

# Demo: Identification of potential for residential building contractors - Alpine Building Centre



Research Studios Austria  
iSPACE.SmartSettlementSystems

## Bauland

### Wohnbauland

#### unbebaut

- <1500 m<sup>2</sup>
- >1500 m<sup>2</sup>

#### baut

- mit Nachverdichtungspotenzial (statistisch)

- 1-9 WE
- ≥10 WE

#### Typologie (geometrisch)

- Selbständiger Zubau
- Lückenschluss
- Anbau
- Aufstockung
- Einzelhandel

### Betriebsbauland

- FW Handelsgrößbetriebe

- überwiegend angrenzend an WBL

- 1-9 WE
- ≥10 WE

Abb. 1: Modeling structure, parameters and typology of potentials with specific suitability for social housing

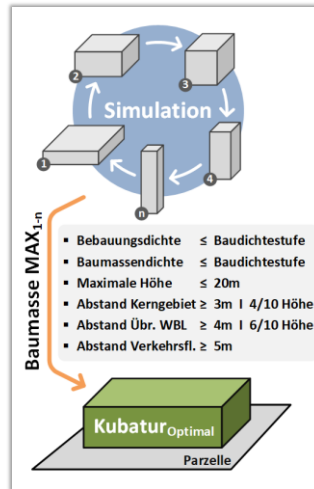


Abb. 2: Simulation of optimal land use with respect to combined consideration of maximum building density and distance specifications

## Background

Social housing has special requirements for property sizes, especially with regard to economic development and suitability for subsidies. Since suitable and mobilizable building land reserves are scarce, the densification of existing buildings or an overlapping of retail buildings with housing-use is becoming more and more important. This requires a valid and periodically updated data basis that shows potential plots of land, densification potential or possibilities for overlapping uses of retail and housing.

## Method

iSPACE developed a prototypical approach within the Alpine Building Centre, which automatically identifies potential plots of land, options for densification and potentials for overlapping uses of retail and housing, which are suitable for social housing on the basis of digital data. By interlacing with indicators of the local building structure or with the number of owners, indications of mobilisation probabilities can be generated.

## Objective

- Precise determination of building land reserves with special suitability for residential building contractors within already zoned areas
- Identification of possibilities for densification (e.g. addition of another storey) or overlapping retail buildings with housing

## Innovation

- Parameter definition for the suitability of social housing
- Transferable, parameterizable GIS model: plot - number of owners - local building structure - residential units

## Benefit

- Localization & quantification of existing reserves for residential land with specific suitability for non-profit housing
- Identification of potentials for overlapping of retail buildings and housing within the zoning categories residential and commercial building land
- Indicators for probability of realization

## Demonstration

- Alpine Building Centre
- Stakeholder-Workshop

## Publication

- Gadocha, S., Prinz, T. & Spitzer, W. (2019): Räumliche Daten für die Mobilisierung von Nachverdichtungspotenzialen. In: AGIT – Journal für Angewandte Geoinformatik.
- Prinz, T., Spitzer, W. & Gadocha, S. (2020): Räumliche Indikatoren zur Nachverdichtung. Abstract und Präsentation. Münchner GI-Runde 2020.
- Prinz, T. (2020): GIS und Smart Settlement Systems sowie Mobilität der Zukunft. Präsentation. ADV-Konferenz GeolIT - Die gemeinsame digitale Erde.

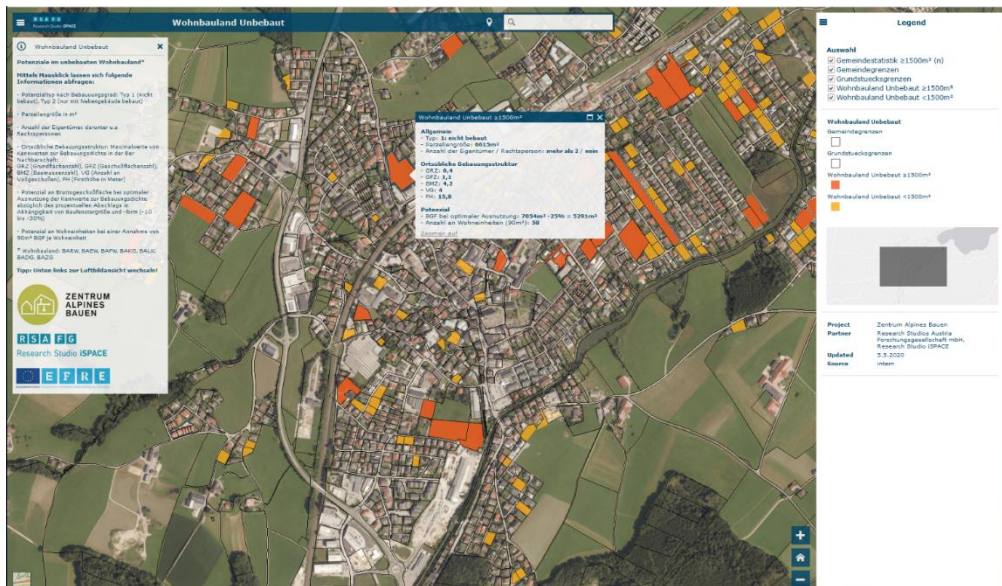


Abb. 3: Web map for the provision and query of building land reserves and densification potential

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