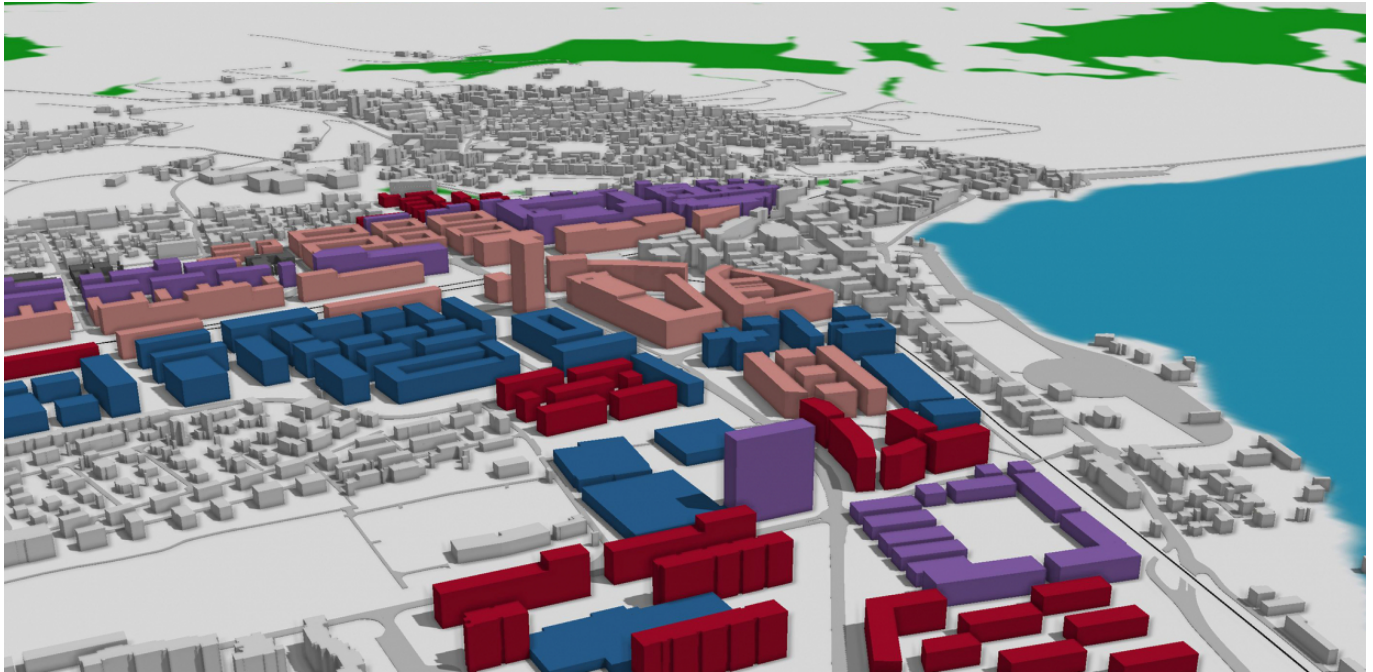**EBP** ◎

Calculation of the Swisstopo building heights 3D

Swisstopo instructed EBP to calculate the building heights of Switzerland from DOM, DTM-AV and VECTOR25 building footprints. The EBP calculation methods enabled the building heights to be calculated quickly from the billions of laser-scanning points of the height model. Swisstopo is marketing the building heights record as a new product under the name SwissBUILDINGS3D.

In 2008 Swisstopo began the production of the TLM Topographic Landscape Model. The TLM is a huge 3D geodatabase covering the whole of Switzerland. On the subject of buildings, it is planned to represent more than 2 million buildings in 3D on the basis of aerial photographs. This record will, however, only be available for the whole of Switzerland in about 5 years' time, after a complete processing cycle.

As a transitional solution, Swisstopo therefore expressed interest in being able to offer a simple building height model (block model) as a product for the whole area. This model should be produced as soon as possible, and without substantial manual processing, from DTM-AV, DOM and the building footprints from VECTOR25.

With the assistance of a program package for the quality assurance of geodata, developed for Swisstopo's TOPGIS project, EBP is in a position to process vast quantities of geodata very efficiently in a single stage. By expanding the program package in line with the requirements of building heights, the calculation from the billions of available laser-scanning points could be undertaken in a short time.

Client

Swisstopo, Federal Office of Topography (L+T)

Facts

Period	2009
Project Country	Switzerland

Contact persons

Felix Arnet
felix.arnet@ebp.ch

Dr. Ivo Leiss
ivo.leiss@ebp.ch