# REVIEW OF TELECOM OPERATING SEGMENT

(in millions of Euro)				
	2016	2015	% change	2014
Sales	1,164	1,109	4.9%	994
Adjusted EBITDA before share of net profit/(loss) of equity- accounted companies	135	113	19.3%	91
% of sales	11.6%	10.2%		9.1%
Adjusted EBITDA	163	134	22.0%	116
% of sales	14.0%	12.1%		11.7%
EBITDA	158	119	33.2%	116
% of sales	13.6%	10.7%		11.6%
Amortisation and depreciation	(40)	(44)		(42)
Adjusted operating income	123	90	37.9%	74
% of sales	10.6%	8.1%		7.4%

#### Reconciliation of EBITDA to Adjusted EBITDA

EBITDA (A)	158	119	33.2%	116
Adjustments:				
Company reorganisation	6	10		6
Non-recurring expenses/(income):				
Antitrust	-	-		-
Other non-operating expenses/(income)	(1)	5		(6)
Total adjustments (B)	5	15		-
Adjusted EBITDA (A+B)	163	134	22.0%	116

As partner to leading telecom operators worldwide, Prysmian Group produces and manufactures a wide range of cable systems and connectivity products used in telecommunication networks. The product portfolio includes optical fibre, optical cables, connectivity components and accessories and copper cables.

# **Optical fibre**

Prysmian Group is one of the leading manufacturers of the core component of every type of optical cable: optical fibre. The Group is in the unique position of being able to use all existing manufacturing processes within its plants: MCVD (Modified Chemical Vapour Deposition), OVD (Outside Vapour Deposition), VAD (Vapour Axial Deposition) and PCVD (Plasma-activated Chemical Vapour Deposition). The result is an optimised product range for different applications. With centres of excellence in Battipaglia (Italy), Eindhoven (the Netherlands) and Douvrin (France), and 5 production sites around the world, Prysmian Group offers a wide range of optical fibres, such as single-mode, multimode and specialty fibres, designed and manufactured to cater to the broadest possible spectrum of customer applications.



### **Optical cables**

Optical fibres are employed in the production of standard optical cables or those specially designed for challenging or inaccessible environments. Optical cables, constructed using just a single fibre or up to as many as 1,728 fibres, can be pulled (or blown) into ducts, buried directly underground or suspended on overhead devices such as telegraph poles or electricity pylons. Cables are also installed in road and rail tunnels, gas and sewerage networks and inside various buildings where they must satisfy specific fire-resistant requirements. Prysmian Group operates in the telecommunications market with a wide range of cable solutions and systems that respond to the demand for wider bandwidth by major network operators and service providers. The product portfolio covers every area of the industry, including long-distance and urban systems, and solutions such as optical ground wire (OPGW), Rapier (easy break-out), Siroccoxs (fibres and cables for blown installation), Flextube® (extremely flexible easy-to-handle cables for indoor or outdoor installations), Airbag (dielectric direct buried cable) and many more.

### Connectivity

Whether deployed in outdoor or indoor applications, Prysmian Group's OAsys connectivity solutions are designed for versatility, covering all cable management needs whatever the network type. These include aerial and underground installations, as well as cabling in central offices (or exchanges) or customer premises. Prysmian Group has been designing, developing and making cable and fibre management products for more than two decades and is at the forefront of designing next-generation products specifically for Fibre-To-The-Home (FTTH) networks.

## **FTT**x

Increasing bandwidth requirements, by both business and residential customers, are having a profound effect upon the level of performance demanded of optical networks, which in turn demands high standards of fibre management. Optimal fibre management in every section of the network is increasingly a matter of priority in order to minimise power loss and overcome the problems caused by ever greater space limitations. The Group has developed the suite of xsNet products for "last mile" access networks, which is also very suited to optical fibre deployment in sparsely populated rural areas. Most of the cables used in FTTx/FTTH systems feature Prysmian's bend-insensitive BendBrightxs optical fibre, which has been specially developed for this application.

#### FTTA (Fibre-To-The-Antenna)

xsMobile, which offers Fibre-To-The-Antenna (FTTA) solutions, is an extensive passive portfolio which enables mobile operators to upgrade their networks quickly and easily. Incorporating Prysmian's experience in Fibre-to-the-Home (FTTH) and its unique fibre innovations, xsMobile provides different product solutions for three applications: antenna towers, roof-top antennas and Distributed Antenna Systems (DAS) for small cell deployment. The technology offers three access types for outdoor and indoor FTTA deployment, as well as backhaul solutions, incorporating the latest fibre technologies.



### Copper cables

Prysmian Group also produces a wide range of copper cables for underground and overhead cabling solutions and for both residential and commercial buildings. The product portfolio comprises cables of different capacity, including broadband xDSL cables and those designed for high transmission, low interference and electromagnetic compatibility.

#### **Multimedia Solutions**

The Group also produces cable solutions serving communication needs in infrastructure, industry and transport, for a diverse range of applications: cables for television and film studios, cables for rail networks such as underground cables for long-distance telecommunications, light-signalling cables and cables for track switching devices, as well as cables for mobile telecommunications antennae and for data centres.

#### **MARKET OVERVIEW**

Although the global optical fibre cables market grew in 2016 there were large regional differences. In fact, demand grew in fast-developing markets (China and APAC) and in those with high communication infrastructure needs (India). In France, projects to extend residential broadband access, in accordance with the European Digital Agenda's targets, played a crucial role in the market upturn. However, in Italy the programme to construct the next-generation network was postponed to early 2017. In Central Europe the distribution of bandwidth via xDSL and G.FAST technologies, using the last metres of the existing copper network, is requiring huge volumes of optical cables to upgrade distribution networks. In Brazil, uncertainty about the country's macroeconomic performance and growth prospects led to a fall-off in investments by major telecom operators. In parallel with the traditional activities of developing the fixed network, 2016 was marked by the consolidation of wireless technologies (4G, LTE) which require the installation of optical backbones to power antennae located across the territory. Mobile technology is experiencing a period of major growth both in developing countries, in the absence of costly investment in fixed network infrastructure, and in mature countries where demand for broadband on portable devices is constantly multiplying.

The Access/Broadband/FTTx market continued to grow in 2016, mainly in China, with demand driven by the development of optical fibre communication infrastructure. In addition to cables, this segment includes a varied portfolio of accessories for fibre connection. However, the still relatively low maturity of these products implies wide market differences between the various geographical areas.

The copper cables market continued to slow not only because of the economic downturn in the past two years, causing operators to scale back their larger investment projects, but also because of product maturity. The decline in this market was increasingly evident in 2016, with high demand for internet access leading major operators to opt to renew their networks using optical fibre, rather than perform maintenance or upgrade work on existing networks. Only the Australian market bucked this trend but was unable to reverse the global downturn.

The MMS cable market reported timid global growth, driven by Asia and, in the case of the optical cables segment, by China. Growth in demand was fuelled by requests for ever greater bandwidth capacity in



professional and office environments and data centres. Interestingly, this trend applied to both new buildings and projects to renovate existing ones. An important contribution to this growth came from industrial applications that require new highly specialised products. Another important source of growth was HDTV cables used for the broadcast of digital content such as sports events or other events of media interest.

#### FINANCIAL PERFORMANCE

Sales to third parties by the Telecom operating segment amounted to Euro 1,164 million in 2016, compared with Euro 1,109 million in 2015, posting a positive change of Euro 55 million (+4.9%).

This change is attributable to the following factors:

- organic sales growth of Euro 94 million (+8.5%), thanks to volume recovery for copper and optical fibre cables;
- decrease of Euro 30 million (-2.8%) for exchange rate fluctuations;
- decrease of Euro 11 million (-1.0%) in sales prices for metal price fluctuations;
- net increase of Euro 2 million (+0.2%), reflecting an increase of Euro 7 million for the acquisition of the data cables business from Corning Optical Communications Gmbh & Co. KG. and a decrease of Euro 5 million for the disposal of NK Wuhan.

The organic growth in 2016 sales reflected the positive trend already observed the previous year. Such underlying growth came from strong demand for optical fibre cables in North America and APAC and for copper cables in Oceania, reflecting developments in major local investment projects.

Optical cables recorded an overall increase even if local trends at times showed opposite signs. For example, some European operators adopted stock reduction programmes by limiting the purchase of new material. In other markets outside Europe (Oceania among others), volume trends were positive. The general price pressure seen the previous year seemed to stabilise. In Europe, the Group won contracts for work on major projects to realise backhaul links and FTTH connections for leading operators. In North America, the development of new ultra-broadband networks produced a steady increase in domestic demand, from which Prysmian benefited. In Brazil, despite the relaxation in investments by major telecom operators, the drop in volumes was offset thanks to strategic repositioning in neighbouring high value-added market segments, namely OPGW. Lastly, both optical and copper cables saw a growth in activities associated with the NBN (National Broadband Network) project in Australia. This unique phenomenon in the current telecoms market is related to the new NBN orientation towards a "multi-technology" platform. The preference for FTTN architecture over the original FTTH one has necessitated the installation of a number of new copper cable sections.

Growth in the Multimedia Solutions business mainly reflected increased volumes on the European market for copper data transmission cables, also observed, albeit to a lesser extent, in South America. This positive result was achieved thanks to the ability to satisfy growing demand with a high level of responsiveness and service. This approach, along with its strong customer orientation, has been appreciated as one of the Group's main strengths.



Lastly, the high value-added business of optical connectivity accessories performed well, thanks to the development of new FTTx networks (for last mile broadband access) in Europe, particularly in France, Spain and the Netherlands.

Adjusted EBITDA for 2016 came to Euro 163 million, reporting an increase of Euro 29 million (+22.0%) from Euro 134 million in 2015.

