### **Zukunft Bau**

## STRUCTURE SHORT REPORT

#### Title

Analysis of the social problems of elder residents in multi-storey residential buildings before, during and after energy-efficient renovation and development of proposed solutions

#### **Initial situation**

The study examines the special situation of elder residents at energy-efficient renovations in multi-storey residential buildings. It thereby analyses the overlapping area of the two societal megatrends 'climate change' and 'demographic change'. Particularly housing with renovation demand is often inhabited by elderly people that have special needs. Knowledge about those needs can facilitate the planning and conduct of energy efficiency measures.

## Subject of the research project

For the purpose of providing actors that are involved in energy-efficient renovation with recommendations for action, the study integrates methods of quantitative as well as qualitative social research. Its theoretical foundation is formed by a comprehensive review of the housing and living situation of older people in Germany.

In order to work out stresses and individual strains of elder residents (60 years and older), in the quantitative part of the study a large written interrogation was carried out with 309 participants, for whose apartments an energy-efficient renovation had either been scheduled, was currently taking place or had already been terminated. Key questions referred to the amount of the residents' (objective) stresses and their (subjectively perceived) strains. Furthermore, questions were asked on the elderly's individual coping capabilities as well as on the property management's options for action.

The response behaviour was analysed for different groups in order to work out the influence of these groups as independent variables onto stresses and strains as dependent variables. These groups were based on the differing living conditions on the one hand (rental or ownership) and on the different time relation towards the renovation on the other hand (interrogation before, during or after renovation) For the purpose of measuring stresses, strains, coping strategies and services provided by the property management, scales were formed that could then be treated as dependent variables.

The results show that the majority of survey participants is on the whole satisfied with the energy-efficient renovation, whereby owners are slightly more content and also less affected by stresses and strains than tenants. Respondents during the renovation are more heavily affected by stresses than respondents before or after the ren-

ovation. This confirms the thesis that experienced stress factors appear weaker in retrospect. A small, age-independent group of tenants suffers much more from strains and relies more on services offered by the property management than any other group. Overall, older respondents assess the renovation slightly more positively.

In order to deepen the findings of the questionnaire survey, seven interviews with elderly tenants were in addition conducted and subsequently encoded and evaluated with hermeneutic-reconstructive methods. The interviews allowed comprehending the respondents' subjective structures of relevance in the situation of renovation. In many cases the interviewees made restrictions to their privacy and the involved loss of wellbeing in their apartment a subject of discussion

Further, a model that represents the shift from stress to strain and the usage of coping strategies was developed: Whether stresses result in strains is thereby regulated by the extent to which daily routines and the apartment as a place of retreat are being disrupted. The constructive usage of strategies is in a similar way promoted or inhibited by the strength of the interviewees' social networks as well as by their self-efficacy and opportunities for action.

The model's four factors (daily routines, apartment, social networks and self-efficacy) were considered in detail in the evaluation of the qualitative interviews. It could be observed that for the interviewees the temporary loss of the apartment as a place of retreat and the loss of structure in everyday life led to an experienced restriction in their self-efficacy. On that account, during the renovation the support by members of their family and neighbours with whom the interviewees often positioned themselves collectively towards the property management became more relevant.

Finally, for the purpose of elaborating constructive recommendations for action for the housing industry, five expert interviews with housing industry experts and experts of the geriatric care system were conducted by telephone. The experts emphasized on the practice level the importance of certain offers and on the political level made proposals on support mechanisms and new offerings.

#### Conclusion

Based on the situation of the residents that was comprehensively analyzed in the quantitative and qualitative part of the survey, the expert interviews finally allowed to draft recommendations for action on the practice and political level.

Since a small, highly strained group of residents can prevent whole renovation projects, it is of central importance to frankly integrate this group from the outset and to reduce its stresses by suitable support offers such as regular house cleaning or a reliable person to contact on the spot. Furthermore, a body responsible for arranging and coordinating supportive services could be set up ("accompanying person").

# Key data

Short title: Energy-efficient renovation with senior citizens

Researchers / project management: Prof. Dr. Isolde Geissler-Frank, Birgit Schuhmacher, Sarah Söhnen, Tabea Ziebart

Total costs: 84.329,18

Amount of federal subsidy: 54.329,18

Project term: 08.12.2014 - 30.06.2016