

Persistently Pursuing FTTH



Panorama of the Rhine Valley, Switzerland (Buchs on the right). Photo: Stefan Kaiser 050.6515

«We serve the citizens.» EWB Director Markus Schommer and his team resolutely work on their mission of guaranteeing local customers the best possible supply. And that includes Fiber to the Home.

The electricity company and waterworks in the town of Buchs (EWB) in Eastern Switzerland has been serving local citizens for 115 years. Ambitiously, the municipal company seizes every opportunity it can at an early stage to incorporate future trends as part of its mission to supply the local community. The authorities and citizens of Buchs are open to innovations.

Currently Fiber to the Home (FTTH) is becoming a further milestone. Together with R&M and experienced cabling partners, the supplier is connecting one area of the town after another. EWB is investing considerable sums of money in a highly efficient network for the digital era. And the company's inno-

vative spirit can be seen here, too: The EWB team is taking care of project management itself instead of commissioning a general contractor.

Ninety percent by 2020

By 2020 90% of the town of Buchs will have an FO network. That represents nearly 7,000 dwelling units. And EWB is not prepared to be slowed down by high civil engineering costs, rocky ground or any other topological obstacles. If required, individual solutions are found for cabling. For example, it is possible to switch to the power grid. For FO installations and connections within buildings, EWB and Rii-Seez-Net are providing support in collaboration with local tradespeople.

Most private households and local companies are enthusiastic and are booking complete packages: Telephone, Internet, IP TV/radio, web hosting and more – everything from Rii-Seez-Net, everything over EWB fiber optics or coaxial cable. «The customers are interested in the innovative products which run on the net such as flat rates, fixed lines and the networking of company sites,» says Markus Schommer.

EWB is forecasting a Return on Investment period which is just half as long as in comparable projects. Others can learn from this. EWB is offering suppliers who are building their own FTTH networks the chance to exchange experience.

How a cable TV network became top-flight FTTH

The former cable TV network and its gateway exchange form the germ cell for the FTTH network of the town of Buchs. Four new or at least modernized POPs distribute the signal over 50 street cabinets, feeder network and drop cable to the building or households. EWB builds up to the building entry point (BEP).

On its own initiative, EWB invests more than regulations require. The company lays four fibers into each house. At the POP locations, there is even space in the pioneer shaft for colocation partners so that the digital services can be extended in the future.

Herbert Huser, Head of Strategic Projects at EWB, explains the above-average commitment as follows: «We follow the best possible standard at all times and have thus been implementing the four-fiber module from the outset. The fact that R&M is a good, long-established partner of Swisscom also played a role in the choice of R&M as supplier. For us Swisscom is an indicator; we want to offer exactly the same standard.»

R&M solution for Buchs: innovative, modular and tailor-made

EWB does not just see innovation readiness and total commitment for the customer as being purely its own mission. Both are also expected of suppliers and project partners.



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EWB: We supply Buchs

The electricity company and waterworks in the town of Buchs (EWB) in Eastern Switzerland was founded in 1902. It has more than 90 employees working in eight business areas. «We guarantee the safe full supply of electricity, water and communication,» is the self-declared mission of the public company owned by the town. The Communication Division, which takes care of the cable network and the new FTTH network in Buchs as well as the regional Rii-Seez-Net, makes a considerable proportion of the annual turnover.

As early as 1975, EWB built the first cable TV system – at the time with coaxial cable. The first FO cables were laid in 1987. Shortly after the turn of the millennium EWB started to drive forward the joint setup of the regional telecommunication network Rii-Seez-Net.



Further stages: In 2011 the company created its own IT department which provides IT services to 3,200 business customers. In 2016 EWB opened up the first public and free WLAN access point in downtown Buchs.

EWB not only works in an exemplary manner in terms of communication technology, but also in ecological terms. Electricity for the customers in Buchs is exclusively from renewable energy sources. Proprietary water-power plants and photovoltaic systems satisfy a quarter of the local electricity requirement. Furthermore, EWB promotes electromobility, environmental protection and health protection. The director himself goes out to local schools to teach students about saving energy.

www.ewbuchs.ch

«R&M's high innovation readiness was, and is, really important for us as is the fact that we are talking about a Swiss company here. Modularity and warranty are also of major importance in our collaboration,» says the EWB management. R&M supported the FTTH expansion to suit the customer's needs, long term and innovatively, and also contributed to process optimization.

EWB feels that the R&Mfoxs range is perfect for the use of the four-fiber model and gradual network expansion. Due to the modular principle of the R&M solution, EWB can plan the roll-out in manageable stages instead of having to invest in full expansion at the beginning. The cabling in the POP locations can be scaled at a later date with very little effort.

Optical Distribution Frames (ODF) from R&M are the most important distribution platform for the FTTH network in Buchs. In the gateway exchange, the POP buildings and street cabinets, a total of 50 ODF cabinets are installed, that is eight to 13 cabinets per station. They are equipped with 110 ODF splice boxes, the CombiMODULE and inserts.

«R&M is a reliable partner and saves customers a lot of work.»

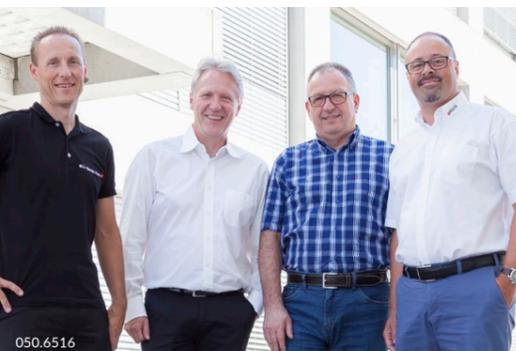
Franklin Fust, Planning and Communication Rii-Seez Net, EW Buchs

The nodes usually have a capacity of 23,000 to 28,880 fibers. Overall EWB attains a favorable relation between high packing density and the costs or investments per port.

EWB also found the R&M Raceway System for fiber routings in the POP locations compelling. «It gave us great advantages in assembly and the laying of cables,» says project lead Huser.

EWB required a special construction for fiber routing and cable management in some cabinets. «Together with R&M we were able to realize specific solutions. And that's something you don't often find in this form,» says Herbert Huser. «R&M did some fine-tuning and had immediately adapted a component. And now it is also available to other custom-

ers,» says Franklin Fust from Planning and Communication of Rii-Seez-Net, EW Buchs. In other cases, R&M was immediately willing to adapt ODF cabinets and raceway components. R&M gave the splice company practical training sessions on site and instructed them on the right installation.



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f.l.t.r.: Franklin Fust, Planning and Communication Rii-Seez Net; Markus Schommer, Director of EW Buchs; Herbert Huser, Project Lead for Strategic Projects at EW Buchs; Peter Meier, R&M Switzerland

Rii-Seez-Net

Rii-Seez-Net: up to 300 Mbit/s

Since 2001 there has been an independent telecommunication network in Eastern Switzerland along the border to Liechtenstein which has set itself up in competition to market-dominating carriers. Rii-Seez-Net (Rii stands for Rhine Valley, the Seez is a river in Eastern Switzerland) is the umbrella organization of 17 local cable network operators. EWB took on the function of provider and coordinates technical operations.

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