

Lake Constance regional projects take shape



Several projects are in the pipeline or already underway to upgrade rail links in the regional triangle between Germany, Austria and Switzerland, not to mention Liechtenstein a little further south. **Anitra Green** takes a look at the current state of play.

IN March this year an international group set up to promote the development of an S-Bahn network encircling Lake Constance wrote to the governments of Switzerland, Austria, and Germany urging them to invest in a programme of track-doubling and electrification as a prerequisite for regular-interval high-quality regional services.

The Lake Constance S-Bahn Initiative (IBSB) is calling for the establishment of a joint infrastructure fund involving national, regional and local governments together with closer integration of fares and train operations around the lake. The group argues that the allocation of responsibilities is currently so complicated that it is almost impossible to develop a

coherent vision for the regional rail network.

Swiss engineer and transport planner Mr Paul Stopper, one of the initiators of IBSB, says that with strong and organised backing at a local level, governments in Brussels, Berlin, Vienna and Bern are more likely to lend their support.

With passenger figures showing a steady increase at the eastern end of Lake Constance, the time has certainly come for improvements in cross-border services, but the lines around the lake are largely single track and most of the lines on the German side are not electrified. Nonetheless, the incumbents in the three countries all have their own upgrading plans, not only for

their own benefit but also in anticipation of cross-border cooperation projects designed to bring the various elements together into a coherent, functional system.

An added motivation to develop the Lake Constance S-Bahn is the three-month "Nature in the City" garden show in Lindau in 2021, which is expected to attract large numbers of visitors. Ideally there would be a half-hourly S-Bahn around the circumference of Lake Constance, offering high-speed connections to major German cities like Munich, Ulm and Stuttgart, as well as to Swiss and Austrian centres in the upper Rhine valley, Vorarlberg, and Tyrol. For this, the line on German side would have to be electrified, disused

stations re-opened, and existing stations upgraded. In addition, there would be a need to construct many more passing loops in Germany and on the single-track lines in Austria and Switzerland.

Part of this project is the "Gürtelbahn" (belt line) initiative in Germany. This involves electrifying the Lindau - Friedrichshafen - Radolfzell line, which has until now been treated as a low priority by the state of Baden-Württemberg. A recent study analysing several different scenarios shows that no significant improvement can be expected without electrification, but it is unclear when this will happen. Mr Michael Frei of SMA and Partner, which carried out the study, says electrification is

rail



Photo: David Gubler

introduction of tilting trains, will cut Munich - Zürich journey times from 4h 10min to 3h 15min - a welcome improvement as rail struggles to compete with road and air on this route. The aim is to finish construction work in 2019 with electric services due to begin running in December 2020.

The terminus station at Lindau presents a particular challenge. Situated on an island at the eastern end of Lake Constance, it is served by trains from Austria and Switzerland as well as Germany. Long-distance international services have to switch between diesel and electric traction.

Proposals have existed for decades to relocate the station to the mainland, but according to Mr Georg Speth, urban development manager for the town of Lindau, a two-station solution is the preferred option at present, with long-distance trains passing through Lindau Reutin on the mainland and regional services continuing to use a redeveloped island station - to be renamed Lindau Insel. Construction of both stations would therefore be developed in parallel, with Reutin slated for completion in 2020 and Insel in 2021. Again, the immediate incentive is the garden show in 2021.

Across the border in Austria, Austrian Federal Railways (ÖBB) is in the process of upgrading all the stations along the Rhine Valley line from Bregenz to Feldkirch in a €214m programme, which

is due to be completed in 2018. ÖBB has also completed the first part of a project to upgrade the line over the Rhine between St Margrethen, Lustenau and Lauterach under a bilateral agreement between Austria and Switzerland; a new 275m bridge has been built, with the deck 2m higher than the original structure to protect against floodwater after disastrous floods in recent years. The second part calls for upgrading the track between Lustenau and Lauterach, which will be completed in 2019.

In Switzerland, the latest development is the new S-Bahn in St Gallen launched in December last year, with new lines and services every 30 minutes, rising to every 15 minutes at peak times. More improvements are planned in the region over the next four years. The station is served not only by Swiss Federal Railways (SBB) but also by Thurbo, a 90% subsidiary of SBB, and Südostbahn (SOB), Switzerland's third largest railway.

The canton of Thurgau is planning investments of SFr 260m (\$US 291m) to improve rail infrastructure and has already secured financing. A plan to upgrade the line between Weinfelden, Kreuzlingen and Konstanz is not expected to be realised until 2020 at the earliest since financing for the SFr 71m project has not yet been secured.

Changes are also coming to Liechtenstein, which is served

by ÖBB services between Feldkirch (Austria) and Buchs (Switzerland). The principality has a population of 37,000 and a total of 36,000 jobs, leading inevitably to chronic congestion at peak hours as around half this number of people cross the border in both directions.

This is where a new S-Bahn project dubbed Flach comes in. A tri-national initiative between Liechtenstein, the Austrian province of Vorarlberg and the Swiss canton of St Gallen, the aim is to provide a half-hourly service and good connections to both neighbouring S-Bahn networks, as well as to ÖBB Vienna - Zürich Railjet services and IC trains between Chur and Zürich.

The initial €99m phase of the project involves building a second track between Tisis, Austria, and Nendeln in Liechtenstein, together with the reconstruction of the stations at Schaanwald and Nendeln. Construction costs will be split equally between Austria and Liechtenstein, according to Mr Henrik Caduff from Liechtenstein's department of construction and infrastructure. The target for the start of operations is 2015, although he admits this is optimistic.

Another longer-term project is a new regional link from Schaan to Trübbach and Sargans (Switzerland), via a new 14.5km single track line with passing loops and a tunnel in the Vaduz area, which could be constructed as a tram-train line. The tram-train option could utilise existing roads with tighter curves, giving it the edge in urban areas where building a new railway track would be a problem; it could also allow the operation of a 15-minute interval service. Costs would be lower too: a projected €230m compared with €315m for the heavy rail option.

There are obviously plenty of projects in the pipeline, but there is still a long way to go before the infrastructure, financial and cooperation issues are resolved and an efficient intra-regional service becomes reality. **IRJ**

unlikely to be implemented until 2019-20 at the earliest.

A related scheme is a Swiss initiative to develop the "Bodensee-Rheintal Y" line, connecting Chur and the upper Rhine Valley with the Austrian border at St Margrethen and Rorschach, where one branch heads west to St Gallen and Zürich airport and the other to Constance. Again the idea is to offer a half-hourly service, which will entail track-doubling. The first phase was approved by the Swiss Council of States in February this year and the project is due to be completed by 2020.

Meanwhile, the incumbents in all three countries are working on improving the basic framework and developing efficient regional and urban services on their own territories. German Rail (DB) has launched a €310m project to electrify the Munich (Geltendorf) - Lindau line which, together with the

