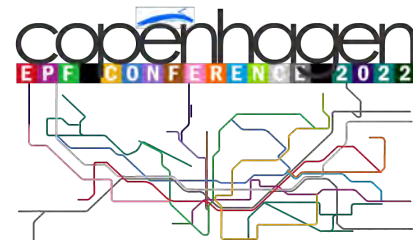


Railway border crossings between Italy and Switzerland

Overview and perspectives

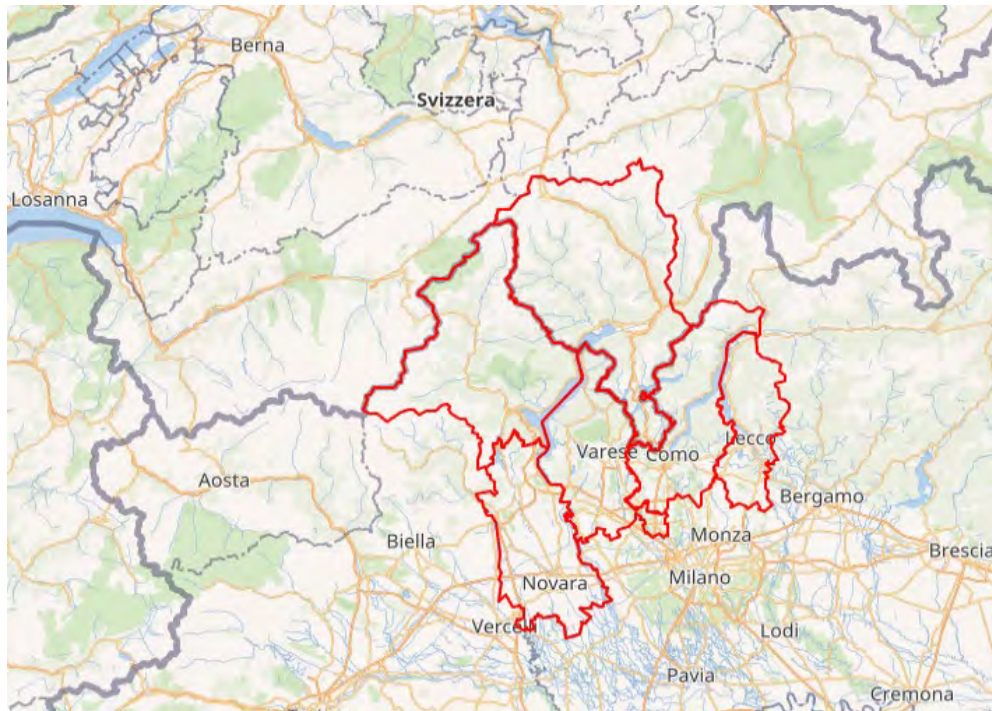
Marco Gariboldi – UTP Utenti Trasporto Pubblico



The context

Regio Insubrica:

- Area 14,781 km² – Pop. 6.5 million – 441/km²
- Common language, geographical, cultural and economic area
- Milan metro area (pop. 5 million)
- Canton Ticino (pop. 350,000 – 75,000 cross-border workers)
- → intense daily cross-border mobility for work, study, tourism, shopping...



Wikimedia | © OpenStreetMap - La zona della Regio Insubrica



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Railway border crossings

Between Italy and Switzerland there are five railway border crossings:

- Simplon tunnel (Brig – Domodossola line)
- Camedo (Domodossola-Locarno line, so called «Vigezzina»)
- Luino (Luino-Bellinzona line)
- Chiasso («Gotthard line» Milano-Lugano-Arth Goldau)
- Tirano («Bernina Express line», Tirano-St. Moritz)



The Italian-Swiss cross-border rail traffic

The peculiarities of Italian-Swiss cross-border railway traffic are the following:

- High long-distance passenger traffic from Switzerland, Germany, East France to Milan and the rest of Italy
- Very high regional traffic between Lombardy and Canton Ticino, to a lesser extent also between Brig and Domodossola
- Very high freight traffic, from North Europe through Lötschberg, Simplon and Gotthard tunnels, directed to all the Italian peninsula and to the main ports
- After the construction of the Lötschberg, Gotthard and Ceneri base tunnels, the railway traffic, passengers and freight, has been widely incremented
- High tourist traffic on the meter-gauge lines (Vigezzina and Bernina)

Technical issues and conflicting needs

- Different voltage, signalling systems, tunnel clearances
- → need of a dedicated fleet
- Conflicting paths between freight and passenger trains
- Conflicting paths between long-distance and regional passenger trains
- No major capacity upgrades on the Italian side
- Different conditions of carriage for long-distance and cross-border local trains
- No single governance for passenger services

Domodossola – 1 station, 5 companies, no talking...

The railway services on the Simplon line are actually the following:

- **Long distance services:** 7 EC Geneva/Basel – Milan + a few IC services Basel-Domodossola, operated by SBB/Trenitalia
- **Interregional services:** few trips between Brig and Domodossola operated by SBB
- **RegioExpress services:** service with 120min headway between Bern and Domodossola, via old-Lötschberg line, operated by BLS

On the Italian side there are two services :

- **Regional services:** service with 120min headway stopping at all station between Domodossola and Milano P.ta Garibaldi, operated by Trenitalia
- **RegioExpress services:** service with 120min headway between Domodossola and Milano Centrale, operated by Trenord

Domodossola – 1 station, 5 companies, no talking...

Problems:

- The EC services are very crowded, in particular in the peak periods (Weekend, Swiss holidays), and have compulsory seat reservation
- There is no alternative for the cross-border trips with the RegioExpress services since the connection time is too long

Opportunities, with a better organization of timetables:

- De facto increase the frequency of the international service and create a good alternative to all the passengers that cannot buy a seat on the EC trains
- Create new connection between intermediate stations, which have a very high tourist potential

→ more rail passengers and less cars and flight trips

Luino line – reserved for freight

The railway peculiarity of Luino-Bellinzona are the following:

- High freight traffic, from Northern Europe through Gotthard tunnel, directed to intermodal terminal HUPAC in Busto Arsizio, Novara freight terminal and Genova port – bypassing Milan
- Modest passenger service (line S30 with a headway of 120min in the afternoon and a long time without service during the morning)

Future development:

- Long-term plans for construction of a new one-track tunnel across the border to increase the capacity for freight traffic
- increase the passenger service to a 60min headway for the line S30



Gotthard Line – who decides?

Conflicting international and regional timetables:

- Since 2008 SBB and Trenitalia have decided the slot for the international trains
- From this date, all the regional offer has been built according to that
- A few years ago the timetable of international trains has been changed, shifting it by 15min, creating a lot of conflict with the regional traffic, in particular in Lombardy

Lack of interoperable rolling stock and infrastructure issues:

- Suburban line S11 Milan-Como-Chiasso is partially operated with new double-deck trains but these cannot pass in the Monte Olimpino 1 tunnel, due to clearance issues → the intention of Trenord is to cancel this service from Como to Chiasso
- Actually there are no connections at Como → if S11 service is limited at Como, the cross-border regional traffic will be split, losing a lot of users

TILO network – Ticino-Lombardia regional rail

- New train company from 2004 – Joint Venture FFS/SBB-Trenord
- 54 FLIRT dual-voltage 4-6 cars EMUs
- 4 local (S) and 1 fast (RE) cross-border regional services between Canton Ticino and Regione Lombardia
- 14 million passengers in 2021 (16.7 in 2019)
- 7 million train-kms
- Services integrated with both Swiss and Italian local rail networks, including Milan's S-Bahn



TILO network – Ticino-Lombardia regional rail



Year by year the Tilo network has been improved, adding lines and improving the existing ones.

- All the S lines have at least 30min headway except for the S30
- The new Ceneri base tunnel has allowed faster and direct RE connection between Locarno, Lugano and Milan
- Reopening of the stops between Bellinzona and Airolo thanks to the diversion of freight and long-distance fast trains through the Gotthard base tunnel
- Opening of lines S40 and S50 to Varese and Malpensa

New!

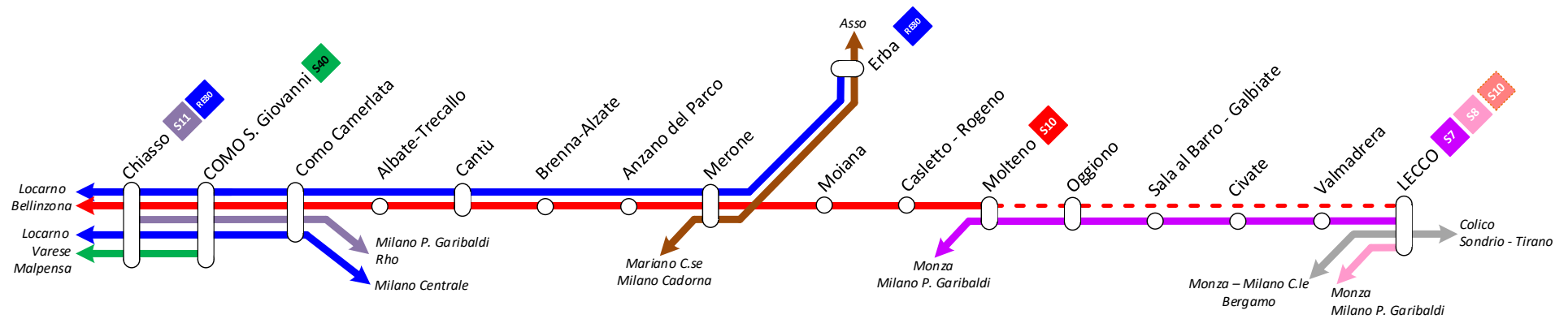
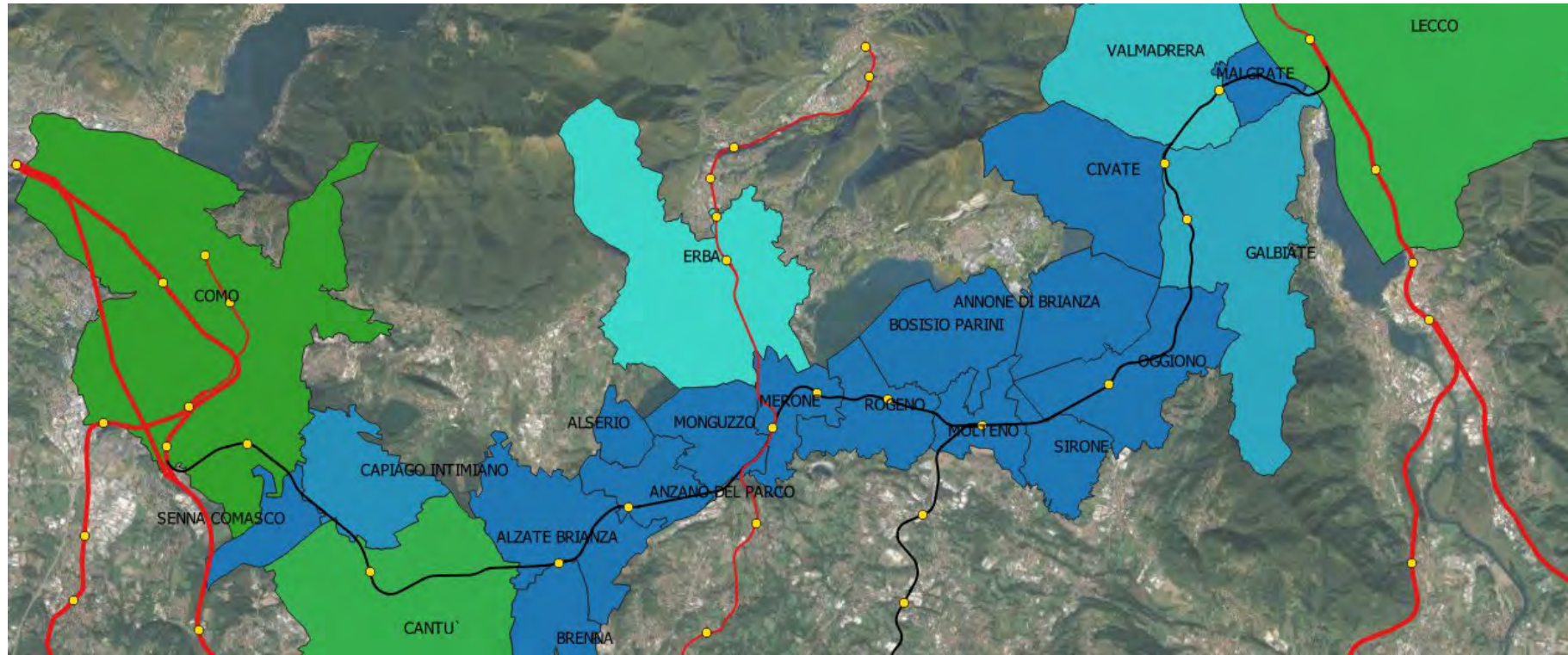
Varese – Mendrisio line



New international rail link:

- Opened in 2018
- 17.5 km – 7.5 operating, 3.5 rebuilt and 6.5 built new
- First new cross-border railway between Italy and Switzerland since 1926
- Creates a new, faster and direct link between the Italian provincial capitals of Como and Varese...
- ... as well as a faster connection to Malpensa Airport from Ticino
- For the connection Como-Varese via Mendrisio (Switzerland), a mixed Italian/Swiss fare is applied (+25% compared to the longer but domestic route via Saronno). These fares are too high and decrease the attractiveness of the service

Next step – Como-Lecco line



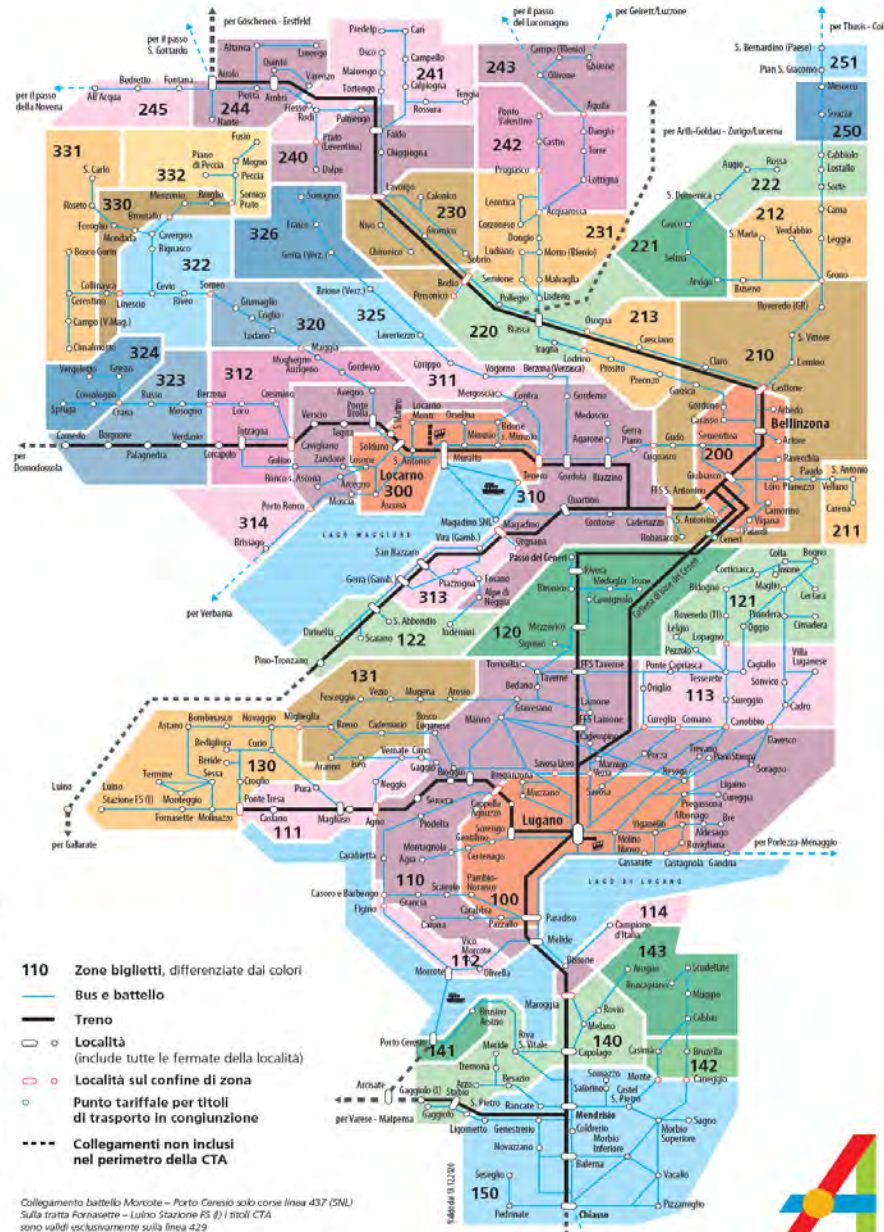
Next step – Como-Lecco line

Possible extension of TILO network:

- The line Como-Lecco actually is single track, not electrified. There is an infrequent local service operated with DMUs from Como to Molteno, where there is the connection to Lecco with line S7 from Milan
- Electrification of the whole line has been approved → in 2026 the line will be completely electrified
- This project will allow new through cross-border services, providing an effective public transport alternative to heavily car-dependant cross-border workers

TILO Fare system

Comunità tariffale Arcobaleno – Piano delle zone
arcobaleno.ch – info@arcobaleno.ch



BIGLIETTI



TILO Fare system

- In Canton Ticino there is the integrated fare system “Arcobaleno”, while in Lombardy only Milan suburban area has an integrated system
 - TILO tickets on the Italian side are only valid on Trenord services and generally only available for destinations on the TILO network
 - TILO tickets are not sold on Trenitalia.com
- In Italy the long distance trains (Trenitalia-SBB EC) have compulsory seat reservation and different fares from regional TILO/Trenord trains; EC tickets are not sold on Trenord.it
- Cross-border fares are exactly the sum of the Italian and Swiss stretches. For Italian passengers, who have lower economic power compared to the Swiss, these prices are too high → it is necessary to create more attractive fares, especially in order to increase the share of cross-border workers choosing the train

Tickets – where to buy?



SEARCH

JOURNEY SELECTION

PERSONAL DETAILS AND PAYMENT



EC 156 ⓘ
08:10 — 1h 40min — **09:50**
Milano Centrale — Lugano
Details ⓘ starting from **24,00€** ▼

TRENORD 25510 ⓘ
08:43 — 1h 15min — **09:58**
Milano Centrale — Lugano
Details ⓘ **Select** ▼

EC 314 ⓘ
09:10 — 1h 18min — **10:28**
Milano Centrale — Lugano
Details ⓘ starting from **24,00€** ▼

TRENORD 25512 ⓘ
09:43 — 1h 15min — **10:58**
Milano Centrale — Lugano
Details ⓘ **Select** ▼

Trip suggestions

Travellers and extras

Summary and payment



RE 25508 ⓘ
07:43 - Milano Centrale — 1 hour, 15 minutes — Direct
08:58 - Lugano
First class **22,00 €** | Second class **14,00 €** | ▼
BIGLIETTO TILO + CTA

EC 156 ⓘ
08:10 - Milano Centrale — 1 hour, 40 minutes — Direct
09:50 - Lugano
Not purchasable ▼

CHAT

Menu

Search

Buy

Sign in

English

SBB CFF FFS

Milano Centrale → Lugano

Mon, 06.06.2022. Departure 07:51. [Change](#)

Search earlier connections

Standard view ▼

Duration

Change
trans.

Occupancy rate

EC Direction Basel SBB
08:10 — **09:50**

1 1 h 40 min 0



RE Direction Locarno
08:43 — **09:58**

1 1 h 15 min 0

from CHF 10.30



Vigezzina & Bernina – meter-gauge wonders

Multi-purpose railways adapting to new scenarios:

- Connect remote mountain villages to regional centres
- Local links for cross-border workers
- Filling gaps for faster intra-Swiss journeys through Italy
- High tourist potential – tourist attractions in their own (the Bernina railway is on the World Heritage Sites list)
- Fully integrated on the Swiss side, “stand alone” on the Italian side → reducing the international scope

Future perspectives:

- After the opening of the Gotthard base tunnel, part of the intra-Swiss traffic has switched to the new higher speed connections
- → Re-focus on the tourist market (new panoramic trains, tourist packages...)
- Revenues should be used also to improve local/regular public transport functions

