

The Concept of Public Transport Development in the Bratislava Region

Passportization and Action Plan of Modernization of Public Transport stops - Executive Summary

Client

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The goal of the Concept

The aim of the Bratislava Self-Governing region (BR) was to obtain a detailed overview of the basic public transport infrastructure in its territory for its further development, as well as prioritization of individual infrastructure modernization projects for suburban bus and rail transport.

The aim of the Concept is to create preconditions for system modernization and maintenance of basic transport infrastructure to keep it in line with modern trends for comfortable and barrier-free access to public transport.

In connection with the implemented Concept, other projects will be realized and aimed, for an instance, at improving technical conditions, expanding and unifying equipment or unifying the look of all boarding, alighting or transfer stops in the public transport network.

Passportization

The first output of the Concept is a passportization database stored in Microsoft Excel format containing information related to each predefined attribute (e.g., the existence of a bus stop bay, the presence of a ticket machine, neighbourhood plan, etc.) for each stop, station, respectively boarding edge (platform) separately. Attached to the database is photographic documentation of each boarding edge of the bus stop or railway stop (station), which consists of the following photographs mainly:

- the view of the stop / boarding edge capturing its entire space so that the equipment present is as visible as possible;
- the view of the stop sign from the boarding edge;
- the view of the information panel with timetables or other information (if any);
- the photographic shot of each boarding edge, resp. each platform separately;
- the view of the entire station so that as much visible as possible (360-degree image);
- the view of bicycle stands or P+R parking;
- other photographs documenting the structure of the more complex station, the interface of the stop with the surroundings (entrances, exits), views of other equipment, etc.

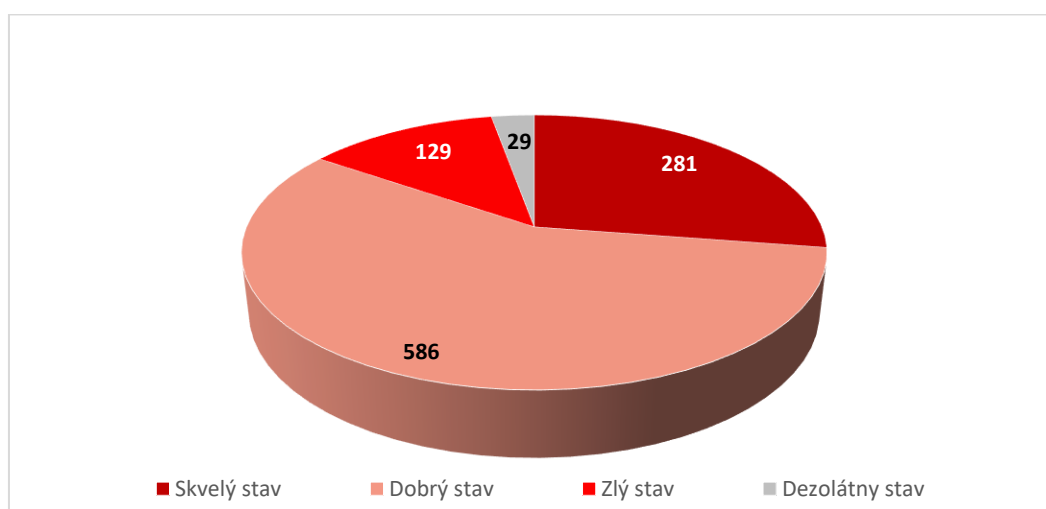


Sample photo documentation: stop Bratislava, Logistic centre - old railing passes through the shelter for passengers

Approximately 29,000 documentary photographs were taken at the bus stops.

The following aggregated data on PAD stop edges were obtained from the processed passports:

Property, equipment	Yes	No
Stop sign	882	143
Electronic information panel at the stop sign	54	971
Electronic information panel with timetables and other information	22	1003
Loudspeaker	8	1017
Printed information panel with timetables	925	
	Easily damaged - legible	Severely damaged - illegible
	176	26
Fare info	634	
	Easily damaged - legible	Severely damaged - illegible
	54	20
		100
		391



Proportion of bus stops according to their technical and aesthetic condition.
From left to right: perfect, good, poor and desolate condition

Property, equipment	yes	no	Half bay	loop	Paved surface	Unpaved surface
Bus stop bay	501	401	85	38		
Passenger boarding area surface					843	181
Elevated boarding edge	575					
	Ordinary curb	Kassel curb				
	552	23				
Road surface marking	446	579				
Pedestrian crossing access	592	433				

In case of suburban bus stops, significant shortcomings were found (e.g., more than 10 % of stop lack a sign as the basic element of the stop, about 1/3 did not have information about the fare, etc.), however at the same time the design status of stops is not the worst - the stop bay has practically almost half of all stops and more than 80 % of stops have a paved boarding edge surface. It is necessary to work on the current construction (and aesthetic condition), but as "bad" or directly "desolate" condition was evaluated in 15 % of cases only.

The action plan also includes an indicative selection of 50 "TOP" bus stops that deserve priority modernization.

In terms of railways, individual specific stops were also briefly discussed, where either a major problem was identified or where a measure was proposed (recommendation).

The most common problems with railway stations were the following:

- Few signs with the name of the stop, their bad location, missing signs. Missing train direction indication.
- Lack of official - safe access both from both ends of the platform parallel to the tracks and from both sides perpendicular to the tracks (in front of and behind the track)
- Other missing elements of the information and navigation system
- Unnecessary railings that complicate access from the P+R parking to the platform

When it comes to train stops, there are bigger differences due to whether it is an already reconstructed station / stop or not. In the latter case, "misery and suffering" can often be seen due to long-term neglecting of maintenance and postponement of reconstruction. However, in the case of already reconstructed stops, especially on the main line, there is a pity of untapped opportunities in the form of missing access to the station, a more thoughtful solution in terms of functionality and comfort for passengers, etc.



Demonstration of the lack of access from one end of the platform, which leads to a dangerous entry of passengers into the tracks

Action plan

The second key output is an action plan with proposed measures, which are broken down into.

- systemic, i.e., concerning the whole integrated public transport system (BID)
- individual type measures
 - relating to all modes of transport - such as P+R parking;
 - concerning stops of a specific mode of transport
 - bus
 - railway

By combining the data from the passportization database for bus stops and financial unit cost, it is possible to obtain information on the scope of required modernization activities and the indicative volume of required financial resources. For example, at how many stops / stations the boarding area is not paved, how many stop sign are completely missing, where there is no pedestrian crossing, etc.

In terms of systemic measures, regionalization and increase of the volume of rail services in PSO regime with a partially mixed model was recommended. Mixed model means ordering long-distance transport by the state and regional transport by self-governing region while ensuring sufficient influence of

regional authorities on the form of long-distance transport (with mutual synergy of all lines in the territory) and, conversely, a significant financial participation of the state in regional transport. This is a step towards greater public transport subsidiarity.

It is also recommended **to involve BR in the preparation of public transport infrastructure projects and also their auditing in terms of user friendliness.** There is also room for the participation of municipalities and citizens.



*A good practice example: exit sign at east of the **P + R** car park, Pezinok.*

For the purposes of use in the preparation of future projects, the Concept provides **the principles of design of integrated transport terminals** as well as **suggestions for updating The Bratislava Region Sustainable Mobility Plan.**



A good practice example: Train-to-bus transfer on the same platform. Ostermiething, Austria



A good practice example: combining design and functionality: the covered waiting room has become a visible landmark from a distance. Fribourg, Switzerland.

The Concept also recommends the creation of a **single information and navigation system** - its aim is to create a single “seamless” system of public transport in the field of passenger information that will increase the quality and comfort of travelling and commuting for existing journeys and at the same time promote integrated public transport itself with the potential to gain new customers.



A good practice example: The scheme of suburban train lines on the floor of the station hall can suddenly be studied by more people than in a regular display case. Madrid-Chamartín, Spain.

The guidelines of such a system have been drawn up. Furthermore, the Concept provides recommendations for creation of system of P+R parking.

The results of the passportization in the form of a comprehensive database together with the documentation of individual sites will allow to select the most needed places for modernization and at the same time the mentioned guidelines together with numerous good practice examples from abroad will provide inspiration to find solutions that passengers will appreciate. The current state of stops compared to more developed regions is not only a disadvantage - it allows to take the best of current practice as well as not to repeat mistakes of the others.