

EUROPEAN POLICY Switzerland

Making short distance freight work



Switzerland has an enviable record of supporting rail freight, with many domestic flows running over distances typically considered too short for rail. But as SBB Cargo's wagonload business continues to contract, the future lies in integrating better with the logistics sector. **Reinhard Christeller** reports from Genève.

Politicians must stop thinking in terms of competition between rail and road', believes Frank Furrer, Secretary-General of Swiss freight forwarders trade body VAP. Furrer's association is one of several organisations from both the public and private sector which are starting to consider how Switzerland might manage the next generation of growth in multimodal logistics, and what lessons the country might have for the rest of Europe.

Furrer is clear that today virtually any freight movement involves multiple modes, be it import-export, transit or domestic shipment. Shippers and carriers understand this, he believes, but policymakers have more work to do if the forecast growth in volumes

for both road and rail freight in Switzerland of 40% by 2030 is to be accommodated effectively.

Switzerland has long been regarded as a 'model citizen' in Europe when it comes to sustaining rail's modal share of the freight market, which today stands at close to 39% by tonne-km. There are a number of physical, historical, legal and social factors which explain how rail freight has endured to a far greater degree than in most of the rest of Europe. Given the size of the country — just 348 km at the widest point from east to west and with major cities typically around 100 km apart — transport distances are far below the 300 km considered by the EU as a minimum for a viable rail freight flow.

In part this can be attributed to the

density and capacity of the national rail network, which is almost entirely electrified and has a high proportion of double, triple and four-track routes. Meanwhile, road congestion during the day remains a real problem for the logistics sector. Legislation banning heavy lorries from driving at night was first enacted in 1934. Subsequent measures have tilted the playing field in favour of rail, notably the implementation from 2001 of the LSVA distance-based heavy vehicle charge for



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FRANK FURRER
SECRETARY GENERAL, VAP

'We have understood that for the benefit of all, road, rail and waterways must co-operate'

all vans and trucks grossing more than 3.5 tonnes.

Depending on the vehicle's emissions classification, the LSV is currently set at between SFr0.031 and SFr0.023 per tonne-km. Complementing this levy is the country's vast investment in rail infrastructure, typified by the Gotthard and Lötschberg corridors progressively developed over the past three decades to serve the respective base tunnels. Both routes are cleared for the UIC 505-1/EN 15273-3 GC loading gauge that allows 4 m high lorries to be carried on intermodal trains.

The levy has helped to sustain rolling motorway services that are typically used for transit freight running through Switzerland. These have carried an average of 105 000 trucks per year since 2011, taking about 10% of this market segment from road. The rolling motorway subsidy is in place until at least 2023, and is likely to be updated under rail and waterway legislation passed in 2016.

Logistics sector takes the lead

While precise measures have still to be finalised, the latest legislation is intended to pave the way for rail to handle even more freight in future. Provisions include a greater allocation of dedicated paths for freight trains, the integration of rail in the wider logistics chain, and the development of infrastructure to support intermodal traffic, including 'seed' subsidy to support the creation of more private sidings. But especially important is the government's expectation that logistics companies, rather than the railways alone, will be involved in specifying and delivering the necessary investment.

With the 2030 growth forecasts in mind, a working group has been set up to revive the loss-making wagonload market by introducing operational and technical improvements. The group includes freight forwarders, train operators and cantonal and national authorities.

However, SBB Cargo wagonload traffic declined again in 2018 by 2.4% (RG 2.19 p9). Looking at the country as a whole, the operator believes that around half of the 344 terminals in the wagonload network account for 90% of the wagons moved, making further rationalisation inevitable.

On February 19 SBB Cargo announced that it would be extending a review of terminal usage initially conducted in the cantons of Bern and Jura to the rest of Switzerland. This review, launched in March 2018, examined 35 'low frequency control

COOP

Supplying supermarket shelves



Photo: Reinhard Christeller

Three daily trains carrying 32 swap-bodies arrive at La Praille where lorry drivers transfer them to their vehicles to supply the stores.

Coop, one of the two largest players in Swiss retail, has set a target to become carbon-neutral by 2023. Rail transport is seen as a key element in achieving this objective, with Coop believing that it could save a further 6 400 tonnes of carbon emissions through modal shift away from road haulage.

Coop already uses rail through its Railcare AG subsidiary, which handles the supermarket's logistics activity. Railcare runs both block trains and wagonload services, as well as lorries, linking its 11 principal production sites and distribution centres as well as handling traffic from domestic and international producers and suppliers. Railcare is a certified Railway Undertaking on the Swiss main line network and operates seven Siemens Vectron locomotives with last mile diesel traction and 87 Sggmrs wagons. These articulated six-axle flat wagons are 33.5 m long and can run at 120 km/h.

As an example of the supermarket's rail-based logistics practice, Coop's 45 supermarkets in Genève are served from its 50 000 m² regional logistics centre in Aclens near Lausanne, which includes an industrial bakery. The rail haul to Genève is just 67 km, and all the produce for the stores is delivered by rail using pallets or trolleys allocated to an individual supermarket.

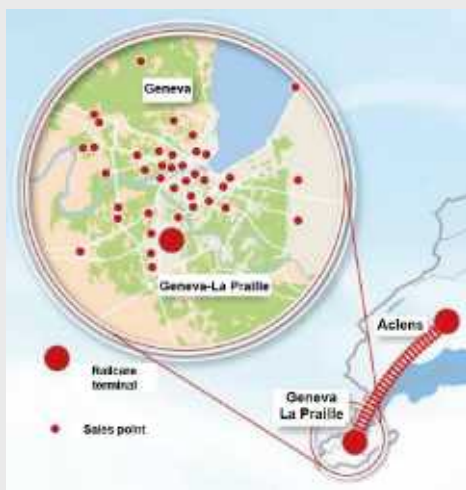
Bespoke road-rail swap bodies, some of which

are fitted with cooling equipment to carry chilled and frozen foods, are loaded at Aclens onto eight Sggmrs flat wagons, each of which can carry four swap bodies. These are leased from AAE/VTG and modified for Railcare's specific needs. A traverser allows the swap-bodies to be moved from lorries to the train in just 7 min. The wagons have composite LL brake blocks to reduce running noise by around 10 dBA. To power the refrigerator units, a modular fully electric rCE Power-pack is provided comprising of a battery that is charged either by shore supply or by an onboard generator using energy harvested from the axlebox via a hydraulic drive when the train is running. This avoids the need for diesel generator sets, further reducing noise and emissions.

Each train carries 32 swap-bodies, and makes three round trips per day between the Vufflens freight yard near Aclens and the centrally located La Praille transshipment terminal in Genève. The 05.00 departure carries bread, fresh fruit and vegetables that must be in the supermarkets by 07.00; the later trains handle refrigerated and frozen foods as well as non-perishable goods that are less time-sensitive.

Pallets, trolleys and material for recycling are moved on the return leg to be handled in Aclens. Railcare's trains use three of the 48 daily freight paths in each direction on SBB's main line between Lausanne and Genève, relieving the heavily congested motorway between the two cities of about 100 round trips by lorry. Despite the transshipment operations at each end of the rail haul that lasts only 45 min, Railcare considers that this service is economically viable because the punctuality margin needed to use trucks on the motorway would be too great for a 'just in time' business model. A maximum delay threshold of 30 min is applied for the rail service.

The Genève deliveries have been running successfully for five years, Coop says. Its sustainability targets mean that it is now undertaking studies to find other routes where a similar rail-led model could be implemented. ■



All 45 Coop supermarkets in Genève are served by rail from the Aclens logistics hub via the La Praille transshipment terminal. The last mile uses lorry transfer.

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points'. Following the withdrawal of wagonload services from these terminals, SBB Cargo reports that 80% of the traffic affected remains on rail.

SBB Cargo is now in discussion with shippers and policymakers about how best to proceed 'to strengthen the wagonload offering in the areas with greatest volumes', with the aim of giving customers 'a regular, reliable and high-performance' service in line with 'the railway's strengths'. The resulting changes would be implemented from the December 2019 timetable change. ■

Supermarket chain Coop has set a target to become carbon-neutral by 2023.



CARGO DOMIZIL

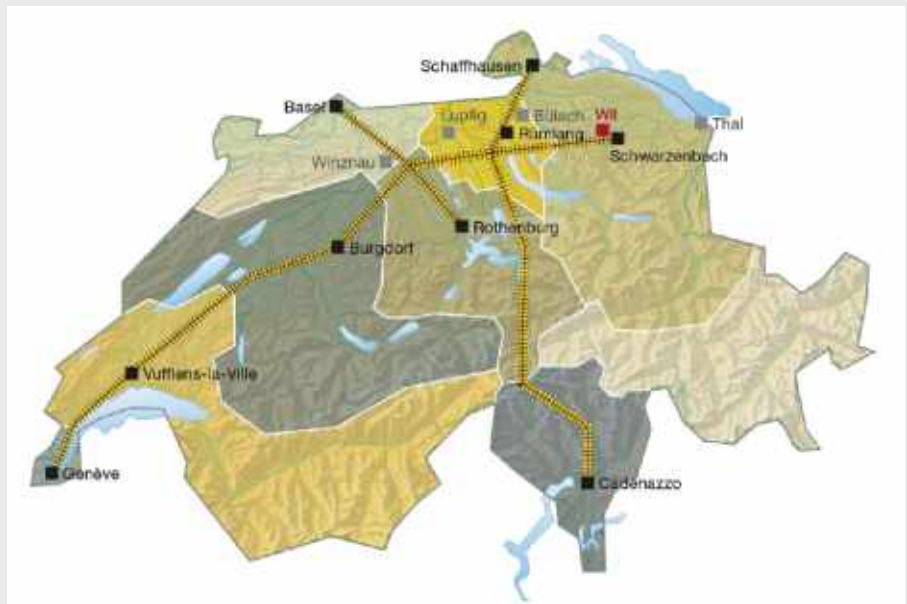
Small shipments can survive

Like most large state railways, Swiss Federal Railways once had a general freight terminal at most of its 800 passenger stations, complemented by many more at the 1400 stations on Switzerland's private railways.

Yet while most other countries have abandoned this proposition, Switzerland has maintained it. Closely related to the wagonload business, the current general freight offering traces its roots back to 1981 when SBB spun it out as a subsidiary entity under the name Cargo Domizil, with an annual turnover of SFr150m but losses of SFr100m.

Cargo Domizil was partially privatised in 1991. Turnover remained flat but the losses declined to around SFr50m per annum. Five years later, three family-owned transport enterprises, Planzer Transport, Galliker Transport and Camion Transport, purchased the business through a joint venture called Transvisio AG. Today it endures under the brand CDS Cargo Domizil AG.

By 1998 the business had reached break-even point, and by 2001 turnover had risen to SFr215m with a modest profit. While detailed financial figures are not released nowadays, the owners claim that since 1996 rail transport volumes have risen faster than road and they anticipate further growth in the years to come.



SBB Cargo moves Cargo Domizil single wagons between the logistics centres of its three partner operators. Camion Transport alone operates a network of 14 terminals.

The CDS partnership today acts as the purchasing organisation for consignment space and traction services, while each of the partners competitively markets its own service, operates its own network of rail terminals and

provides 'last mile' collection and delivery by road. Rail use typically saves 100,000 lorry trips and 13,000 tonnes of CO₂ annually. Planzer opened its 13th terminal in December 2017, and loads 350 wagons each day; the freight forwarder moves 60% of its domestic volume by rail. Camion Transport has 14 terminals dispatching 130 wagons daily, while Galliker has eight terminals and moves around 50 wagons.

Delivery within 24 h is guaranteed. Consignments have an average payload of 750 kg, and many are carried on pallets. These are collected from the shipper between 13.00 and 18.00, loaded on wagons by 20.30 to arrive by 05.00 at a rail-served logistics hub and by midday at their delivery point. SBB Cargo is the main supplier of rail haulage, often moving the CDS wagons in its overnight wagonload trains via the Limmattal, Basel and Lausanne marshalling yards to the terminals of the logistics providers. ■

General shipments of more than 200 kg are loaded on sliding-door vans at Camion Transport's hub Vufflens-la-Ville between Yverdon and Lausanne.

