RAIL 2000, STAGE 1

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Summary

The concept of RAIL 2000 (BAHN 2000) was decided in 1987 by public vote. Due to limited financial means RAIL 2000 had to be built in stages. The first stage of Rail 2000 (B21), voted for in 1995, was operational by the end of 2004. The final cost of B21 will approximately amount to 5.9 billion Swiss Francs, projected were approx. 7.4 billion Swiss Francs. Financing happened by way of the FinöV fund. The present evaluation is an appraisal of whether the targets of the messages of the Federal Council were achieved. Primarily, we are talking about an impact analysis. Cost and benefit will not be monetarised nor brought face to face in the sense of an efficiency analysis. The evaluation represents **the view of the authors** and takes a stand independent of the Federation or the transport providers. The following questions gave the directives for the evaluation.

- Supply: Have the planning defaults with regard to frequency, travel times, the number of direct connections and comfortability been achieved?
- Demand: Have the expectations with regard to the development of the total demand and the transfer effect from road to rail been achieved?
- Cost effectiveness, environment: How were the economic situation of the transport providers and the burden of the public authorities influenced? How does B21 effect the environmental situation in Switzerland?

Methodically, this evaluation is based on a before-and-after survey of the Swiss population (4000 persons), on a quantitative analysis of supply and demand as well as additional datas (statistics, interviews with experts). The period of investigation was between 1996 and 2005, with a special view to the leap of supply 2004–05. The analysis is mainly focused on passenger transport. The effects on regional transport are to a large extent acknowledged qualitatively.

Changes in supply

› Frequencies: The targeted planning defaults were achieved resp. surpassed with a +20% frequency increase between 1996 and 2005 in long-distance-transport (modelled) and +30% rail kilometres (acc. to the Public Transport Statistics). Regional allocation is variable. The biggest winners are the Swiss Midlands, followed by Central Switzerland and Eastern Switzerland. The frequencies could be improved between 1996 and 2005 also in regional transport, but in total not as much as in long-distance-transport.

› Travel times: The targeted planning defaults were also achieved largely with an average of -7% travel time reductions in long-distance-transport. The gains of travel time in long-distance-transport are more prominent in the big regions of the Swiss Midlands and Zurich than those of the other regions.

› Direct connections: Quantitative planning defaults were not defined with regard to the criterion of "more direct". The analyses show that there was no improvement achieved with this criterion.

› Punctuality: According to the SBB statistics, it was possible to slightly improve punctuality on a high level between 2004 and 2005. The few major breakdowns in the operational year 04/05 are not reflected in the total statistics.

› Comfortability/rolling stock: In the period of B21 significant funds were invested into new rolling stock. That this was very positively perceived is also being confirmed in the B21 survey.

Perceiving of supply by the public and future expectations

› According to the survey about 70% of the people with expectations regarding B21 felt that they were fulfilled. This is to be judged a very good testimonial.

› With regard to future investments into the Swiss public transport system, the queried people see a slight priority with the additional improvement of the frequency and direct connections of the trains (beside an increased sense of security in the trains/busses). Shorter travel times, better connection times, increased punctuality and comfortability seem to be better fulfilled and less of a priority.

› Regarding the transport sectors, the extension of agglomeration transport is being classified as a top priority.

Changes in demand

› The original expectations happened also with regard to demand. The passenger transport performance (passenger-kms) in long-distance-transport increased between 1996 and 2005 by 27.5%, of which +7% alone between 2004 and 2005. Also in regional transport significant increases could be achieved according to region, even though the total Swiss-wide growth is lower than the growth in long-distance-transport.

› Regionally, resp. viewed according to traffic corridors, a fairly good conformity between the extension of supply and the increase of demand was achieved as a whole.

› The model calculations have shown that a bit more than half of the increase in demand in long-distance-transport is structurally related, i.e. is due to population, revenue and general mobility behaviour developments.

› Slightly less than half of the increase of demand can be attributed to the supply effects of B21 which is more or less compliant with the expectations.

› The supply effect in itself can be separated according to model calculations to approximately two thirds of new transport and to one third of the transfer from road to rail. This breakdown is to be understood as a rough estimate. It is not easy to answer the question of do we have 'real transferers'. This would have to be answered with the help of more detailed surveys.

Environment, cost effectiveness

› Environment: The environmental benefits of B21 are not very central. Energetically it can be assumed that it is a significant, but ultimately rather limited direct contribution to resolving the problem of CO_2. With regard to the replacement of rolling stock it was possible to significantly lower noise pollution. On the other hand, B21 stands for a certain land use whose effects were alleviated by accompanying measures.

› Cost effectiveness: The present evaluation did not carry out its own economic calculation. Yet, looking at the most important statistical key figures with regard to public compensations as well as looking at a comparison between the current economic state and relevant prognoses of the Federal Office of Transport allow for a positive conclusion with regard to cost effectiveness of B21.

Transport related policy issues

› The comprehensive extension and modernisation of rail infrastructure was successful with B21. The passengers also perceive this and react with increased demand.

› But only a small part of this growth of demand would be 'real transferers' from the road. B21 was in the first place responsible for guiding the structurally related new transport to rail transport. But an additional part of the increase of demand is supply-related new transport, which can very well be evaluated critically.

› The reconciliation between long-distance and regional transport can be appraised as successful with regard to B21. This is based on the nodal principle (Knotenprinzip) focussed on the transport chain and therewith beneficial for both sectors. Insofar, the turning away that happened and was due to the staging (Etappierung) of the original postulated "Rail and Bus 2000" concept is not very grave.

› In future, additional fights for the leftover railroad line capacities are looming ahead which – as a consequence – demands for integral public transport planning. This postulate is contrary to developments with regard to financing the future Swiss public transport system where the securing of regional transport shall be given into the responsibility of the cantons and regions. Meanwhile the Federation e.g. is concentrating on the future development of rail infrastructure (ZEB) especially concerning passenger long-distance-transport (and freights).

› Conclusively, with the staging of Rail 2000 commitments were made to regions which so far were only able to benefit below average. It will be one of the major challenges for future investments, to resolve the conflicts of objectives between an additional extension of transport in demand-heavy regions and peripheries of Switzerland.