

## Czech Republic

Czech Office for Surveying, Mapping and Cadastre

# Implementing fundamental changes in land surveying to benefit all in Czech Republic

*“In 2023, the Czech Republic realised a number of long-planned fundamental changes in land surveying to benefit citizens, government and business. These include the new Land Surveying Act and government regulation on establishing geodetic reference systems that is binding on the entire territory, and the creation of the database of geodetic and geographical data. July 2023 saw the launch of two new State Map Series, which provide a standardised cartographic basis for territorially-oriented public administration agendas, including international cooperation.*

*A further very significant event is the establishment of the Czech Chamber of Surveyors, as a self-governing status organization of authorised surveying engineers.”*

**Karel Štencel**  
President, Czech Office for Surveying, Mapping and Cadastre

**Authoritative, up-to-date, standardised geodetic and geographical information is contributing to the digital transformation of public administrations in the Czech Republic.**

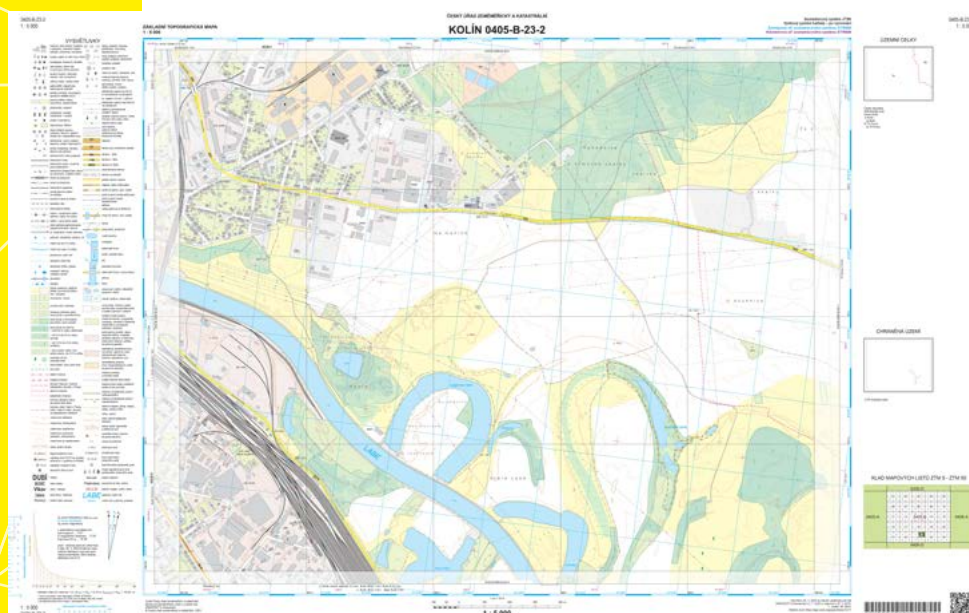
The most important task of the Land Survey Office, which is part of the Czech Office for Surveying, Mapping and Cadastre (CUZK), is providing national, standardised geodetic and geographical information and map products to the state administration and territorial self-government, as well as the public. In doing so, it contributes to the standardised and electronisation of territorially-oriented services and agendas of the public administration of the Czech Republic.

In 2023, a new government regulation was introduced to defined binding geodetic reference systems for use in the Czech Republic. In addition to the national geodetic reference system JTSK, it allows the use of the global geodetic reference systems European Terrestrial Reference System 1989 (ETRS89) and World Geodetic System (WGS 84). The regulation also specifies the main principles for the use of reference systems and mandates the Land Survey Office to create and publish standardised transformation services that can be accessed remotely.

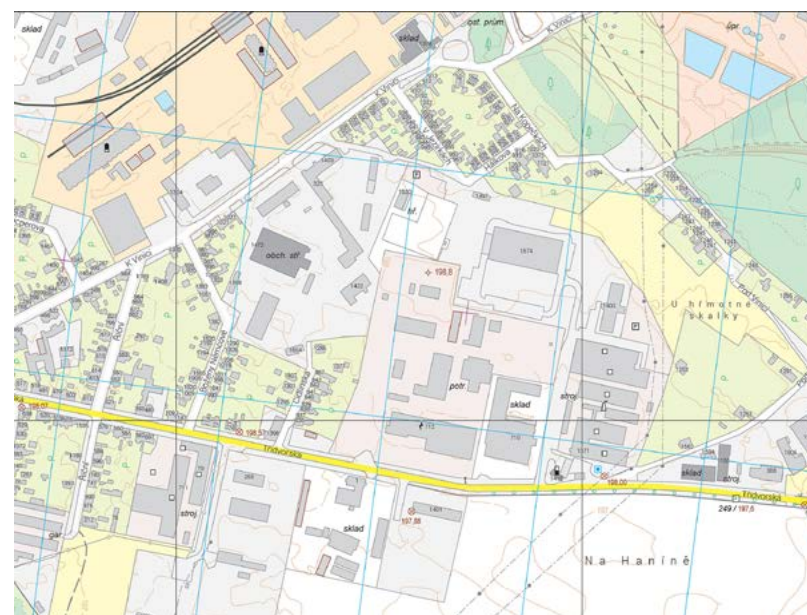
Furthermore, two State Map Series were introduced to meet both national needs and support international cooperation. Available in a range of scales (1:5 000, 10 000, 25 000, 50 000, 100 000 and 250 000), the first basic topographic map (ZTM) shows the national coordinate system for national use. The second basic topographic map of the Czech Republic (in scales 1:10 000, 25 000, 50 000, 100 000 and 250 000) uses the ETRS89 in the universal Mercator’s projection. This is intended especially for international cooperation with neighbouring countries and for supporting the construction of infrastructure for spatial information in the EU.

Map works are provided as PDF print files with the complete content of the map sheet further available as raster files or as vector data of cartographic models in DGN and SHP formats. At the same time, they are published as a ‘seamless’ database via online web services.

The amended Land Surveying Act implements the EU Open Data Directive which requires that the Basic Geographical Database, Orthophoto, State Map Series, database of geographic names, and geodetic control should be published free of charge as open data.



Example of a ZTM map sheet in the scale of 1:5 000



Detail from this ZTM

## Benefits

- Provide access to data guaranteed by the state or CUZK on the basis of legal authorisation.
- Enables access to data for pan-European topographic databases.
- Delivers data and products that are updated continuously for the entire territory of the Czech Republic.
- Implements the Land Surveying Act by providing data listed as open data.
- Standardises data formats and services, which ensures the security of investments in information technologies by government, business and citizens.