



ELECTRIFY THE FUTURE

WINDS OF CHANGE

17 FEBRUARY 2021

INNOVATE TO ELECTRIFY



GENERATION



TRANSMISSION



DISTRIBUTION



USAGES

100% DEDICATED
TO ELECTRIFICATION

+€100m
R&D Expenses

+1800
Patents

+800
Technical Experts

>50
Innovation per year

ANSWERING
CUSTOMER NEEDS

amplify
BY NEXANS

CUSTOMER EXPERIENCE

- Supply chain
- Smart products
- Services
- Risk management

DIGITALISATION

- Industry 4.0
- Connected products (IoT)
- Artificial intelligence
- Digital twin

SUSTAINABILITY

- Recycling
- Carbon neutrality
- Circular economy

MANAGING
RISKS



Increase green generation reliability, monitoring interconnections & OWF connection to the shore

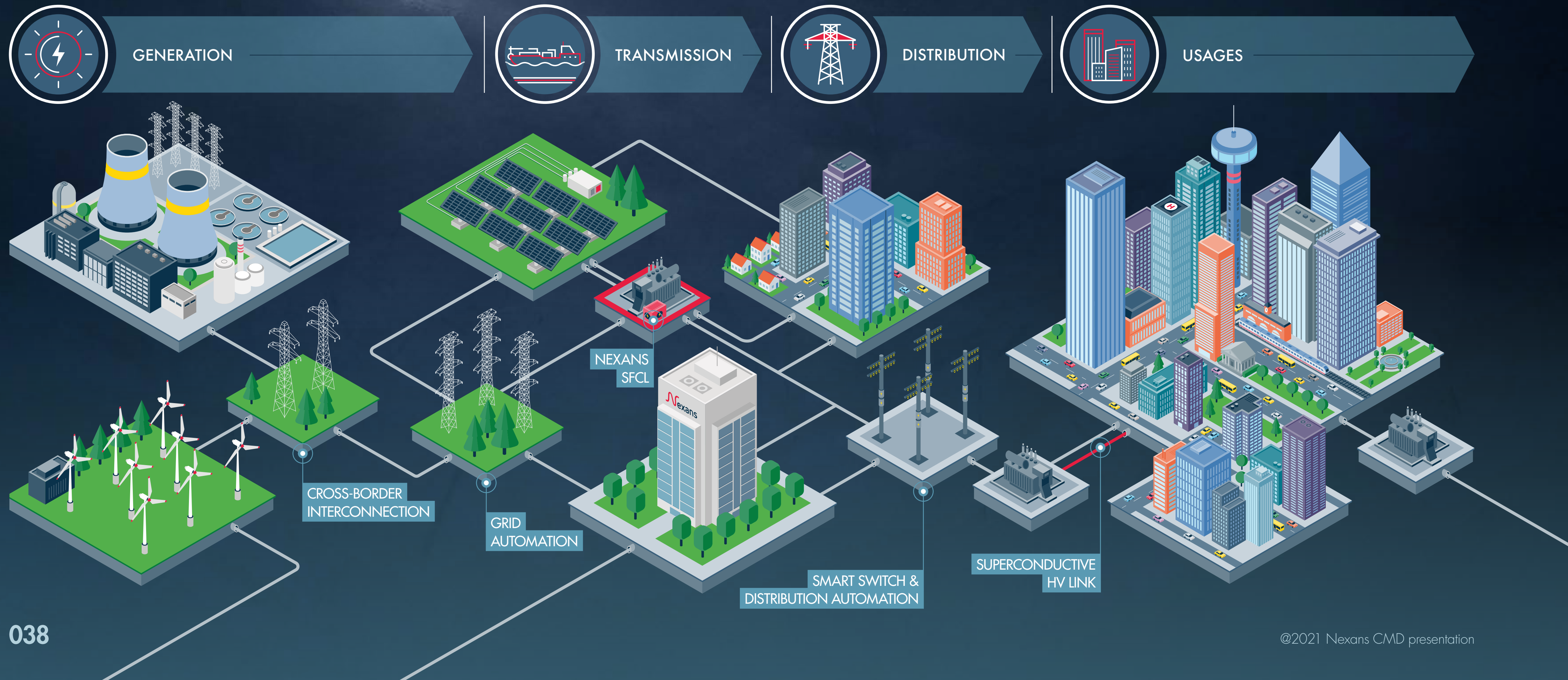


Increase grid resilience to blackout risk through asset live monitoring & management



Increase building safety through live monitoring of the electrical system

SUPERCONDUCTING SYSTEMS - A BREAKTHROUGH FOR RELIABLE AND RESILIENT URBAN GRIDS



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USAGES



SUPERCONDUCTIVE
HV LINK

1-3 GW
at the heart of the town

90%
less civil work

ZERO
thermal and
electromagnetic
signature



SUPERCONDUCTIVE
HV LINK

SUPERCONDUCTING SYSTEMS - A BREAKTHROUGH FOR RELIABLE AND RESILIENT URBAN GRIDS



NEXANS SUPERCONDUCTIVE FAULT CURRENT LIMITERS (SFCL)

- Divide fault probability by a factor 4
- Allow distributed generation integration
- Keep existing Network

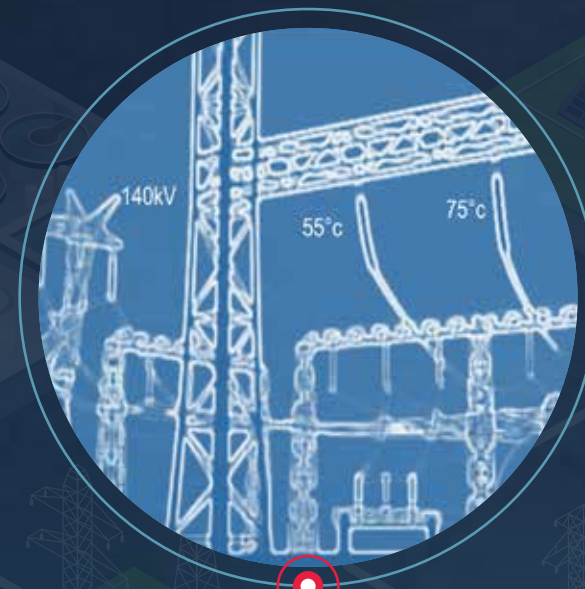


NEXANS
SFCL

A DIGITAL TWIN IS A UNIQUE VIRTUAL MODEL OF A REAL GRID



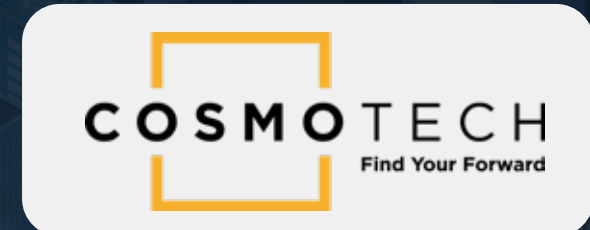
REAL
WORLD



DIGITAL TWIN:
REAL TIME REPLICA



ASSET ELECTRICAL SOFTWARE SOLUTION



- Provides visualization, analysis, prediction and optimization
- >20% efficiency in operation & optimized investments
- Targeted maintenance
- Reduced energy loss

50%

value of lines (cables, support, connectors) in grid assets

58%

network faults due to lines/cable network

53%

of the surface burned in California was due to fires of electrical power origin in 2017

+45 YEARS

is the average grid age in EU

NEXANS STRATEGY FOR IoT DEVELOPMENT

ENABLING AN HOLISTIC APPROACH OF THE GRID RISKS & CHALLENGES

#01 TRACKING ASSETS

Track location, characteristics and status of valuable grid components.

- Shorten operations time
- Stock management
- Anti Theft
- Cost avoidance

Covered Assets:

- Cable drums
- Accessories

#02 MONITORING ASSETS

Monitor the electrical assets during their lifetime to predict failures, ease maintenance increasing safety & reliability.

- Reduce risks of grid failure
- Prevent fire risk in buildings
- Maintenance costs control
- Electrical loss reductions
- CAPEX avoidance

Covered Assets:

- Cables
- Network components

#03 MANAGE ASSETS

Optimize the use of grid functioning, from generation to usage. Make live decisions on energy routing.

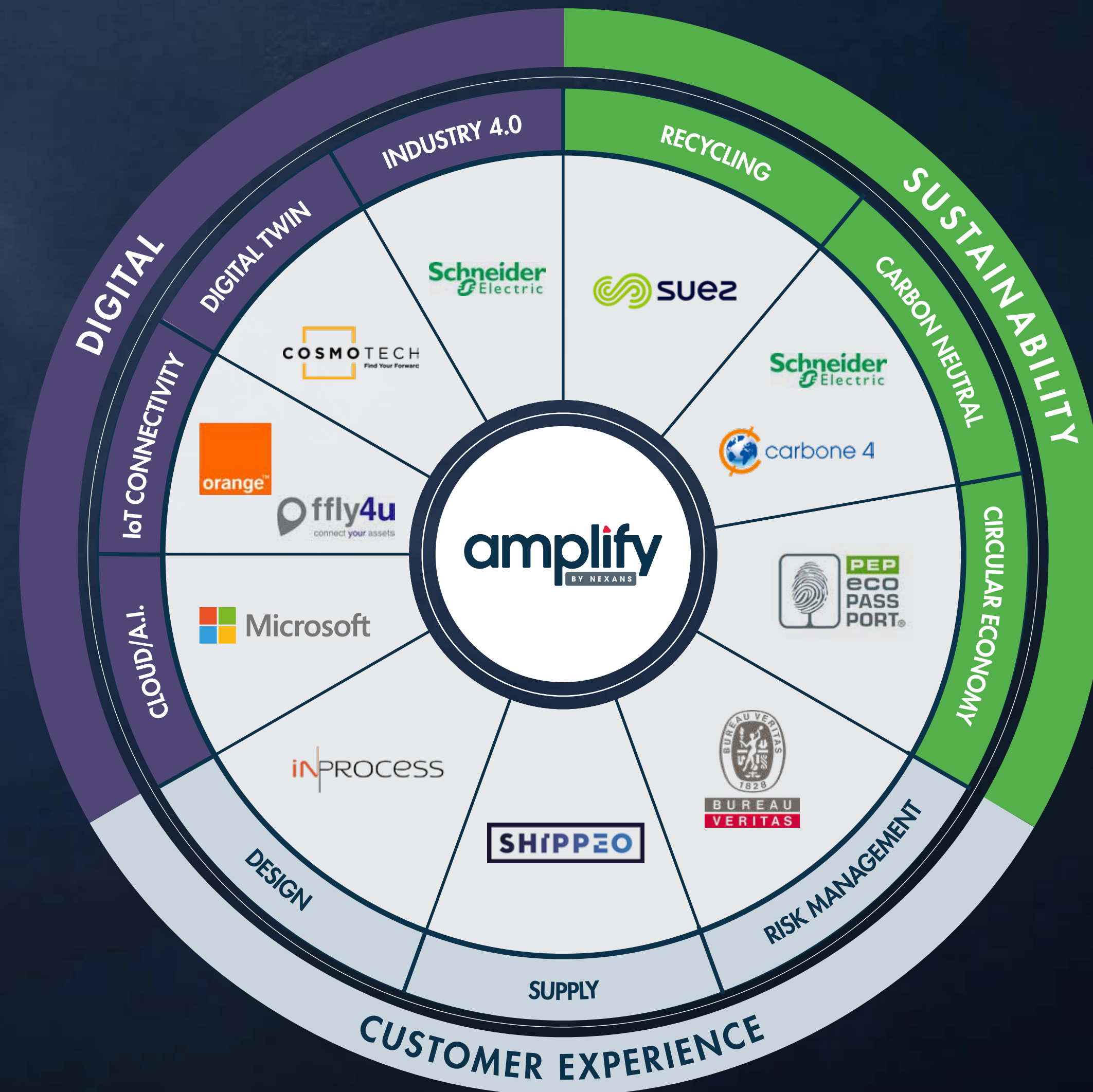
- Increases grid resilience
- Maximize use of generated electricity
- Balance energy offer & demand

Covered assets:

- Grid sensing Smart grids
- HV & MV infrastructures

25% NEXANS CONNECTED PRODUCTS BY 2024 (IoT)

INNOVATE TO ELECTRIFY AMPLIFY – OUR IMPACT THANKS TO OUR PARTNERS



NEXANS INNOVATION PIPELINE

FULLY DEDICATED TO AMPLIFY THE ELECTRIFICATION

