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PROJECT REFERENCES

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An update on current Prysmian Group FTTH projects in Europe and the Middle East

Each FTTH project varies in size, shape and environment. That's why the Prysmian Group has the ongoing challenge of standardizing and automating the process of designing, building and managing each individual section of the network construction supply chain. This applies to the entire process, giving fine control of the supply chain from product inventory through to the end consumer registration identification. This thoroughness can result in substantial cost-economies in Capex and Opex.

Fibre cable is the best, safest, fastest and most future-proof communication medium, which is why it is used on a massive scale. Fibre offers the best prospects for the fixed network. Unlike VDSL and cable, it has low latency (symmetrical bandwidth), offering the same high speeds for both downloading and uploading data. The inherent speed of fibre is extremely high (Gbit/s levels). Once a fibre infrastructure is in place, any future improvements in speed could be passed on to the user without streets having to be dug up. Satellite broadband services (still prone to adverse weather conditions) are now approaching the level of VDSL, with similar limitations of upload/download. Here, too, Prysmian offers fibre connectivity solutions.

The access network (the last part linking homes and business premises to the district exchange), continues to be a challenge. In order to provide an infrastructure for citizens which would support a full-service, super speed Internet and IPTV connection, fibre is a requisite for the 'last kilometre', the link between the exchanges and the users. This requires more investment, but offers the important advantages of a longer depreciation period and a future-proof solution for customers.

Within this broad overview, the Prysmian Group customer examples shown here illustrate the constant need to re-invent FTTH delivery solutions to ensure that communities connect to a high speed, global network at the lowest cost

Prysmian Group pole-mounted Distribution Point facilitates BT UK FTTP rollout.

BT will deploy Prysmian Group pole-mounted Distribution Points to roll out superfast ISP technology to customer premises. Prysmian Group supports the BTOpenreach plan to provide all ISPs with equality of access for the last kilometre of BT's local telecom network.

Prysmian Group, the sole BT partner, has designed and manufactured a pole-mounted overhead Distribution Point (DP) cabinet which is now available for high volume FTTP deployment. A distribution point (DP) can either be buried or situated outdoors as for the case of this pole-mounted version which can redirect fibre to customer premises for situations where buried cables are not an option to bring fibre to the premises.

This new cabinet is specifically designed for overhead final drop requirements, eliminating the need for a joint box at or near the pole. The pole-mounted fast access cabinet is designed for easy connection in two versions with up to 12 or 32 address points. The units are field tested, with the lockable green cabinet blending into the environment and protecting the splice trays inside.

BT simplifies the upgrade of FTTH telephone exchanges with this flatpack-delivered Optical Consolidation Rack

For its ongoing BTOpenreach program BT chooses Prysmian Group as its preferred partner to turn an innovative OCR Exchange concept into reality. BT and Prysmian Group co-designed the OAsys Optical Consolidation Rack to upgrade BT telephone exchanges around the country. Special feature – they allow splicing of network fibre to pre-connectorised cables thus avoiding the need for individual cable jumpers.

The OCR is a splice-only solution for FTTH PON networks with multiple customers on the same fibre to eliminate congestion. Delivered in a flat pack format the units can be assembled easily by one person. The OCRs accommodate up to 8 sub-racks with 12 pull-out modules and 6 splice trays. Their total capacity allows 1152 fibres on a dual fibre per tray basis.

CERN (European Laboratory for Particle Physics) extends contract with Prysmian Group

This year CERN extended its contract with the Prysmian Group to install and maintain the fibre infrastructure around its Large Hadron Collider (LHC), the world's biggest particle accelerator. One of the key factors in CERN's choice of partner is the flexibility and cost-effectiveness of Prysmian Group's Draka JetNet^{XS} microduct fibre blowing technology. The LHC is located in a 3.5m diameter circular tunnel with a length of 27 kilometres, about 100 meters underground in France and Switzerland.

The Draka- invented blowing system is an Innovative fibre cabling approach which allows for the miniaturization of the CERN fibre network by using smaller diameter cables in smaller microducts. With JetNet^{XS} blowing technology fibre can be blown through the ducts in the CERN tunnels up to 3.4 km at speeds of 100 m per minute. This proven technique allows rapid network expansion requiring new cables, or the replacement of old cables with radiation damage.
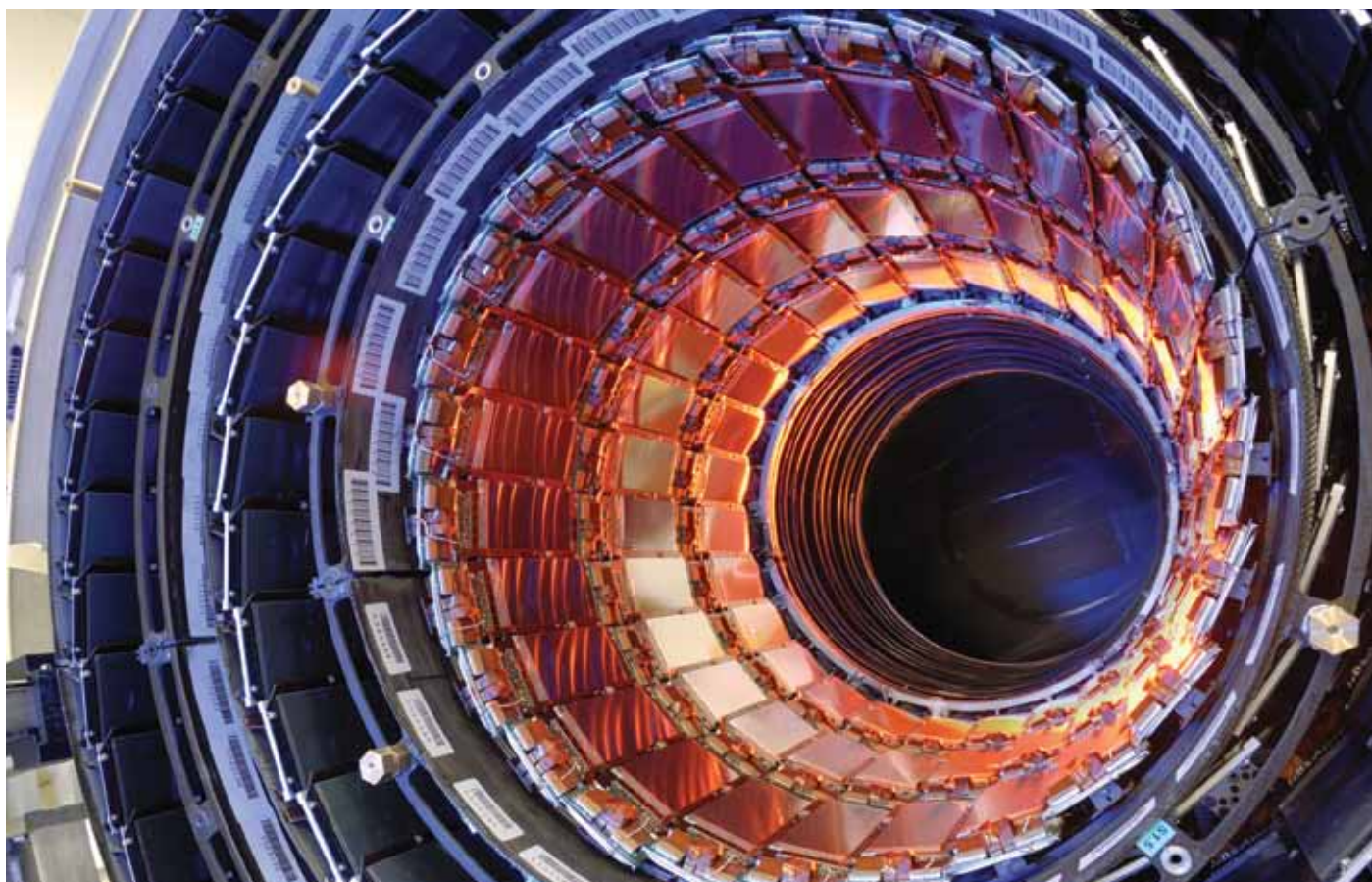
Latvia benefits from MDU-intensive FTTH solution

Latvia's largest operator Lattelecom speeds up subscriber fibre connections with the Prysmian Group Verticasa riser solution for Multiple Dwelling Unit customer fibre connections. Latvia, with its 2,2 million inhabitants is now one of the top 10 countries in Europe in terms of FTTH penetration. The Prysmian Group Verticasa system is proving to be the most cost-effective solution to bring fibre efficiently to MDU residents in Latvia.

To date there are over 1500 km of Verticasa riser cables and thousands of Prysmian Group connectivity products installed in the country's high population density cities. The VertiCasa^{XS} main riser cable uses up to 96 fibres branched directly to customers on different floors of the high rise apartment blocks. Currently the Lattelecom FTTH network passes 400,000 homes, of which around 73,000 are connected with this Prysmian solution. Compatible connectivity products and all of the required accessories rapidly complete a FTTH installation from the main fibre distribution point to the end user.

Netherlands Local Government FTTH initiative automated with smart software

Prysmian Group streamlines FTTH network outbuild through the use of Draka XSNet Automated software. This software allows seamless integration with any network operator administration system to speed up registration. The suite was instrumental in the successful deployment of CityNet, the largest FTTH infrastructure in The Netherlands, currently with more than 40,000 customer connections.

The same automation benefits are possible for the smaller emerging broadband communities such as local government driven projects, requiring cost-effective deployment. Berkelen Rodenrijs, a suburb of Rotterdam (covering an area of 18.91 km², with 23,000 inhabitants), completed a successful fibre rollout to 6,000 homes with an ease and cost-accountability made possible by the use of the Prysmian Group software suite. Linking the town's new fibre infrastructure to the local network provider is a simple data transfer, without manual intervention. Network connections can be mapped in Google Earth.

Netherlands fast access method uses retractable direct buried cable

Prysmian Group helps Dutch contractors reduce deployment costs with special retractable fibre that eliminates the need for splicing. Prysmian Group RetractaNet^{XS} 'cut and retract' outdoor buried cable provides efficiency for direct buried drop deployment in soft soil.

This final kilometre solution is Ideal for speedy installation in direct buried and right of way access conditions without incurring digging expenses. It offers a measurable benefit through the ability to reduce the Total Cost of Ownership by eliminating splicing and reducing labour costs in the access network. Drawn or blown fibre delivery options also offer the alternative of using bend-friendly BendBright^{XS} fibre for resilience in tight turns, as well as space savings

Energy City Qatar specifies BendBright^{xs}

Energy City Qatar deploys BendBright^{xs} in an ambitious Middle East site devoted to Energy R&D. The Middle East's first energy business centre in Qatar - Energy City Qatar - deploys BendBright^{xs} bend-insensitive fibre in the first of its ambitious energy cities projects in the Middle East. For Energy City Qatar, Prysmian Group has responsibility for the design and engineering of the entire network and POP location, supply of all materials, all installation, commissioning and final documentation.

Three separate networks support the Energy City - IT and Datacoms, a security CCTV network for external and internal building protection and an additional CCTV network for street surveillance. A key part of this solution in Qatar involves blowing the fibre cables through micro-ducts with JetNet^{xs} - jets of air from a central point up to more than a kilometre away, extending fibre reach at 100 meter/minute.

UK real estate developers add FTTH value to new houses

Prysmian Group and Independent Fibre Networks build in future-proof next generation Triple Play facilities to attract new home buyers. Prysmian Group QuickDraw^{XS} pre-connectorised system simplifies the provision of a final customer drop with rapid home connections, requiring no technical skills.

From the developer site plans, a Rapier 144-fibre access ring with Connectorised Lead-in-Joints with splitters allows 8 customer drops from a single fibre. Home owners are activated by simply plugging a Lead-In-Assembly between the CLJ and the home Demarcation box. As the site and network grows, 12-fibre Rapier extensions allow expansion according to customer needs

Sweden's IT VÄSTERBOTTEN finds arctic solution

Scandinavian operator IT Vasterbotten no longer waits out the winter conditions to connect FTTH networks in rural Finland and Sweden. Prysmian Group's highly effective Sirocco^{XS} fibre blowing system is a strategic choice to deploy FTTH networks in the local hostile arctic weather.

Prysmian Group Sirocco^{XS} flexibility and scalability allows easier network design, installation and configuration than conventional optical system connectivity methods. Scirocco fibre is blown into place for a variety of network locations. Fibre units have been blown in a wide range of climatic and extreme weather conditions across Sweden and in neighbouring Finland.

Satellite TV acknowledges benefits of VerTV^{XS}

The VerTV^{XS} home satellite fibre solution from Prysmian Group has been adopted by one of the leading satellite TV operators in Italy to support its migration to fibre for home Sat antennae. This strategic partnership recognizes Prysmian Group's pioneering activities in helping communities prepare for full broadband services over satellite with a quick, easy to install solution that links the Sat dish to inside the home.

VerTV^{XS} is compatible with every Multi Dwelling Unit TV cabling requirement, consisting of pre-connectorised patchcords, floor boxes and a dedicated mini-connector. Reduced component dimensions allow easy installation within existing ducts without splicing, due to a pre-connectorised approach. Designed in line with the strictest environmental requirements the VerTV^{XS} system has full compliance with safety and fire regulations.

Slovak Telekom completes FTTH networks with Sirocco^{XS} blown fibre system

Prysmian Group provides one of largest broadband providers in Slovakia with the tools to complete the passive part of an advanced optical access network. Sirocco^{XS} was selected as the most effective solution to create a flexible and reliable FTTH network. Several thousand kilometres of Sirroco blown fibre units, tubing and components are now deployed in residential areas of Slovakia

Slovak Telekom benefits from the Prysmian Group flexibility in network design, management of Capex and Opex and speedier customer connections. Slovakia Telekom is now one of top 10 European countries for FTTH penetration.

Swiss village FTTH network controls renewable energy

Drahtex and partner Prysmian Group are building a rural FTTH network providing high speed broadband for Huenenberg village to control one of Europe's largest biogas plants. Today they are completing the initial phase of a visionary rural community fibre network which combines FTTH with local environmental control

Prysmian Group helps to deploy the underground fibre infrastructure running alongside the biogas distribution network over a total network length of 4.5 km. Fibre connectivity automates every component in the biogen heating plant with remote control availability to monitor and control. This exciting project is entirely self-financed. Renewable energy provides 15% of village energy requirements.

VolkerWessels Telecom awards Prysmian Group a multi-city FTTH network deal

VolkerVessels Telecom chooses Prysmian Group (Draka) as a trusted partner based on previous successes to extend Reggefiber networks in the Netherlands in 2012. Project extends national broadband to additional 48.000 homes in 5 townships with a possible extension to over 63.000 households

Prysmian Group will provide materials from its extensive portfolio for passive infrastructure deployment to townships and communities. Direct buried outdoor microduct EaseNetXS solution for OSP will offer the easiest, most user friendly connector solution useable in all parts of the FTTH access networks. Prysmian Group EaseNetXS microducts offer easy branching (cut the thin outer coating and snap on a connector) and a user friendly technique during installation.

Prysmian Group

Prysmian Group is world leader in the energy and telecom cables and systems industry. With sales of some €7 billion (pro-forma 2010 Prysmian/Draka) and 22,000 employees across 50 countries and 98 plants, the Group is strongly positioned in high-tech markets and provides the widest range of products, services, technologies and know-how. In the Energy sector, Prysmian Group operates in the business of underground and submarine power transmission cables and systems, special cables for applications in many different industrial sectors and medium and low voltage cables for the construction and infrastructure industry. In the Telecom sector, the Group manufactures cables and accessories for the voice, video and data transmission industry, producing optical fibres, optical cables and connectivity. Prysmian is listed on the Milan Stock Exchange in the Blue Chip index.

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