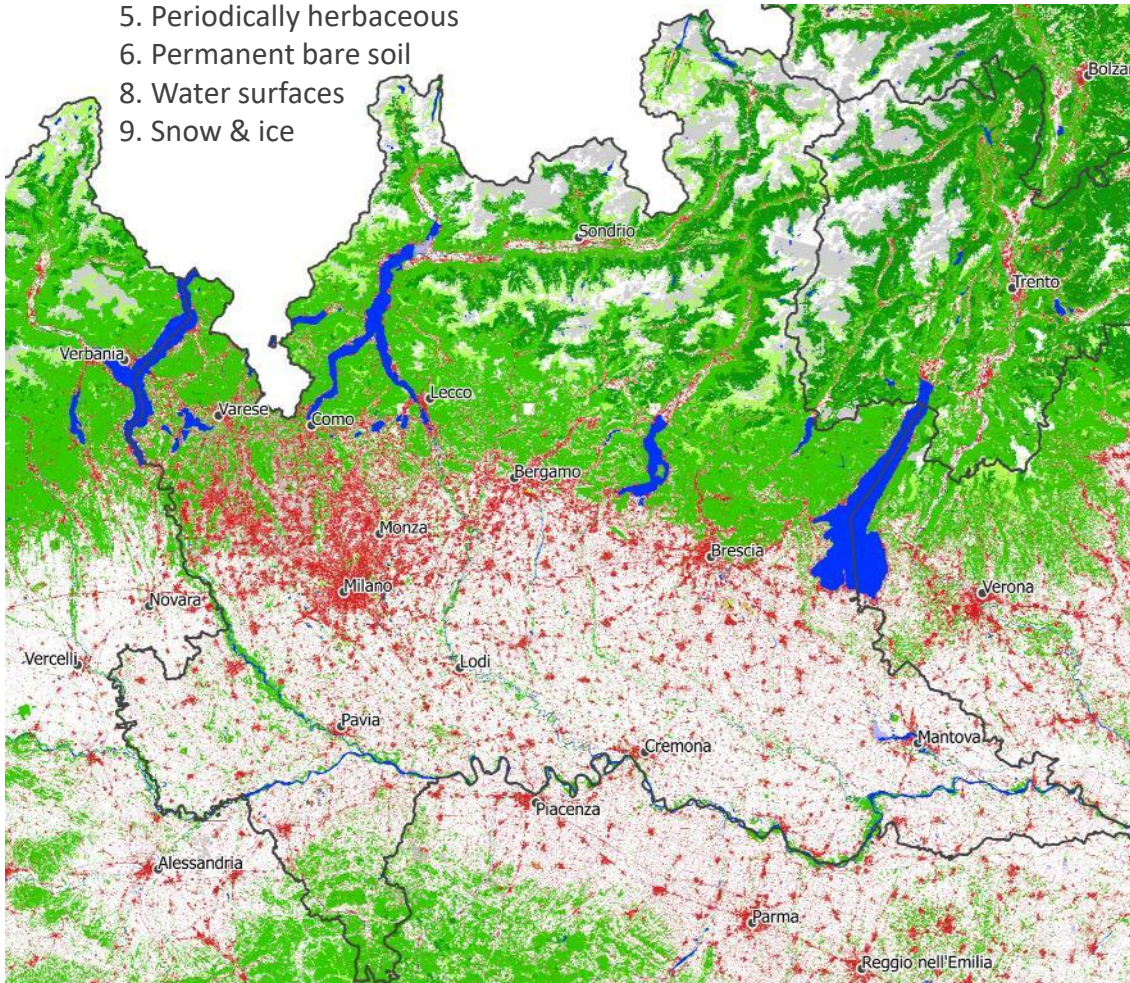
Since 2016, ISPRA performs an assessment of variation produced by land consumption on ten soil-related ES.

The analysis is based on the National map of land consumption integrated with Copernicus High Resolution Layers (HRL) and Corine Land Cover (CLC).

A NEW NATIONAL LAND COVER MAP

Classification System (TBD, it will be based on EAGLE)

1. Artificial Surfaces and Constructions
2. Woody – coniferous
3. Woody – broadleaved
4. Permanent herbaceous
5. Periodically herbaceous
6. Permanent bare soil
8. Water surfaces
9. Snow & ice



ISPRA is defining the requirements of a new national map of land cover with a spatial resolution of 10 m.

The methodology will be developed following the technical specifications of the 2nd generation of CORINE Land Cover (CLC) based on EAGLE land cover components.

Three pilot sites will be done in 2018.