

EO services contributing to SDGs

Impervious surface mapping

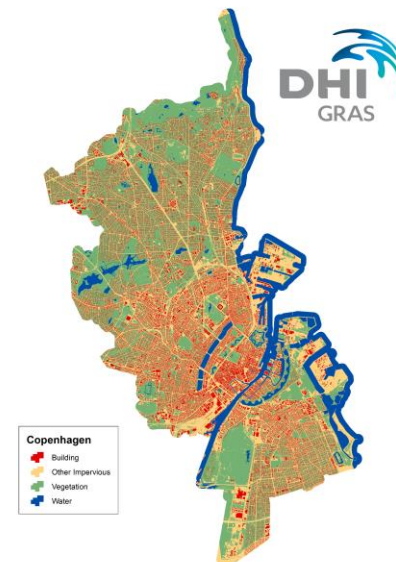


- User: Environmental authorities, city planners, local authorities
- Challenge/Needs: Impervious surfaces have a direct impact on the volume, duration and intensity of surface runoff; groundwater recharge; water quality and the hydrological cycle. Spatially explicit information about the amount, location and type of impervious surfaces aids decision making in the context of sustainable urban planning, water resource management, climate mitigation and greening strategies.
- Initiative: Commercial product as a result of several years R&D
- Results: The impervious surface data depicts spatially explicit information about the amount, extent, location and type of impervious surfaces, using advanced image analysis of satellite imagery or aerial photos. By applying novel machine learning technology and cloud processing, the solution is highly automated, and scalable, and can be applied anywhere worldwide at a specific point in time to differentiate between various types of impervious surface roads (e.g. roads, rooftops, parking lots) and pervious areas (e.g. parks, lakes, streams).
- Service Provider: DHI GRAS

Target 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

Target 9.1: Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

Target 11.3: By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.



Example: The impervious surface mapping solution provides fast and accurate information about urban land cover in grid cell resolutions from submeter levels to 10 m.