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Sustainable structure for the quality management scheme to support mobility of people with disabilities

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Abstract

The paper is aimed to carry out a comprehensive overview of the state-of-the-art regarding policy audits and quality management schemes, related to the accessibility of public transport and public space, including the success factors and features of these schemes and the problems and barriers related. It is focused on general and much-used international standards and models as ISO 9 000 family, ISO 14 000 family, EMAS and the EFQM Excellence model. It describes general structure of the schemes, working process, covered areas and type of indicators used as well as the way that they address detailed content-related matters, related specifically to the "public" accessibility. It also provides discussion on suitable structure for the standardized accessibility and quality management scheme focused on help to people with disabilities to move independently in the public spaces.

1. Introduction

Every day a significant part of the population encounters many barriers in public spaces and on public transport. Among them are, for example, people with baby buggies or heavy luggage, people with mobility problems, those with hearing- or visual impairments or people with learning difficulties. Because of these barriers for many people it is difficult or even impossible to move around independently in the public spaces. Thus instead them have to depend on a car or mobility-service for much of their regular travel.

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Municipalities, cities and regions can help their inhabitants and visitors to adopt a less car-dependent lifestyle by ensuring that public spaces and public transport services are fully accessible. Improved accessibility for pedestrians, wheelchair-users, cyclists, and public transport passengers to day-to-day services such as shops, kindergartens, service-, sports-, and leisure-facilities contributes directly to increased quality of life in the city or in the region. Musyoka et al. [1] indicated that for people with reduced mobility these improvements can make independent travel to public spaces a reality for the first time.

Clarke [2] stated that one of possible ways for this improvement is application of systematic approach based on standardized quality management (QM) scheme related to the area described above. This finding was confirmed also by ECMT [3]. According to result of ISEMOA project [4] the core of this scheme there should be a moderated audit process that helps to local and regional stakeholders, together with an external auditor, to assess the state of accessibility of public space and public transport in their area and to develop strategies and measures to continuously improve its quality.

In order to achieve sustainable mobility for all in a travel-chain perspective (without any missing links along the route) both micro and macro-level accessibility should be handled.

- The macro-level concerns geographical accessibility and land-use patterns in terms of location, distance, density, diversity etc.
- The micro-level concerns the occurrence of various barriers (poor standard) on pavements and other pedestrian facilities, bus stops / stations, and vehicles. Physical barriers (e.g. high kerbs, uneven surfaces, slopes, snowy and icy conditions, poor contrasts, entrances without ramps and door-openers) are problematic for people with reduced mobility due to a mismatch between individual capacity and environmental demand.

Our municipalities, cities, and regions should be supported in their efforts to remove barriers in public spaces and public transport and to improve the accessibility of day-to-day services by sustainable transport modes. It can be effectuated by development of quality management system (QMS) that can support local and regional authorities in their work for the continuous improvement of the accessibility of the door-to-door mobility chain with sustainable transport modes. This system should be built on well-known quality management methods like the ISO9000 standards and the EFQM Excellence and CAF models, which had been applied successfully in quality management tools for mobility management (MaxQ), bicycle planning (BYPAD) and accessible public transport (MEDIATE) as presented in this paper.

2. Standardized quality management schemes

2.1. ISO 9000 family

The ISO 9000 family of standards represents an international consensus on good quality management practices. It consists of standards and guidelines regarding quality management systems and related supporting standards.

ISO 9001:2008 is standard that provides a set of standardized requirements for quality management systems, regardless of what the user organization does, its size, or whether it is in private or in public sector. It is the only standard in the family against which organizations can be certified – although certification is not a compulsory requirement of it. Other standards in the ISO 9000 family cover specific aspects such as fundamentals and vocabulary, performance improvements, documentation, training and financial and economic aspects.

The requirements for a quality system have been standardized. But many organizations like to think of themselves as unique. So how does ISO 9001:2008 allow for the diversity of say, on one hand, a "Mr. and Mrs." enterprise, and on the other, to a multinational manufacturing company with service components, or a public utility, or a government administration?

The answer is that ISO 9001:2008 lays down what requirements the quality system must meet, but does not dictate how they should be met in any particular organization. This leaves a great scope and flexibility for implementation in different business sectors and business cultures, as well as in different national cultures.

The standard requires the organization itself to audit its ISO 9001:2008-based quality system. To verify that it is managing its processes effectively or to put it another way, to check that it is fully in control of its activities. In