

Northern Italy Restores Regional Rail Service for \$4 Million/Mile

By Richard F. Tolmach

On every side of the Alps, remarkable railway enterprises are redefining what is possible with new thinking applied to old infrastructure. Californians need to wake up, because at the same time our state seems unable to build new local rail or high speed tracks for less than \$70 million a mile, Europeans are showing how to do it for as little as \$4 million a mile.

In Italy's Val Venosta, a regional branch line that had grown weeds for 15 years is now an engine for tourism and eco-friendly development. It is a model very worthy of emulation because it combined low capital cost, a popular and affordable service plan, full handicapped access, sensible reuse of a historic resource, and encouragement of smart growth along a 37 mile corridor.

The 2005 upgrade of the line used the same type of lightweight diesel-electric multiple unit trains recently chosen by Denton County, Texas. The entire cost of the Val Venosta reconstruction project was apparently less than \$150 million, including all the new platforms and 11 cars.

The Val Venosta's complicated social history restrained its economy for much of the 20th Century. Until World War I, the region was part of the Austrian Empire's province of Tyrol. The valley has a multicultural feel, with Tyrolean German spoken as much as Italian. Virtually every place name has an Italian and German version.

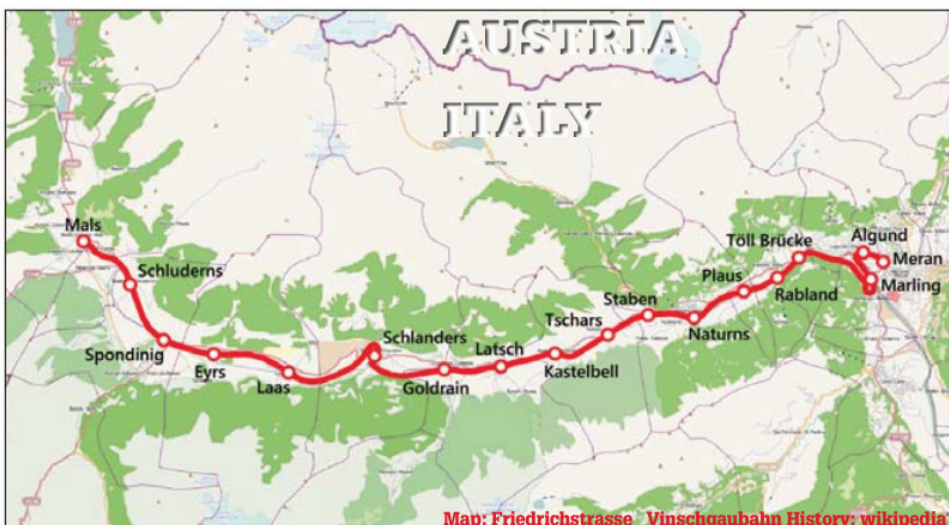
The Val Venosta railway was opened in 1906 by the Austrian private railway company AG Vinschgaubahn. It was built through the Venosta Valley along the Adige River from Meran to Mals. The line was originally meant to connect on its west end to Switzerland and Austria, but the war and division of Southern Tyrol from Austria put that idea on ice.

The Südtirol region was occupied by Italian forces in November 1918 and annexed pursuant to the Treaty of St. Germain in 1920 as the Alto Adige. Service was taken over in 1918 by the Italian State Railways (Ferrovie dello Stato) but Rome didn't seem to have much use for the line. For the next 60 years, FS did relatively little for the infrastructure of the railway.

Rumors of impending closure of the line started in 1961. Hardly any freight was hauled since the decision of the Venosta Valley cooperatives in the 1960's to transport fruit by highway.

In 1985, there were some hopes of modernization, as renewals of various sections of tunnel and track were done, for example, between Tschars and Kastelbell. On the other hand, most of the railway still dated from 1905. Electrification of the adjacent Meran-Bolzano tracks in 1934 made the Val Venosta line a costly stand-alone operation.

FS had an ever-increasing operating deficit and was determined to dismantle routes, especially ones with deficient infrastructure on the periphery. By 1987, the Venosta Valley railway was classified as a "ramo secco" (dry branch) and targeted for abandonment.



Map: Friedrichstrasse Vinschgaubahn History: wikipedia



Ridership success on the lightly populated Val Venosta line has led to a study of a new line to Switzerland.

The period was marked by conspicuous indifference by FS to traffic. In the 1980s, during the summer months with the most tourist traffic, buses were specially hired from Lombardy to replace trains, ostensibly to allow staff vacations or tunnel maintenance. On June 9, 1990 the last scheduled FS train rolled through the Venosta.

Buses run by the Südtirol/Alto Adige regional operator SAD took over service. Discontent by locals and tourists with the increase in road traffic in the Val Venosta led to many voices calling for a reopening of the rail service, including a threatened tax strike.

In 1999 the line was turned over to the South Tyrol regional government, which rebuilt it from 2000 to 2004 under the leadership of the STA Transportstrukturen Ltd., a publicly-owned enterprise. Regional bus operator SAD Transport Ltd and the SBA (Südtiroler Bahnanlagen GmbH - Infrastruktur) participated in the project. The operational concept was developed by Willi Hüsler engineers from Zurich.

Though life-expired rails and crossties had to be entirely replaced, even this proved to be advantageous. The new infrastructure uses Y-shaped metal crossties that are more stable than concrete ties for light trains, require less capital cost and are cheaper to maintain. Also, the fact the old rails never had been removed in the decade and a half of abandonment preserved the right-of-way from alternate uses such as highways, and the line never completely disappeared from public consciousness.

Historic train stations were restored and, where necessary, supplemented by new buildings in a uniform modern design. At several stops, station buildings were converted to bicycle rental businesses. The restored line has parallel bikeways and offers a travel pass which includes bike rental.

The revived Val Venosta railway makes full use of the low-floor capability of the new cars by providing level boarding at all stations. No lifts, or expensive high platforms or other measures are required, so seniors and handicapped find the service very accessible. Cars have "Flexi" space adjacent to each door with ski

racks, bicycle racks, fold-down seats and open area for wheelchairs and strollers.

Meran station and several other train stops serve as hubs linking to the integrated SAD bus network. From the re-opening of the line in May 2005, trains departed hourly matching the rhythm of bus schedules, which for a period of time remained unchanged in the Val Venosta.

This trial operation phase was intended to gain experience in operating and identify needed improvements. To keep travel time from Mals to Meran around an hour,

a set of expresses now runs in the peaks, but east of Kastelbell stops only at the larger towns. These trips fill in to provide roughly half hour coverage in bigger markets. A few daily GTW runs also serve Bolzano, filling in missing commuter runs on the Trenitalia-operated Meran-Bolzano line.

By 2007, traffic on the "dry branch" to Mals overtook that on the Trenitalia mainline from Bolzano over the Brennero Pass. Trains are often overloaded in summer, and bicycle capacity is often inadequate. Because of this, cyclists are only served at some stations, with preference given to bicycle pass holders.

Timed Swiss PostBus connections to Zernez serve the majority of trains. In 2010, a century after original plans, a feasibility study began considering a 40-mile rail link westward from the Val Venosta into Switzerland's Lower Engadine. It is intended to close the biggest remaining strategic gap in the European railway network. Given the frugal ethos of the region, it is likely to cost no more than \$30 million per mile.

California has not been so frugal or smart about its rehabs of railways or use of DMUs. Although both Northern San Diego County's Sprinter and Sonoma-Marin's SMART took over old rail grades and rebuilt track, costs were much higher than in Europe.

Largely due to freight accommodation, average cost per mile on Sprinter was \$22 million. SMART's board balked at the price tag for a more lavish system and chopped expenditure down to a 38-mile line, which is coming in at about \$8 million per mile, far better than Sprinter but substantially higher than most European DMU startups.

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Level boarding at low platforms speeds Val Venosta trains. Despite 2.9% grades, trains now average over 30 mph.