

PRESS RELEASE

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Broadband expansion in Germany gains momentum

A new record: 500 visitors attend the 8th Broadband Symposium

Garmisch-Partenkirchen, Germany, 4 March 2019 – With almost 500 domestic and international attendees, this year’s Broadband Symposium held in Garmisch-Partenkirchen on 20 and 21 February 2019 set a new visitor record. The event, which was organised for the eighth successive year by local company Langmatz GmbH, has long been a successfully established, central stage for the FTTH sector. “The outstanding feedback for this event serves as an incentive for us to rally support for a topic of this kind,” emphasised Stephan Wulf, Chairman of the Langmatz Executive Board, in his opening address.

On the first day of the symposium, attendees had the opportunity to attend a number of fascinating lectures in the conference building and find out about the current state of digitalisation in Germany and Europe, not to mention current market developments in broadband expansion. Kerstin Stromberg-Mallmann and Josef Lohr, Head of Product Introduction at Langmatz, acted as hosts for this year’s event. The next day, the Olympic skiing facility used for the Four Hills Tournament was converted to an “open house” by Langmatz. The event organiser set up a marquee there to showcase its latest products for optical fibre expansion alongside the product portfolios of its 26 partner companies. The rooms on the jump-off platform – which boast spectacular views over the valley – were used for workshops on broadband expansion. Topics included “Handling optical fibres correctly in day-to-day installation”, “Alternative cabling techniques” and “In-house distribution concepts for optical fibre”. In addition, attendees had the opportunity to travel by shuttle bus to the nearby Langmatz plant in Oberau to look around the different production departments.

Langmatz: a firm fixture on the market

Langmatz is a medium-sized company that specialises in three areas: Power Engineering, Telecommunication and Traffic Engineering. Telecommunication has continued to grow in importance and develop successfully over the past few years, as Stephan Wulf explained in his

introduction: “After 50 years in the market, Langmatz is an established player and a firm fixture.” Boosted by broadband expansion projects, overall turnover increased to EUR 90 million last year. Consequently, Langmatz has a solid footing in Germany and other European countries. Wulf continued by stating the following: “What makes Langmatz so unique as a company – and what you no longer find as often in German companies – is a high degree of expertise in all manufacturing processes.” These range from CAD-assisted product design and mould construction to production of the end product on the company’s own machinery. Even the high-quality plastics derived from recycled materials are produced in-house. Alongside numerous products for optical fibre expansion, which range from the central office to the subscriber, polycarbonate manholes that have likewise become a firm feature of FTTH projects are another key component of the product portfolio. Langmatz is a market leader in this segment – both in Germany and in Europe.

How will we bring about a “gigabit society”?

According to Dr Iris Henseler-Unger, Director of the Scientific Institute for Infrastructure and Communication Services GmbH (wik), three major factors will be encountered en route to the “gigabit world” over the coming years: new technology, new customers and new legislation. Optical fibre is a new technology for end customers, as is 5G – and even more mobile communication frequencies are set to be launched onto the market. Dr Henseler-Unger sees the aims of the coalition treaty, such as becoming a leading market for 5G and guaranteeing full mobile communication coverage in rural areas, as still being rather more distant. While the Federal Government seems to be taking all these issues very seriously, including consideration of funding, Dr Henseler-Unger claims that “a great deal still needs to be done to achieve the broadband goal by 2025.” For the companies involved, the basic future infrastructure based on optical fibre will bring countless opportunities for new business models and growth. The altered framework conditions resulting from new legislation – primarily from the EU – will be a good thing for everyone. “However, people are still waiting,” she continued. “The terms may yet improve. What is laid down in legislation is initially irrelevant.” By her assessment, the figures need to stack up for the market.

Digitalisation in Europe: Estonia as a case study

In his lecture, Heiko Voss used Estonia as a case study to describe the progress of digitalisation in Europe. The Director of Voss Telecom Services GmbH and partner in Estonian Fiber drew from a report conducted by Cisco in 2018 to provide an insight into the experience of Europeans with the digitalisation process. According to this study, we are most aware of the increase in digitalisation

in our leisure time (35.8%), followed by the workplace (23.4%). In terms of our feelings about this, curiosity (23.5%) ranks slightly ahead of annoyance (22.8%). However, things in Estonia are very different: “e-Estonia – the coolest digital society” is an unbelievable success story brought to fruition by a partnership between a future-orientated government, an active IT sector and a technically adept population. As outlined in the report, Estonians are very proud of this development; they consider themselves to be a digital society and are less uneasy about this topic. The key objectives of the Estonian government are a more competitive economy, a prosperous population and public administration that is both simple and efficient. Voss explained the successful concept behind Estonia’s digitalisation efforts: “The electronic ID introduced in 2002 and used by 98 per cent of the country’s citizens is really the key element of digitalisation in Estonia.”

Stadtwerke München: Digitalising infrastructure from the previous century

With 1.2 million customers, 9,000 employees and a turnover of around €7.2 billion, Stadtwerke München (SWM) is among the largest energy providers in Germany. Dr Jörg Ochs, Director of SWM Infrastruktur GmbH & Co. KG, described how a large city can press ahead with digitalisation and tap into new business segments through broadband expansion. According to his account, a modern optical fibre infrastructure with a length of 9,000 kilometres serves as a foundation for the digitalisation efforts in Munich. To name just one example, optical fibre connectivity has already been incorporated into all bus shelters ahead of the planned 5G expansion. A free WLAN network with 1,500 access points connects citizens, the largest public TETRA network provides a crisis-proof infrastructure, and a LoRaWAN network serves as an efficient means of cross-linking sensors in the context of IoT and “smart city” applications. New technologies are also being implemented for water-loss management, for instance. “Our aim is AI-based analysis of audio data,” Ochs explains. To this end, hydrant sensors are being installed to ascertain where a water leak will occur. The annual investment in TC infrastructure amounts to €50 million. To conclude his lecture, Ochs took the audience on a video tour of an emerging smart city: the M-Quartier, covering 33 hectares.

New cabling techniques: how “H-trenching” can accelerate processes

Fabian Stadelmeier, who is responsible for cabling technology at Leonhard Weiss GmbH & Co. KG, used his lecture to give an insight into trenching developments in Germany from the perspective of a civil engineering company. The “H-trenching” process (where the “H” stands for “high-grade”) is a cabling technique for network expansion which involves cutting asphalt surfaces open to lay conduits underneath. This procedure, which has already been successfully employed by Leonhard

Weiss for several years, can increase the speed of expansion sixfold, improve the efficiency of construction processes and reduce costs by ten to fifteen per cent. Stadelmeier drew on a practical report from his own company to emphasise the fact that successful implementation of this method is entirely contingent upon compliance with specific quality criteria, and that it is not a universal solution for every road surface. According to Stadelmeier, the fact that various techniques are used in the procedure is cause for confusion over its precise form among municipal authorities, network operators and construction companies alike. He made the following recommendation to representatives of the federal government, state governments and municipal authorities: "We must develop the knowledge document 'H-trenching' into a draft standard which will stipulate adherence to the quality grades."

Results of the panel discussion on trenching in civil engineering

The panel discussion held afterwards addressed the question of whether trenching should be considered as an alternative cabling technique of the future, or a potential source of errors in network expansion. Participants were essentially in agreement that application of the procedure depends on the circumstances in each case. One suggestion was to use trenching for certain sections and combine it with conventional civil engineering approaches. As Fabian Stadelmeier had also done in his preceding lecture, many of those present called for clear quality guidelines to be defined for trenching that would eventually become a standard in its own right.

IT security law: consequences for KRITIS service providers

Matias Krempel's lecture concerned the protection of critical infrastructures (KRITIS) and the consequences of current proposed national and supranational legislation. The Deputy Head of the "Audits and Standards" Working Group informed the audience about potential threat scenarios arising from the dependence on telecommunication and electricity in our digital world. "When we talk about protection, we are talking about our threatened assets and how we can protect them," Krempel clarified. He went on to explain that the EU was finalising a new piece of legislation, the "Cybersecurity Act", which concerns essential services and will be applied in Germany in the form of an IT security law. In doing so, the focus on security in the supply chain will be expanded to products, services and processes. Krempel recommends the following: "We ought to set up communities of manufacturers and KRITIS service providers with common interests to assist in formulating the standards and integrating the latter into existing processes."

Langmatz: Protecting critical infrastructure against unauthorised access

The lecture given by Curt Badstieber, who is responsible for technical business development at Langmatz, concerned the products one manufacturer is developing for the protection of critical infrastructure. “We have been experiencing attacks on optical fibres in the form of vandalism and terrorism as far back as the late 1990s,” he stated in his introduction. Langmatz’s answer to these threats to infrastructure is to make attacks more difficult through simple measures. They include developments, such as a mechanical locking system for manhole covers comprising a bolted cover and encoded bolt heads. In cases like this, it is important never to affix logos to external cabinets or boxes to avoid attracting unwanted attention with these signals. According to Badstieber, the question is one of putting in place effective obstacles for potential attackers. A cover with a swivel lever locking system is incorporated into the “version 2.0” mechanically access-protected manhole. This system prevents an attacker from breaking open the locked and sealed component using simple tools. Underground distribution system solutions – one further example – serve to “conceal” infrastructure. If these systems were used, for example, scarcely anybody would realise that there was a mobile-communication station below the ground. Moreover, Langmatz’s portfolio of products for protecting optical fibres includes optical intrusion detection systems. They permit full-coverage monitoring of active fibres and disconnected cables. They also detect unauthorised access to manholes or external boxes and cabinets, making them absolutely interception-proof.

The digital agenda: high standards vs reality in Germany

The fact that the high standards of the “digital agenda” and the reality in Germany are poles apart was reinforced by Jürgen Vogler, Director of procilon IT-Solutions GmbH, in an entertaining lecture that brought the day’s events to a close. He covered poor internet speeds, the Federal Government’s broken promises concerning broadband expansion, problems with funding, quarrels over the auctioning of licenses for 5G networks, and even the ballooning cost of the new airport in Berlin, to paint a picture of the current situation in Germany – all without a shred of self-deprecation. Vogler does not consider digitalisation to be an end in itself: “We need to act intelligently.” His philosophy calls for digitalisation that is smart and as secure as possible.



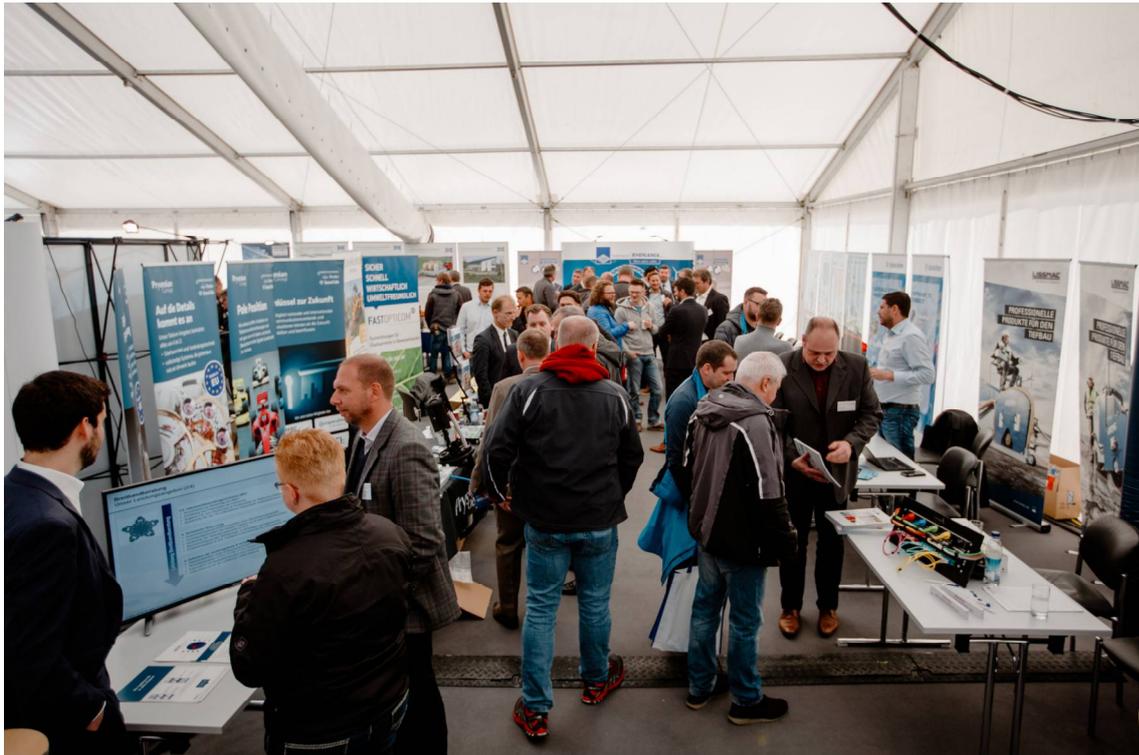


Image captions:

Image caption 01: Stephan Wulf, Chairman of the Langmatz Executive Board, gives his opening address for the 8th Broadband Symposium.

Image caption 02: Broadband Symposium: experts discuss the advantages and disadvantages of trenching in broadband expansion. (In the photo, from left to right: Albert Hauptstein, Martin John, Wolfgang Heer, Professor Rolf Schrodi, Volker Braun and host Kerstin Stromberg-Mallmann)

Image caption 03: Crowds at the open house: in conjunction with 26 partner companies, Langmatz showcases the latest products for optical fibre expansion.

Press contact

UTZ pr GmbH
Oliver Utz
Hindenburgstraße 47
82467 Garmisch-Partenkirchen
Germany
Tel.: +49 (0)8821 94607-00
Fax: +49 (0)8821 94607-99
o.utz@utz-pr.de
www.utz-pr.de

Langmatz GmbH
Ines Rösch
Am Gschwend 10
82467 Garmisch-Partenkirchen
Germany
Tel.: +49 (0)8221 920-0
Fax.: +49 (0)8821 920-159
i.roesch@langmatz.de
www.langmatz.de