

Geoinformation Kanton Luzern

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What we do

Geoinformation Kanton Luzern is the responsible authority for collecting, processing, managing, and publishing spatial data. Furthermore, Geoinformation manages, coordinates, and monitors the work of cadastral surveying.

The coordination of spatial data across the cantonal administration is vital. We ensure optimal usage of data and resources while minimizing redundancies.

Providing an efficient geodata infrastructure, developing data standards, as well as offering GIS training and consulting are other central duties and responsibilities.

Due to the visual nature of geographic data we aim to maintain high cartographic standards rooted in the Swiss traditions of cartography.

Here are three examples to illustrate this:

Basemaps with vector-tiles

Starting in summer 2023 Geoinformation is migrating daily updated base maps such as the plan for the land register (*Grundbuchplan*) to a vector-based format across all platforms (desktop and

web). Vector-tile basemaps offer a number of advantages:

- Dramatically faster generation times for daily updating
- A better user experience, including smooth zooming on mobile and tablet devices
- Fulfilling user expectations as vector-tiled base maps are now a de-facto standard (i.e., Google Maps, Apple Maps)
- Smaller data size and therefore lower disk space requirement
- Easier customisation and maintenance of map content

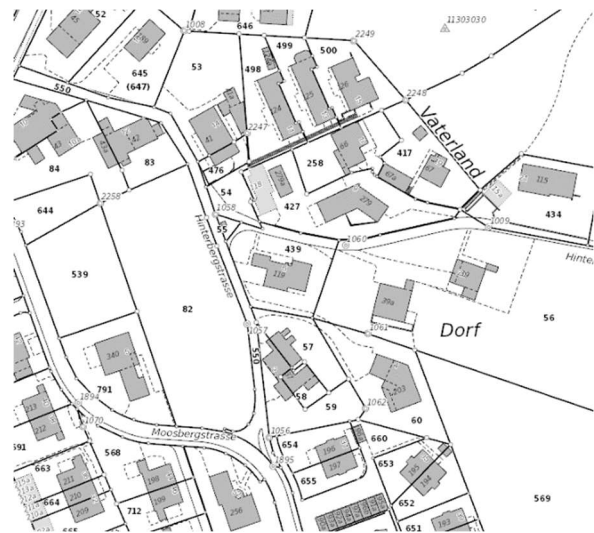


Figure 1: Basemap with vector-tile

General Plan 1:10'000

In the last 10 years, all other Swiss cantons have stopped to produce a cantonal general plan in favour of using the National Map 1:10'000. The canton of Lucerne still sees clear value in maintaining

such a product as long as the following goals are met:

- More up to date than comparable national products.
- Map production is fully automated
- Based on cantonal data
- Dynamic, vector-based product, which can be used in a variety of contexts and for specific cantonal needs

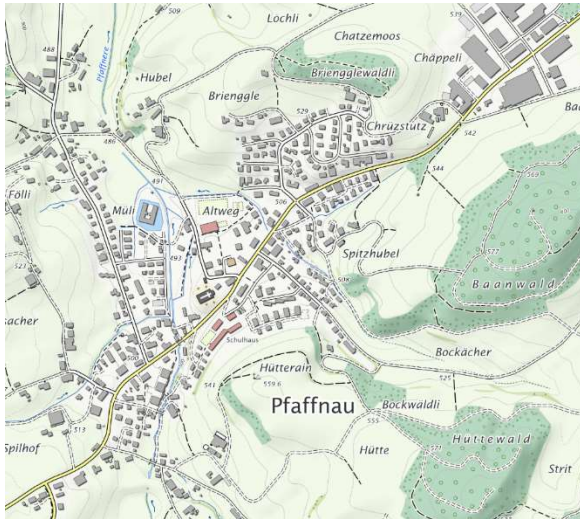


Figure 2: General Plan 1:10'000

3D-Landscape Model (3D-Landschaftsmodell)

There are a lot of emerging topics and initiatives in the field of 3D. The 3D-Landscape Model allows users to visualize and analyze in a 3D landscape, including 3D objects like trees and buildings as well as planned, strategically relevant construction projects.

- Geoinformation opts for a user-centric, web-first approach with emphasis on usability.
- Geoinformation owns and controls all data aspects of the model.
- 3D Landscape can be used for specific applications (e.g., visualization of different variants of bypasses etc)



Figure 3: 3D-Landscape Model