



Connecting globally



**More than
Just a Cable Supplier**



Leading producer of cables and cable systems

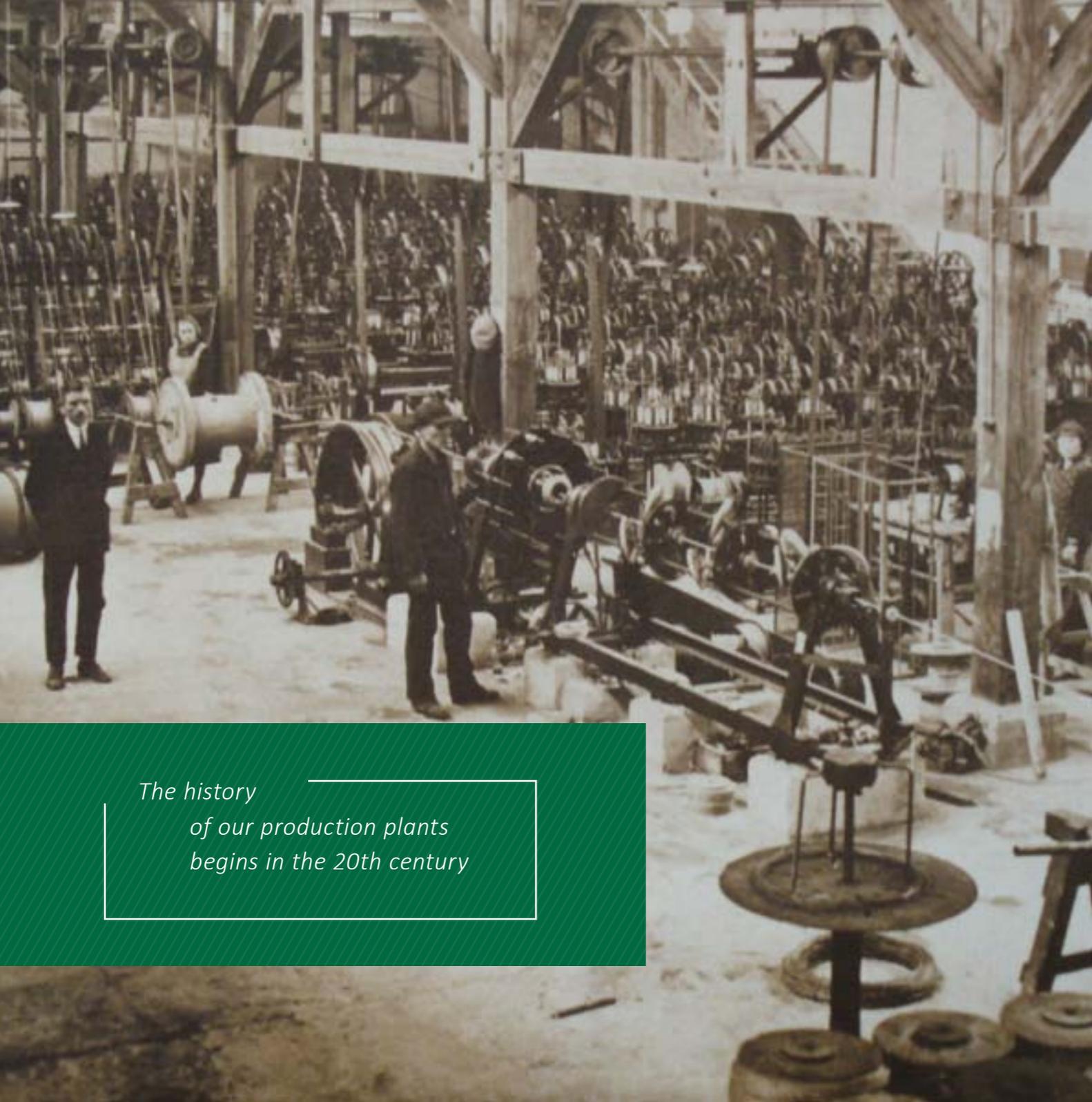
The TELE-FONIKA Kable Group has been present on the domestic and international cable industry market for more than 25 years. A stable development strategy based on full diversification of outlets enabled the strengthening of the position of our company among world's leading cable companies with significant development potential.

Services and products provided by TF Kable have numerous applications in the most important industry sectors – they include more than 25,000 proven standard constructions. Furthermore, they include specialist assortment tailored to the individual needs of business partners.

Additionally, our production facilities (in Poland, Serbia and Ukraine), the Bukowno-Poland recycling plant and commercial companies (responsible for the geo-regional distribution of products) demonstrate a significant development potential. This is also true in the case of our modern fire test laboratory in Krakow-Wielicka plant, which performs several hundred flammability pre-tests annually, and a laboratory of high and extra high voltages in Bydgoszcz.

As a result of implementation of our growth strategy, in August 2017 TFKable Group acquired JDR Cable Systems Ltd, the leading manufacturer of submarine umbilicals and power cables to the global offshore energy industry.

In the world's harshest environments and ever-increasing water depths, JDR's world-leading products and services bring power and control to offshore oil, gas and renewable energy systems.



We look forward to the future – We connect globally

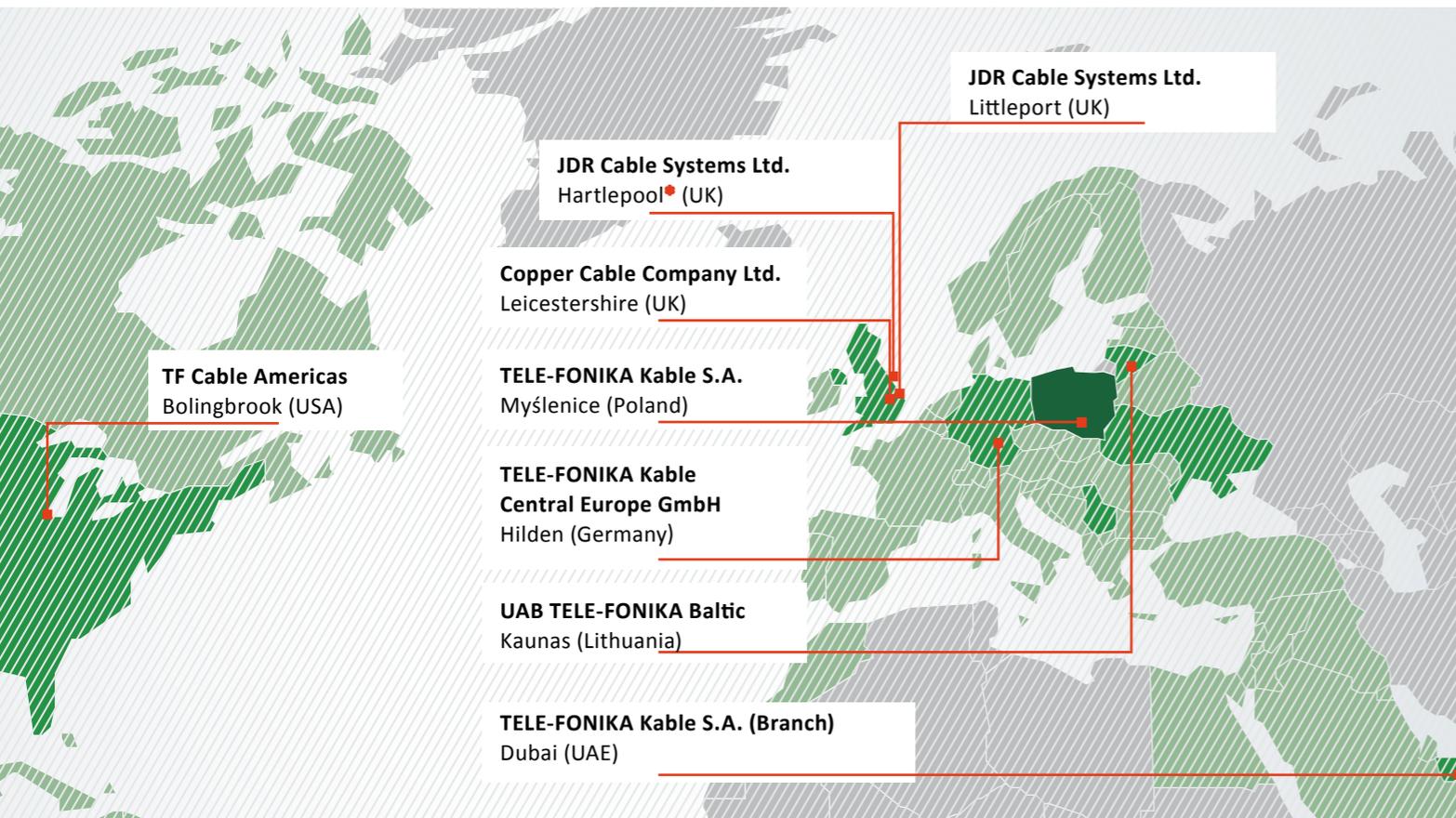
The history of our production plants begins in the 20th century

— „We are implementing innovative solutions aimed at delivering specific values for present and future business partners. That is why we are a recognized and respected manufacturer of cables and wires - a strong market leader, which meets the expectations of the most demanding partners, sharing with them a common vision of the future.”

— emphasized **Monika Cupiał-Zgryzek**,
President of the Management Board of
TELE-FONIKA Kable S.A.

Experience and competence of the TELE-FONIKA Kable Group

global relations



● JDR Cable Systems Ltd. (Sales Representative) Singapore, United States, UK and Brazil

Kraków-Wielicka plant – it produces cables and wires with voltage ranging from 1kV to 30kV, including rubber insulation, used in the extractive industry and wind farms; halogen-free cables and conductors (installed inside buildings); and signaling and control cables for special applications

Kraków-Bieżanów plant – production of overhead lines from alloyed aluminum, silver plated copperconductors for railway traction networks, made on robotic technology lines

Bydgoszcz plant – the largest production center for medium, high and extra high voltage cables in Europe

Myślenice plant – production of copper and fiber optic telecommunication cables, computer cables and car cables

Zajecar plant (Serbia) – production of low and medium voltage cables, signaling and control cables, telecommunication cables, as well as halogen-free cables and wires

Czernihov plant (Ukraine) – production of non-flammable (N)HXH and N2XH cables, self-supporting AsXSn overhead cables, aluminum and copper wires up to 1kV, including assembly wires

Bukowno-Poland plant (recycling of cable waste) – it has the recycling capacity of approx. 10 thousand tons of cable waste per year. This allows for the recovery of fractions from individual materials with purity of over 99.5%

Fire Test Laboratory in the Krakow-Wielicka production plant – it is equipped with apparatus that enables to conduct research ranging from basic tests of flame spreading on individual samples to flame spreading tests on bundles. Furthermore, it is equipped for testing density of emitted fumes and emission of corrosive gases

Laboratory of High and Extreme Voltages in the production plant in Bydgoszcz

– equipped with 4 Faraday cages (three for routine testing and one for cables and cable systems testing) along with a stroke generator and its own research field for qualification tests with 500kV testing systems and 5000A heating transformer sets

JDR Cable Systems – As a result of acquiring JDR Cable Systems Limited, TFKable has expanded its assets with two UK production Facilities. JDR manufactures submarine power cables as well as subsea umbilical cables consisting of components for power distribution, data transfer, monitoring and remote control, of offshore facilities. Additionally, our sales portfolio has been extended by offshore installation and maintenance services, located in JDR's service centres in the United States, Brazil, UK and Singapore, ensuring constant support for our business partners.

We provide innovative and safe solutions for industry

Mining

- Cables and wires in a polyurethane sheath (PTU), which is characterized by extremely high abrasion resistance
- Cables and wires in reflective coatings, which are characterized by not only exceptionally high mechanical parameters, but also a unique solution of the so-called reflective coating, which significantly increases the work safety in mining pits
- Cables containing the optical module, as well as cables with control lines, cables with pilot lines, trailing cables and cables for use in shearers

Energetics

- High voltage (HV) and extra high voltage (EHV) cables – offered within the framework of complex support during all stages of project implementation - cable system design, its installation along with accessories and acceptance tests
- Power cables of medium voltages, ranging from 6/10kV to 18/30kV
- Power cables of low voltages - 1kV
- Cables and wires for overhead lines
- Power lines - 450/750V

Renewable energy

- Cables and wires of low (EPR), medium and high (XLPE) voltages, as well as control/optical cables for the transmission of data and provision of security, which are applied in the construction and operation of coastal and inland wind farms



Railway industry

- Specialized medium and low voltage cables, telecommunication cables, signaling and control cables, as well as a full range of products for the construction of overhead traction that provide operational security and allow for higher speed limits

Shipbuilding industry

- Cables with halogen-free coatings that do not spread out flames and do not emit harmful gases during fire.
- Fire-proof cables that ensure trouble-free operation for a certain period of time during fire conditions dedicated for safety circuits – e.g. emergency power supply (i.e. lighting of evacuation routes)

Automotive industry

- Power cables and wires, data transmission cables and control cables that are characterized by the highest mechanical resistance, as well as resistance to elevated temperatures, humidity, fire and various chemical agents

Oil and gas

- Cables and wires designed for ship and platform operations. They are characterized by excellent mechanical and chemical resistance, which is required for working in difficult conditions; additionally, just as is the case with the new generation of unleaded cables, they are environmentally friendly

Telecommunication

- Telecommunication cable constructions, designed for both traditional and modern broadband transmission systems. In addition to copper telecommunication cables, telecommunication cables category 5e and 6, as well as fiber optic cables of various types (ADSS, reinforced cables, cables with anti-rodent protection and micro-cables) up to 432 fibers – we also produce telecommunication cables for mining and shipbuilding industries

Automatics

- Signaling cables 0,6/1kV, signaling and control cables 300/500V and control cables – dedicated as connecting lines and connection for control devices in machines, production and assembly lines, conveyors, production lines for fixed installation, as well as flexible hoses with free movement in dry, damp and wet areas

Welding industry

- Welding cables and wires retain high flexibility and durability. Furthermore, they are resistant to gases and liquids, and they do not spread flame. They are used both indoors and outdoors – in dry and humid conditions





We provide reliability through DEMANDED QUALITY



The only modern Polish **Fire Test Laboratory** that allows more than three hundred tests of flammability for cables and wires annually



Fully automatic **Im320 E mixer** designed for the production of rubber blends



ERCONET Media Management System that enables the analysis and effective management of energy media



Usage of 80% of waste heat from the operation of compressors for hot water heating



Modern **Cable Waste Recycling Plant** with the processing power of any cable waste



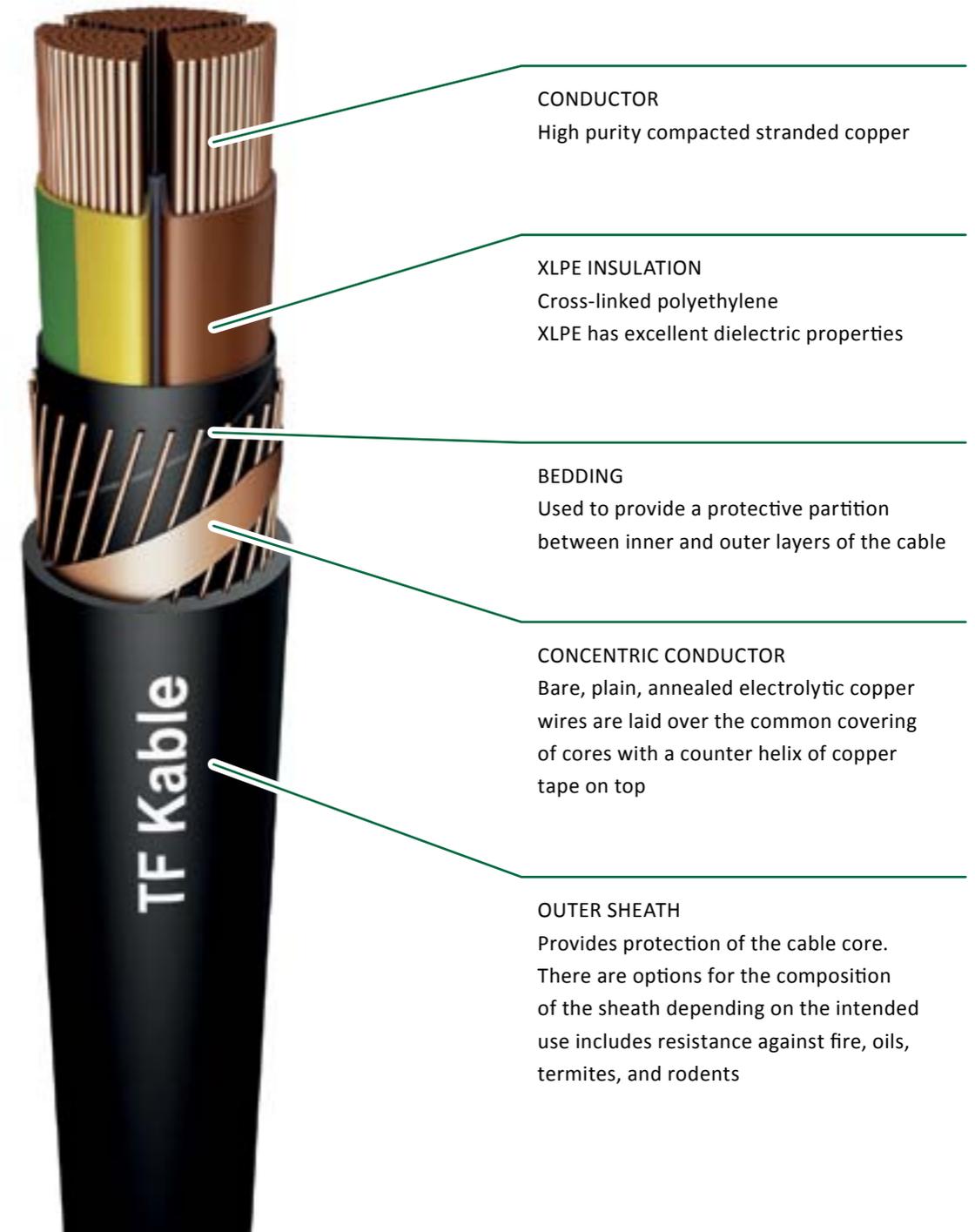
Reduction of pollutant emissions through the modernization of boiler houses in production plants



Modern **Quality Control Laboratories** equipped with specialized control and measurement devices



Specialization of production facilities that allows for effective production planning



CONDUCTOR
High purity compacted stranded copper

XLPE INSULATION
Cross-linked polyethylene
XLPE has excellent dielectric properties

BEDDING
Used to provide a protective partition between inner and outer layers of the cable

CONCENTRIC CONDUCTOR
Bare, plain, annealed electrolytic copper wires are laid over the common covering of cores with a counter helix of copper tape on top

OUTER SHEATH
Provides protection of the cable core. There are options for the composition of the sheath depending on the intended use includes resistance against fire, oils, termites, and rodents

Full adherence to the requirements and standards set out in national and international regulations

— „The implementation of the requirements of the CRP regulations has been a long journey, but today (before the end of the transition period) our clients can be sure that our cables and wires are compatible with the new EU security standards”

— said **Piotr Mirek**,
I Vice-President of the Management
Board of TELE-FONIKA Kable S.A.

TELE-FONIKA Kable met 100% of the CPR requirements

Implementation of the full range of products in E_{ca}, D_{ca}, C_{ca} and B2_{ca} classes

Assurance of control and measurement apparatus for several hundred flammability tests in the Fire Test Laboratory at the Production Plant in Krakow. Performing further tests of the examined construction in order to ensure their notification by the authorized certification body – the Institute of Building Technology in Warsaw

Positive results of the required audits of the production process

Implementation of uniform distribution of TELE-FONIKA cables and wires in accordance with classes of reactions to fire and coexistence factors, including smoke generation, corrosive gases and flaming drops – their categorization according to the application and their use in buildings, i.e. commercial, civil and industrial – in compliance with fire safety regulations

Implementation of new labels in accordance with the requirements of the CPR Directive

Marking of cables and wires intended for building on the coating

Limitation of the use of PVC materials for higher classes of products

Compliance with the regulations of the Declaration of Performance (DoP)

We have established a team of specialists, who will provide you with all necessary information and answer any questions related to the changes resulting from the CPR regulation

✉ CPR@tfkable.com

Sustainable development through values

8

production plants, including dedicated research units, namely the Fire Test Laboratory and the High and Extra High Voltage Laboratory

6

trading companies and sales and maintenance units in 8 countries

> 3,5 thousand
skilled workers

> 25 thousand
inspected and provided cable and wire constructions

Implementation of projects for recipients in over 80 countries

No. 1

the Polish market, based on the production technology having been developed since the early 20th century.

> 500

production lines

The production potential enhanced by high-end production of submarine systems and maintenance and installation services for the petroleum, gas and renewable energy industries

Innovative environmental-friendly technologies, including the Cable Waste Recycling Plant

We create innovative solutions in the cable industry on the local and international markets.
We cooperate with significant industrial and scientific partners – they help us to ensure reliability.

Europacable, BCA, ICF, PSEW, CIGRE, PIGE,EDA, BSI, CMPS, LEA, ACI, PPC, PTMEW, PKWSE/CIRGE

www.tfkable.com