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Railway Stations of the Future – Services supporting Intermodal Travelling and Promising Strategies for their Development

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1 ABSTRACT

Due to the ongoing development of growing car ownership, individual mode choices, increasing mobility needs and travellers' high requirements, European cities are more and more faced with the pressure to offer reasonable modal alternatives to the car. Hence, a high-quality supply of public transport is essential for a sustainable city of the future. Railway stations are most important intermodal nodes within the city and also links between the urban and rural area. To meet the requirements they have to offer high quality services for seamless short- and long-distance passenger travel. Further, the clear transport concentrated function of railway stations has changed to centres of shopping and communication.

The paper gives a short overview of services, characteristics and facilities of railway stations in cities that support seamless intermodal passenger travel. Within the European research project KITE (A Knowledge Base for Intermodal Passenger Travel in Europe) a survey was carried out to analyse good-practice examples all over Europe. The survey was conducted in cooperation with responsible managers at intermodal interchanges and operators of different services. Thereby not only infrastructural, equipment and design aspects of railway stations were analysed, but further planning, implementation and operation related processes running behind passenger related services. These are amongst others questions of quality management system, the participation of stakeholders or process barriers that occurred during the planning, implementation and/or operation phase. Within the paper promising measurements and strategies that support successful implementations will be presented; examples for outstanding services are included.

2 RAILWAY STATIONS AS NODES

2.1 Transport node function

At the beginning of the 20th century railway stations in Europe were mostly characterised as locations and places isolated in the periphery of cities (Fig. 1). Until the 1970s their transport activities and operations had been more and more emphasised and they developed to major transit nodes integrated in the urban area. The ongoing development of increasing road traffic, growing car ownership and individual mode choices lead to a redevelopment of the role of railway stations as transport nodes; in parallel they began to evolve into "node and place buildings well embedded within the urban setting" [THAMMARUANGSRI 2003, 60]. Today the function of railway stations as transport node within urban centres is defined in their role as interregional connection within the transport network, also as link between the urban and rural area and further intra-urban as major transport interchange within the city as other public transport modes systems like underground, tram, busses have been enhanced [ibid]. As the requirement of not only useful but also sustainable transport systems is getting more and more urgent, especially the latter named function of railway stations as intermodal interchanges has to be considered within the future development of railway stations. The principle of intermodality considers that every transport mode (e. g. railway, bus, car, cycling and walking) offers its own strengths and weaknesses; their combination can lead to more environmentally friendly door-to-door transport chains (LAST 2008) (see also chapter 2.3).

But the travellers' increasing requirements are not only reflected in a change of mobility needs, but also in requirements concerning the equipment of a railway station, the supply of shopping facilities and restaurants etc. That leads to the second central function of railway stations – their "place function".

2.2 Place function

Besides the transport related node function of railway stations today, their place function in the city has been growing. This place function "(…) describes the quantity and diversity of possible activities at or near the *[railway]* station. More precisely passengers using the *[railway]* station provide a potential for human

interaction (including commercial activities) (…)" [REUSSER et al., 193]. As a result the development of shops and other facilities at railway stations increased and today the integration of non transport related facilities is business as usual for all new projects or reconstruction activities. Even more, new projects are promoted as business, retail or social/communication centres within cities and linked with expectations for further development and investments in the surrounding area. "Previously unthinkable facilities such as restaurants, cinemas, business centres, exhibition spaces, conference rooms, performance stages, health clubs, banks, and child care centres are now located inside railway stations (…)" [THAMMARUANGSRI 2003, 56]. Also food markets, book and clothes shops belong to a modern image of railway stations. This change from a mono functional site as a public transport node towards a multi functional site could also be discovered in the case of the reconstruction of the main railway station in Linz (capital of the Austrian province of Upper-Austria with about 183 500 inhabitants). The site was reconstructed and equipped with more than 30 different shops and restaurants. A survey in the year 2006 (two years after the reconstruction) shows that about 35% of all visitors of the railway station make use of the shopping and restaurant facilities in addition to changing modes of public transport [STARK et al. 2007]. Even more, about 15% of the surveyed people used the railway station in Linz solely as shopping centre or meeting point. Within another research project this share of users at German and French railway stations was even one third till up to 50% [PRETSCH et al. 2005]. This makes clear that the rentability of facilities at railway stations could not only be ensured by a huge number of public transport users, but further by a relevant customer share of non-users. Especially for smaller railway stations this leads to the chance of a profit-making service offer. Their success depends on the railway stations' location to respectively integration within the residential area and the existing supply of shops etc. in the surrounding [ibid].

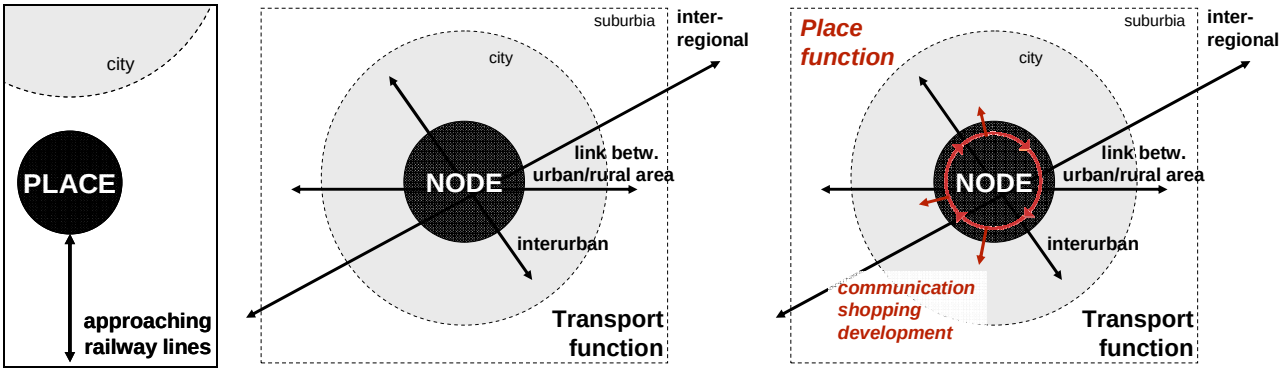

Fig. 1: Historical development of a railway station's function from a mono transport related function (outside the urban area and embedded) until the late 20th century to a combined transport and place function of today [own illustration on the basis of THAMMARUANGSRI 2003]

2.3 Challenges

The common overall objective and challenge for the future is the creation of a sufficient and sustainable transport system. The four major dimensions of a sustainable transportation system defined by the EU – to gain a more efficient, safer, cleaner and more comfortable transportation system [GRONAU 2008] – lead to the question of the challenges for railway stations of the future.

As the development during the last years shows, railway stations of the future have to fulfil the growing requirements of their users (passengers and visitors); both, in terms of place and transport function. Regarding to the transport function one of the main challenges of the future will be the supply of seamless intermodal passenger travel. Because only an efficient and comfortable transport supply at railway stations could gain a change of people's travel behaviour to a more sustainable mode choice. As most railway stations have developed to major transport interchanges at various scales - local, regional, and international - passenger intermodality concerns inter-urban long distance travel as well as the first respectively last urban mile, since passenger intermodality aims to provide seamless door-to-door trip chains. This subject is also integrated in laws and regulations of the EU, where passenger intermodality is defined as an upcoming policy and planning principle: "Passenger intermodality is on the EC agenda because seamless intermodal travel is expected to contribute to different European policy objectives. These include the economic and social cohesion as well as the competitiveness of Europe, the protection (…) of the environment and

increasing accessibility especially for travellers with mobility impairments" [KITE CONSORTIUM 2007, 7]. Therefore particularly at the end of the 1990s and at the beginning of this century research has been undertaken concerning intermodality, but rather in terms of freight transport than passenger transport [KITE CONSORTIUM 2008]. The research project KITE – A knowledge base for intermodal passenger travel (started in 2007, funded by the European Commission) – treats the topic intermodality and "aims at identifying, collecting and combining all relevant information necessary for decision makers and to foster the intermodal passenger transport in Europe. [It considers] relevant aspects (…) a user needs to be enabled to act intermodally" [LAST 2008]. The results will be concluded in a web based knowledge base for passengers as well as for operators of intermodal interchanges like airports, railway stations and ports.

Concerning the function of railway stations as place within the city - regarding to social and communication patterns - the ongoing challenge will be to fulfil the travellers' and also the visitors' high requirements of a maximum attractiveness. This includes on the one hand a good supply of shopping, restaurant and service facilities, but in the broader sense also design, image and even safety aspects.

Relevant services, features and facilities at railway stations that are crucial to fulfil the passengers' high requirements in terms of transport and place functions of railway station can be grouped into following different main fields [KITE CONSORTIUM 2008]:

- Additional equipment and services (supply of shopping facilities, provision of good waiting conditions, left-luggage offices and lockers, security services etc.) support a high quality of railway stations. On the one hand this is important for all of the passengers changing the transport mode at the railway station to shorten the waiting time. On the other hand a good supply of shopping facilities and restaurants leads to an attraction of residents living in the surrounding; they appear as visitors of the railway stations.
- The intermodal integration of modes describes mainly the transport supply and its quality. It concerns the availability and high quality (intervals, costs, directions) of connections of long-distance and local public transport modes. Further, the railway station profits from a good integration into the network of roads, but also the accessibility of urban bicycle and walking lanes.
- Besides the availability of different modes further passenger services, facilities and characteristics could support seamless passenger travel, for example short transfer and waiting times, high quality offer of information (real time, intermodal information etc.), easy ticketing and intermodal luggage handling.
- Also the constructional design plays an important role for users of railway stations. To create a good image, railway stations have to be aesthetic and functional. These aspects are further preconditions for the other aspects mentioned above. Concerning the functional aspect for example the provision of short distances between the platforms and between the service facilities and platforms are positive characteristics.

In the background of such services, features and facilities at railway stations a lot of "non visible" processes are running [STARK et al. 2008]. These processes concern management issues, coordination and cooperation between different relevant actors: Especially - treating the topic intermodality - at main interchange terminals a lot of operators, stakeholders and further user groups pursue different goals. Therefore a good coordination is necessary since there is a large number of different transport modes and facilities concentrated at a constricted area.

It could be summarized that all of the new challenges and circumstances mentioned above stand for increasing requirements concerning the decision-making, planning and operations processes of new and existing railway stations. "[A] (…) balance between node and place provides a first criterion for assessing sustainability regarding spatial development patterns and infrastructure" [REUSSER et al., 193]. But how do operators of railway stations address such challenges?

3 GOOD PRACTICE EXAMPLES – PROMISING STRATEGIES

3.1 Survey

Within the KITE project services, features and facilities at railway stations in Europe were analysed in order to find out:

- How do railway stations ensure the supply of high quality for passengers with the focus on seamless intermodal passenger travel? How are different kind of services, features, facilities (infrastructural, equipment and design aspects) treated? (chapter 3.2)
- What kinds of strategies are/were used during the planning, implementation and operation process for their development? What kind of process barriers can arise probably during different stages of the development of services? What external key actors and relevant stakeholders are involved? What quality management system is applied? (chapter 3.3)

To find out more about these questions a survey was conducted in 2008. The survey was carried out in several steps; it included amongst others a self evaluation by the general operators and in-depth interviews. Appropriate 'key-persons' for the in-depth interviews were persons who are involved and responsible in optimising interchanges for seamless intermodal passenger travel. This could be

- the general operator,
- operators of the main transport modes if different from the above (e. g. metro, train, bus, taxi, car and bike rental)
- operators of transport and interchange related services (e. g. luggage transfer, security, cleaning, information) and/or
- representatives of further passenger related service providers (e. g. catering, shops).

In the following chapters selected results of the survey with railway stations were presented. Outstanding services of good practice railway stations and results from literature research are embedded. By comparing the different railway stations, it should always be kept in mind that they exist under individual circumstances – differences in numbers of passengers, of public transport supply and location (e. g. distance to the city centre).

3.2 Services for passengers' needs in terms of transport and place function

Within the survey the operators of seven different railway stations in Europe that were assessed as good-practice interchanges had to evaluate a list of more than 20 different services or characteristics with the focus on intermodal passenger travel at their interchange terminal. They had to give marks between 1 (very good), 2 (good), 3 (improvable) and 4 (poor). The services were grouped into four different fields (see also chapter 2.3): The intermodal integrations of modes mainly describing the supply of public transport (1); passenger services to support intermodality mainly concerning seamless "processing" of the passenger (2); design aspects of the railway station (3), that are relevant to support (1) and (2) and additional services independent from the transport function of the railway station (4). Fig. 2 shows the average value of assessments of more than 20 different services. Due to the large amount of relevant services and facilities that were analysed, only some interesting aspects will be described more detailed.

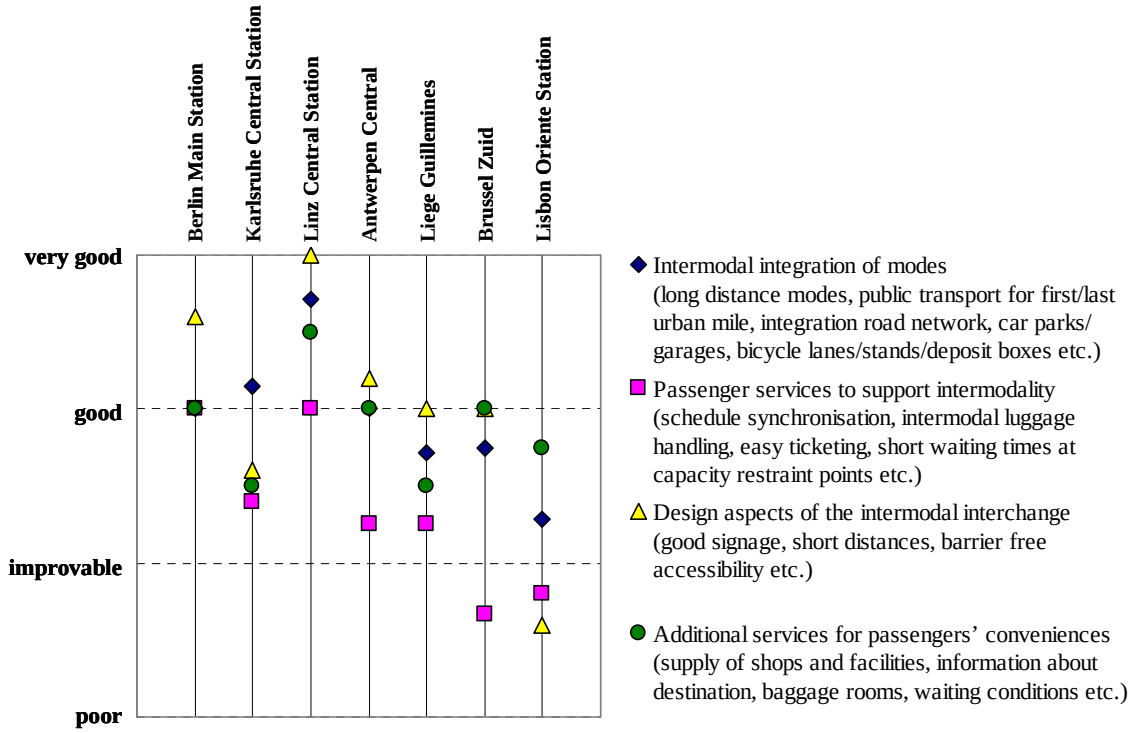

Fig. 2: Self-evaluation of different characteristics and services at railway stations of operators. Average value of assessments of more than 20 different services from very good (1), good (2), improvable (3) to poor (4).

The results show that the operators evaluated the sites quite critically (for example 6% of all assessments was "poor", 29% "improvable"). It is getting obvious that particularly railway stations, which are new or redesigned, fulfilled their own requirements in terms of high quality very well. That leads to the assumption that operators of the transport nodes are aware of the new challenges, as they consider aspects of seamless passenger travel and conveniences for passengers and visitors as planning principle.

For example, the *Central Station of Berlin (Germany)* was opened in May 2006 as the largest European two-level railway station. It is located on the site of the historic Lehrter Stadtbahnhof that was considered to be the logical location for a new central station of Berlin after Germany's reunification and the extension of the railway network [KITE CONSORTIUM 2008]. Although the station is very new and all of the requirements concerning the integration of modes should be optimal, the self assessment shows that the situation is not ideally yet. This is due to the fact that not all of the measures planned have been implemented up till now: Besides the urban railway trains, linking the western and eastern parts of Berlin with the station, a south-north track is planned to be constructed and will be inaugurated in 2012 [KITE CONSORTIUM 2008]; furthermore, the local tram and the underground will be integrated within the next years. The main railway station in *Linz (Austria)* integrated different transport modes very well: Due to its reconstruction (1999-2004) long distance trains, regional trains, urban trams and a bus station for urban and regional buses are integrated within one complex building. Therefore, very short walking distances between the stops can be guaranteed. According to the interviewees about 15 different local public transport lines are available (Tab. 1). Additionally, an adequate supply of facilities for car and bike parking prove to high quality for passengers.

Tab. 1: Local public transport modes available and number of different lines, number of train operators at railway stations according to the interviews (pt – public transport; n.a. – data not available)

railway station	local pt modes available	number of local pt lines	number of train operators
Antwerp Central Station	Tram, bus, urban railway, metro	32	4
Brussels South Station	Metro, bus, tram	30	6
Berlin Central Station	Bus, tram, urban railway	21	5
Karlsruhe Central Station	Tram, bus, urban railway	17	3
Linz Central Station	Bus, tram, local train	15	n.a.
Gare do Oriente Station	Metro, bus	13	2
Liege Guillemins Station	Bus, tram	10	5

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Central Station Zurich	Tram, bus	10	8

The quite low assessment of the integration of different modes for *Lisbon Oriente Station (Portugal)* is predominantly attributed to the lack of stands and inexistent deposit boxes for bicycles at the station. Further, there is no direct connection to the airport yet. Difficulties with the integration of local public transport and further intermodal information providing or adjustments (all evaluated with improvable) could be reasoned by the separation of the underground and the bus respectively tram operator of Lisbon.

Nevertheless, the detailed analysis of the supply of local public transport at the railway station shows that the intervals of local public transport are quite high (below 10 minutes) and a fast access to/egress from all of the interchange terminals is guaranteed (Fig. 3).

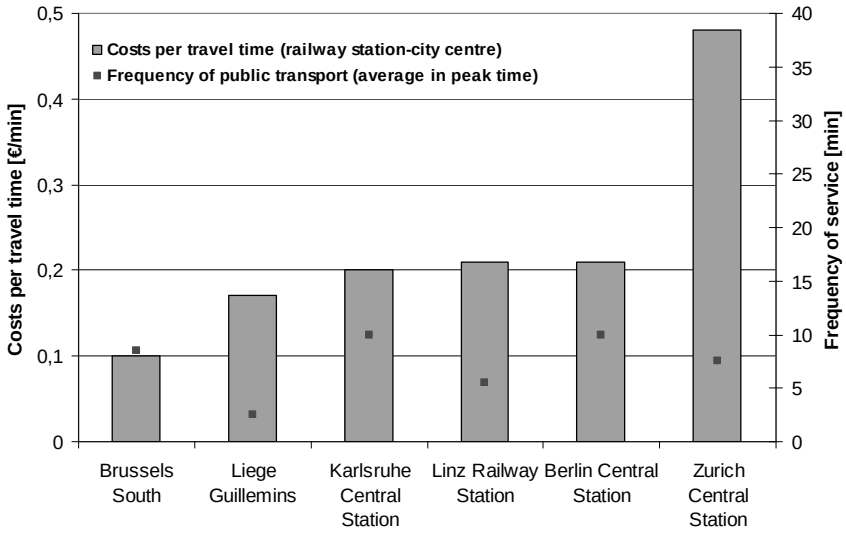

Fig. 3: Frequency of public transport (average in peak time) and costs per travel time (trip between railway station – city centre) at railway stations

As operators stated, these short intervals lead to the fact that the timetable of local public transport and long-distance modes do not need to be harmonized. This corresponds to the results of the research project MIMIC, that a coordination of departure times with long-distance mode is not reasonable if the frequency of the public transport exceeds about five minutes. Otherwise coordination meetings between operators and timetable and operation time adjustment are helpful strategies and actions to minimize waiting times for the passengers. It should be pointed out that a good supply of frequencies and attractive intervals support the use of trains for shopping and leisure travel and the share of non captive [PRETSCH 2005].

Some more differences could be analysed concerning the costs for the accessibility of the site: As Fig. 3 shows, the costs ranges from 0.1 till about 0.5 €/minute. Basis for the calculation were average costs for a trip from railway stations to the city centre by public transport. For the interpretation it must be taken into account that the distances of the railway stations to the city centre differ; therefore the figure is only a rough overview.

Coordination of the public transport supply supports seamless passenger travel, but also easy ticketing and intermodal luggage handling, short transfer times, sufficient information about arrival and departure times and about further connections prove to high quality (summarized within the group of passenger services that support intermodality). As outstanding example the *Gare do Oriente in Lisbon (Portugal)* could be named where a good fare integration (between train-rent-a-car; train-parking space) is existent [KITE CONSORTIUM 2008]. The provision of sufficient information for the passengers should include ideally real time information about arrival and departure times, further connections, other stops in the area, delays or breakdowns as well as information about changes of platforms for the available long-distance modes as well as for the local public transport. Such integrated data is provided at the main railway station *Linz (Austria)* where departure and arrival times of tram, bus, local train as well as of regional and long-distance trains are displayed at the information panels together.

As already mentioned, railway stations change more and more towards central nodes of communication and social activities within the cities. The importance to consider this trend and to satisfy the resulting

requirements was confirmed within the interviews with operators of railway stations in Europe. Besides a huge supply of shops (sales area per passenger) and facilities for daily use and consumption, also different branches beyond supermarkets and gastronomy are evidence for a high quality. Fig. 4 shows the number of shops, the sales area and the sales area per passenger (per year) at railway stations according to the interviews.

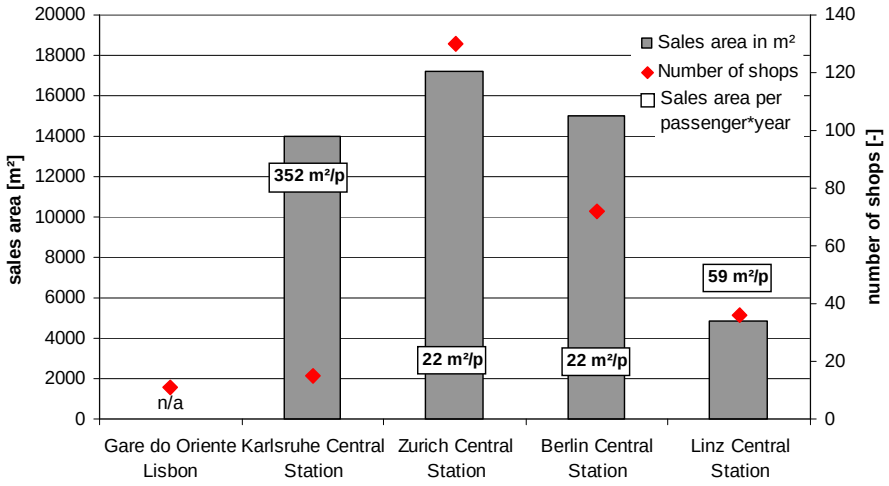

Fig. 4:Number of shops, sales area and sales area per passenger (per year) at railway stations (n/a – data not available) [D14]

Whereas years ago shopping was of no interest at railway stations, the huge numbers of shops underline the change of their mono-functional transport function: For example, at the *Central Railway Station in Berlin (Germany)* about 72 shops are integrated as well as all relevant facilities needed for a convenient travel (e. g. info points, luggage lockers and lounges). Operators evaluate the aspect "Good supply of shops and facilities for daily use and consumption" with "very good". Comparably fewer shops (about 11) are offered at the Railway Station *Gare do Oriente in Lisbon (Portugal)*. This is due to the reason that there is the shopping centre "Vasco da Gama" with 164 shops directly accessible from the station within a distance of 50 meters. As this is very close to the station, this accounts for a "very good" self-evaluation for this issue.

Operators stated that the shops and facilities should be located along the passenger streams within short walking distances. The opening hours of the shops and further facilities should be adapted to the opening hours of the interchange terminal. An outstanding example in this case is the *Central Railway Station of Berlin (Germany)*, where shops, restaurants and facilities for daily use and consumption have extended opening hours daily from 8.00 a.m. until 10.00 p.m.

As mentioned above, another sign which stands for a high quality of the service is the variety of the shops (different branches) as mentioned within the in-depth interviews: Especially the bigger railway stations offer a great variety of branches: (For example at the new *Central Railway Station of Berlin (Germany)*, there was only one change of a shop leaser within the last two years according to the interviews, which points out that it is an economic favourable location for the retail sales.) Restaurants, snack bars and cafés are very beneficial because of the function of the railway station as meeting point. Supermarkets and further shopping facilities like shops for electronics, books, clothing, souvenirs etc. attract people from the surrounding area. The gastronomy and shopping facilities shorten the waiting time for passengers. The interviews showed that post offices, car rentals and bank are available at most of the interchanges investigated. Offering further special facilities like conference rooms, medical centres are advantageous. A passenger survey at the main railway station *Linz (Austria)* showed that especially a pharmacy, clothes respectively shoe and electric shops (as this is actually not available) seem to be interesting for the users [STARK et al. 2007].

3.3 Planning, implementation and operation related processes

Besides the technical and design characteristics of high quality services, features and characteristics of railway stations also the "background processes" within the development, implementation and operation procedure of services could be crucial for a high quality (chapter 2.3). Due to the changing circumstances and framework described in chapter 2.3 it could be assumed that this leads to increasing requirements concerning the planning and operation processes. To gain information about these processes further in-depth

interviews at good practice railway stations were conducted: To find out more about possible hurdles and challenges the operators of railway stations have to deal with, the services were analysed regarding to barriers that arose during planning/decision-making, implementation and operation phase and the strategies applied to overcome themselves. Further topics were the composition of the project team and also the involvement of external key persons and institutions. It was also analysed what kind of quality management system has proven itself to ensure a high quality of the services. In total 26 interviews at five different railway stations were carried out. As this topic - especially the topic of barriers - is very complex it should be considered that in the following only parts of the results are presented.

Although all of the problems (respectively strategies to overcome those) arising during the development of (services at) railway stations are only examples and depend on a special situation and circumstances, the analysis can facilitate to understand the crucial points that have to be considered by operators and could help to derive recommendations. For the analysis the barriers that can decrease the quality of services were distinguished between the phases of planning, implementation and operation [KELLY et al. 2004]. As the analysis of the in-depth interviews shows following types of barriers could appear when setting up services at a railway station: Management barriers, financial barriers, legal barriers, technical barriers and others. In total 42 barriers could be identified (Fig. 5). Most of them (about 60%) appeared during the operation phase, about 29% during the planning phase.

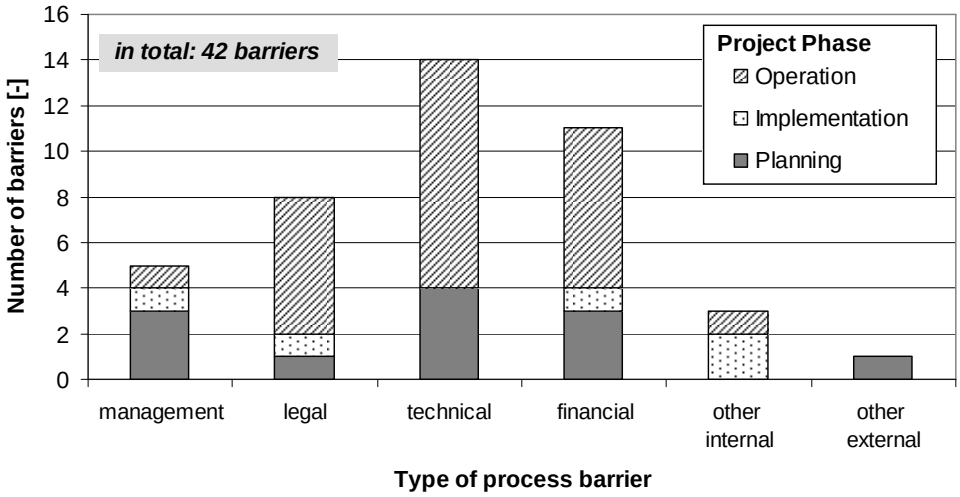

Fig. 5: Number and type of different process barriers that appeared during the planning, implementation and operation of services at railway stations

Most of the problems that occurred concerned technical, financial issues or the legal framework. Especially **legal barriers** depend heavily on the regional and national context and often can't be evaded. The high appearance of technical and legal barriers can be explained with the fact that railway stations are historical grown nodes; they often were/had to be redesigned and reconstructed during the last years, the "new" public transport systems had to be integrated, adaptations to the new legal framework were necessary. One interesting example concerning changes of the legal framework that led to difficulties was the tightening of the safety regulations for tunnels at railway stations. Another hurdle was registration approvals for new railway vehicles. Often the modifying of the legal framework required further investments (e.g. additional safety devices) to fulfil the new conditions. In comparison to other types of barriers, **technical barriers** of course are very individually and project related, but some general conclusions could be derived: It could be found out that the difficulties due to the coordination of the different modes to optimize seamless passenger travel at the interchange were decisive. As one example the integration of two different railway (electricity) systems at one site could be named: Operators had to agree upon the purchase of new vehicles applicable in both systems to offer the best supply for the passengers. Another example (planning phase) was dissension concerning the design of taxi stands. At one railway station problems were named concerning the delivery of the shops. The problem could be overcome by the leasers' association which found an adequate logistic solution. For all of these cases an intensive communication and the give-and-take-willingness between different actors involved in the planning process helped to find a solution in the interest of the passengers. But not only the cooperation between the operators is crucial to evade technical problems, further the dialogue between the operators and the local authorities respectively communes is necessary.

Financial difficulties were manly explained with the lack of efficiency that could not be reached yet. Financial problems mainly occurred in the planning and implementation phase were difficulties due to the co-financing or exceeding costs due to additional requests of the public authorities.

It should be pointed out that in some cases technical and financial barriers can be aligned to **management barriers**. Those are often avoidable barriers. With the help of the in-depth interviews it could be found out that mostly unclear roles and responsibilities lead to difficulties within the management. This causes a complication of cooperation processes and even to a loss of control, for example in terms of financial issues as named in two cases. This is a very important finding and shows that a good coordination and cooperation between the various transport operators at railway stations is crucial for a high quality, e.g. in terms of the intermodal integration of modes and high quality of connections. Setting-up of work plans including a clear definition of responsibilities and roles at the beginning could help to overcome these problems. As stated in the interviews, cooperation or communication difficulties could be mitigated using the "unofficial" non-bureaucratic channels. It seemed to be disadvantageous if cooperation depending departments were not located together since spatial distances also seemed to cause unclear roles and problems in communication. Interviewees reported that also improvements of the **quality management system** helped to overcome management barriers. As the operators stated, particularly surveys involving passengers as well as partly employees and management staff are a very popular tool and approved to analyse and control processes to ensure the customers' and/or employees' satisfaction, to identify major problems and to deal with weaknesses and obstacles. About 90% of the surveys with passengers at the railway stations surveyed are conducted regularly. Interviewees reported in the majority that the quality management system applied led to consequences (adaptations in the process etc.). It further could be found out that the more combinations of different tools are used the more barriers could be overcome.

A main finding was that the involvement of external groups, decision makers, **stakeholders** plays an important role for the development of passenger services at railway stations. It could be found out that the more barriers could be overcome, the more groups were involved, the earlier the involvement took place and with rising intensity of involvement. As expected, more groups outside the project team have to be involved for that services that are directly related to the development and operation of high quality intermodal systems. Fewer stakeholders need to be involved for the development of 'additional' passenger services, for example convenient waiting conditions (equipment, shopping facilities etc.). Fig. 6 shows the type and number of external stakeholder groups involved at railway stations and the phase of their involvement. Most of the external stakeholders were special interest groups. According to the interviewees this could be private enterprises, infrastructure management enterprises, organisations of handicapped persons, advisory committees of users, the police, etc. Very important seems to be the consideration of the interests and requirements of the city respectively provinces; also the support of elected officials could lead to a success of the project itself or help to communicate the targets to the public. Especially in the planning phase, this seems to be very important; by contrast less external experts were involved in that phase (but they were involved on high level). As media is a main information tool a permanently involvement is needed; particularly for redesign or new development projects. In most of the cases the media was involved on low level.

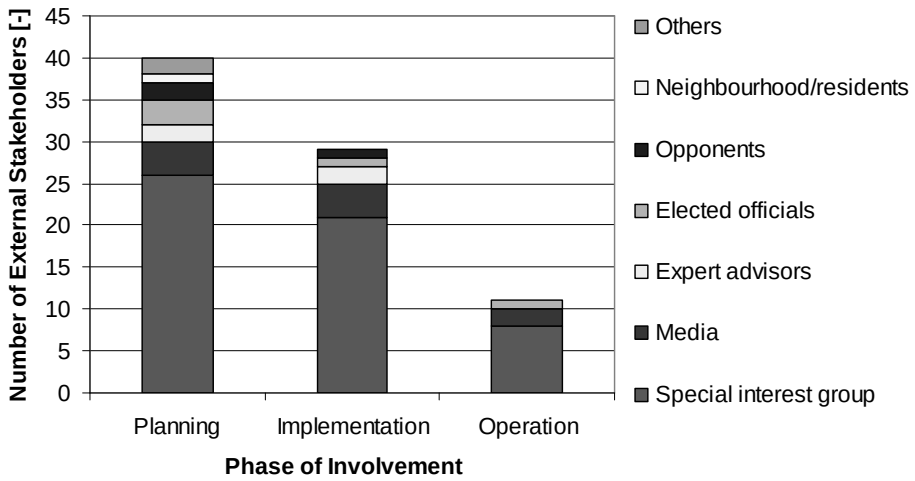

Fig. 6: Number of external stakeholders and phase of involvement for services at railway stations

4 CONCLUSION

Railway stations in cities are confronted with rising requirements of travellers and not public transport users: With the background of sustainability they have to optimize their transport supply and services in terms of seamless intermodal travelling. Further their growing place function in the city stands for chances and challenges for the operators and the community as upgrading of the whole railway station area can be activated. This trend could be proved within different research projects.

The results of the survey conducted with operators of railway stations all over Europe presented in the paper reflect the new challenges for the operators and the changes of the planning process. It could be summarized that operators seem to be aware of the future challenges. They try to consider the travellers' requirements and optimize the transport supply integrating all modes. Nevertheless, barriers appear. The in-depth interviews could examine typical management barriers due to misjudgements of timeframe, financial frame or legal regulations. If barriers appeared quick reactions and a good communication between responsible key actors were useful strategies to overcome the problems. As expected, the cooperation between transport operators, the community and further key actors seem to be a fundamental point at the complex systems of railway stations. Clear responsibilities and communication streams are required. It should be pointed out that these aspects have to be ensured permanently during operation. To minimize possibly negative effects of such situations, for example in Germany it is common to appoint an interchange manager for the coordination of the different interests when planning the transport node and related services [PORTAL 2003]. Also the willingness of improvements/changes (for example of quality management system) and even sometimes to unconventional reactions has to be present. The analysis show that more barriers could be overcome the more stakeholders were involved (the earlier and the more intensive) in the development of services. Special quality agreements and contracts have proven themselves. As expected, no general approaches could be recommended. Successful railway station projects are characterized by aiming for a conflict resolution between and within the functional areas - transport function and place function - under consideration of the specific local circumstances.

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