## **THE VIEW Smart Transportation Infrastructures Of The Future**



# Stan

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# Step-free mobility: a problem worth solving

n developed regions such as Europe, Japan and North America the population is ageing. Within the next 20 years, half the adult population from the developed world will be aged 50 or over, with a dramatic growth in the 80+ age group.

At the same time, in the United States, a recent survey of the Bureau of Transportation Statistics found that over half a million people with disabilities never leave home because they cannot get the transportation services they need. At the EU level, about 47 per cent of people with disabilities are employed compared to 72 per cent of people without disabilities.

Stepping on loose flagstones or being raked by head-level barbed wire are our morning stories when we go to work. However, for people with disabilities ordinary travels around European cities are a daunting task. Many wheelchair users end up navigating only a small tranche of familiar local territory as a result, some even confined to a single facility. Some, especially the elderly, have family to help them around obstacles; others have to rely on the unreliable kindness of strangers.

In the Smart City of the Future it will be unacceptable that people with mobility constraints are rarely able leave their home, have incomplete or substandard educations and may never start a family or have meaningful employment.

I am of the opinion that the time has come to label a new type of urban mobility servicing non-conventional and vulnerable user groups such as the disabled, the elderly, parents carrying baby strollers, pregnant women, travellers with heavy luggage, and so on: 'stepfree' mobility.

On the legal page, in November 2014 the European Commission published its Regulation (EU) No 1300/2014, which represents a major step forward, as it has defined the accessibility requirements to be fulfilled by the EU's rail stations for persons with disabilities and persons with reduced mobility. These accessibility requirements are mandatory for all new stations and units of rolling stock as of 1 January 2015. Existing stations also now require a progressive improvement of their accessibility. But, do the end users



know which stations offer these adapted facilities? Sadly they do not and the consequence of this is that everyday the lack of information on public transport accessibility prevents 1 billion people from leaving home, be properly employed or meet with their friends on the other side of the city.

To date well-established route-finding transport apps have forgotten to provide 'accessible' routes to non-conventional users: at most they inform about the degree of accessibility of a metro station, for example, but do not calculate trips that avoid non-accessible metro stations or tram/bus stops. In the other words, none of the available tools helps non-conventional users to move around their cities without preliminary time-wasting and complex planning. On the other hand, social apps that crowd-source accessible locations (shops, restaurants, hotels, etc) only provide 'static' information about these singular locations.

Wheely (www.wheelyapp.com) has opened the way by supplying accessible routeing in the New York City Subway system. The recent roll-out of a new mobile application, Apertum (www.apertum.world), in Madrid has even gone further, as it provides accessible 'bridges' and hybrid routeing across several public transport modes (bus, metro).

I believe providing accessible mobility to a growing population segment is a problem worth solving and a great business opportunity for the near future. By combining Open Data, on-site assessments and data from operators, it is our responsibility to make it happen.