

THE CALL OF THE PLANET FOR A SUSTAINABLE ELECTRIFICATION

NEXANS CLIMATE DAY

SEPTEMBER 22, 2020
PARIS - GOODPLANET FOUNDATION



WELCOME MESSAGE

At a time when global warming is accelerating and the energy transition is underway, the issue of sustainable electrification of the world is increasingly urgent.

Did you know that?

- The demand for electricity will increase by at least 40% over the next 20 years, even if we manage to stay within the 2°C trajectory set out in the Paris Agreement in 2016.
- More than 100 million European households will switch from fossil fuels to electric heating by 2050.
- 23,000 billion euros will be invested in electricity production resources and networks by 2040.

As a major player in the fight against global warming and leading the energy transition, Nexans is organizing its first Climate Day in Paris on September 22, 2020. This first edition will bring together global experts on these issues to provide answers to the planet's call for sustainable electrification.

Leaders with diverse opinions will attend to discuss the major issues facing us with regard to the world's electrification. It will open up the discussion to arrive at shared thinking about the solutions, as Nexans does not have the answers to all these questions on its own.

The starting point for the discussions will be an unprecedented global study by Roland Berger consultants about the challenges around the world's electrification which it is our duty to overcome. Organized in Paris at the GoodPlanet Foundation, under the high patronage and in the presence of its founder Yann Arthus-Bertrand, this event will provide an opportunity to discuss the challenges of sustainable electrification of the world and its key role in the fight against climate change. Christel Heydemann, Executive Vice-President, France Operations Schneider Electric, Mark Lewis, Global Head of Sustainable Research at BNP Paribas Asset Management, Emmanuel Fagès, Partner in charge of electrification issues at Roland Berger and Christopher Guérin, CEO of Nexans, will answer questions from journalists and thought leaders.

Edouard Lecerf, Deputy general director of BVA, will comment on the results of a global poll conducted in France, the United Kingdom and the United States. The results of this international study will provide a point of comparison between the perceptions of the public opinions surveyed. A major partnership with an environmental focus in the field of sports will also be announced.

The morning will be followed by a work luncheon with the speakers and members of the Nexans Executive Committee in order to explore further the solutions put forward by Nexans.

All social distancing and personal protection measures will be adhered to.

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The call of the planet for a sustainable electrification

Future challenges



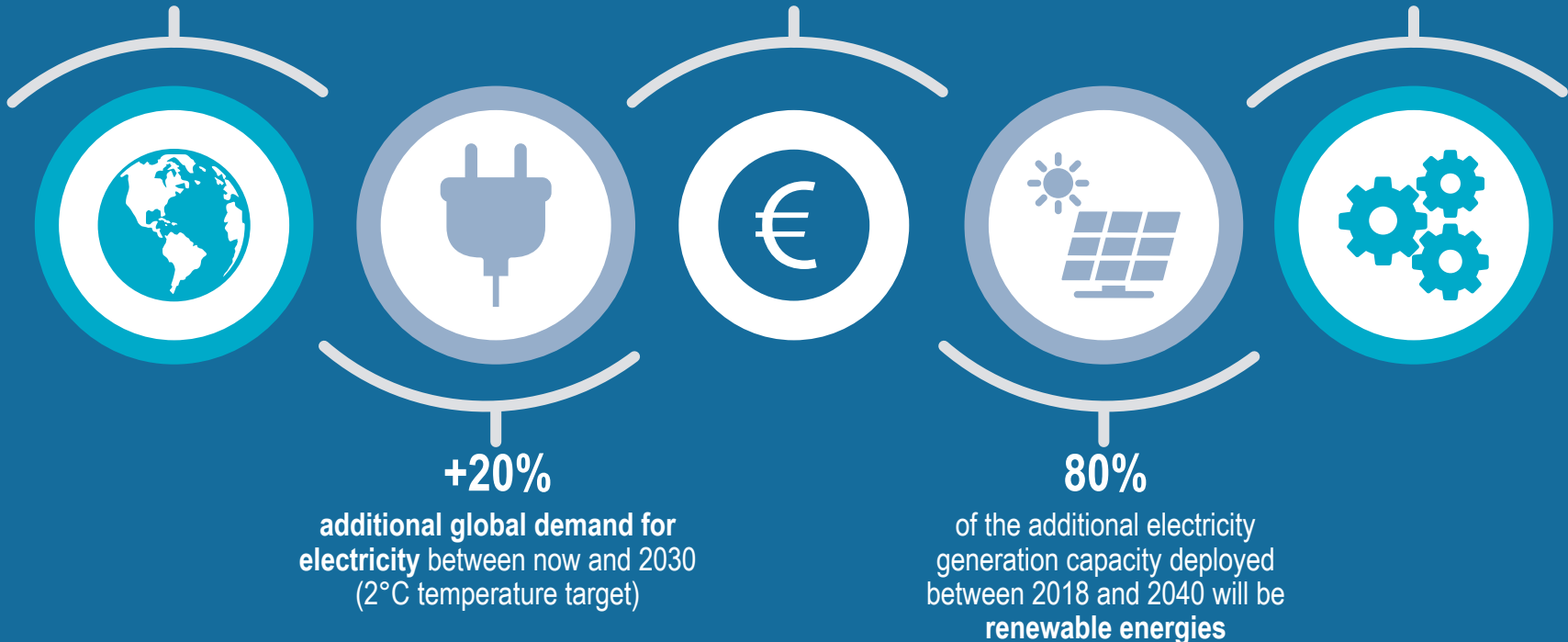
Growing demand for electricity requires major investments and the emergence of new economic models

Points to remember

100%
of the world's population must have **access to electricity from 2030 onwards** if the +2°C target is to be adhered to (i.e. **+1.8 billion inhabitants**)

EUR 23 Trillion
will be invested in new **means of electricity generation and grids** between now and 2040

New economic models
and new players are emerging, linked to the decentralisation and digitalisation of electricity systems



Electrification plays a key role in human development and in combating climate change, as its economic models are being disrupted



Driven by urbanisation and usage, electrification is playing a key role in human, social and economic development

- > Driven by demographics and urbanisation, electrification is **instrumental to human development**
- > Moreover, demand for electricity is bolstered by:
 - A **usage substitution effect** (industry, construction and transport)
 - The **continued expansion of** digital and fully electric usages
- > To meet **growing demand for electricity** (+ 1.7% per year between now and 2040), there must be **substantial investment** in new means of generation and in grids, particularly in **Africa** and in **Asia**



Electrification has a key role to play in combating climate change, from its generation to its consumption

- > Limiting global warming to 2°C means **reducing greenhouse gases by half** by 2050, compared with 2016 levels
- > Electrification must contribute to a fall in CO₂ emissions at the level of:
 - **Generation**, through the deployment of new **renewable** capacities to replace carbon-based sources
 - **Grids** and **storage**, thanks to **sectorial coupling**, making energy flows interoperable and making the most efficient use of surplus generation
 - **Reduced consumption** through improved **energy efficiency**



Looking beyond the established players, new economic models and players are emerging in the electricity ecosystem

- > **Decentralisation** of electricity generation contributes to the emergence of **alternative models** to those of established players: generation and flexibility aggregators, peer-to-peer platforms, etc.
- > In addition, in line with the trend already seen in many sectors, energy is gradually switching to an **'as-a-service'** model (payment for a service provided)
- > Finally, numerous **digital start-ups** are providing technology-based **asset and energy management** services and setting themselves up as new intermediaries

This document, which organised around three themes, looks at findings on the benefits of sustainable electrification

Agenda



A

Expansion of electricity in energy systems and economies

Page 5



B

Contribution of electrification to combat **climate change**

Page 18



C

Contributions by electrification to the development of new **economic models**

Page 35

Founded in 1967, Roland Berger is the first global consultancy firm the first of European origin. Established in France since 1990, the Paris office, with nearly 300 employees, advises the largest international companies and public institutions on all their issues, from strategic consulting to operational implementation. It is committed to proposing innovative solutions, with a particular focus on achieving concrete and measurable results.

PROGRAM

08:30 AM **Welcome**

**09:00 -
10:30 AM** **Keynotes**

- Christopher Guérin, CEO, Nexans
- Yann Arthus-Bertrand, President, GoodPlanet Foundation
- Mark Lewis, Global Head of Sustainable Research at BNP Paribas Asset Management

**10:30-
11:00 AM** **Break / Networking**

**11:00 AM -
12:30 PM** **Presentation of the results of a public survey** by Edouard Lecerf, Deputy general director of BVA and a **conference about the paradoxes around sustainable electrification** through a discussion open to the floor.

- Christel Heydemann, Executive Vice-President, France Operations Schneider Electric
- Yann Arthus-Bertrand, President, GoodPlanet Foundation
- Mark Lewis, Global Head of Sustainable Research at BNP Paribas Asset Management
- Emmanuel Fagès, Partner at Roland Berger
- Christopher Guérin, CEO, Nexans

**12:30 -
1:00 PM** **Official signing of a major partnership with an environmental focus in the field of sports**

**1:00 -
2:30 PM** **Discussion luncheon with the members of the Nexans Executive Committee regarding the Group's proposed solutions for the planet's sustainable electrification.**

SPEAKERS

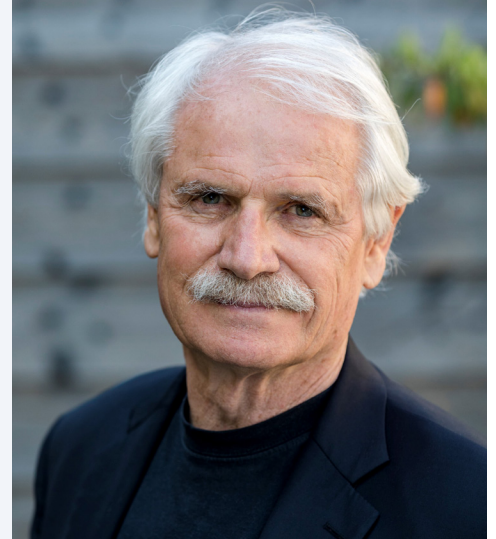


CHRISTOPHER GUÉRIN CEO, Nexans

Christopher Guérin was appointed Chief Executive Officer of Nexans in 2018. He has spent most of his career with the company, where he has held the position of Senior Executive Vice President, Europe Industry since 2014. Prior to this date, he was in charge of the Industry Market Line, which he took over in 2013 after having held, for 6 years, various Sales and Marketing functions in France and Europe.. Between 2005 and 2007, he held the position of Sales Director Europe. After working at Fenwick Linde in the United Kingdom, he joined Alcatel Cables in 1997, which became Nexans in 2001, in the Metallurgy division where he will be in charge of various management functions. Christopher Guérin is a graduate of ESDE and INSEAD.

YANN ARTHUS-BERTRAND President, GoodPlanet Foundation

Born in 1946, Yann Arthus-Bertrand has always been passionate about the animal world and natural spaces. Very early on, he started using a camera to record his observations along with his writing. In 1992, Yann launched a photographic project about the state of the world and its inhabitants: "Earth from Above". Continuing his commitment to environmental causes, Yann created the GoodPlanet Foundation. Since 2005, this non-profit aims to put the ecology and humanism at the centre of our collective conscience and to encourage us to take concrete action for the Earth and its inhabitants. In May 2017, with his foundation, he opened the first place dedicated to ecology and humanism in Paris in the Bois de Boulogne: Le Domaine de Longchamp. The Domaine offers a free space for experimenting with committed works, meetings and sharing, to live the experience of generous ecology. This commitment was the reason for his being named a UNDP Goodwill Ambassador in 2009. He then began making several documentaries about the environment and humanism: Human in 2009, Planet Ocean co-directed with Michael Pitiot in 2011, A Thirsty World in 2012, and Human and Terra both in 2015. Yann Arthus-Bertrand next took up a new challenge by co-directing Woman with Anastasia Mikova released in March 2020. This film, entirely devoted to women from around the world, took more than three years to make, and involved several thousand interviews in 60 countries. He is currently working on two new projects: Legacy, the continuation of Home, and France, a love story.





MARK LEWIS
**Global Head of Sustainability Research at BNP Paribas
Asset Management**

Mark Lewis is Global Head of Sustainability Research at BNP Paribas Asset Management, having joined in January 2019. Previously, he was Managing Director and Head of Research at the Carbon Tracker Initiative (April-December 2018), Managing Director and Head of European Utilities Research at Barclays (2015-18), Chief Energy Economist at Kepler Cheuvreux (2014-15), and Managing Director and Global Head of Energy Research at Deutsche Bank (2005-13). He has also been a member of the Financial Stability Board's Task Force on Climate-related Financial Disclosures since May 2016. Mark is a UK and French Citizen and holds a BA (First-Class Hons) in Modern Languages and Economics from Sheffield University, an MPhil from Cambridge University, and an MA from London University.

CHRISTEL HEYDEMANN
**Executive Vice-President,
France Operations Schneider Electric**

Christel Heydemann is Executive Vice President, France Operations, and Member of the Executive Committee of Schneider Electric since April 2017. Christel began her career in 1997 at the Boston Consulting Group. In 1999, she joined Alcatel where she held various executive positions, notably during the merger of Alcatel and Lucent. In 2005, she moved to the sales division of Alcatel-Lucent where she was in charge of SFR and Orange key accounts. In 2008, she was appointed Sales Director France and Member of the Executive Committee of Alcatel-Lucent France. In 2009, she negotiated a strategic alliance with HP in the United States and was then promoted, in 2011, to the position of Executive Vice President Human Resources and Transformation. Christel joined Schneider Electric in 2014 as Strategic Alliances Vice President with the mission of accelerating, launching and promoting IoT solutions through the development of strong partner network, before being appointed in 2016 Corporate Strategy & Alliances Senior Vice President. Moreover, Christel is President of the Gimelec and Board Director at Orange. Christel graduated from Ecole Polytechnique (France) and from the Ecole Nationale des Ponts et Chaussées (France).



EMMANUEL FAGÈS
Partner at Roland Berger

Emmanuel is a Partner in the Roland Berger Paris office. He has worked for over 20 years in the energy sector, in different environments such as utilities, financial energy markets and strategy consulting. Emmanuel is knowledgeable in every part of the energy value chain, from resource exploitation to energy services, through equipment manufacturing, and power generation. In the context of formidable changes at work in the industry, driven by the rapid improvement of decentralized generation economics and the penetration of digital, he helps his clients adapt their business models as well as identify new opportunities, as historic sources of value and industrial organization paradigms are shattered. Throughout his career, Emmanuel has authored many research papers and spoke at a large number of high-level conferences. He regularly appears in the specialized and generalist press. Emmanuel graduated from ESSEC with an MBA and holds a PhD in Economics.





Nexans Group 2020



A worldwide leading expert in advanced cabling and connectivity solutions

Sales in 2019 of 6.5 billion Euros ⁽¹⁾
Listed on Euronext Paris, Compartment A

13%⁽²⁾
High Voltage

23%
North America

38%
Europe

12%
Asia, Pacific

7%
South America

7%
Middle East,
Russia, Africa

- **Serving customers on all continents**
- **Industrial footprint in 34 countries and commercial activities worldwide**
- **26,000 local experts**

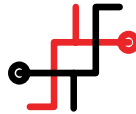
1. Sales at constant metal prices, 2019 data restated with change in copper standard price in force since January 2020
2. Global Business Group
3. % sales by Geography based on sales at constant metal prices new standard, excluding Harness

Serving key markets

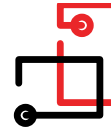


Support customers from the beginning (design, engineering, funding, asset management) to the end (system management) in finding the right cable system solution to address their efficiency and reliability challenges.

Land-based and submarine telecommunication networks, using copper and optical fiber cables.



Support OEMs and industrial infrastructure projects in customizing their cabling and connectivity solutions addressing their electrification, digitalization and automation challenges.



Help customers to easily deploy optical fiber infrastructure with "plug-and-play" cable, connectivity and solutions.



Provide reliable cabling and smarter energy solutions to support buildings and territories to become more efficient, livable and sustainable.

Aligned with customers

High voltage & project

- Offshore wind farms
- Interconnections
- Land high voltage
- Smart solutions for Oil & Gas (DEH, subsea heating cables)



Industry & Solutions

- Transportation
- Automation
- Renewables
- Resources (Oil & Gas, mining)
- High-tech (nuclear, medical)



Telecom & Data

- Data transmission (submarine fiber, FTTx)
- Telecom network
- Hyperscale data centers
- LAN cabling solutions



Building & Territories

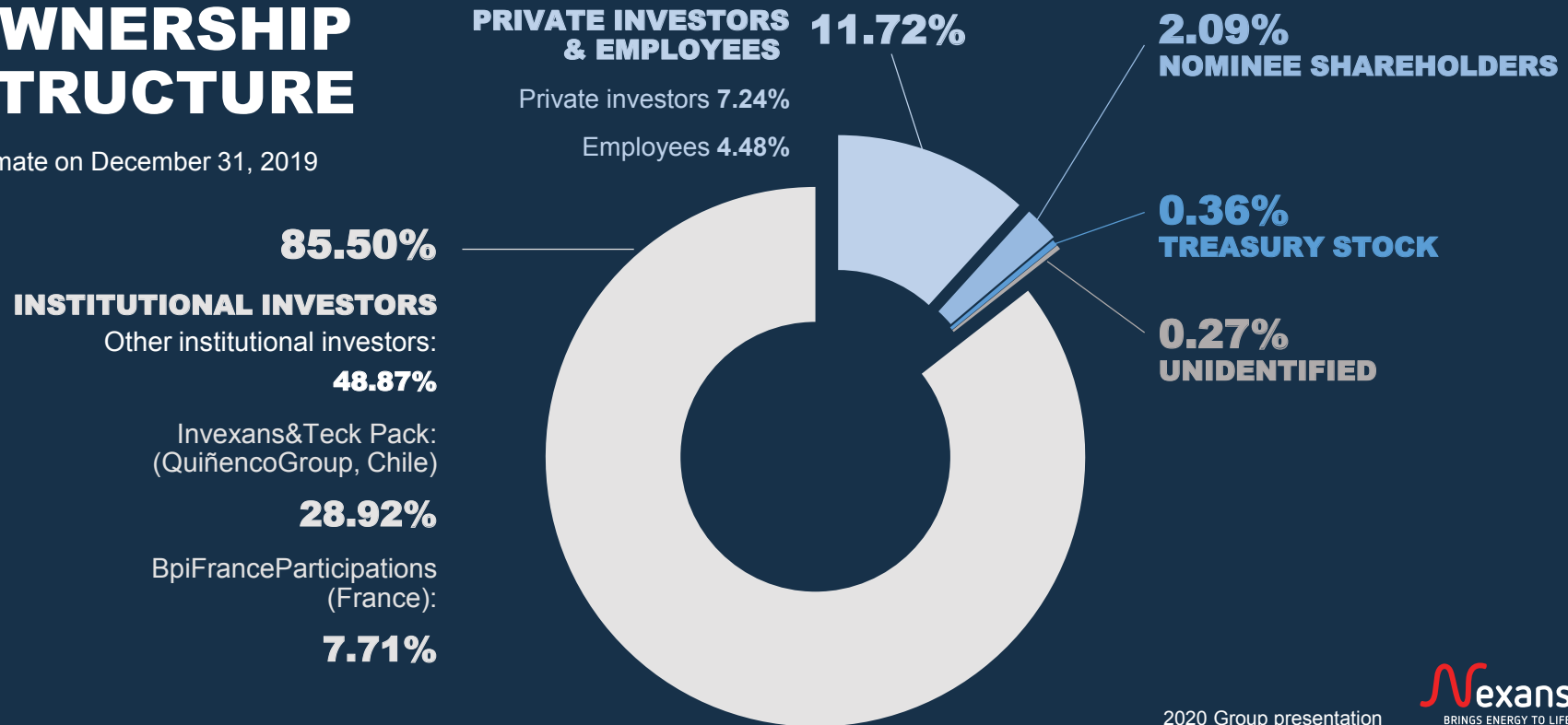
- Building
- Smart Cities/Smart Grids
- E-mobility
- Local infrastructure
- Decentralized energy systems
- Rural electrification



A fully independent group with an international and balanced shareholder base

OWNERSHIP STRUCTURE

estimate on December 31, 2019



Lead the value growth

1/2

Long term perspectives are excellent and require a move alongside the value chain leading to value growth more than volume growth.

By capturing new services, building modules and systems, Nexans will:

1. Deliver the **best value for money for its clients**
2. **Escape the commodity traps** and future intermediation risks
3. Address the **€120Bn services market** with new offerings and strategic partnerships

2030



- The World population will increase by **+20%**, and **urbanization by +40%**
- **Energy consumption** will jump by **+40%**
- **Renewable energy will double**
- Energy transition bringing **huge needs in Infrastructures and Networks**
- **Cable & connectivity production will grow 3.9% per year to 2030**
System management will grow up to **9.2% per year to 2030**

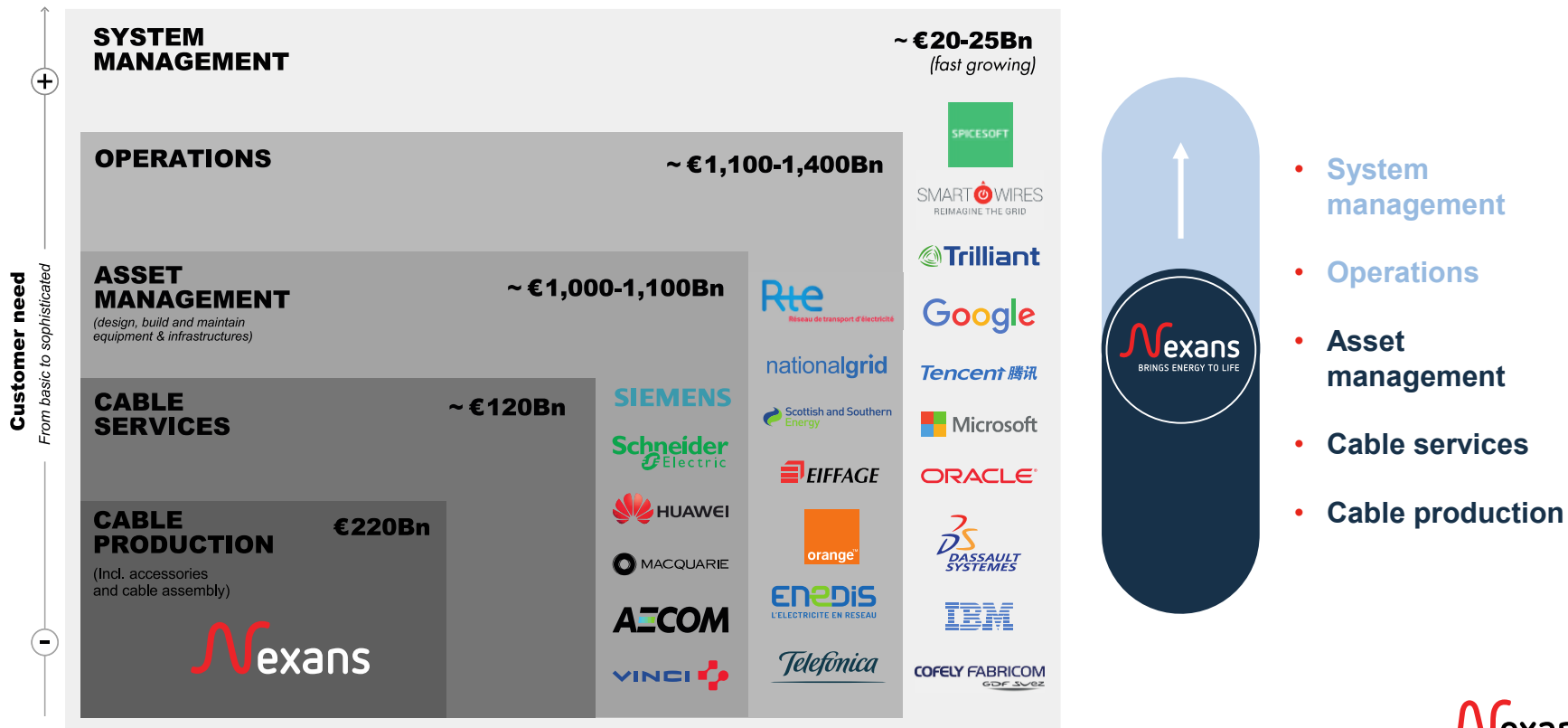
2018

Lead the value growth

2/2

Big picture view of the energy & data management market
Focus on Transmission & Distribution (power & data out of scope)

Total ~ 2,700Bn
First estimate



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Customer driven research, focusing on innovation

900 RESEARCHERS, ENGINEERS AND
TECHNICIANS OVER THE FULL VALUE
CHAIN FROM INNOVATE TO PRODUCE

1,800 PATENTS REGISTERED
IN PORTFOLIO

100 MILLION EUROS R&D
INVESTMENTS IN 2019

59 PATENTS FILED IN 2019

Top 20 AMONG THE COMPANIES INVOLVED IN
R&D INVESTMENT AND TECHNOLOGICAL
INNOVATION IN ELECTRONIC AND
ELECTRICAL SECTOR IN EUROPE



A new Executive team to lead the New Nexans



Christopher Guérin,
Chief Executive Officer

FOUR BUSINESS LEADERS:



Vincent Dessale,
Chief Operating Officer and Senior
Executive Vice President of Building
& Territories Northern Business Group



Ragnhild Katteland,
Executive Vice President
Subsea & Land Systems Business Group



Julien Hueber,
Executive Vice President Industry
Solutions & Projects Business Group



Vijay Mahadevan,
Executive Vice President Middle East,
Russia, Africa and South America

FIVE FUNCTIONAL DIVISION LEADERS:



Jean-Christophe Juillard,
Chief Financial Officer
and Information Systems



Nino Cusimano,
General Counsel
and Secretary General



Juan Ignacio Eyzaguirre,
Corporate Vice President
Strategy and Mergers
& Acquisitions

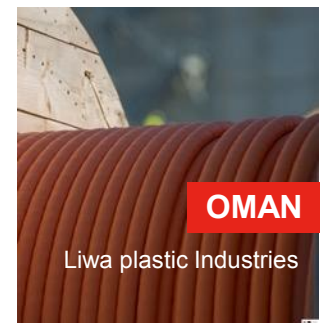
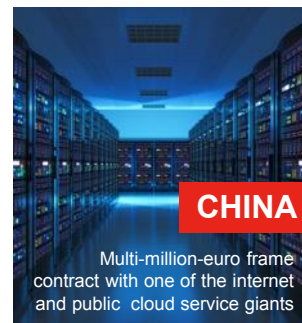


Jérôme Fournier,
Corporate Vice President
Innovation, Services & Growth



David Dragone,
Senior Corporate Vice President &
Chief Human Resources Officer

Success stories around the world



Success Stories: Beatrice Offshore Windfarm

More clean energy for scottish homes



In Scotland, Nexans' underwater cables are set to deliver 588 megawatts of wind-generated energy from the Beatrice Offshore Windfarm to the mainland power grid. Located 13 kilometers from County Caithness, it was the first of its kind in Scotland when it began operating in 2007.

Nexans cables now relay enough energy to meet the needs of 450,000 Scottish households. This project adds to the more than 3,500 megawatts of energy from offshore wind farms that Nexans has integrated into power grids around the globe.

450,000
SCOTTISH HOUSEHOLDS

84

NEW INDIVIDUAL TURBINES
ADDED SINCE 2016 TO THE
TWO TURBINES ORIGINALLY
INSTALLED IN 2007

588 mw

OF WIND ENERGY TO BE
GENERATED BY THE BEATRICE
OFFSHORE WINDFARM

Success Stories:

Nordlink

A Major Step in the Energy Transition

Nordlink is now providing Green Energy for millions of households in Germany and Norway



- Nexans has successfully manufactured and installed the interconnection between Germany and Norway to exchange green energies (solar/wind and hydropower)
- Nexans designed, manufactured and installed between 2015 and 2019 six 525 kV mass-impregnated (MI) high voltage direct current (HVDC) interconnector cables with a total length of 735 km
- Project completed on-time, including the final test which was ahead of schedule
- Skagerrak laid 6 cables on the seabed and 4 in-line joints



NordLink in a nutshell

Client: **Statnett, TenneT and the German promotional bank KfW**

Facility: **Halden, Norway**

Contract value for Nexans: **500 M€**

Success Stories: Key partnership for the North American Offshore windfarm development

Nexans, Eversource and Ørsted sign Framework Agreement for North American Offshore Wind Farm development with the opportunity to provide up to 1,000 kilometers of export cable for multiple Ørsted projects till 2027 in United States

The partnership with Ørsted and Eversource will accelerate the energy transition in North America and bring Nexans' industry-leading subsea cable technology to the U.S.

1ST PLANT IN THE US TO MANUFACTURE HV SUBSEA CABLES FOR OFFSHORE WIND FARMS

According to the US Department of Energy, even if only 1% of the technical potential of the offshore wind energy in the US is captured, nearly **6.5 million** homes could be powered.

Nexans' reliable XLPE cables resist extreme temperatures, stress and salty water so that **less power is lost** on the way.

Manufacturing up to **1,000 km** of cable till 2027 will create up to **250 jobs** in the US

Nexans
BRINGS ENERGY TO LIFE

Success Stories:

Nexans Asset Management service for DSOs



Nexans introduces a new asset management service for Distribution System Operators (DSOs) in partnership with Cosmo Tech, **and is the first cable manufacturer that has been able to propose this solution for utilities.**

The solution allows to find the balance between network performance, centralize and organise data, create and test scenarios and provide decision-making tools.

In total it can deliver TOTEX (CAPEX + OPEX) savings up to 10-15% on mid- and long-term strategies.

Success Stories:

Connection of Kype Muir wind farm, Scotland

Nexans completed High Voltage cable project to connect Kype Muir wind farm to Scotland's power grid

Nexans completed a project to provide a 16 km 132 kilovolt (kV) underground grid connection to SP Energy Networks, for the 88 megawatt (MW) Kype Muir wind farm.



Success Stories:

Advanced LANsense® AIM and LANmark®ENSPACE solutions

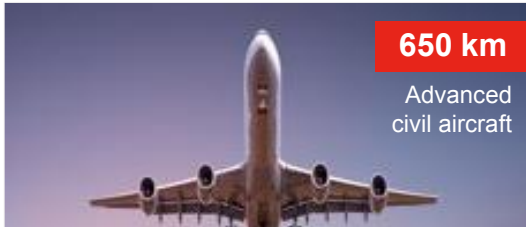
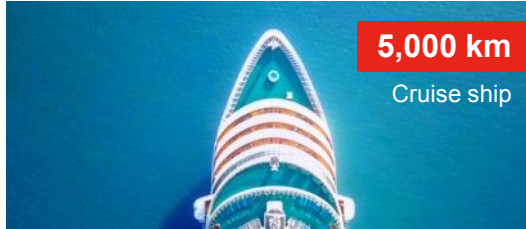
Nexans simplifies Data Center Network monitoring and scale-up with launch of LANsense® AIM and new high-density copper & fibre solutions



Nexans launches its new LANsense® Automated Infrastructure Management (AIM) solution for port to outlet network monitoring and optimisation.

The Group presented its cutting-edge LANmark®ENSPACE ultra high density fibre solution and Slimflex solution aimed at minimising footprint and maximising scalability.

Nexans in everyday life



Record breaking technologies

240 km

The longest cable
in one length

135 kg/m

The heaviest cable

525,000 V

The highest voltage for an
insulated cable (DC)

1,000 km

The longest
superconducting cable

-2,400 m

The deepest
undersea cable

<1,100°C

The most
heat-resistant cable

>-65 °C

The most
cold-resistant cable

CSR : Strategy

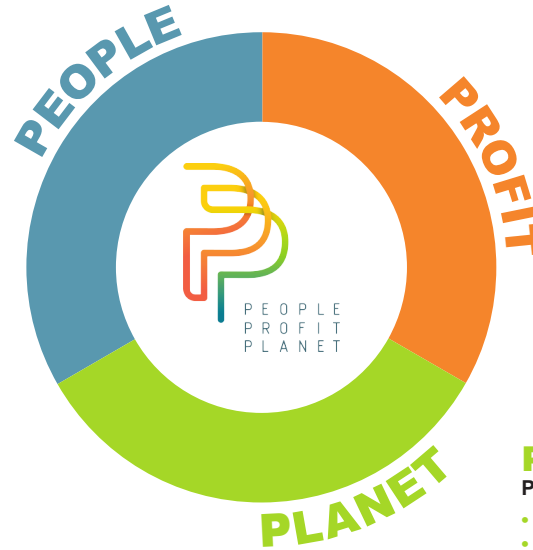
PEOPLE

PERFORMANCE INDICATORS

- Workplace safety
- Absenteeism
- Measuring engagement and diversity

THE 3PS, UNIFIED

In 2020 and 2021, Nexans is introducing a fundamental change by refocusing its management on the **3Ps: People, Planet and Profit**. Business Units will no longer be rewarded solely for their ability to generate profits, and each quarter, they will be assessed on the basis of performance indicators.



PROFIT

PERFORMANCE INDICATORS

- EBITDA
- Working capital requirement (WCR)
- Free cash flow

PLANET

PERFORMANCE INDICATORS

- Water and energy consumption
- CO₂ emissions
- Waste recycling and recovery

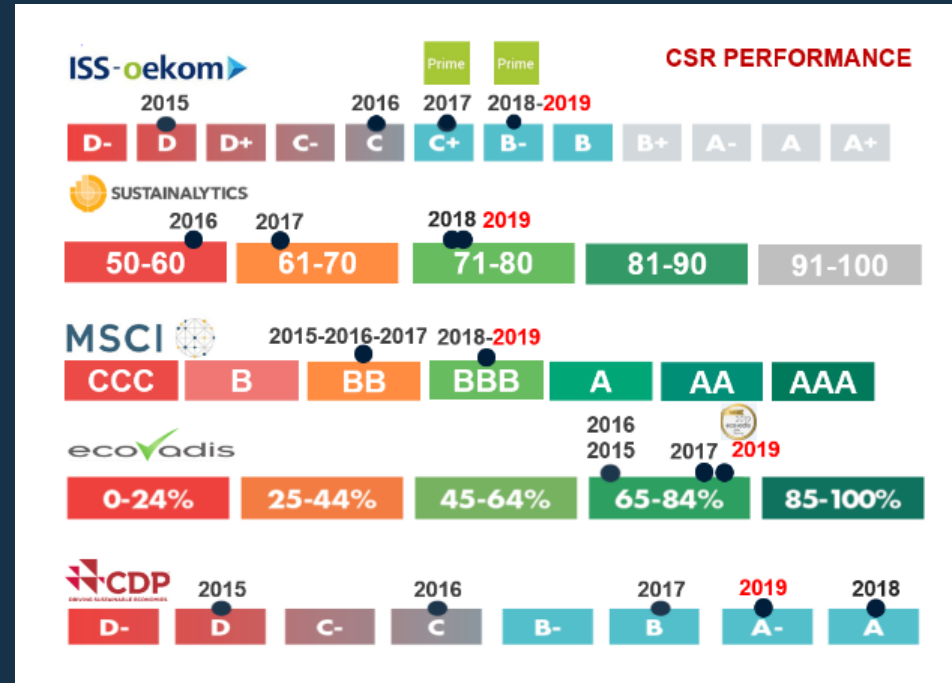
CSR : Performance

Continuous improvement in corporate social responsibility performance

The Group's CSR initiatives and progress recognized by non-financial rating agencies



Nexans is the winner of The Integrated Thinking Award 2018. This European prize for integrated thinking, particularly rewards the Group's expression of its ambition and the interaction of its stakeholders in its ecosystem at the core of its strategy



Nexans Foundation since 2013

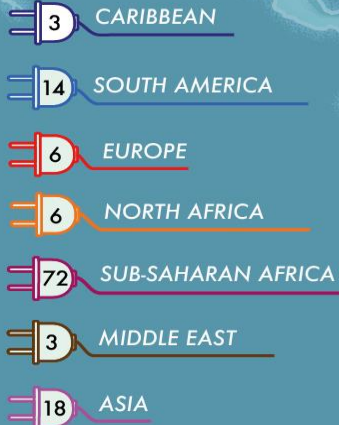
FOR FAIR ACCESS TO ELECTRICAL POWER

SINCE
2013

ACTIONS IN
38
COUNTRIES

122 PROJECTS
DEPLOYED WITH
62 NGOs

NEARLY
1,800,000
BENEFICIARIES




Nexans
FOUNDATION
For fair access to electrical power

People, the driving force to deliver our ambition

We want to attract and develop the best appropriate local talent and teams in every market where we operate, who are innovative, market driven and performance oriented

- **We Act as a Business Partner** Helping all our entities achieve their objectives by putting in place an efficient organization, and contributing to the new Nexans
- **We Act as People Supporters** - Taking care of ALL employees
- **We Act as Change Agents** - Supporting innovation by implementing some key HR initiatives, such as
 - Culture change, including employee engagement
 - Diversity & Inclusion (Women in Nexans, ...)
 - MyLearning (Nexans Business fundamentals, Functions e-Academies, digital learning, online induction...)
 - Annual Recognition program – Nexans Remarkable People
 - Review of performance process (annual appraisal)
 - Competitive compensation & benefits policies
 - Internal mobility
 - Digitalization of HR tools (MyClick)
 - Constructive social dialogue
 - Regular Employee Shareholder campaigns (e.g. “ACT” 2020)
 - Safe and satisfactory/modern workplace environments
 - Fair and non discriminatory hiring practices





The Nexans Foundation

Energy is at the heart of Nexans' business. This commitment follows the United Nations (UN) call in 2012 to raise global awareness of energy poverty and the importance of increasing access to energy. In 2013, Nexans became the first player in the cable industry to create a Corporate Foundation to serve the public interest.

The objective of the Nexans Corporate Foundation is to support actions in favor of access to energy for disadvantaged populations throughout the world, with a focus on grassroots organizations and sustainable solutions.

Energy does not only provide access to light; it also makes it possible to improve education, access to care, education and women's autonomy, or to participate in economic development... It is therefore a question of meeting essential needs.

With a five-year budget of 1,500,000 euros, the Nexans Foundation has supported 122 projects in 38 countries supported by 62 associations since its creation. Thanks to the support of these projects, nearly 1,740,000 people have benefited or will benefit from access to electricity.

Due to the ever-increasing involvement of the Group's local entities, the Foundation supports both large associations recognized in the field of access to energy and small structures. It operates in all countries and mainly in the countries most affected by energy poverty.

In order to be even more responsive in managing humanitarian emergencies, the Nexans Foundation and 10 other major players in the electricity sector entered into a partnership with the Crisis Centre of the Ministry of Europe and Foreign Affairs and Electriciens Sans Frontières at the end of 2017. A plus so that the actors of international solidarity come to the aid of the affected populations in optimal conditions. The Nexans Foundation also supports one-off projects in emergency situations, including, among others, the most recent, Haiti in 2016, the Caribbean in 2017, late 2018 in Indonesia and late 2019 following Hurricane Idai.

Key figures

Since the creation in 2013

300 000 €

Annual budget

38

Countries of intervention

7

Years since the creation of the foundation

1 400 000

Approximately 1,400,000 people have benefited from the Foundation's actions

62

Supported partners

111

Projects supported

Find out more : <https://www.nexansfoundation.com/>



MORE INFORMATION ON NEXANS CLIMATE DAY :
[CLIMATEDAY.NEXANS.COM](https://climateday.nexans.com)

MORE INFORMATION ON NEXANS :
[WWW.NEXANS.COM](https://www.nexans.com)

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