

Regional terminals on high-speed lines: to build or not to build? A report from the 11th Telč seminar 2016

Martin Kvizda¹

On 3rd and 4th November 2016 the Institute for Transport Economics, Geography and Policy organized its 11th annual seminar in Telč. The seminar's main purpose was to discuss a possible assessment of the merits of intermediate stations on high-speed lines from an economic, geographical and political perspective. The main points of the discussion, which was attended by 43 scholars and professionals, included a proposed methodology for assessing the usefulness of regional high-speed terminals for the density of transport flows, presentation of a pilot consumer survey project in the Velké Meziříčí region, analysis of selected case studies of regional high-speed terminals abroad, and a discussion of the potential of high-speed lines in relation to their construction and operating costs. The seminar programme also featured a panel discussion on the topic "Ex post CBA of infrastructure projects". The seminar was put together by a programme committee: Martin Kvizda, Tomáš Nigrin, Daniel Seidenglanz and Zdeněk Tomeš.

The seminar's first session, "FACTS AND EXPERIENCE" was opened by Antonín Peltrám, who gave an introductory presentation on the Need for, and options for realizing, high-speed trains in regional transport, in which he emphasised the need to establish clearly first of all whether the high-speed lines currently under consideration in the Czech Republic are intended to fulfil a transport service function in the public interest, or whether they are intended as a commercial project. Only after that will be possible, on the basis of current and potential transport flows, to analyze the adequacy of the necessary investments relative to their anticipated benefit. Jaromír Volf picked up on this topic directly, presenting Case studies of regional high-speed stations in Europe, including France, Germany, Austria and the UK. From his presentation and the discussion that followed, it emerged that these regional terminals elsewhere in Europe were built for two main reasons: (i) as a result of political lobbying to strengthen regional development (e.g. Mâcon-Loché in France and Montabaur in Germany), or (ii) as commercial developers' projects (e.g. Ebbsfleet in the UK and Tullnerfeld in Austria). The terminals are better used in places where they are directly connected to commercial residential and business premises. The differences in the level of transport service pro-

¹ Department of Economics, Faculty of Economics and Administration, Masaryk University, Lipová 41a, Brno 602 00, kvizda@econ.muni.cz.

vision at these terminals are also interesting: while the Montabaur terminal in Germany functions as a true high-speed station for 16 pairs of connections each day, only one high-speed connection stops each day at Mâcon-Loché in France. Ján Ponický then presented A project for high-speed rail in the city of Bratislava and Zdenka Záhumenská A perspective on the construction of high-speed terminals in the Slovak Republic – however, there is currently no proposal for building high-speed lines in Slovakia, nor any study of potential demand for this kind of transport. Jiří Pohl opened a further discussion with a presentation of the key Physical and economic limits of transport operation on high-speed lines, which explained in detail the main technological features of high-speed services, the relationships between them and their influences on income and expenditure. Among other things, it became clear from the discussion, that building stations less than c.75 km from one another on a high-speed line would cause significant difficulties with timetable and capacity. The only solution would be a system of passing loops, but this would substantially increase both the costs of construction and the operational costs. Jan Hrabáček and Tomáš Pospíšil followed on with their presentation of the Effects of stopping high-speed services. They brought us the surprising revelation that stopping a high-speed train makes economic sense even when only a small number of passengers board the train. Nevertheless, regional stations pose a problem from an operational perspective: if they are to serve fully as a transport service, stopping high-speed trains would lead to overcrowding in certain segments of the line – but doubling train capacity would result in a disproportionate increase in costs. A solution to this would be to run two levels of service, but this would once again result in the problem with the timetable and capacity mentioned above.

In the second session, a project team presented their pilot methodology proposal The significance of regional high-speed rail terminals for the density of transport flows. In his introductory presentation of The idea behind and design of a methodology for the assessment of high-speed rail terminals, Martin Kvizda gave an essential outline of the methodology, which is based on a unique combination of databases that directly map the movements of a certain region's inhabitants (big data from mobile operators) and data describing the transport behaviour and preferences of that region's inhabitants (small data from travel survey). It emerged, from the discussion that followed, that the connection between the data sets will need to be addressed in greater detail and that the big data should be used to verify the validity of the consumer survey and vice versa. Daniel Seidenglanz then presented The use of big data in the case study of Velké Meziříčí, more specifically to establish the regional boundary, within which the consumer survey would then be carried out. It was the establishment of these boundaries around Velké Meziříčí, including larger, more distant towns in the survey and establishing their weights in the treated sample that became the main focus of the discussion that followed. The context of the treatment will need to be described in detail in the methodology, in particular with regard to the potential existence of other terminals under consideration. Zdeněk Tomeš followed on the presentation of The methodology and results of a pilot consumer survey in the Velké Meziříčí area. A discussion followed that focused in particular on the possibility of estimating, or rather asking about anticipated changes in income related to inhabitants' declared willingness to change the location of their employment and their journey to work, making use of the proposed high-speed terminal. The rather important matter of the time-frame during which predictions based on the presented methodology would be valid was also brought up – is it possible to use

this method to estimate the population's transport behaviour in the very long term? The session was closed by Tomáš Nigrin with a summary report of Structured interviews with local politicians in the Velké Meziříčí region. It was clear from the discussion of the pilot version of the methodology as a whole that the initial assignment of the problem by the state and regional authorities will be crucial, in other words at the level of official economic and political documents, what economic development is expected in the region in question must be declared, as well as what the desired standards are for its transport services and what kind of service is planned on the proposed high-speed line.

The third seminar session, "PROBLEMS AND THEIR SOLUTIONS" began with an insight into The possible uses of big data to analyze transport markets (Geodemographic data for smarter towns) from Lukáš Kovárník and Jiří Novobilský. At present, T-Mobile offers data about the mobility of selected regions' inhabitants, which can be used to optimize public transport, to model demand for transportation, to coordinate the development of transport systems and for local transport planning. A client parameterization system for the data files and a simple monitoring system have been prepared. Miroslav Marada then presented The concept of potential transport accessibility as a criterion in deciding whether to build high-speed lines in the Czech Republic. His study practically confirmed the introduction of high-speed connections on the planned routes and admitted the usefulness of the proposed high-speed terminal in Jihlava, however cast substantial doubt on whether the other proposed regional terminals would be worthwhile. Ondřej Krčál presented the results of an estimate of The value of travelling time on the Prague-Brno line using the De Jong method, applied to an express train services on the Prague-Brno line. It is interesting that working with data from a precise consumer survey produced entirely different results than those officially published by the Czech Ministry of Transport. The first day of the seminar was brought to a close by Jiří Dujka, who presented A projection of the high-speed rail plans onto regional planning, which on the one hand demonstrated the difficulty of making road constructions across the land, and on the other hand demonstrated how the long-term protection of future potential infrastructure prevents and complicates local development.

On the second day of the seminar a panel discussion was held on the topic "Ex-post Cost Benefit Analyses of Infrastructure Projects", which was chaired by Martin Kvizda; the panelists included Jiří Nálevka, Tomáš Paleta and in particular Petr Haláček, who was the main speaker throughout and supported the discussion with examples from real projects. From those, it was clear that one of the key problems with CBA is the difference, with hindsight, between the results of financial analyses and socio-economic analyses. Nevertheless in the introduction we heard an optimistic report that CBA projects carried out at the Czech Ministry of Transport are among the best, in comparison to those at other ministries. However, a specific problem of rail infrastructure projects is that their purpose and thus qualitative characteristics can be understood in more than one way: should the rail route be assessed as a feature of national/regional transport service policy, or as a feature of the transport service providers' business plans? This is one of the specific negative effects of the vertical separation of infrastructure from services. Ideally, infrastructure projects should be perceived and assessed in a coordinated manner by investors and the infrastructure manager (SŽDC), commissioners (regional and national authorities) and the transport companies themselves; this would improve the planning of useful and necessary investments and would likely increase the reality

of the conducted CBAs. However, it is a serious complication that no strategic document on the development of rail infrastructure exists, even at the level of the Czech Ministry of Transport; that means that there is no established goal and it is thus not possible to measure to what extent individual projects contribute towards achieving that goal.

A number of important questions/problems arose from the rich discussions not only among the panellists but involving all the seminar's participants, which should be the focus of further attention:

1. difficulties with demonstrating time saved and the inadequate expression of its value;
2. over optimistic (unreal) expectations for the evolution of transport flows;
3. unverifiable predictions of the null variant;
4. failure to take into account negative effects associated with a particular construction;
5. the use of catastrophic scenarios.

In conclusion we were able to summarise that truly fundamental problems are not only to be found in CBA itself, but in its context and the way it is used. Formalistic decision-making has the effect that not even CBA as an instrument can in any way guarantee that the chosen projects will be carried out to high standards and with a high degree of usefulness. Ex-post CBA could be a good instrument for correcting methodologies and optimizing the analyses used, but would need to have the right of error, i.e. it could not lead to a project as a whole being called into question retrospectively. In any case it is essential that the long-term transport policy priorities be set out clearly, together with a detailed plan for the development of the infrastructure and transport service provision.