

## Housing for people with special needs

UN's 17 Sustainable Development Goals address some of our most urgent issues, including how to facilitate a global partnership for securing people and our planet's future. Buildings and the built environment represent some of the major problems concerning our common future. However, buildings and the built environment can also provide part of the solution. Most people spend significant portions of their time in built environments. Thus, well-designed and thought-through built environments are of great importance to UN's Sustainable Development Goal Number 3, Good Health and Well-being, and UN's Sustainable Development Goal Number 11, Sustainable Cities and Communities. We also know that construction and use of buildings produce a considerable amount of the world's CO<sub>2</sub> emissions. Better maintenance and smarter reuse or renovation of existing buildings rather than demolition and construction of new buildings can significantly reduce CO<sub>2</sub> emissions. Thus, renovation and reusing of existing buildings can address UN's Development Goal 13, Climate Action.

Some of Europe's challenges are demographic changes and a rapidly ageing population. These also happen in many industrialised countries outside Europe. The combination of reduced birth rates and increased life expectancy has changed the demographic balance. Important implications of these demographic shifts are, among others, fewer inhabitants who are working, fewer taxpayers, more retired persons, who receive pensions and an increased number of persons dependent on various kinds of services or facilities for assisted living. Today, retired persons are healthier, active and have longer life expectancy than ever, but retired persons also need a built environment and services that facilitate independent living and assisted living. In a situation with fewer taxpayers and in some instances with reduced tax revenues, how to finance adaptations of the built environment, for instance, by implementing universal design and how to finance necessary services for the elderly? These problems represent serious challenges for the authorities in many countries that experience the so-called "elder boom".

The aim of this special issue is to strengthen the field of facility management and real estate with emphasis on how to facilitate adequate housing for persons with special needs, such as the elderly and disabled persons.

The opening paper, written by Živa Kristl, Alenka Temeljotov Salaj and Athena Roumboutsos, provides a comprehensive overview of research about adaptive reuse of heritage buildings with special emphasis on sustainability, universal design and facility management. Their study is based on a comprehensive literature review of scientific publications from 2000 to 2018 written in English. The review shows that research on heritage building renovation and reuse of heritage buildings did not comprehensively address sustainability issues, nor were the needs of persons with disabilities in heritage buildings well studied. The role of facility management in remedying these challenges is important to the strategic, tactical and operational levels. This study's findings provide a basis for not only further research and development of enhanced strategies for retrofit and adaptive reuse of heritage buildings but also implementation of universal design in heritage buildings.

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This paper forms part of special section "Housing for people with special needs", guest edited by Knut Boge.



The second paper, from Arsalan Gharaveis, is a literature review of studies on environmental design's impact on elderly citizens' physical activity. This paper's methodology may represent an innovation idea to readers of *Facilities*. The literature review was conducted based on the preferred reporting items for systematic reviews and meta-analyses – usually known as the PRISMA method, which is commonly used in the field of medicine and health sciences. As Gharaveis' study shows, this method for systematic reviews and meta-analyses can also be highly relevant to many other scientific disciplines. Some of the main findings in Gharaveis' study are that having more walkable areas may improve the elderly inhabitants' level of physical activity. Walkable areas may also facilitate more socialisation among the inhabitants. Physical activity is of great importance for maintaining elderly persons' physical health. Socialisation, similarly, is of great importance for maintaining elderly persons' mental health.

The third and final paper in this special issue, about housing for people with special needs, was written by David Bogataj, Valerija Rogelj, Marija Bogataj and Eneja Drobež. They address one of the big issues in the EU member countries and many other countries with rapidly ageing population: How to provide adequate services and housing for an increasing number of people that are dependent on the help of others? About 90% of the houses in the UK and about 70%–80% of the houses in Germany contain accessibility barriers for people with emerging functional impairments. Independent living can lower the costs of health care and improve the well-being of old persons. How to convert these houses to adequate, age-friendly housing provisions that are appropriate to support the independence and autonomy of persons with declining functional capacities? But how to finance the necessary conversions of houses where elderly persons live? And how to finance long-term care and assisted-living facilities when elderly persons are not able to live in their own homes? The authors have developed a reverse mortgage scheme with embedded longevity and long-term care insurance as a possible financial instrument to facilitate better long-term care services and housing with care in assisted-living facilities. The novelty or financial innovation presented in this paper is the portable insurance products that make it possible for homeowners to move in their own specialised housing units with assisted-living facilities and keep the existing reverse mortgage contract with no additional costs, which is not possible with the current insurance products. The numerical examples are from Slovenia, but with minor adaptations of these principles, they are applicable to most EU member countries.

In summary, this special issue of *Facilities* presents a state-of-the-art review, one methodical study and one financial innovation concerning how facility management and real estate may facilitate housing for persons with special needs.

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