



POWERED BY PRYSMIAN

# ADVANCED CABLE TECHNOLOGY

11th Mediterranean Ports & Logistics 2024

# Innovation defines us

To us, innovation means meeting the needs of our customers and communities by understanding their business drivers as quickly as they do.

Our ability to innovate is what makes us a market leader, with a track record of delivering products that are faster, smarter and more sustainable than before. In other words, products that are simply better to enable the **energy transition** and **power the digitalization** and **electrification** of our communities **in a sustainable way**.

## OUR R&D CAPABILITIES AND RESOURCES



About **5,600** patents  
covering the main  
innovations

**26**  
Research centres

**900**  
Professionals

**98**

Product families  
launched during  
the year

Over **50**  
Collaborations with research  
centres and universities

## OUR INNOVATION PILLARS

New products aligned with BUs' strategies  
(P-Laser, ECOCABLE; etc.)

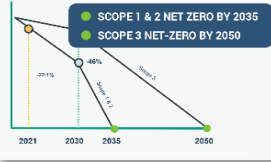
Electronics and Optical Sensing Solutions for Asset Monitoring  
(PRY-CAM, Omniens)

Digital Culture & Digital Products  
(Alesea, PRY-ID)

Innovation Accelerator & Start-ups  
(Corporate Hangar)

# Design for Sustainability

## GROUP SUSTAINABILITY



Environment



Innovation



Social

## Prismian Group Design 4 Sustainability (D4S)

## DRIVING CRITERIA

Carbon Footprint



Kg CO<sub>2,eq</sub> referred to cable weight  
cradle to gate approach (only materials and process contribution)

Potential Recyclability



Weight of recyclable materials at EOL referred to cable weight (metals excluded)

Hazardous Substances



Substances of Very High Concern (SVHC) referred to total cable weight

Recycle Input Rate



Weight of Recycled material used for the cable production referred to the cable weight (both for plastics and metals)

Transmission Efficiency



Part of Joule losses during the cable lifetime referred to the transmitted power

Environmental Benefits



Related to the cable final application (low carbon products enabling energy transition) and safety in use

## INNOVATION WORKSTREAMS

P-LASER



Recycle r-PE



Recycle Cu/Al



Elimination SF<sub>6</sub>



Alesea



E3X®



Green Packaging



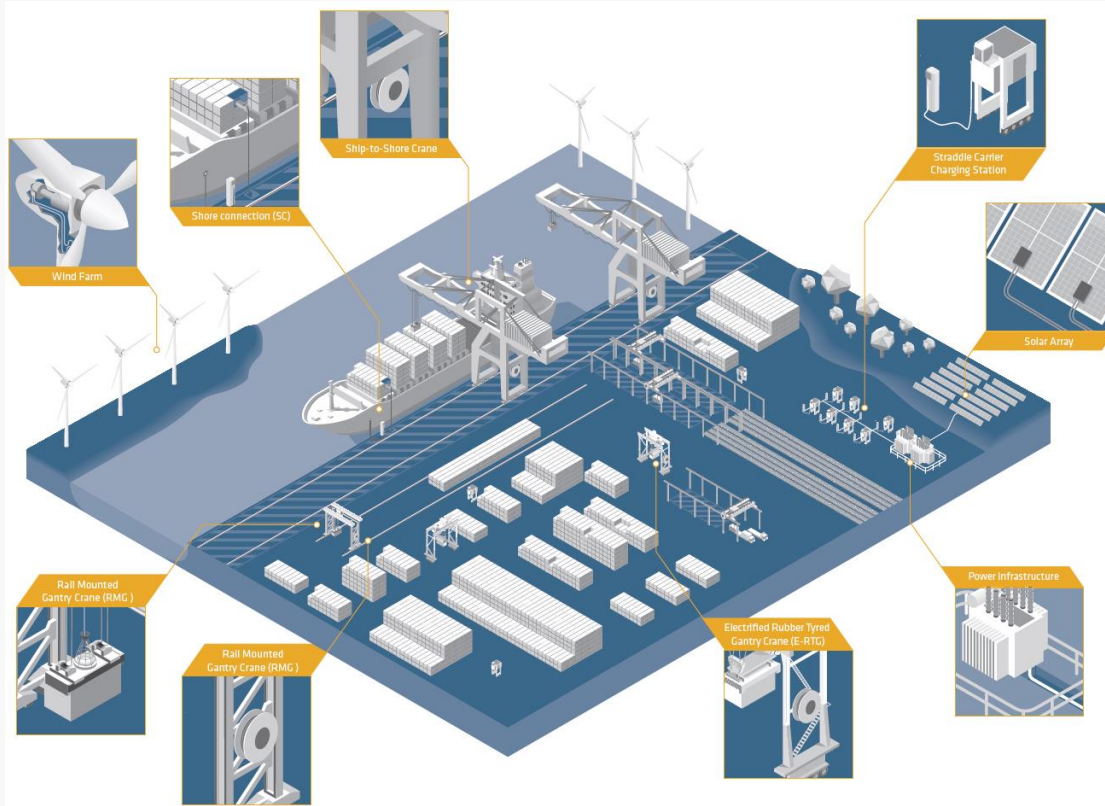
Bio Materials



Sirocco® M icroduct



# Green Portfolio



- **Shore Connection & Alternative Marine Power**
- **MV and LV reeling cables for E-RTG**
- **Green-labeled Crane Cables**
- **EV charging station**
- **Renewable energy generation**
- **Eco-friendly power distribution & transmission**

# The Prysmian offer to your Port



# Challenges of today

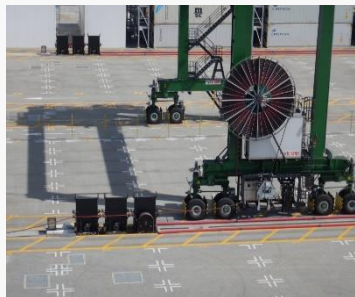
**KPIs of port operators** focused more than ever on productivity safety:



- Minimizing downtimes of crane operation
- Increasing throughput
- Ensuring faster and trouble-free container load/unload
- Achieving accident/fatality-free operation
- Reducing the number of people on site
- Increasing the level of automation
- Environmentally friendly port operation

**What are the consequences for the main power supply cables?**

- ✓ Faster – Greater – Broader and operating at specification limits means increased stress for the cable
- ✓ Shrinking tolerance to handle stress peaks caused by installation failures, incorrect machine set up or insufficient maintenance
- ✓ Lifetime shortage

# Low Voltage Power Cable Family – The Real Deal



| CORDAFLEX(SMK-200)  | CORDAFLEX(SMK)  |
|---|---|
|  |  |
| Made for reeling operations with <b>moderate</b> mechanical stresses              | Made for reeling operations with <b>high to highest</b> mechanical stresses         |
| <b>Flexible – Optimized – Easy – Robust – Reliable</b>                            | <b>Super flexible – High Tension – Outstanding Performance</b>                      |





# MV Cable Family – The Real Deal



PROTOLON(SMK-200)



Made for  
reeling operations with  
**moderate** mechanical stresses

PROTOLON(SMK)



Made for  
reeling operations  
with **high to highest**  
mechanical stresses

PROTOLON(SMK+HS)



Made for  
**High speed**  
reeling operations

PROTOLON(iQ)



Made for  
**Permanent  
Monitoring**  
of reeling operations

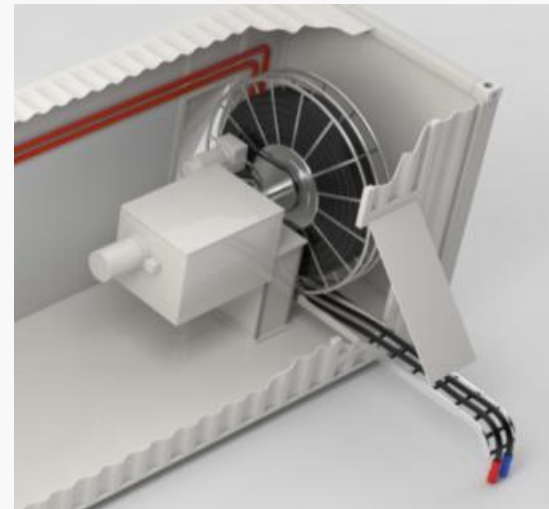




# Environmentally friendly feeding of docking vessels

Our PROTOCOLON Shore Connection cables will keep the ships sustainably energised.

As you sit at the dock of the bay, watching the tide roll away, our PROTOCOLON SC cable will work hard to keep the vessels energised from the electrical grid while berthing. Instead of keeping the diesel engines running, the vessels get more sustainable energy while saving on fuel and reducing the carbon footprints. A win-win for everyone. Just lay back and breathe easily.



- According to IEC/IEEE 80005-1
- Systeme available also with factory-fitted plugs

# After Sales Service

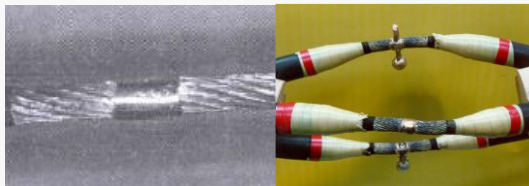


## Crimp



Fixed installation  
sporadic movement

## Cadweld



Simple application,  
connect different core  
sizes and core  
constructions

## Splice

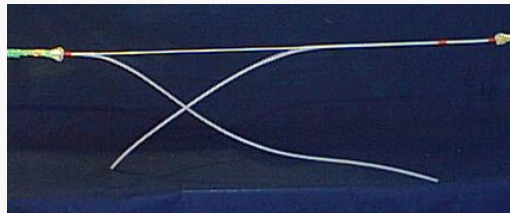


**Permanent reeling  
with long lifetime  
expectations**

# After Sales Service



Energy



Fibre Optics



## Definition:

Cable repair for special cables means the reestablishment of the full cable features **without** any restrictions neither for the mechanical nor for the electrical performance whilst keeping the diameter of the cable.

# Helping to meet today's big challenges

**The energy transition**  
From fossil fuels to renewable sources for low carbon future

**The digitalization of our world** Channelling and transporting an explosion of big data

**The electrification of society**  
Enabling the application of electrical power throughout the world

**Global** and **flexible** supply chain

**Extended** product range

**Sustainable product** innovation

**Global solution** provider

Advanced proprietary technologies



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THANK YOU