CERIS : Civil Engineering Research and Innovation for Sustainability

Development and management of residential real estate classification for people with reduced mobility

PhD student
Silvia Helena de Freitas Barbosa Sá

PhD program
Civil Engineering (IST, University of Lisbon)

Supervisor
Nuno Almeida (CERIS, IST, University of Lisbon)

Co-supervisor
-

Period
2020-2025

Funding
-

Summary

The creation of an evaluation and classification of residential real estate as to their suitability for people with reduced mobility can be considered a current and relevant theme not only to the national technical environment, but also as an advancement as a way to contribute to social sustainability. For the development of this theme, it is necessary to combine knowledge in management and technical skills in civil engineering, so that its contribution can meet as many requirements as possible. It is important to point out that disability is not limited to the unexpected, but also to population aging, which is intrinsic to the course of life. Aging brings a drastic reduction in motor abilities, making the need for their residence to be a safe place that enables their independence, something of extreme importance for dignity.

The World Health Organization (2011) estimated that approximately 15% of the world population live with some form of disability and that of those 15%, over two hundred million will experience considerable functional difficulties during their lifetime, for its part, at the level of the European Union it is estimated that one in every six citizens has a disability (European Labour Force Survey, 2011). Also, within the scope of defining physical limitations, the World Health Organization in 2001, also classified any difficulty, being it permanent or temporary, as a disability. Another point that must be comprehended for the development of this thesis are the architectural barriers, which are all types of obstacles that prevent people from benefiting from and occupying the physical space. It is possible to affirm that they are identifiable and are present not only in public areas, but also in the residences.

Accessibility, according to the European Commission (2003), is defined as the ability of the building to enable everyone to have equal autonomy of use. The Portuguese Association for Consumer Defense (*Associação Portuguesa para a Defesa do Consumidor* - DECO), in 2017 conducted a survey with 2854 responses stating that their limitations began in their homes, with architectural features and small spaces as their main elements. It is important to emphasize with the justification of the theme that civil engineering is responsible for working to reorganize the urban spatial environment, it has the responsibility to develop accessibility methodologies within cities, and to discuss the issue in the academic field, because only in this way will it be possible to move from a simple technical definition to something that is usable and practical for the society. The inspection regarding the Classification that will be developed in this thesis, through the analysis of the current state of the residential property and the possibility of overcoming the barriers therein existing, must be evaluated by the engineer himself, for his qualification allows him to observe the feasibility of possible solutions that can be proposed.

Keywords

Accessibility, architectural barrier, social sustainability, real estate classification, inclusion, reduced mobility.

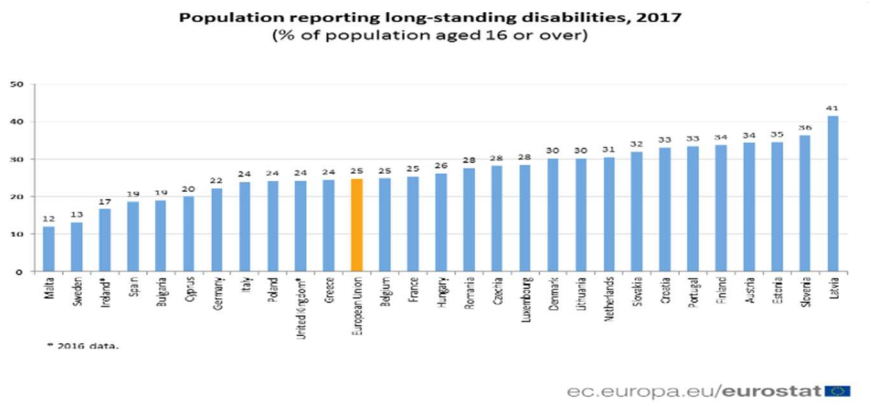

Chart of the European population aged 16 and over who had lasting disabilities in 2017.