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**Title of the lecture**

Planning User-Friendly Main Railway Stations: SBB Approach

**Outline of the lecture (2 pages max)**

The role of railway stations in Europe has changed over the past few decades. From mere transport terminals offering short- and long-distance train services, they have now become multi-dimensional interchanges and a major space for interaction between the rail network and the city. Railway stations constitute an essential part of the urban environment, a place for social activities and an opportunity for retailers. They are considered as the fundamental spatial resource for a variety of stakeholders, from public authorities to station managers, from transport operators to commercial partners.

Customer needs at railway stations will become even more multi-faceted, since social and demographic changes are causing the rise of different travel patterns and of additional requirements. The services and atmospheres offered have to fulfill customers' needs for quality and to address transport-related issues - such as accessibility, information, orientation and others - as well as other aspects, including comfort, shopping opportunities and security.

According to transport demand forecast modelling, railway stations will heavily experience growing passenger flows, especially during the morning and afternoon peak periods. Furthermore, both transport and non-transport related pedestrian volumes need to be assessed and included in capacity analyses of railway stations. Station users are not only comprised of passengers who transfer from a point of origin to their destination, but also shoppers, personnel working in the building, people just passing through the building and others.

In this context, the long-term development of main railway stations as the intersection between urban, spatial and transport planning has become a complex issue in European countries. This is particularly the case given limitations on the extension of the *horizontal* configuration of the main terminal building because of land-use and urban planning. The *vertical* sprawl of stations is often the only solution to improve the transfer and waiting experience (quality) and to cope with future passengers flows (quantity), and customer needs and perceptions are key drivers for the success of "future railway stations". As a matter of fact, underground passages and pedestrian tunnels do not generally generate positive feelings - for example regarding

orientation or security - and the need to move between different levels/floors often hinder access to public transport for disabled people and the elderly.

In 2010 SBB started the QBA «Kundenfreundliche Grossbahnhöfe» (customer-friendly main stations) Programme with the aim to define basic quality requirements and standards for SBB main railway stations based on customer perception and pedestrian needs. The Programme, which was managed by SBB Infrastructure and SBB Real Estate, focused on six topics: (1) spatial layout planning, (2) comfort and furniture arrangement, (3) signage and path-finding, (4) orientation and information, (5) retail activities and advertisement, (6) design and material attractiveness.

Key element of the QBA concept is the station's **Zone Plan** (*Zonenplan*), which identifies four specific zones at the railway station: access zone (*Eingangszone*), connection zone (*Erschliessungsszone*), platform zone (*Perronzone*) and commercial zone (*Einkaufszone*). Specific areas are also identified within each zone: circulation area (*Zirkulationsbereich*), information area (*Informationsbereich*), waiting area (*Wartebereich*), temporary shopping area (*Temporärer Einkaufsbereich*). This spatial subdivision is taken by planners and policy makers as the basis to develop technical and/or organizational measures useful to enhance quality at the station and manage passenger flows. Specific priorities and parameters were identified for each area, taking into account their functional role in the station's layout.

According to the QBA Handbook, zone plans are based on the current spatial structure of railway stations and identify their quality requirements. Plans are yearly checked and regularly updated when some elements change the functionality of the four areas, such as in the case of higher pedestrian flows, additional railway services, new shop opening and others. However, plans do neither consider future station's upgrades nor urban and spatial planning. Recently, SBB has improved the spatial layout planning of railway stations, introducing the concept of **Development Zone Plan** (*Entwicklungszonenplan*) which focuses on development of new areas in existing stations and its surroundings to provide customer-oriented solutions. By applying this approach, SBB is reviewing its planning processes with the objective to introduce customer needs ("usability") from the preliminary stage of renewal and extension projects, namely the conceptual design phase, taking into account QBA guidelines and standards.

The example of the renewal project of "Lausanne Main Station" (2017-2027), which is part of SBB Programme "Léman 2030", is reported to show how SBB can face future *spatial* and *transport* challenges thanks to the introduction of Development Zone Plans. The station will have a vertical configuration (underground passages) with new access and transit structures; new commercial services will be introduced and the connection to urban surroundings and Public Transport will be enhanced. Extracts from Lausanne "Development Zone Plan" are reported to show as planners and technicians can use this instrument to assess and recommend customer-oriented infrastructural and organizational measures in the long-term planning of new and existing main railway stations.