Infrastructure

134.4

million train path kilometres were marketed by the Infrastructure division last year, 2.8 percent more than the year before. Clients include SBB Passenger Traffic and SBB Cargo, but increasingly also third-party operators.

More punctual despite denser train traffic.

The key indicator in Swiss train operation is and remains punctuality: 19 out of 20 passenger trains on the SBB network ran on time in the year under review, meaning they kept within a 4 minute margin from schedule. The increasingly dense timetable – in June, the SBB expanded the passenger offer by a further 4 percent – underlines the SBB's know-how in the planning and handling of Europe's most complex railway operation. In 2001, the trains on the SBB network travelled 134.4 mn kilometres, 2.8 percent up on the previous year. With 97.4 percent, the trains of SBB Passenger Traffic and SBB Cargo held the lion's share in terms of train kilometres. However, those achieved by third parties on SBB tracks rose by 17 percent within one year, to reach 3.42 mn kilometres. Revenue from train path charges was 616.1 mn CHF. The yet stronger utilization of the SBB network requires a precise train path management, an accurate operations management, line expansions and always more performing track and safety installations.

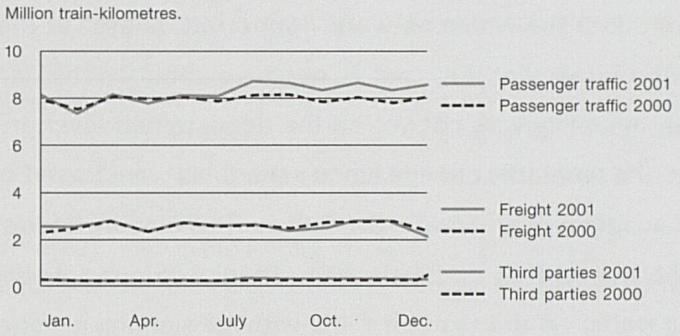
The punctuality rate of 94.45 percent remained practically stable, compared with the previous year. The stringent objective of 95 percent was jeopardized by two total failures of the new signalbox of Basel and the numerous operating troubles at the infrastructure and the rolling stock. Such incidents always affect the whole network. "Imported delays" at the eleven border points could normally be absorbed so that they had no negative effect on the domestic timetable. With the tilting trains (ICN), reliability was not yet on the accustomed level. In part, punctuality was made to suffer as from the timetable change since schedules were based on higher curve speeds on the axis Geneva-Lausanne–Biel–Zürich–St. Gallen. The closure of the Gotthard road tunnel in the autumn brought unexpected surplus traffic. Thanks to good disposition, the SBB could handle this additional traffic on the Gotthard line without significant repercussions on the rest of the network.

Flexible track maintenance services.

The track maintenance services have decisively contributed to a timely start of operation of the ICN fleet. In the spring of 2001, the foot-of-the-Jura line, in particular the 10 kilometres long new line of the Bahn 2000 programme between Onnens-Bonvillars and Gorgier-St.-Aubin, could be prepared in time for operation at higher curve speed. While operation on the adjacent track went on, the 12 mn CHF track renewal programme in the Gotthard tunnel could be carried out

and terminated ahead of time. This created the additional capacity for the car-carrying trains and the increased number of freight trains, necessary in connection with the closure of the road tunnel. Quickly and without lengthy procedures, the maintenance services have adapted the safety and track installations in Göschenen and Airolo to the requirements of the car-carrying service abandoned 20 years before, and have installed a provisional loading ramp for lorries in Brunnen, within a few days. Together with the firm Euroswitch, in which the SBB have a two-thirds shareholding, the track maintenance services installed 143 switches in the just-in-time mode. In the whole country, the SBB have spent around 550 mn CHF on track maintenance work and track renewals. Via Internet auctions (e-procurement), the SBB could cut down on procurement costs in the past year, cutting down on the number of varieties, saving on administration expenses, and shortening the ordering periods.

Always more train path kilometres for third-party operators.
SBB Passenger Traffic and SBB Cargo are the biggest clients, now as before. But train path kilometres realised by third-party operators on SBB tracks have increased by 17 percent within one year.



The renewal of four big stations is terminated.

The SBB's Assets Management handled more than 1600 bigger projects in the year under review, 516 of which with a cost volume of more than a million CHF. 140 projects were submitted to the Federal Transport Office last year for plan approval, and for 90 objects, the corresponding decree has arrived from this Office. The so-called "throughput periods" for project approvals was 10 percent shorter than in previous years, due to optimised processes.

Among the bigger ventures are the projecting works for the renewal or expansion of the following stations and line sectors: trackyard and signalbox installations in Bellinzona and Thun, platform extensions in Zurich and Bern, third track Ostermundigen–Gümligen, S-Bahn station Wankdorf, lines Neuchâtel–Le Locle, Bern–Trubschachen, and the third partial completion of the S-Bahn Zurich, planned for 2006, with an investment volume of 200 mn CHF. Intensive preparation is now under way for the modernisation of 620 regional stations at a cost of around 320 mn CHF. In June 2002, the SBB present a first regional station in the new, modern and customer-friendly outfit.

Prospects for the future, scenario 14/16: Open Acces will show effects.

The gradual opening of the European railway networks to competition surely counts among the most important regulatory initiatives in the area of transport. It will shape the market development of the coming 15 years.

*> **Switzerland** is in a vanguard position here and will be among the countries where effects will be visible early on, as here, very liberal regulations for network access were put into force, more liberal than in many countries of the EU. The use of the infrastructure is open to licenced railway undertakings that operate freight transport, not timetabled passenger transport, or regional traffic paid for by the orderer (Confederation, Cantons). The demand for SBB train paths has significantly increased. The volume of train path kilometres achieved by third parties on SBB tracks has increased by 17 percent, the respective gross tonne-km increased by nearly 45 percent.*

*> **This is but the beginning** of the development. The very geographical situation of Switzerland within Europe makes it attractive for railway undertakings to make use of the network access possibilities, and for instance to operate long-haul north-south freight trains in Open Access. In a few years, freight trains of foreign railways will be a matter of course on the Gotthard and the Lötschberg trunk routes. They will be clients of the Infrastructure division, and will contribute to cover the network costs.*

*> **With the AlpTransit base tunnels** and further investments, the attractivity of the Swiss railway network will increase further, because the resources of the transport operators will be able to be used even more efficiently. Conversely, of course also SBB Cargo will profit from the opening of the railway networks in the neighbouring countries.*

Source: Prognos AG, Basel (2002).

A major expansion step is now under way in the Seetal, where from the timetable change in December 2004, operation will be handled more rationally thanks to adaptation of installations. In March 2001, work in the volume of 65 mn CHF has started in Zug for the new station construction, and in Cadenazzo for modernisation work. May 2001 saw the groundbreaking in Chur for the renovation of the station, and in September, the same happened in Romanshorn.

Between Zofingen and Sempach, the renewal of the safety installations and the modernisation of track installations is practically terminated. On this sector, chosen for a pilot operation of cab signalling, this allows the transmission of signal data via radio directly to the driver's cabin. The lineside signals are withdrawn. Cab-signalling is a pre-condition on the future new line of the Bahn 2000 scheme Mattstetten–Rothrist for operation with 2 minutes' headway and with speeds of 200 km/h. On the pilot sector Zofingen–Sempach, the first commercial trains will run with the new system starting in spring 2002. Presently, 22 longer tunnels are being equipped with additional self-rescue installations, such as escape routes with handrails, signposting of escape routes, and tunnel lighting. The remediation works of five tunnels is terminated, and in the current year, a further nine tunnels are retro-fitted.

In the year under review, the extensive station renovations of Yverdon, Neuchâtel, Baden and Wil could be terminated. On two dozen further stations, the customers can newly profit from platforms with comfortable heights for boarding. The line sectors Moutier–Choindez, Sonceboz–La Chaux-de-Fonds and Champs-du-Moulin–Noiraigue are now remote-controlled. In total, 13 new signalboxes were taken into service.

Bahn 2000 is on schedule.

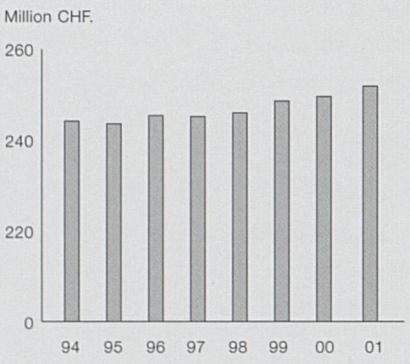
The first phase of Bahn 2000 is on course. Among the infrastructure projects of the first phase of Bahn 2000, paid for out of the fund for the financing of public transport (FinöV), all projects that had to be ready for operation at the time of the timetable change of June 2001 could be taken into service in time: The new line along the Lake of Neuchâtel, the tunnel near Vauderens, as well as the safety installations between Olten and Zurich adapted for 2 minutes' headways. The works on the core part of Bahn 2000, the 45 km long new line Mattstetten–Rothrist, have passed the mid-point, and in May 2001, the 10 kilometres long tunnel for the second double-track line Zürich–Thalwil was bored through. A first part of the 13 km long 3rd track Geneva–Cop-

pet has been in operation since June. Currently, the SBB invest around 500 mn CHF in capacity enhancement of the Zurich knot, necessary for the Bahn 2000 scheme. This includes a provisional station near the Sihlpost. It will be in operation until the opening of the second through station (Löwenstrasse station). For its financing, the voters of Zurich by a big majority approved a 40 percent participation to the extent of 580 mn CHF (overall cost 1450 mn).

The second phase of Bahn 2000 shall be realised between 2010 and 2020 for 5.9 bn CHF. The planning works, in cooperation with the Confederation and the Cantons, are already under way. Until November of last year, four planning variants were worked out and evaluated. Those involved in the project have agreed that the further steps will be continued on the basis of the variant most respective of managerial economics, conceived by the SBB.

In connection with the noise remediation of the railway network, financed also by the FinöV funds, the SBB, by end of 2001, have retrofitted 388 passenger cars with low-noise braking systems. Presently, the SBB are building noise protection screens. In the current year, screens totalling 10 km shall be built in 6 municipalities. At the Federal Office of Transport, around 50 more files containing the projects of a municipality each, are submitted for plan approval.

Increasing revenues from real estate management.
At Real Estate, rental revenues continue to go up. In 2001, revenues amounted to 252 mn CHF.



Concentration on railway current.

By steps, the SBB have reorganised the energy sector. In the future, the SBB concentrate wholly on the production and the management of 16.7 Hertz railway current. Consequently, they have sold their shares in the two nuclear power plants of Gösgen and Leibstadt, and in Elektra Massa. One of the two long-term contracts with France for the purchase of electricity has also been sold in 2001. The organisation of the energy sector was adapted to the new strategy and was streamlined accordingly. Newly, the whole supply of energy of the SBB is centrally controlled from the directing centre at Zollikofen.

Prospects for the future, scenario 15/16: In the future, electricity gained from regenerative energies.

From 2000 to 2010, energy consumption of the transport sector will slightly increase in Switzerland.

> What is remarkable *is that railway current thereby accounts for only about 3 percent of the energy consumed by transport, if one considers that the railways account for 14.5 percent of all passenger-km, and 38 percent of all tonne-km.*

> The SBB *are about to put into practice what in many areas is still written in the stars: the departure from nuclear energy, without change to fossil fuel with its unwanted emissions of CO_2. Railway current produced from regenerative energies is trend-setting and secures the future – an active contribution to sustainable mobility. People and goods are moved with little environmental impact.*

> Today's mix *in the origin of the energy for railway current has a share of 80 to 95 percent of hydro power. Recuperation of energy when braking, is good for the environment. With this technology, newer locomotives can save about 40 percent of energy in transalpine traffic, and 25 percent on the west-east axis. Ten years from now, all SBB locomotives will be able to do this, as the older power vehicles will be taken out of service until then.*

> Private cars, *and aircrafts as well, will in the medium term also achieve an increased energy efficiency, in relation to passenger-km travelled. However, the lead of the railway in this respect will not be caught up by private cars and aircrafts. Alternative sources of power in private cars will not as yet gain quantitative significance in the coming years.*

Quelle: Prognos AG, Basel (2002).

Important real estate sector.

Railstations are meeting points. They make access to the railway easy and as shopping, services and communication centres, they are in a constant interaction with their surroundings. Their central location and optimal transport facilities make them the preferred sites of urban development for shops, residences and workplaces. Against this backdrop, the demand for properties in the vicinity of the big stations has grown significantly. With considerable investments, the business unit Real Estate takes care that the stations are modernised. The real estate business of the SBB makes a considerable contribution to the SBB cashflow. SBB Real Estate has increased the rental revenues to 252 mn CHF. The EBITDA amounts to 249.1 mn CHF.

The most important building projects in the real estate sector, recently completed or now under construction:

> In Bern, a comprehensive station renovation is currently under way under the motto: "Zug um Zug ein neuer Bahnhof". Already in May 2002, with the completion of the first stage, an attractive and customer-friendly services and shopping centre opens its doors to passengers, passers-by and commuters. The renovation lasts until the autumn 2003. By then, office spaces of the most modern design will be available in the upper storeys.

> In Zug, the old station building was pulled down in April 2001. The new customer-friendly station shall be opened by end of 2003 as a joint property of SBB, the city and the canton of Zug.

> In the listed station building of Zurich Enge, the commuter station, modern business rooms, restaurants as well as office and services rooms were realised.

> Delémont received a new rail travel centre last summer, with adjacent shops and a modern restaurant.

> The "Backpacker Guesthouse" in Lausanne is a real novelty, the result of a transformation of a former house of flats of the SBB. As one of the first Swiss hotels, it was awarded the "Minergie Label" for its environmentally-friendly installation of house technology.

> In Bern, the former "Schnellguthalle Wylerfeld" was transformed under the direction of SBB Real Estate within six months into an up-to-date "Think-factory" with 250 modern office workplaces.

> In Geneva, the renovated western wing with several restaurants, a pharmacy and offices of the newspaper "Le Temps" could be inaugurated in January.

These projects were in part financed by the sale of non-strategy-conform real estate assets. In order to gain flexibility in the highly competitive real estate market, and in order to strengthen the core process, the SBB's Board of Directors decided to separate the real estate business from the Infrastructure division per 1st January 2003, and to set it up as an independent business unit with real estate portfolios attractive to the capital market. The SBB stations shall be further developed into customer-friendly and goods transport centres. The management of the own properties and especially the stations is and remains an important core competence of SBB Real Estate.

Prospects for the future, scenario 16/16: Stations as meeting points will become yet more popular.

Specially in urban areas, stations of all sizes will become even greater points of attraction of urban development. Various trends facilitate their re-valuation and change of function in the next 15 years:

> In the city centres, *the only available land reserves will be in the perimetres of stations and in industrial areas near stations.*

> For enterprises, *specially in the services sector, good public transport offers will constitute an important location factor; the tying-in to public transport is economically advantageous!*

> Growing passenger numbers *in railway traffic make the stations attractive for businesses that depend on large numbers of passers-by. With the regular-interval timetable of Bahn 2000 from 2004, the town quarters around the stations are being revalued on a national, and partly international scale. In the future, all the stations served by Bahn 2000 will be in easy reach. That is why in the future, a growing number of private persons will invest in office space in and around the stations.*

> Central locations *at or near the stations will be specially attractive to the "events culture". Their sites are mostly in the heart of the cities, ideal for shopping and communication, for presentations and for work.*

> Did you know *that the main station of Zurich is visited on an average day by as many persons as the city of Zurich counts inhabitants? The figure is 350 000, and this is also the number of potential customers, or the potential chances of contact for a promotional presentation in the station hall. Today, this function as meeting point is a characteristic sign of the big city and Switzerland's biggest railway hub. Tomorrow, this will apply to all medium-sized and bigger railway stations.*

> With the decided creation *of an independent business unit Real Estate and the aim to position the stations increasingly as services centres (RailCity), the SBB are well equipped to brave the future.*

Source: Prognos AG, Basel (2002).

The network-wide "Park+Ride" projects constitute an important link in the mobility chain. 1500 additional parking spaces have been built, thus promoting combined mobility. In 2001, the SBB subsidiary "Cevanova", held in partnership with Migros and Kiosk AG and active in the convenience sector, has opened "avec." shops in Aarburg, Reiden, Eschlikon, Oberrieden, La Neuveville and Seuzach, revaluating an additional number of smaller and medium-sized stations successfully. The modern services centres selling articles in daily use, with kiosk and Café bar, make it possible that the personalised ticket sale can be maintained also at stations with a small ticket sale turnover. □