

Media release

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Tailor-made technology to link Switzerland and Italy

Stadler is presenting the new electric metre-gauge multiple unit for Ferrovie Autolinee Regionali Ticinesi (FART) at InnoTrans. Eleven further vehicles customised for the operators of the Vigezzina – Centovalli Railway will follow.

One railway line, two operators. Trains running on behalf of both the Swiss company FART (Ferrovie Autolinee Regionali Ticinesi) and the Italian company SSIF (Società Subalpina di Imprese Ferroviarie) have been travelling between Locarno in Ticino and Domodossola in Piedmont for a hundred years. Although the line is only 52 kilometres long, it has no fewer than 83 bridges and 31 tunnels and is considered one of the most beautiful in the world due to the picturesque valleys and wild gorges it passes through. Both railway operators target commuters and tourists alike with their services, operate jointly in the region under the "Vigezzina – Centovalli Railway" brand, and place the focus firmly on innovation and new technologies when it comes to rolling stock. With Stadler, they have the right partner at their side. The next generation of vehicles for the Vigezzina – Centovalli Railway is precisely tailored to the needs of each operator and equipped with the latest comfort features that will define the future of rail travel. The first multiple unit was built for FART and will be on show at InnoTrans in Berlin at the end of September.

Low-floor multiple units that operate in multiple traction

The operators of the Vigezzina – Centovalli Railway will receive a total of twelve electric low-floor multiple units:

- four four-car ABe 8/16 multiple units, which will run on cross-border services between Switzerland and Italy for FART in the future,
- four three-car ABe 6/12 multiple units intended by FART for regional services in the Centovalli (Locarno-Camedo), and
- four ABe 8/16 four-car multiple units for use by SSIF both for regional services from Domodossola to Camedo and for international services to Locarno.

The multiple units are 63.4 and 48.9 metres long respectively and can accommodate 338 passengers (128 seated, 210 standing) in the four-car version and 258 passengers (95/168) in the three-car version. They can also be assembled to form two-car ABe 4/8 trains (34.5 m long), offering space for 174 passengers (49/125) in this configuration.

Accessible rail travel

During the development stage, Stadler paid particular attention to accessibility for people with disabilities and people with reduced mobility (TSI PRM). The cars feature wide double doors (1,200 mm) to allow rapid passenger changeovers, as well as low-floor entrances and sliding steps that bridge the gap between the doors and the platform to facilitate accessible boarding and alighting. Two spaces are provided in the end carriages for passengers with wheelchairs or walking frames, with adjacent folding seats for their travelling companions. There is also a disabled toilet with a changing table in every vehicle. Bicycles, pushchairs and bulky luggage can be stowed in the newly designed multifunctional compartments right next to the entrance doors.

During the journey, HVAC systems and air-sprung bogies ensure modern travel comfort. Large windows, even in the low-floor area, offer a fantastic view of the passing natural surroundings and cultural attractions. An innovative passenger information system and WLAN reception on the entire route complete the modern travel experience on the new FART and SSIF trains.

Safe travel on narrow-gauge tracks

The Vigezzina – Centovalli Railway is a narrow-gauge railway (1,000 mm) that crosses the two Alpine valleys. There is no alternative for negotiating the extremely winding route smoothly and with no jolting (348 bends, tightest radius of 42 metres). Between Trontano and Masera, the trains have to climb gradients of up to 60 percent. The adhesion multiple units can do so without assistance (rack and pinion) thanks to Stadler's powerful traction equipment. The technology behind the vehicles consists of a 1,350 V direct current from the overhead contact line, 125 kW wheel power per motorised bogie, and 500 to 1,000 kW total power at the wheel (two-car / four-car set). A tractive force of 80 to 160 kN (depending on the configuration) enables the trains to achieve a starting acceleration of 1.15 m/s² (gross) and a maximum speed of 60 km/h (designed for 99 km/h).

Modern, efficient and environmentally friendly

The low-floor multiple units for the Vigezzina – Centovalli Railway are built from a modular construction kit. The car bodies are made of lightweight aluminium, while drive equipment redundancy ensures high reliability. The impressive, elegant design of the outside of the trains, which continues inside the cars, will represent the face of the narrow-gauge railway in the

future. The modern style and the elegant Stadler front give the multiple units a particularly dynamic look.

Passengers can expect modern comfort, accessibility and state-of-the-art communication in the new multiple units. At the same time, they offer operators the opportunity to transport more passengers than before and to make railway operations in general more efficient, sustainable and environmentally friendly thanks to the varied configuration options as two-, three- or four-car multiple units. The new local trains will be put into operation on the Vigezzina – Centovalli Railway from 2025 (2025 for FART and 2026 for SSIF). The first multiple unit for FART will be presented at InnoTrans on track T09/50 at 14.30 on 26 September 2024.

Stadler at InnoTrans 2024

24 to 27 September 2024

Messe Berlin

Hall 2.2, stand no. 230 + outdoor area

About Stadler

Stadler has been building trains for over 80 years. The provider of mobility solutions in rail vehicle construction, service and signalling technology has its headquarters in Bussnang, eastern Switzerland. It has a workforce of over 14,500 based in various production and engineering locations as well as more than 80 service locations. The company is conscious of its social responsibility for sustainable mobility and therefore stands for innovative, sustainable and durable quality products. The product range in the field of mainline railways and city transport includes high-speed trains, intercity trains, regional and suburban trains, metros, tramways and trams. Stadler also manufactures main-line locomotives, shunting locomotives and passenger carriages. It is the world's leading manufacturer in the rack-and-pinion rail vehicle industry.

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