



Results of a study on the potential for roof extensions and conversion of non-residential buildings in Germany from 2019 (updated 7/2024)

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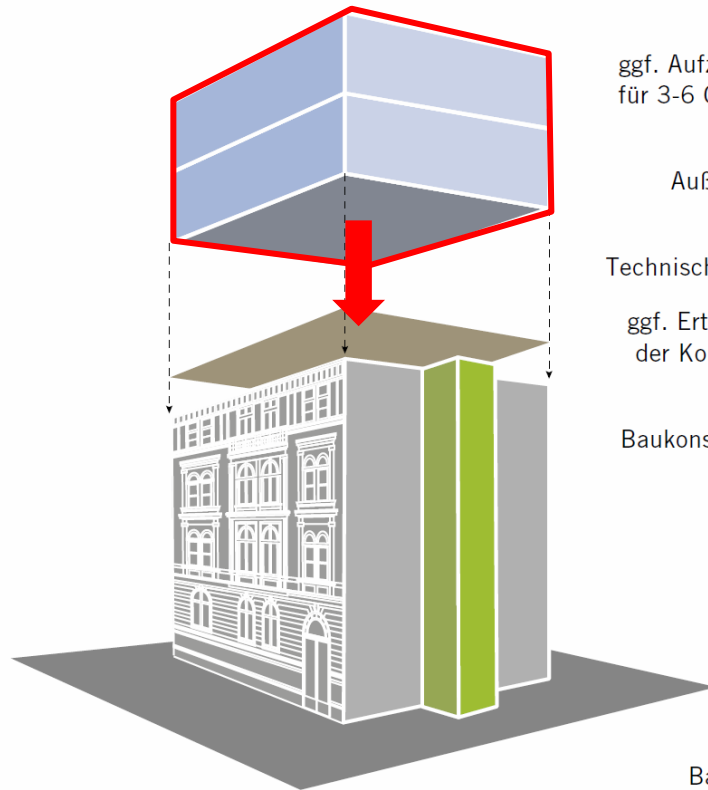


- Initial situation
- Motivation for the study
- What was investigated?
- Results
- Obstacles



using the resource “building land” sparingly

Einsparpotenzial von Aufstockungen –
Kostenvergleich Neubau zu Aufstockungen



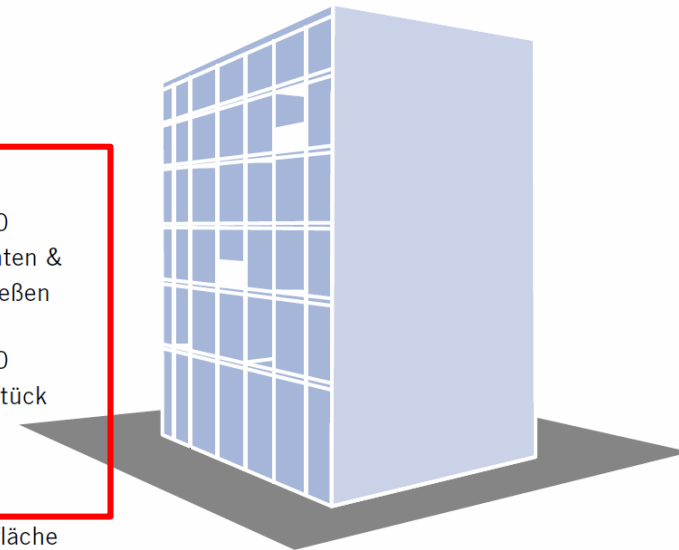
Aufstockung

ggf. Aufzug außen
für 3-6 Geschosse
KG 500
Außenanlagen
KG 400
Technische Anlagen
ggf. Ertüchtigung
der Konstruktion
KG 300
Baukonstruktionen

Neubau

ggf. Aufzug
KG 500
Außenanlagen
KG 400
Technische Anlagen
KG 300
Baukonstruktionen
KG 200
Herrichten &
Erschließen
KG 100
Grundstück

construction costs in relation to m2 living space



Baukosten anteilig bezogen auf m² Wohnfläche

While a first study 2016 focused primarily on adding storeys to residential buildings, this was significantly expanded in the 2019 Germany study:

- Update of the 2016 study: Potential for [adding storeys to residential buildings](#)
- New: Potential for [adding storeys to office and administrative buildings](#)
- Densification and overbuilding of [parking lots](#), single-storey [discount store buildings](#), adding storeys to [parking garages](#) for social infrastructure such as daycare centers
- The [conversion potential of vacant office and administrative buildings](#) to create living space

- **1.24 million to 1.38 million residential units** on residential buildings **from the 1950s to 1990s** (updated status 2/2023).
- **20.000 residential units** or social infrastructure **on parking garages** in city centers.
- **572.000 residential units** by **adding storeys** to office and administrative buildings.
- **350.000 residential units** through **conversion of surplus (vacant) office and administrative buildings**.
- **365.000 residential units** on the sites of single-storey retail outlets, **discount stores and markets**, while retaining the retail space.
- Taken together, the building typologies under consideration offer a potential of **2.3 million to 2.7 million** apartments in **regions of tight housing markets** in Germany.



adding storeys to parking garages for social infrastructure such as daycare centers

(example: Kindergarten „Wolke 10“, Nuremberg, Timber frame construction on a parking garage from the 1970s)

Obstacles

Realizing this potential is not easy due to existing obstacles. However, in order to utilize the unused potential for residential construction, the political framework conditions must change. For example:

1. further **development of building planning law** to create living space, such as the development of urban appropriate floor area ratios (GFZ). The floor area ratio is regulated by law and determines how much floor space may be built on a plot of land. It does not specify the number of storeys of a property.
2. **adjustments to building regulations**
e.g. making parking space requirements for cars subject to exceptions or waiving them in the case of extensions due to changing mobility behavior. Or the adjustment of eaves or ridge heights.
3. **financial incentives** for space-saving residential construction measures
e.g. investment grants or improved depreciation





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