

## Population density maps

Countrywide dataset of detailed **urban and population density maps** was implemented into analytical workflow around disasters risk assessment. At the implementation phase our clients used Mapflow algorithms to detect buildings and their heights in residential areas. This allowed them to create a custom dataset distributing the population proportionately to the capacity of buildings in the spatial grid cell.

### Case study: KONTUR



“ At Kontur we provide geospatial solutions for risk management using open data and extractions from satellite images. Geoalert helps us optimizing the mapping costs where the open data is limited or incomplete.  
**Darafei Praliaskouski, Head of Product**



## Automatic mapping of structure changes before and after the crisis



Since the aerial imagery is available and the official investigation of the aftermath of disaster is going on, it requires only hours to apply machine learning to estimate the damages. In particular when the affected area is large enough and the manual mapping and ground observation are time-consuming and unsafe.

### Emergency Mapping

The term refers to the creation and use of maps – paper or digital – before, during or after emergencies and disasters. While “hazard and risk mapping” is primarily used to visualize the hazards and risks during the pre-event phase, “emergency mapping” focuses on supporting response and relief efforts. Nevertheless, both types of maps are closely related to one another since hazard and risk maps can be included into emergency maps as important components. Currently “Geographic Information Systems” (GIS) play a critical role in the development and use of these maps. GIS-based emergency maps are often an integral part of web-enabled crisis information management systems.

The Aerial imagery is a crucial tool to determine the extent of the damages and to help rescue teams and decision makers (e.g. insurers) to get a timely information.

### Data access and provisioning

<b>Mapflow technology</b>	Buildings footprints with heights (high density)
<b>Software</b>	QGIS / PostGIS
<b>Data service</b>	Mapbox Satellite, Maxar Vivid, Konur population dataset
<b>Data formats</b>	GeoPackage

[Download Mapflow-QGIS](#) →

