

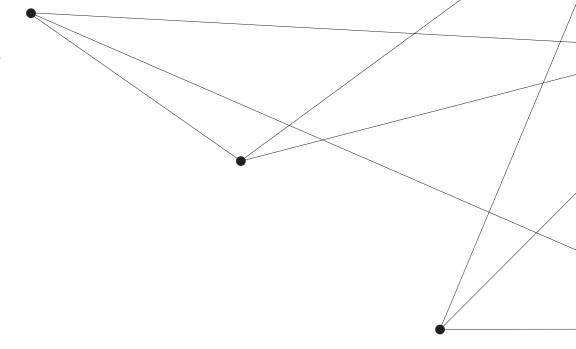
Telecom Operators

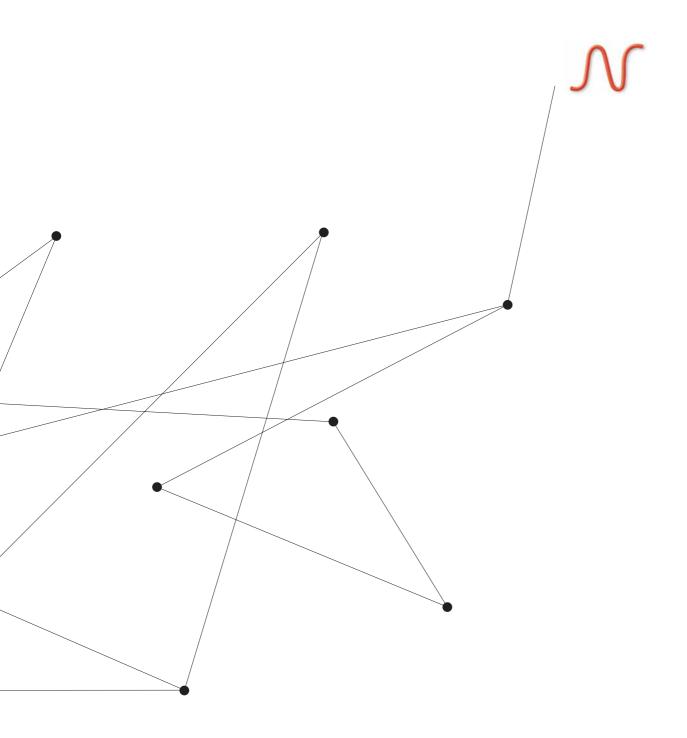
# New high-speed paths of opportunity with

The telecom environment will never be quite the same again. Once-protected incumbent telephone companies have been compelled by governments to compete in a global environment where the customer expects more for less. Meanwhile a next generation of network operators, sometimes from the world of data communications and computing, are transforming the market. The process of technological change has removed the obvious landmarks in the

business. At the same time, long-distance voice revenues are continuing to plummet, while the public is clamoring for a complex mix of interactive services. To survive, proven expertise in network technology is not enough. Today's telecom operators

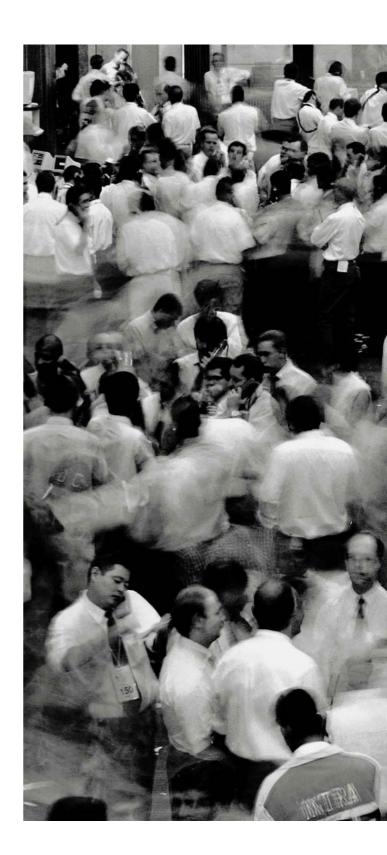
need to be innovative, serviceminded and far-sighted, ready to break through the crust of conventional thinking to create new paths of opportunity.

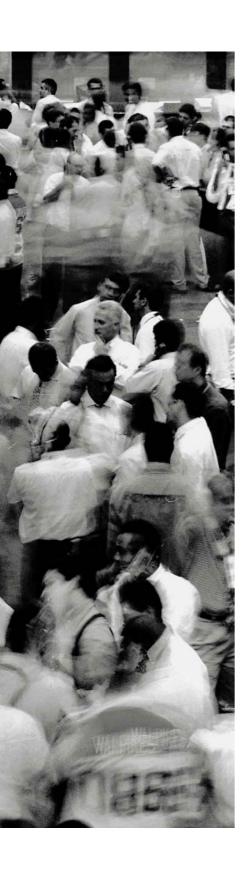




With experience in every aspect of cables, components and systems, Nexans is your ideal partner in a changing telecom environment.

Nexans produces a wide range of copper and optical fiber cables, and associated interconnect solutions. Our R&D labs continue to design and refine products dedicated to open standards, while our proven network expertise means that we can integrate technologies to meet your specific needs, and provide turnkey projects worldwide.





### How Nexans can bring your network together:

- A wide range of advanced telecommunications cables and accessories
- Quality, high-speed networks at the lowest possible cost
- Powerful, leading-edge technology devoted to open standards
- International scope for global carriers
- Network expertise for long-distance, metropolitan and access links
- Full service and support



### of spans the world of silence to help people communicate.

### Long-haul and metropolitan solutions

Nexans manufactures a wide range of optical fiber cables. They are used for various applications, with advanced fiber products delivering unbeatable performance in terms of high bit-rate, multi-wavelength and long-distance trans-

mission. All of our products are available with customized outer protection against specific threats like moisture, chemicals, rodents, harsh weather conditions, etc.. Nexans has also developed a full range of appropriate connection and splicing accessories.

Known for easy installation,

reliability and longevity, Nexans long-haul and metropolitan products guarantee telecom operators a secure future.





### With $\int \int \int \int \int dt dt dt$ , even the most sensitive data is sure to arrive.

#### Subscriber access solutions

To answer growing subscriber demand for integrated voice, data and video to the office desk or family recreation room, Nexans has developed a family of flexible "last-mile" solutions using both copper and fiber cables. We produce a host of indoor and outdoor copper drop wires capable of delivering high-bit rates. In addition, our highperformance optical fiber cables make Fiber-to-the-Curb (FTTC) and Fiber-to-the-Desk (FTTD) a reality. Copper Plus, an advanced copper cable design, provides high bit-rates in local loop networks for the new VDSL environment. Copper cables allow capacities of up to 4,000 pairs.

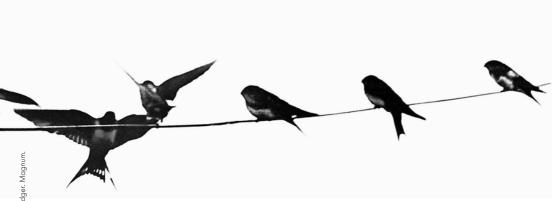


To protect the public and buildings, all of these products can be fitted with a halogen-free, flame-resistant (HFFR) outer sheath. This means that they are flame and fire-retardant, emit low smoke and toxicity, and are non-corrosive in the event of fire.

### LAN copper and fiber solutions To ensure that Local Area

Networks (LANs) are fully responsive to customer needs and capable of evolving with tomorrow's high-speed requirements, Nexans has developed continuously evolving copper, fiber and hybrid copper/fiber solutions which have proven themselves worldwide. In fact, our references include some of the world's leading

corporations, universities, industrial sites, hospitals, government buildings and banks. Our Class E and F cabling solutions, using Category 6 cable, make it possible to achieve multigigabit data speeds with maximum reliability, thus vastly extending the life of existing all-copper LANs. Our optical fiber cable solutions facilitate network



upgrades, with an advanced multimode type capable of delivering Fast Ethernet speeds over far longer distances. User-friendly connectors and components are available for all systems, and are both interconnective with other manufacturers' equipment, and designed to vastly exceed current specifications. Our gigabit-proofed designs mean

that the transition from all-copper to all-fiber can be done easily and seamlessly, while at the same time achieving significant cost savings.

#### Component solutions

To match our various cables, we manufacture and supply all kinds of interconnect solutions: from copper wiring systems and fiber optic management modules,
to a full range of distribution
frames and large splicing
closures. Since each network
has its own topology,
Nexans has developed
a special distribution frame
to interconnect outside
plant cable and electronics
equipment at the level
of main exchange nodes.
A unique modular splicing
assembly makes it possible

to provide upgraded routing of fibers at each interconnect node, thus allowing the operator to individually manage optical fibers. Along the line, splice protection in-line or dome closures can accommodate both low fiber and high fiber counts. All systems are robust, even in harsh conditions.

### Your best business connections, with M.

As pressures increase to lower long-distance rates and provide new highmargin services, telecoms are looking to expand their offers while controlling risk. They expect suppliers to take full responsibility for technical details and integrate technical solutions to increase capacity while lowering costs.





### Manufacturing excellence

Based on proprietary designs and processes, many of our products have become benchmarks in the industry. Close cooperation with the customer means customized solutions, sensitivity to local conditions, and an expertise in country-specific norms.

### R&D and testing

Our design laboratories are constantly developing new products and materials that meet the challenges of stress, weight and reliability. We are significantly improving manufacturing processes and cabling speeds.

### Customer support

Close cooperation with the customer means customized solutions, sensitivity to local conditions, and an expertise in country-specific norms.

To keep your network up and running, we also provide management advice and ongoing training.

#### Turnkey delivery

As your strategic partner, we can guide you through

every phase of network planning, design and implementation. We have developed innovative cable laying techniques, especially for dense urban networks.



## Mapping your future with $\mathcal{M}$ .

No one strategy is enough to satisfy today's complex telecommunications requirements. Telecoms need diversity at every levels: to create integrated networks, to develop an assortment of new highmargin services, to serve an heterogeneous market,

and to operate worldwide.
Only a company as
diversified as Nexans can
meet all of these demands.
As manufacturers, we
produce virtually every type
of network cable and
component. Our plants
are often strategically
located close to you to better

understand your real needs and ensure fast delivery.
As integrators, we are constantly concerned with combining technologies and finding differentiated services that will create value and increase your revenues.
As innovators, we are constantly working on new

designs, processes and materials. But most importantly, as partners we are with you from the outset of a project, through planning and implementation to final delivery and after-sales, providing sound advice at every stage.

# √ Exans: some key figures.

• Total Sales\*: 4.6 billion euro.

#### • Nexans Positions:

N° 1 worldwide for winding wires

N° 1 worldwide for submarine power cables

N° 1 European for rods

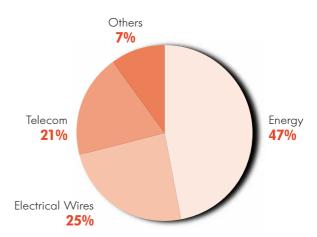
N° 1 European for equipment cables

N° 1 European for data transmission special cables

N° 2 worldwide for LAN cables

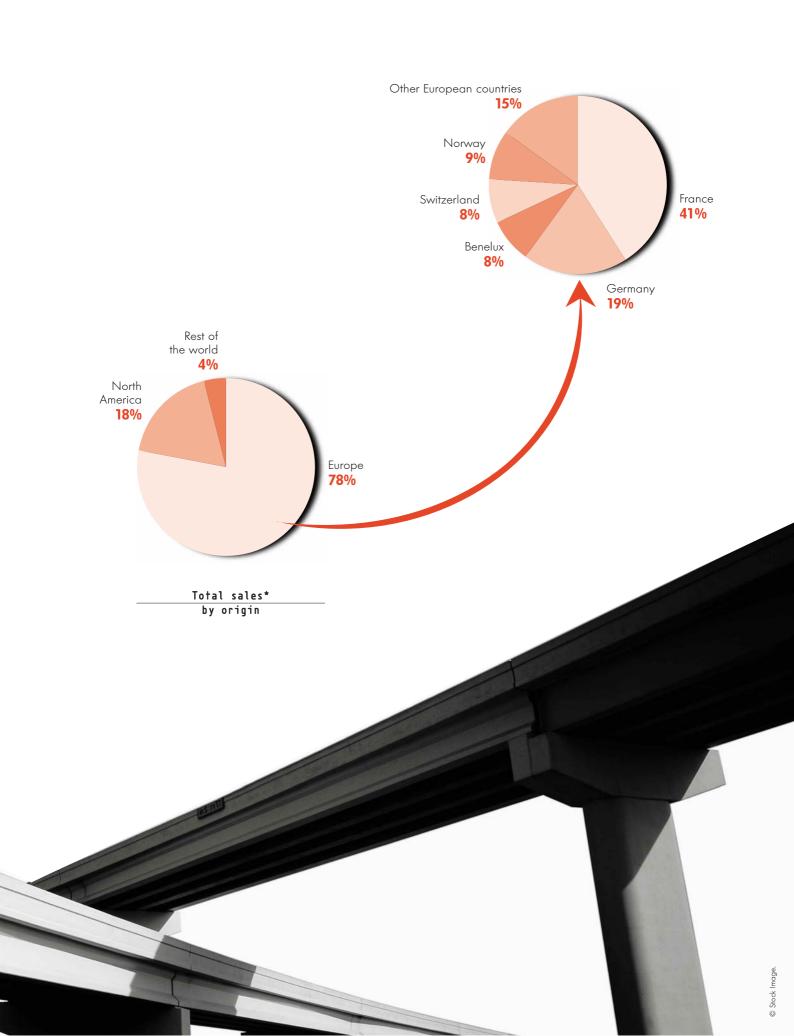
N° 2 worldwide for ground network power cables

N° 2 European for electrical wires



\*Proforma figures. 2000 estimates at current copper price.

Total sales\*
by activity



The future runs through Nexans.