

# INSIGHT



**Prysmian** Quarterly magazine  
Group 02 | 2016

UNITED GRIDS OF EUROPE  
The visionary goal of a single  
European energy market

An increased commitment  
to sustainability

Q1 profitability improved,  
and upbeat FY forecasts

The backbone of Europe's  
telecom future





**Prysmian**  
Group

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Investing to fulfill offshore wind demand  
The benefits of a continental vision

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## Editorial Team Insight

**T**he solid set of figures delivered for the first quarter of 2016 reflected an uptrend in sales, accompanied by a marked improvement in profitability that positively surprised the market. CEO Valerio Battista pointed out that Prysmian technological leadership and project execution capability underpinned the excellent performance of the Submarine Cables and Systems business. Excellence and technological leadership are the foundations of Prysmian success, once again demonstrated with this bright start to the year.

That's why INSIGHT devoted the cover story of this issue to the visionary topic of the united grids of Europe. The continent is betting hard on offshore wind as a pillar of the future integrated and eco-friendly energy market. And Prysmian, as the world leader of the cable industry, is playing its part by multiplying its efforts to provide Europe with the most efficient and state-of-the-art transmission systems. Such a contribution can be made thanks to increased capacities – such as those resulting from the investment in our Pikkala plant in Finland – and breakthrough technologies, such as the 525 kV XLPE extruded cable solution for High Voltage Direct Current applications.

Capacity and technology are essential. But making both sustainable is also a must for Prysmian, and so we constantly measure the degree of sustainability of our business and our relationships with economies and societies. Our FOCUS ON section is devoted to Prysmian's fifth Sustainability Report, published in accordance with G4 Guidelines. It showed that in 2015 the Group has further increased its commitment to sustainable business development by improving its governance of sustainability issues, conducting a more comprehensive analysis of the impact of its activities, and updating its materiality analysis.

Building the backbone of Europe's telecom future was our topic of choice for the MARKETS & TRENDS section, as the significant role that high-quality fibre cables will play in the viability of any future infrastructures that will form the Digital Single Market, is an increasingly acknowledged concept among business and policy making circles across the continent. Prysmian Group is urging institutions and the public across Europe to embrace the most modern fibre technology to ensure the success of long-lasting, high-speed networks, both technically and commercially.

# UNITED GRIDS OF EUROPE

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**T**he visionary goal of Europe's energy policy is to provide wind energy to the north of the continent, mostly in winter, when power demand usually peaks, while benefiting the South during sunny and hot summer seasons, when air conditioning is most in demand. And vice versa. But it's a costly task that involves huge amounts of investment into transmission networks across European borders. That's why Prysmian is focused on innovating to increase the capacity efficiency and sustainability of grids, while substantially reducing costs.



## Investing to fulfill offshore wind demand

Prysmian is pursuing its growth strategy in wind energy with new efforts to strengthen submarine power cables production capabilities. The Group has invested around €100 million to upgrade production capabilities in its two cable plants in Pikkala, Finland and Arco Felice, Italy – the Group's centres of excellence for submarine cable production. These new investments have enabled both plants to be fully equipped to manufacture and test large cross-section, 3-core AC cables up to a voltage of 400 kV.

Pikkala is currently the most technically advanced factory for the production of extruded insulation submarine cables in the entire cable industry. Cables are manufactured in state-of-the-art facilities; with insulation testing performed on a vertical line installed in a tower almost 100 metres tall, for both AC and DC applications. Recent capability upgrades have been carried out to meet demand from the offshore wind industry.

Europe is betting hard on offshore wind as part of its strategy to create an integrated, eco-friendly continental energy market. And so, as leader of the energy cable industry, Prysmian Group is playing its part by multiplying its efforts to provide the most efficient, state-of-the-art transmission systems, and enhancing its production capacity.

# The benefits of a continental vision

The European power market needs a continental vision to be effectively created and developed. Massimo Battaini, Executive Vice President for Energy Projects at Prysmian Group, explains that North and South Europe are consuming power at different times. In the North demand peaks in the winter, while in the South the same happens in the summer due to extensive use of air conditioning.



“A continental vision would satisfy both the northern peaks and production demands from South in the summer, without the

need for building new power plants”. Battaini estimates savings of up to €40 billion per year for European consumers. Laying down new cables would require less spending than building new plants, as has been demonstrated by those northern countries that are leading the way. Battaini mentions the Viking Link, set to connect Britain and Denmark with the longest submarine cable ever laid worldwide. According to Battaini, the Energy Union is the most ambitious European project in its field since the times of the European Coal and Steel Community (ECSC).

## Breakthrough technology for transmission grids

The Group is dedicated to offering the most advanced and innovative technologies to its customers - namely transmission system operators engaged in the development, extension and upgrade of their power grids. As such, we've recently launched breakthrough cable technologies for the development of power transmission grids that will ensure better environmental sustainability, higher electrical performance and lower costs.

[The 525 kV XLPE extruded cable solution for High Voltage Direct Current \(HVDC\) applications, ensures doubling capacity of bi-pole systems up to 2.6 GW. The 66](#)

kV EPR insulated cable solution for inter-array applications uses state-of-the-art materials and lighter lead-free designs for more sustainable and cost-effective electrical arrays, enabling up to a 15% cost reduction of offshore wind farms.

The recently launched new P-Laser 525 kV cable system for HVDC underground and submarine applications – a world first in the cable industry – offers unique environmental performance with lower CO<sub>2</sub> emissions and higher electrical performances, enabling up to a 10% cost reduction in power transmission.







## Cross-border interconnections

WindEurope, an agency for wind energy, estimates that Europe's green energy could cover as much as 27% of its total energy needs by 2030, equating to powering some 67 million people. Such an ambitious goal could even exceed expectations as investment is rapidly increasing, mainly in Northern Europe. But this requires the shared commitment of all countries of the Union. Giles Dickson, CEO of WindEurope, says that in a best case scenario, by 2030, up to 31% of European power needs could consistently be covered by wind. He stressed "the need for a stronger cross-border interconnection, to make the shift from traditional to green-sourced energy easier", and vice versa. Dickson also points out the necessity for regulations to be adapted to reflect Europe's diverse countries, such as Italy, in order to facilitate the development of wind energy, namely in its offshore version.





## Execution strengthened with two vessels

**Prysmian Group has steadily broadened its range of products and services offered in the fields of renewable energy and power interconnectors. It now produces well-proven in-house cable protection equipment, as well as owning and operating two installation vessels – the Giulio Verne and Cable Enterprise.**

A cable-laying vessel with the largest laying capacity in the world, the Giulio Verne has belonged to the Group since 1986. Since then she has been installing milestone cable interconnections worldwide, including the Basslink in Australia, the SAPEI (from Sardinia to mainland Italy) in the Mediterranean, the Trans Bay Cable project in California, and the Hudson River Transmission project in Manhattan. In May 2015 the Group announced the official sail out of the ‘Cable Enterprise’ vessel, upgraded from a moored cable-laying barge into a DP2

cable-laying barge, and able to operate around sites autonomously without the need for tugs or ploughs, by using her own powerful propulsion system.

Very importantly, the vessel maintains her ability to ground out and operate in very shallow waters. She is now amongst the most powerful submarine cable-laying barges in the market, and is the most environmentally-friendly vessel of its type worldwide, achieving an almost 80% NOx emission reduction.





### While some others are lagging

Twelve out of the 28 countries in the European Union are not complying with the minimum interconnection target between power grids of neighbouring countries, which amounts to at least 10% of the domestic power generation capacity set for year 2020. Those countries are still below the 8% threshold, with seven bottlenecks still existing, even along the Alps chain, and Spain and Portugal almost entirely cut off from the European power market. Brussels nevertheless is pushing hard to overcome this situation with its new target of interconnection set at 15% for year 2030, which should speed up the process.

### Germany, UK and the Netherlands lead the way with wind

Last year saw the doubling of investments into offshore wind plants – a total of €13.3 billion that allowed the connection of some 754 new windmills in 15 different projects for a total of 3,000 MW. All these efforts were concentrated in three countries: Germany with 2,300 MW, followed by the UK with 550 MW, then the Netherlands with 180 MW. Six additional projects currently underway will add more 1,900 MW to these three countries. According to Ernst & Young, offshore wind energy could allow Europe to spare some €18 billion in oil and gas imports by 2030.

## Not only Europe

The submarine cable and systems segment is a stronghold of Prysmian Group that boasts a share of some 50% percent of this market. It's a market extremely concentrated in Europe, (amounting to more than 90% of the worldwide total), but can this extremely competitive advantage be leveraged in other parts of the



world? Fabio Romeo, Head of Corporate Strategy and Development of Prysmian Group, cautions that Europe is a very special case, both because of the political will to push for the kinds of projects such as offshore wind plants, and because its geographical shape favours the building of long submarine connections to carry energy from

generation plants to consumption sites. But, Romeo notes, other regions of the world could also be suitable for similar developments that require cross-sea connection between power generation and power transmission sites, such as the Pacific coast of China.

# SUSTAINABILITY: A FURTHER INCREASED COMMITMENT

**Prysmian Group's Sustainability Report reveals that €1,580 million in economic value was generated in 2015 – an increase of almost 10%. Prysmian was also included in the FTSE4Good Global Index, and climbed 10 points on the Dow Jones Index.**

**P**ublished in accordance with the G4 Sustainability Reporting Guidelines, Prysmian's fifth Sustainability Report showed that in 2015 the Group has moved further forward with its commitment to sustainable business development by improving its governance of sustainability issues, conducting a more comprehensive analysis of the impact of its activities, and updating its materiality analysis through a new multi-stakeholder engagement event in Spain.

The economic value generated increased by nearly 10%, to €1,580 million. Additionally, the Group was included in the prestigious FTSE4Good Global Index, which recognises companies that stand out for the ethical, transparent and sustainable management of their activities.

The Group also achieved a ten-point improvement in its Corporate Sustainability Assessment (CSA) results for the Dow Jones Sustainability Index, one of the world's foremost sustainability assessors.

## **Winning the 'Environmental Impact' award**

Prysmian's innovative new PV1100 AR-cable project saw the Group win the 'Environmental Impact' category at a special ceremony organised by our key French customer and partner installation, SPIE Sud-Est. Low voltage and designed for connections of photovoltaic fields, the cable's double insulation and reinforced sheath provides safe direct burial, without the need for additional mechanical protection. The cable also ensures a shorter and easier installation phase, with reduced environmental impact due to lower material consumption and transportation.







### **Improved governance**

Prysmian Group strengthened its commitment to sustainability at governance level, by assigning responsibility for such issues to the Compensation and Nomination Committee. A Sustainability Steering Committee has also been appointed, with the aim of discussing the Group's strategic guidelines, and implementing a plan of action.





# Continual development of innovative and sustainable products

In 2015 the Group expanded its Afumex Green line of cables. This included the Afumex Green 1kV – currently the most sustainable and safest cable on the market thanks to the replacement of its traditional petroleum-derived polyethylene insulation, with bio-polyethylene, a material developed from sugarcane. It's 100% renewable, has international certification, and reduces CO<sub>2</sub> emissions.





### Progresses made in responsible supply chain

The implementation of our Code of Business Conduct has helped to spread responsible business practices and enhance screening initiatives, by including sustainability principles in the process of selecting and approving new suppliers.

### The year of the COP 21 Paris Climate Conference

Prysmian continued to focus closely on its impact on the environment through initiatives aimed at reducing energy consumption, waste generation and water use. At year-end, emissions of substances harmful to the ozone layer had decreased by 7.8%, with ISO 14001 and OHSAS 18001 certifications also awarded to 91% and 63% of our facilities, respectively.

### Joining forces with Electriciens sans Frontières

Prysmian Group has signed a three-year partnership agreement with Electriciens sans Frontières (ESF). Founded in 1986, this non-governmental organisation (NGO) is committed to improving the living conditions of some of the world's poorest populations through access to, and the sustainable development of, energy and water. With around 1,000 volunteers working across 136 ongoing missions and projects in 35 countries, it puts its expertise at the service of other NGOs to secure their electrical installations worldwide.

Prysmian and ESF's first joint project took place in Saponé, Burkina Faso, where the NGO is currently addressing Solidarité Santé Brest's request to improve and strengthen energy supply to the area's 27 Medical Centers with Surgical Antenna (CMAs). The material supplied by Prysmian will be used in the second stage of the project for upgrading and securing the electrical installations of the buildings.

### Helping UNHCR to aid Ecuador

Prysmian Group is cooperating once again with the Office of the United Nations High Commissioner for Refugees (UNHCR), to quickly provide protection and assistance to the Ecuadorian victims of the 7.8-magnitude earthquake that struck the country's Pacific coast in April 2015. The worst affected localities were Chamanga and Pedernales in Ecuador's northwestern Esmeraldas, where the quake caused thousands of deaths and injured more than 4,000 people. As we did for Nepal, Prysmian invited all its employees to contribute by donating a choice amount from their paychecks, which was matched by the Group. Our decision to collaborate with UNHCR is consistent with the Group's recently introduced Corporate Citizenship and Philanthropy Policy, whereby Prysmian actively supports populations who have suffered losses as a result of natural disasters.

# PROFITABILITY MARKEDLY IMPROVED IN Q1 2016

The results for the first quarter of 2016, approved by Prysmian's Board of Directors, basically reflected an uptrend in sales and a marked improvement in profitability.

**C**EO Valerio Battista pointed out that in particular “our technological leadership and project execution capability underpin the excellent performance of the Submarine Cables and Systems business”. Battista also noted that the Telecom Operating Segment has also made a good contribution, especially towards profitability, partly thanks to the reduction in optical fibre production costs. The Oil & Gas Operating Segment has been affected by the industry crisis, but with performance nonetheless in line with expectations. “We are confident”, the CEO stated, “that the new organisation will better focus the strategies of this high value-added business in order to reinvigorate it.” During the quarter, the Group confirmed its deep commitment to research and development, and in recent months it has introduced a number of technological innovations representing industry milestones.

The new P-Laser 525 kV cable system for example, offers unique features in terms of environmental sustainability and lower energy network costs, while the Telecom Operating Segment's Flextube® 2112F optical cable has set a new record for the number of fibres in a single optical cable. Such competitive acceleration lends added credibility to the Group's growth strategy. Mr. Battista added that “also on this basis we are confident of being able to achieve the challenging profitability targets we set ourselves for 2016, with an Adjusted EBITDA in the range of €670-720 million.”



Sales grew organically by 2.3% to €1,810 million, thanks to the excellent performance of +26.4% for Energy Projects and the positive trend of +3.30% for Telecom. Energy and Infrastructure remained stable while Industrial and NWC showed a slight improvement of +1.4%.

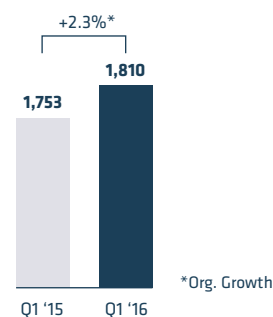
Profitability posted a marked improvement, with adjusted EBITDA up 25.4% at €150 million from €120 million one year earlier, and adjusted EBITDA margin on sales rising to 8.3% from 6.8%.

The Net Financial Position reported a solid balance of €1,038 million as of 31 March 2016 compared to €1,040 million one year earlier thanks to €531 million in net cash flow provided by operating activities in the 12 months to the end of the quarter.

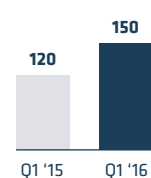
Guidance for full year 2016 is for an adjusted EBITDA in the range of €670-720 million, up from €623 million in 2015.

### Q1 2016 Key Financials

#### Sales



#### Adj. EBITDA



# EXCELLENT PERFORMANCE FOR ENERGY PROJECTS

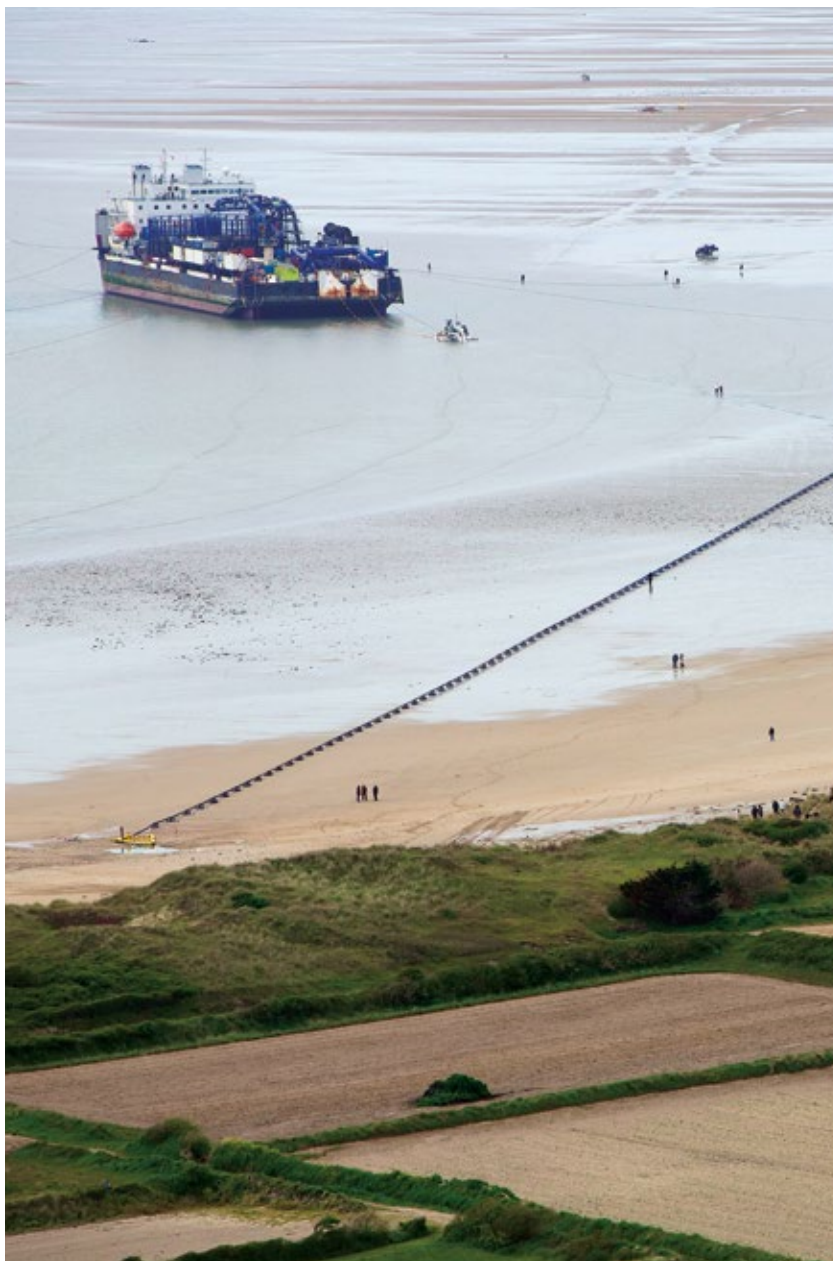
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**The Submarine Business made a major contribution thanks to interconnectors and offshore wind, while our HV Underground Systems was also positive with a stable order book at near record-level.**

**Prysmian Group Energy Projects Operating Segment** reported sales of €346 million in the first quarter, reflecting underlying growth of 26.4%, and also because of comparisons to slower project phasing in the same period last year. Profitability improved considerably with adjusted EBITDA at €39 million, +46.9% on €26 million in the first quarter of 2015, while margin on sales improved to 11.2% from 9.4%.

Sales of **Submarine Cables and Systems** were boosted by sustained production from the Arco Felice and Pikkala plants in Italy and Finland respectively, as well as by improved execution capabilities for the numerous projects underway.

The improvement in margins particularly reflected the focus on project management and the availability of installation assets for full operational use, such as the now refitted Cable Enterprise vessel. The main projects in progress during the period were the Western HVDC Link in Britain; the Greece-Cyclades, Italy-Montenegro and Dardanelles Strait interconnectors, and the cabling of the 50Hertz and DolWin3 offshore wind farms. The market is proving to be solid, with good tender activity in France, Britain and the Netherlands.



In such a market context the Group has further strengthened its competitiveness by developing technological innovations that represent industry (the 525 kV P-laser HVDC cable, and the 66 kV cable for offshore inter-array applications), and by purchasing a new cable-laying barge, currently being upgraded.

Sales of **HV Underground** cables performed well, with high-quality projects implemented in France, the Netherlands,

China and North America, alongside confirmation of dynamism in the Middle East, a region engaged in developing major new energy infrastructure, thanks to several orders. Demand has remained weak in Italy, Spain and Russia.

Despite the currently high pace of project execution, the Underground and **Submarine Power Transmission** order book has remained stable at €3.2 billion, reflecting the Group's ability to win new business.



## IMPROVED PROFITABILITY FOR ENERGY PRODUCTS

**The quarter saw a Technology & Innovation improvement in North America, Britain and Eastern Europe. Growth continued for Power Distribution, while Industrial Cables regained ground, along with Elevators, and Specialties & OEM.**

Overall sales of the **Energy Products Operating Segment** amounted to €1,110 million in the quarter, of which €143 million were from the consolidation of Oman Cables Industry starting January 1 2016. Sales grew in North America, Oceania and certain Asian countries, while remaining stable in Europe and continuing to fall in Brazil. Profitability improved, with adjusted EBITDA climbing 27.4% to €66 million (including €12 million from Oman Cables) from €53 million, while margin on sales rose to 6.0%, from 4.9%.

**Energy & Infrastructure** sales amounted to €754 million, of which €143 million derived from the first-time consolidation of Oman Cables. Adjusted EBITDA came in at €38 million (of which €12 million was incremental contribution from Oman Cables) up from €26 million in the first quarter of 2015. million as the downturn in The Group's Oil & Gas division was partially offset by our other businesses.

Results for **Trade & Installers** showed differing trends by region with positive performances in North America, Britain, Eastern Europe and Australia weighed down by the deteriorating scenario in Brazil and Argentina. Profitability



reflected the positive effects of actions taken to regain efficiency by refocusing the manufacturing footprint.

**Power Distribution** reported good sales, driven by strong performance in Germany and Northern Europe thanks to infrastructure investments, and a revival in Asia Pacific.

**Industrial & Network Components** posted a positive underlying growth of 1.4% to €333 million. The Group's wide geographical and business diversification mitigated the effects of the general

instability of infrastructure investments. Adjusted EBITDA improved to €29 million from €26 million.

**Specialties & OEM** recorded a generally positive trend, with good performance for crane, marine and defence applications; nuclear, railway, rolling stock and mining all recorded weak demand. In renewables, the positive trend for solar in North America contrasted with weakness for wind in China. The Elevator business enjoyed a solid performance everywhere, expanding its market share in North America and Asia.

## HEAVY IMPACT FROM THE OIL CRISIS

**The Oil & Gas Operating Segment suffered a decline, in line with forecasts. The new organisation and management are preparing to re-launch a strategic business.**

The Oil & Gas Operating Segment sales came in at €82 million, down from €130 million one year earlier as the performance of the business was hit hard by the drop in oil prices, affecting investment decisions. For the core Oil & Gas cables business, the adverse market conditions led to slowing demand in both offshore and onshore projects.

In the Subsea, Umbilicals, Risers and Flowlines (SURF) business, the new framework agreement with Petrobras reflects the slowdown in offshore investments in Brazil. The Down Hole Technologies business proved to be more resilient, thanks to a wider customer base and geographical diversification. A positive contribution also came from the integration of the newly acquired Gulf Coast Down Hole Technologies.

Adjusted EBITDA for the quarter came in at €3 million, down from €13 million in the first quarter of 2015, with margin on sales down to 3.8% from 10.3%, in line with expectations.

The growth strategy for the business is now becoming more focused thanks to a new organisational model, and the arrival of Cristiano Tortelli, a long-experienced manager who joined Prysmian at the start of the year. The pillars of this new strategy are: a focus on cost reduction, technological innovation and customer service; optimisation of the supply chain and manufacturing footprint, and development of upstream synergies with suppliers and downstream with customers.

## TELECOM: MAJOR IMPROVEMENT IN PROFITABILITY

**The quarter saw a growth in demand for optical cables in Australia and North America, while Multimedia Solutions also grew thanks to Datacom and Multimedia impetus.**

Our Telecom Operating Segment sales grew 3.3% organically in the quarter to €272 million, while profitability improved significantly, with a 49.8% leap in Adjusted EBITDA to €42 million from €28 million in the first quarter of 2015. This was due to having benefited from investments to reduce optical fibre costs, from strong growth in copper cable volumes—especially in Australia—, and from the contribution of Yangtze Optical Fibre and Cable Joint Stock Limited Company. The Adjusted EBITDA

margin on sales also improved to 15.4% from 10.1% one year earlier.

In the Telecom Solutions business, lively demand for optical cables in Australia and North America was counterbalanced by market weakness in Europe and South America. Demand for copper cables in Australia and South America also proved much stronger.

Growth in the Multimedia Solutions business was primarily linked to the



dynamism of the European data centres market, which the Group has intercepted well by showing a customer-oriented, service-driven and responsive approach. Competitiveness in the telecom cables and systems market was further enhanced by the Telecom Operating Segment's determination in implementing its growth strategy. Investments for improving the efficiency and effectiveness of optical fibre production are delivering impressive results and the creation of optical cable manufacturing centres of excellence is making the offer even more competitive.





## A solid set of figures that surprised the market

Brokers and analysts were positively surprised by the solid Q1 set of figures, and appreciated the FY 2016 guidance. Among others, Credit Suisse highlighted the solid top-line growth and margin improvement, raising its target to €23.0/sh from €21.0/sh. Bank of America Merrill Lynch affirmed that Prysmian's mid-term growth potential is not fully reflected in current market price, upping its target to €24.0/sh from €23.0/sh. Equita, Kepler Cheuvreux, Banca IMI and Akros confirmed their positive view, adjusting their valuations to reflect better than expected results. Some brokers confirmed their neutral stance; HSBC and Barclays appreciated the sound Q1 figures but highlighted that the company's FY guidance mid-range offers limited upside, as did Intermonte SIM.

## Upbeat guidance for full year 2016

**The first few months of 2016 have witnessed moderate growth in the world's major economies, partially eroded by the uncertain economic environment in some emerging countries and by a renewed decline in key commodity prices. Lack of momentum in the Eurozone, continuing strong growth in the United States and the escalation of the political crisis in Brazil were the main topics of the macroeconomic scenario.**

In this context, Prysmian Group expects that in 2016 demand in the cyclical businesses of medium voltage cables for utilities and building will record a slight volume recovery with a stabilisation in prices. With the Energy Projects Operating Segment seeing a steadily stabilising market, it also expects to improve its performance in both the Submarine and High Voltage underground businesses. In the Oil & Gas Operating Segment, the drop in oil prices and consequent reduction in investments will have an adverse impact, especially in its core Oil & Gas business. The Telecom segment is expected to see continued growth in optical fibre cables,

albeit at a slower pace and with some fluctuations. Exchange rate effects are forecast to have a negative impact on the Fiscal Year (FY) 2016 results as a result of translating income statements expressed in other currencies.

The Group is forecasting Adjusted EBITDA for FY 2016 in the range of €670-720 million, marking a significant improvement from €623 million reported in 2015. The forecast is based on the current business parameters and takes into account the current order book and the trends in the different operating segments, while also reflecting expectations for the full consolidation of Oman Cables.

# THE BACKBONE OF EUROPE'S DIGITAL MARKET

The significance that high quality fibre cables will have on the viability of Europe's future infrastructures, which will form the backbone of Europe's Digital Single Market, is being increasingly acknowledged by key business and policy makers across the continent.



**P**hilippe Vanhille, Executive Vice President of Telecom Business at Prysmian, urges institutions and the public across Europe to embrace the most modern fibre technology in order to ensure the success of long-lasting, high-speed networks, both technically and commercially. As a community of technology experts, “we must capitalise on our know-how and

the advanced technologies available, to progress towards the end goal of a single space where products and information can be traded seamlessly via digital means,” explains Vanhille. He believes that putting emphasis on the quality of the infrastructure “means that access to this space is not dependent on nationality or location”, while “paying attention to the quality of our collective infrastructure is a must for minimising disruptions and for really delivering to end users the service they pay for”.

## Closer to customers in Italy



Sales managers from Prysmian Italy met earlier this year with Fastweb, a telecommunications company specialising in landline telephone and broadband connection services, and one of the Group's key customers. The meeting allowed us to become more familiar with the telecom solutions business.

It additionally served as an opportunity to focus on and engage in dialogue with such an advanced customer, so as to be increasingly effective in satisfying its needs, in a customer-centric way. Fastweb provided a detailed illustration of the characteristics of its fibre-optic network, which is currently Italy's most extensive proprietary next-generation network based solely on Internet Protocol (IP).



### Getting into South Africa

VH Fibre Optics, Prysmian's value-added reseller, introduced Prysmian VerticasaXS and RetractableNetXS into the South African market about four years ago. Since then, these products have been used extensively in the company's recent FTTx rollout projects.

# Calling for a brighter future

Policymakers, regulators, operators and end users recently gathered in Luxembourg at [the annual Fibre to the Home \(FTTH\) Conference](#), to discuss fibre infrastructure solutions for the coming years in a two-day meeting for which Prysmian Group was Gold Sponsor. Edgar Aker, Prysmian Group's Director of Marketing & Business Development in the Netherlands and President of the FTTH Council Europe, noted that global demand for fibre optic cable has been increasing dramatically, with few signs of slowing

anytime soon. FTTH penetration in the Asia Pacific region passed 100 million fibre subscribers, there are large FTTH deployments in both Americas, while national plans are also underway in the Middle East.

The trend in Europe also points upwards, with a 50% increase to 14.5 million fibre subscribers in 2014. But complexity within Europe remains a concern and at times is blocking wide-scale fibre rollouts, Aker warns.

### The right direction

As far as Europe is concerned, it's clear that public money should only be invested in future-proof solutions, notes Aker. The European Commission's technology neutrality can lead to misconceptions, and to unambitious targets that generalise all technologies. Public authorities should set clear targets that include not only download speeds, but also upload speeds,

robustness and quality of service, and low latency amongst others. These are all vital for the interactive services of tomorrow. The FTTH Council Europe aims to help member states by pointing them in the right direction through active debate, acting as a catalyst. We are not standing in the middle; sometimes you have to take the lead. The future is definitely fibre.

### Speeding up in France

Jean Pierre Bonicel is Chairman of France's Objectif Fibre, a platform created in 2009 and representing the optical fibre industry with an overall workforce of some 800,000 employees.

France launched a National Broadband Plan in 2013 known as Très Haut Débit, aimed at delivering high-speed fibre-based broadband across the nation within a decade, and with an overall investment of at least €20 billion. "High speed fibre will strengthen the competitiveness of our companies and the quality of our public services. It is an opportunity to preserve and develop employment," Bonicel explains. Cable installation jumped from 4 to 6 million km between 2013 and 2014 with a

+15% increase projected in 2015. "But", he adds, "We need to almost double this rate to meet the target for 2022. More than 40,000 employees must be mobilised to ensure full deployment; 31,650 technical training courses would be needed to support the skills growth of these new recruits, and 47 national technical support centres would be required in 2 to 3 years to accompany the growth in demand. Bonicel notes that Prysmian has made a major contribution to the writing of the plan's guide, and is the only operator offering a complete range of products - from preforms and raw fibre, to optical cables and connectivity.



# Cabling Barcelona's driverless metro line

**A self-driving and smart metro line requires quality and the highest technical performance of all the materials involved. That's why Prysmian Group was selected to supply more than 250km of medium voltage cables for the new Barcelona Metro Line 9.**

With a 47.8km length, Line 9 is the longest automatic driverless train metro line in Europe, ahead the Arbatsko-Pokrovskaya Line (Line 3) of the Moscow Metro (44.3 km); the MetroSur (Line 12) of Metro de Madrid (41 km); and the Northern Line of the London Underground. The system consists of 43.71 km of underground and 4.09km of viaducts, and is expected to have 120 million passengers a year, connecting Barcelona Airport to the city centre.

Prysmian's Vilanova i la Geltrú energy cable manufacturing facilities have

supplied MV XLPE 30kV cables from its Afumex aluminum cable range, as well as Network Components solutions.

Mauricio Sobero, T&I Sales Manager Prysmian Spain, noted that engineers and technicians from our R&D and Industrial business areas worked together to satisfy specific customer demands and succeeded in getting the right cable for Line 9, confirming the customer's confidence in Prysmian as the best-in-class cable solutions supplier.

## Safety secured at UK's Tulip factory

Tulip, a leading food producer in the UK, has awarded Prysmian a contract to supply a substantial volume of its FP200 Gold fire resistant cable for the fire alarm systems at its Redruth facility in Cornwall.

Tulip boasts 16 sites across the country, supplying to retail and food service markets, providing the UK consumer with a wide variety of products. The newly refurbished site opened in August 2015 and is now home to over 700 employees. With the safety of these hundreds of employees a top priority, Prysmian's FP200 Gold cables were an essential specification in the extension of the factory. "It was the only cable that was right for the project," says Marc Gray, Fire and Security Manager of Fire Crest Fire Protection, who was responsible for specifying and installing the cables. Fire Crest holds the British Approvals for Fire Equipment (BAFE) SP203 accreditation, which demands only the use of cable that meets its performance standards. FP200 Gold is a tough, durable and dressable essential systems cable that is easy to install and terminate. The cable also offers excellent data and signal transmission characteristics, proving the ideal choice for voice alarm, addressable and networked systems.





### Growing demand across Europe

Afumex cables are increasingly in demand by public authorities and organisations across Europe for their fire-resistant properties and ability to protect people and equipment from toxic and corrosive gas and in all poorly ventilated areas. Michele Mossio, T&I and OEM Director of Prysmian Italy, explains that Afumex cables continue to operate, even in the event of fire, and guarantee their duration of survival in harsh working conditions. Our safest cables, they can be supplied from Italy and installed in any other country, underlining the importance of collaboration amongst Prysmian Group's affiliates.

# Prysmian supplies Danish Light Rail

**Prysmian Group was the ideal choice to supply about 300km of low voltage cables for the new Aarhus Letbane or Aarhus Light Rail, the first of its kind in Denmark.**

Currently under construction in the city of Aarhus, Denmark's second-largest city, it will combine tram and tram-train systems. Prysmian will supply its LV Afumex armoured insulated cables – to be manufactured in the Merlino and Giovinazzo plants in Italy – and will cover over 75% of LV cable requirements.

The customer, Ansaldo STS, was awarded this turnkey project in 2014, as part of an Italian-German consortium that includes Stadler Pankow. Ansaldo STS is an Italian transportation company with a global presence in the field of railway signalling and integrated transport systems for passenger traffic and freight operations. It will be responsible for infrastructure – including rails, overhead signalling, and a control and maintenance centre – whilst Stadler Pankow is to supply the rolling stock.

Scheduled for completion in 2017, the first phase of the project involves approximately 110km of light rail-line, serving 51 stops in the Aarhus area. The project is estimated to contribute 47GW of annual energy savings and reduce 7,300t of CO2 emissions per year.

# Hungary factory to become centre of excellence

**Prysmian Group has recently inaugurated a new rubber cable production facility in Kistelek, and plans to develop it over the mid/long-term for flexible rubber and fire resistant cable production in Central and Eastern Europe.**

Work began in 2014 and will continue over the next three years for the purposes of supporting demand in both Eastern and Western European markets.

The plan is to enhance the plant's capabilities and capacities by enabling the production of 'high tech' rubber and fire resistant cables, while also increasing

the current capacity of standard PVC cable production.

The first stage of the plan has seen the investment of more than €12 million from 2014-2016, and the installation of 15 new production lines and new laboratory equipment, enabling not only a potential turnover increase of around €50 million,

but also creating opportunities for new jobs. More than 50 have already been created for engineers and blue-collar workers who operate the new production lines. Further long-term growth will be sustained by a second investment of a similar size between 2017 and 2018.



## **Australian world first for Flextube®**

*Prysmian marked the launch of local manufacturing of its new and revolutionary Flextube® cable technology in Sidney with yet another world first – the installation of its highest fibre-count cable to date.*

TPG, a leading Australian telco, required the highest fibre-count cable possible in an ultra-dense single cable solution for a particular application. Using our innovative Flextube® technology, Prysmian responded, manufacturing a cable with a capacity of 2,112 fibres. It's not only the highest fibre-count cable ever manufactured by Prysmian but also exhibits the world's highest fibre density, and is designed to be extremely compact, lightweight, flexible and much faster to install. Prysmian has partnered with TPG for many years, and the company is one of the first in Australia to trial the Flextube® product.



## Supporting Milan's National Museum of Science

Named after celebrated Italian polymath Leonardo da Vinci, the Museo Nazionale della Scienza e della Tecnologia Leonardo da Vinci has introduced a new wing called 'Cavallerizze', following major building refurbishment and urban regeneration works. Prysmian Group was among the initiative's sponsors, supplying optical fibre and low-voltage cables from its Afumex™ and Amico™ ranges. "It is a great honour to partner with the largest science museum in Italy, and one of the most important in the world," stated Lorenzo Caruso, Corporate and Business Communications Director, Prysmian. "This is a partnership of excellence, which brings together two important organisations in the city of Milan: the museum, known to everyone because it houses the Toti submarine, and our company, a manufacturer that was formed, has grown and is rooted in the local area." The optical fibre cables donated to the museum feature Low Smoke Zero Halogen (LSZH) technology; the protective jacketing of these cables is composed of thermoplastic or thermoset compounds that release very limited smoke and no halogen when exposed to sources of heat/flame.

# Record-breaking multimode production in Eindhoven

2015 saw the Group's Dutch plant produce more than 1.2 million km of multimode fibre. Such an impressive achievement was a result of the factory team's goal of becoming the number one multimode factory in the world. Roland van Laere, Plant Director explains that "with strong support from the Optical Fibre business unit's Sales and R&D teams, and the help and contribution of everyone who works here, 180 employees of whom 40 are flex workers, we have made this vision a reality".

In addition to the core business of multimode products, Eindhoven produces single- and multi-mode core rod glass (up to the equivalent of 10 million-fibre km) and speciality products, all based upon the PCVD production platform. Together

with R&D, they've built a large patent portfolio that supports and protects our developments of equipment, processes and products. However, the plant's primary knowledge and best practice is captured in the collective form of its employees. Roland notes that their way of working is based upon Total Productive Maintenance (TPM), "a holistic approach for maintaining and improving the integrity of production and quality systems that focuses on keeping all equipment in top working condition to avoid breakdowns and delays in manufacturing processes". The vast production of 1.2 million km of multimode fibre in one year makes the plant the top manufacturer of multimode fibre in the world. Output has exceeded every expectation, with a volume increase of more than 20% on the previous year.

# ITALY JOINS THE SOUTH EUROPE REGION

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**The Prysmian Group South Europe Region has extended its perimeter to now include Italy, and is implementing an integrated regional structure in line with its target model, defined a year ago.**

**I**t reinforces the Group's decision to integrate markets that have similar products in order to improve the sharing of knowledge and competencies. The enlarged region will have one integrated R&D department and one respective head for Manufacturing, Supply Chain and Purchasing; second-tier management will maintain a local

focus as required, while exploiting cross-country synergies whenever possible. Commercially, the priority is to maintain close control of local markets through chief commercial officers who also act as local team leaders, ensuring cross-functional cooperation at country-level in order to serve the market better.

## **A market with high potential**

The Mediterranean region is a market with high potential; the area currently accounts for more than 15% of worldwide turnover and has a value in excess of €7 billion. In the next few years demand for road and rail infrastructure and telecommunications should increase rapidly. Prysmian wants to be ready to satisfy this demand. Italy is also likely to see growth in internal demand thanks to important undertakings such as the ultra-broadband project being run by Telecom and Enel.







**Prince of Wales pays a visit to Prysmian**

Prysmian Group's British factory in Aberdare now boasts a new automated customer service centre, officially opened by His Royal Highness Prince Charles, who was visiting the South Wales area to oversee various projects and business developments. The facility is hugely important to us, as it dispatches more individual product lines than any other within the Group, many of which are exported across the globe to markets including Asia, Hong Kong and the Middle East.

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