Accessibility – There's more to mobility than cars!

Accessibility refers to the ease of reaching destinations or activities. For decades, private cars have been the primary choice for accessing destinations, while public transport was only an option for people living and working in urban areas with a dense and efficient public transport network – or for people who cannot afford a car. Recently, carsharing, bikesharing, and ridehailing services have increased mobility choices for local trips and connections to public transport stations. This combination of shared mobility and public transport increases accessibility and reduces private car usage considerably. In addition, digital "**Mobility as a Service**" (MaaS) platforms provide seamless routing and payment services to improve access to multimodal mobility systems.

The term *accessibility* has two dimensions. On the one hand, accessibility characterises a specific area with a broad choice of mobility options, a good connection to the public transport network as well as a high level of walkability and cyclability. On the other hand, accessibility describes the individual perspective on how easy it is to go to a specific destination within a city – for all people regardless age, gender or physical impairments. Both perspectives are related to the vision of the *15-minute City* (see Monday post), though, with a much stronger focus on mobility services, public transport networks and travel times.

Another important indicator for accessibility is the ***catchment* area of public transport stations** defined by the walking or cycling radius around a station. Each city has a specific pattern of catchment areas, depending, for example, on the overall street design, road hierarchies and any crossings or underpasses in the vicinity.

Accessibility of Dubai's metro stations *(20-minute-walking and 8-minute-cycling radius), source: Own figure, OSM data*

The modal choice for the ***first and last mile*** to a metro or rail station moreover does not only depend on the distance to the next transport station but also on climate conditions. Good climate conditions for walking and cycling are almost the entire year in Central Europe compared to up to five months in the MENA region. If the climate becomes extreme due to hot and cold temperatures or excessive rain, people should be able to access a motorised feeder to the public transport station, for example, shuttle buses, electric scooters or bikes.

In the MENA region, Dornier has, for example, developed an operating model for local minibus services connecting Park and Ride areas and public transport stations with attractions for a new development in Jeddah. Our user surveys have shown that public transport can indeed become much more attractive when feeder buses are available for the first and last mile. In the future, substituting feeder bus lines with autonomous shuttles will be possible. Dornier has already analysed operating models for autonomous shuttles as feeders to bus stations in rural and suburban areas in the German city of Osnabrück for the Hub Chain project. The experiences from this pilot project are useful for developing realistic operating models for serving the last mile to public transport stations with driverless buses.