

Latvia

Latvian Geospatial Information Agency

Looking to the sky in Latvia to modernise large-scale map production

“Satellite imagery is one of the main building blocks used in the production of 1:500 000 scale maps. They are detailed enough to distinguish the main features: forests, agricultural land, built-up areas, marshes, water bodies, large watercourses, roads, railways. Improving and modernising data extraction enables us to speed up and facilitate the production of maps. The acquired knowledge enables us to further develop the Agency’s potential.”

Valdis Bērziņš
Deputy Director-General
in Geoinformation Matters,
Latvian Geospatial
Information Agency

Significant improvements to modernise and expand the use of Sentinel-2 satellite imagery in large-scale map production are being delivered in Latvia.

The Latvian Geospatial Information Agency has developed mechanisms and solutions to use the tools and knowledge available internally to produce orthomosaics of large areas from satellite imagery. This is enabling it to improve efficiency in the production of 1:500 000 and other scale maps.

Freely available Sentinel-2 satellite imagery provides the homogeneous, cloud and distortion free coverage needed for the successful production of the mosaics for the projected area. During the process, ArcGIS and Trimble software is used to adapt the data to the local coordinate system, select and combine RGBI channels, create the orthomosaic and correct its seam lines.

The plan is to produce at least 4 orthomosaics, covering the whole territory of Latvia and neighbouring countries, each year.



Benefits

- Speeds up the production of final products by modernising and simplifying Sentinel-2 data acquisition.
- Enables data to be quickly produced for any area in Latvia and beyond.
- Provides data in user-friendly and accessible formats for Agency staff.
- Enables cartographers to receive up-to-date information on the territory and its changes, and to compare it with previously acquired data as information is constantly updated and maintained.
- Opens up the possibility of its use in other areas of production and research as data for large areas is regularly produced.