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Smart community infrastructures — Smart transportation for compact cities

Infrastructures communautaires intelligentes — Transport intelligent dans les villes compactes

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Foreword

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This document was prepared by Technical Committee ISO/TC 268, *Sustainable cities and communities*, Subcommittee SC 1, *Smart community infrastructures*

In the development of this document, ISO Guide 82 has been taken into account in addressing sustainability issues.

Introduction

A compact city is an urban design concept that invites people back to a small area in a city where the population has decreased or is decreasing. Modal shifts of passengers from public to private transportation have resulted in people moving out of the city centre into the suburbs, since private transportation enables movement without dependent time schedules and fixed routes. The problems associated with public transportation are mainly related to station or stop intervals, service frequency, approaches to stations/stops and service routes and networks. Furthermore, large-scale shopping malls and hospitals are frequently constructed outside cities. Such a situation accelerates the outflow of residents, resulting in the de-urbanization of city centres. Downtown, the public realm and community safety fall into decline, causing more people to move out to the suburbs. This negative spiral continues, changing the character of a city.

One way to pre-empt the deterioration of a city centre is through the creation of a compact city. The concept behind compact cities is that facilities for citizens, such as shopping malls, offices and hospitals, are placed in a small target areas. These facilities are connected to one another by short-interval, high-frequency public transportation which can be easily accessed by citizens. Additionally, this type of transportation reconnects citizens living in the suburbs to the urban centre, with service lines laid radially in relation to the suburbs surrounding the area. This transportation network successfully attracts people into a target area from its periphery and retains them therein. This is a solution to the problem of declining city centres, utilizing smart transportation to resuscitate small downtown areas. This document describes a way to organize smart transportation to create a compact city that regenerates a declining urban centre and rejuvenates its economic, physical and social infrastructure.