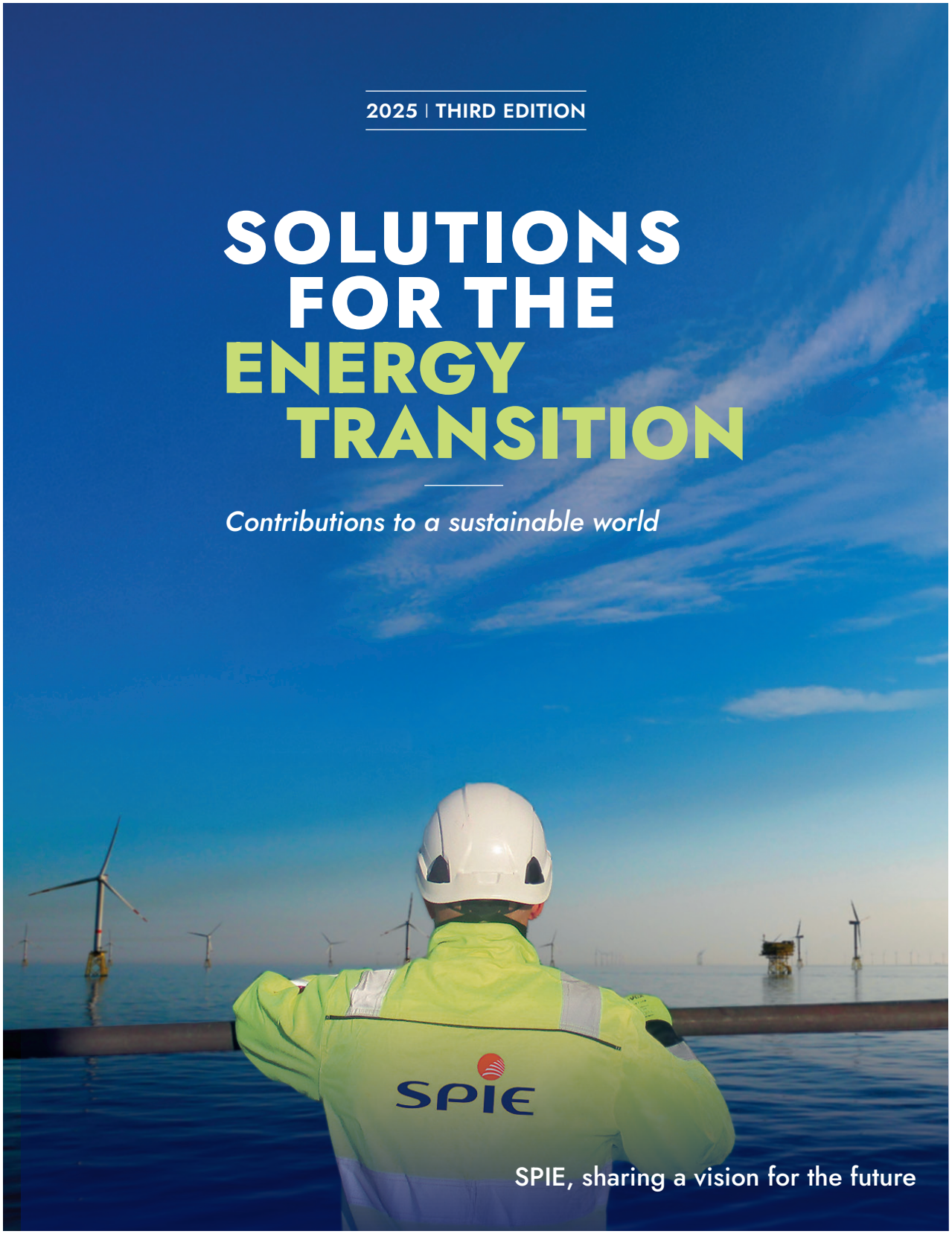
2025 | THIRD EDITION

SOLUTIONS FOR THE ENERGY TRANSITION

Contributions to a sustainable world



SPIE, sharing a vision for the future

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A message from Gauthier Louette

CHAIRMAN AND CEO OF SPIE GROUP

The energy transition is reshaping the way organisations source, produce and use energy. Around the world, businesses, industries and municipalities must adapt their infrastructures and accelerate the electrification of their operations. This shift brings major challenges: a surge in new projects, pressure on internal resources, and the need for technical expertise that many organisations do not have in-house.

SPIE is at the heart of this transformation. Every day, our teams help clients meet very concrete needs: renovating high-voltage lines, integrating more renewable energy into the European grid, ensuring grid stability with large Battery Energy Storage Systems (BESS), improving the energy performance of buildings, supporting the development of low-carbon mobility, and more. Our approach is solutions-oriented and grounded in a detailed understanding of each client's installations, processes and constraints.

This in-depth knowledge is one of our greatest strengths. It enables us to design effective, tailored technical solutions and to also support clients whose core business is not energy— from industrial manufacturers shifting from fossil energy to electricity, to organisations looking for practical ways to improve energy efficiency.

New technologies are also emerging quickly to support this transition. Large-scale BESS, for example, barely existed a few years ago. Today, they are essential to manage the intermittency of renewable energy. We are among the first companies capable of designing and building them, and we have done so across several European countries already.

Within SPIE, we make sure that when we develop expertise in an innovative technology, we spread that knowledge throughout the Group. In this way, teams throughout SPIE can draw on their colleagues' knowhow, rather than reinvent it.

> ***At SPIE, we apply our collective expertise to designing and implementing reliable technical solutions that address society's sustainability challenges.***

In 2023, we reaffirmed SPIE's purpose: "At SPIE, we apply our collective expertise to designing and implementing reliable technical solutions that address society's sustainability challenges." In a changing world, we keep pace with technical progress while always adhering to our commitments, working with our stakeholders, and investing in the future.

SPIE's purpose is based on 4 commitments

Commitment #1

We are passionate about developing our core competences to solve complex technical challenges.

Commitment #2

We are a trusted partner for delivering mission-critical services to our customers.

Commitment #3

We are a proactive partner offering technical mastery of field-proven solutions fostering a low-carbon economy.

Commitment #4

We share cutting-edge innovations with our stakeholders and integrate them into tailor-made solutions.

INTERVIEW

Isabelle Lambert

GROUP SUSTAINABILITY DIRECTOR

— Since the publication of the second edition of *Solutions for the Energy Transition* in 2023, the EU Green Deal has grown in importance, and companies are evolving their activities to conform to new standards. Within this context, what are the biggest changes you have observed since the 2023 edition of this report?

Isabelle Lambert: Certainly, the biggest change in the last two years revolves around how low-carbon technologies increasingly present an economic advantage over fossil fuel investments. Whether we're looking at figures from the Intergovernmental Panel on Climate Change, the International Energy Agency, or Ifo Institute for Economic Research, or at reports from groups like Ember or BCG, the facts are clear. In the great majority of cases, low-carbon technologies are now definitively valued for their smart capital allocation capabilities. This is especially true regarding renewable energy and electric grids, energy efficiency in buildings and machinery, and electrifying transportation.

Meanwhile, energy security has become a huge concern due to the continuing war in Ukraine. And last but certainly not least, Europe has regularly experienced significant human and economic losses from recent acute climate events such as floods and heat waves. This highlights the need to accelerate decarbonisation pathways and to better adapt our cities and infrastructure to climate change.

An increasing number of companies are eager to embrace a circular economy approach … and we're glad to support them in their energy endeavours.

— How are companies more deeply integrating sustainability performance into their new projects?

IL: The EU Green Deal and the Fit for 55 regulatory package call for a 55% carbon footprint reduction in Europe by 2030. Hard regulatory targets are now taking shape, such as France imposing a 40% energy reduction by 2030. Our clients definitely are looking for ways to enforce their climate commitments. As a result, sustainability specifications are now overwhelmingly essential to their projects. Clients expect us to demonstrate how we will deliver a reduced carbon footprint throughout all project phases. On top of this, we are also seeing that an increasing number of companies are eager to embrace a circular economy approach. Instead of constructing an entirely new building with new materials, they're searching for ways to reuse, refurbish and recycle existing materials to keep waste to a minimum. And it's the same with our digital services, where clients want ways to extend the lifetime of IT assets. This is happening in so many sectors and countries now, and we're glad to support them in their energy endeavours.

Tobias Zaers

GROUP DIRECTOR OF BUSINESS DEVELOPMENT AND MARKETING

Welcome to the third edition of Solutions for the Energy Transition.

— The last edition of this report was published in 2023. What has changed since then?

Tobias Zaers: In 2023, modern generative AI tools were still newly emerging and rapidly gaining global attention. Since then, artificial intelligence has evolved into a new technological field with immense potential in areas such as energy efficiency. Many of the solutions we present in our Energy Performance section, for instance, involve sensors and digital platforms, enabling us to collate data and use algorithms to identify savings.

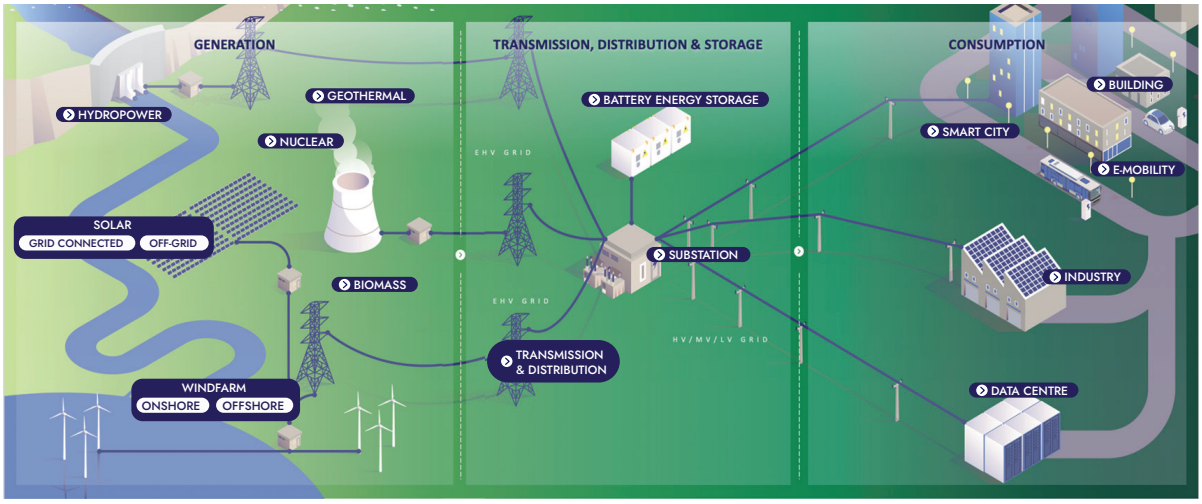
Meanwhile, in power generation, the energy transition and accompanying grid upgrade programmes have continued apace: as the selection of projects in our Energy Mix chapters shows, we now regularly support solar and wind roll-outs producing enough electricity to power entire towns. And there have been significant developments in electrification since 2023: in the new Heavy-Duty Vehicle section (Mobility), you'll see that we now install charging points that replenish the batteries of 40-tonne trucks in under three hours. We also have a completely new chapter on Circular Economy.

— Many of the 80 projects presented showcase innovation. What is the secret to SPIE's success in developing and implementing new solutions?

TZ: The key is proximity to our customers: we work closely with them on their assets, so we see precisely where they need new approaches. With our network of suppliers and partners, we can then source the latest equipment and make detailed proposals. Quite rightly, while our clients are open to innovation, they expect a business case for new solutions. As such, this report aims to provide key performance indicators for the projects profiled. The goal is simple: to give specific examples of how we are delivering for our customers and working towards a low-carbon future.

SPIE, a major player in the energy transition

SPIE supports its customers across the entire energy transition value chain, from generation to consumption.



ENERGY MIX —
POWER GENERATION

Supporting reliable low-carbon development

Electrification and renewables are reshaping the worldwide energy mix. While nations across Europe and the world seek greater energy independence and new ways to combat climate change, utility-scale wind—offshore and onshore—continues to expand. Solar photovoltaics is also accelerating through more efficient grid connections. Nuclear remains a dependable, dispatchable, low-carbon pillar for many countries around the globe.

Meanwhile, Carbon Capture, Utilisation and Storage (CCUS) is helping offset hard-to-abate industrial processes. And a host of other solutions—hydropower modernisation, biofuels and geothermal energy, hydrogen production and distribution—broaden the clean energy mix. Across these technologies, digital control, automation, safety-critical systems and lifecycle services are improving performance, ensuring compliance and strengthening grid resilience— all contributing to a secure, efficient energy transition.

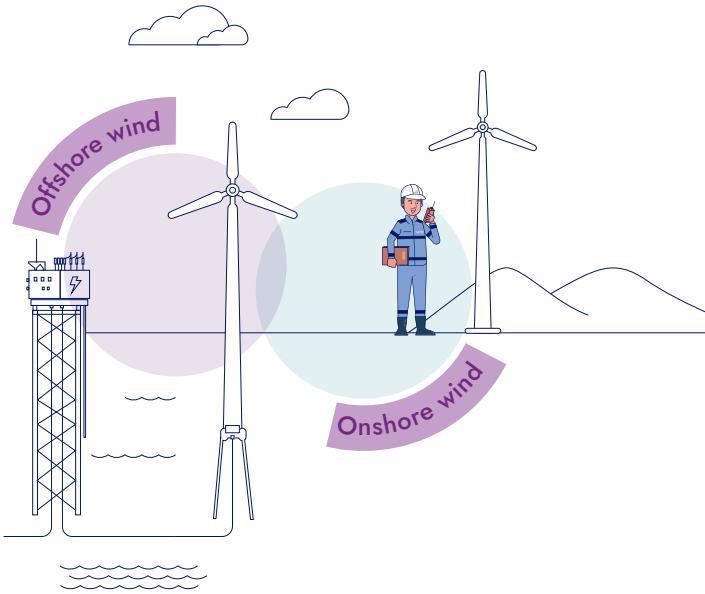
78%

forecast increase in Europe's cumulative renewable capacity from 2023 (894 GW) to 2030 (1,600 GW)

(Source: International Energy Agency)

ACCELERATING THE SHIFT TO CLEANER ENERGY SYSTEMS

— The future of energy is being reshaped by electrification and renewables. SPIE is driving the transformation by working side by side with clients to deploy efficient, low-carbon solutions across Europe and beyond. From wind to solar to hydrogen and more, SPIE is playing a leading role in helping to decarbonise industry and set the world on a more sustainable path through renewable energy generation.



SUPPORTING WIND DEVELOPMENT—OFF AND ONSHORE

SPIE plays a vital part in scaling up offshore wind technology by providing full electrical engineering services—from pre-assembly and cable installation to commissioning, SCADA* integration, and maintenance. With teams active across the world, SPIE is strengthening grid connections and ensuring energy from sea to socket. SPIE also offers a complete onshore wind service portfolio—from turbine connection and high-voltage management to repowering, large component replacement, and blade inspection. Its technical teams bring deep local expertise and turnkey project capabilities, enabling cost-effective rollout of wind energy on land.

SCALING SOLAR WITH SMART ENGINEERING

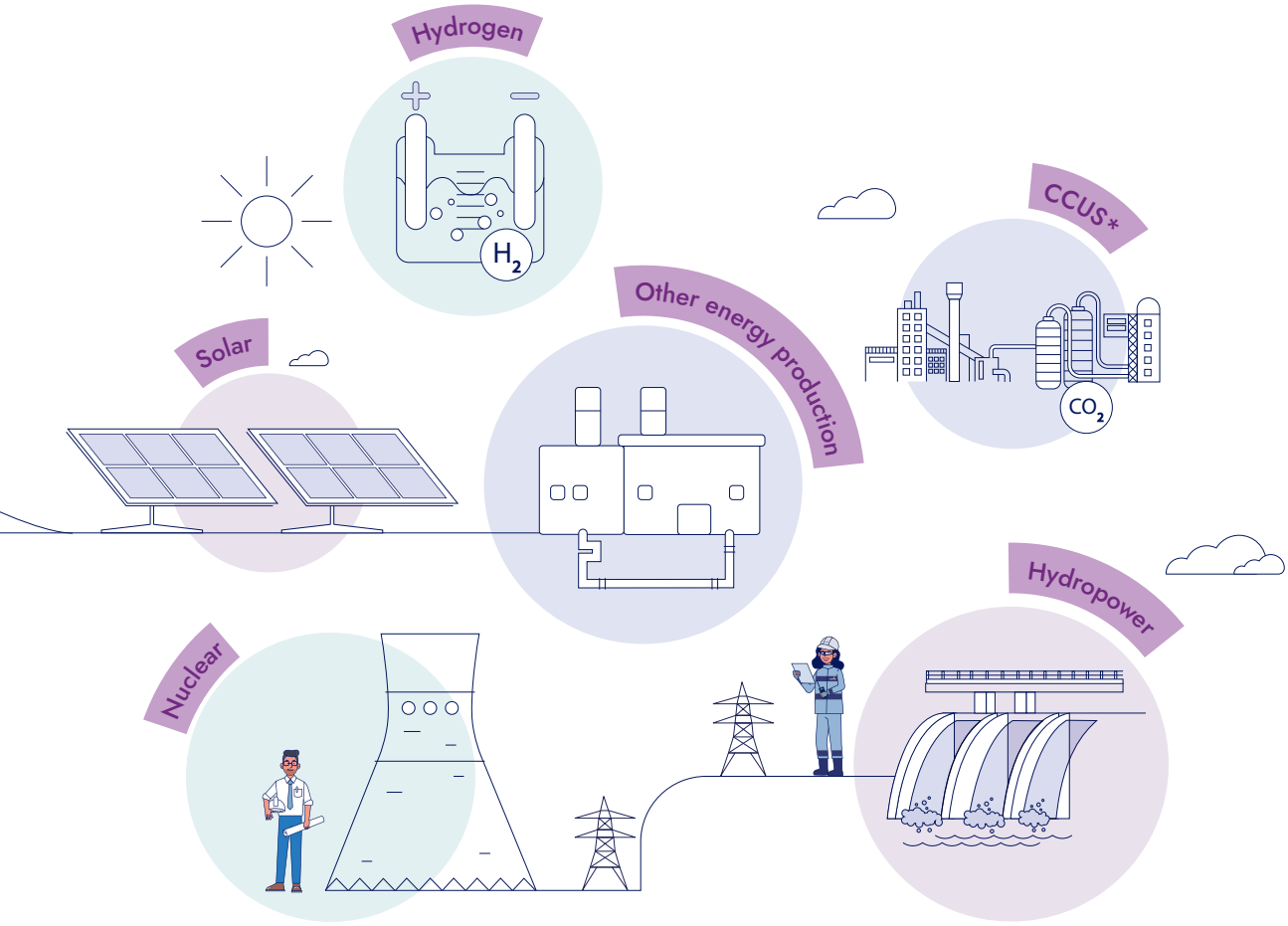
Solar energy continues to lead global renewable growth, thanks to falling costs and supportive policy environments. SPIE deploys photovoltaic systems—whether grid connected or off-grid, rooftop or utility-scale—to meet increasing demands. Its teams handle every stage of development, from electrical design and installation to commissioning and performance monitoring. By integrating energy management systems and storage, SPIE helps clients maximise returns and reduce emissions with resilient, efficient solar infrastructure.

STRENGTHENING NUCLEAR AND MORE

In some European countries, such as France, nuclear power remains an extremely important component of a low-carbon energy mix, providing stable, dispatchable output. SPIE's long-standing expertise supports the sector across the full lifecycle—from new builds and refurbishment to dismantling and site decommissioning. Its teams deliver services in HVAC, electrical and mechanical engineering, process control, and safety-critical systems.

SPIE is also developing ways to support the further development of other renewable energies, such as hydrogen, hydropower, and biofuels.

* Supervisory Control And Data Acquisition System



* Carbon Capture Utilisation and Storage

78 GW

newly installed wind and solar capacity in the EU in 2024—a record year

(Source: European Commission)

1.8x

increase in Europe's renewable capacity from 2023 to 2030

(source: IEA)

OFFSHORE WIND

Expertise | References

Power from the open seas

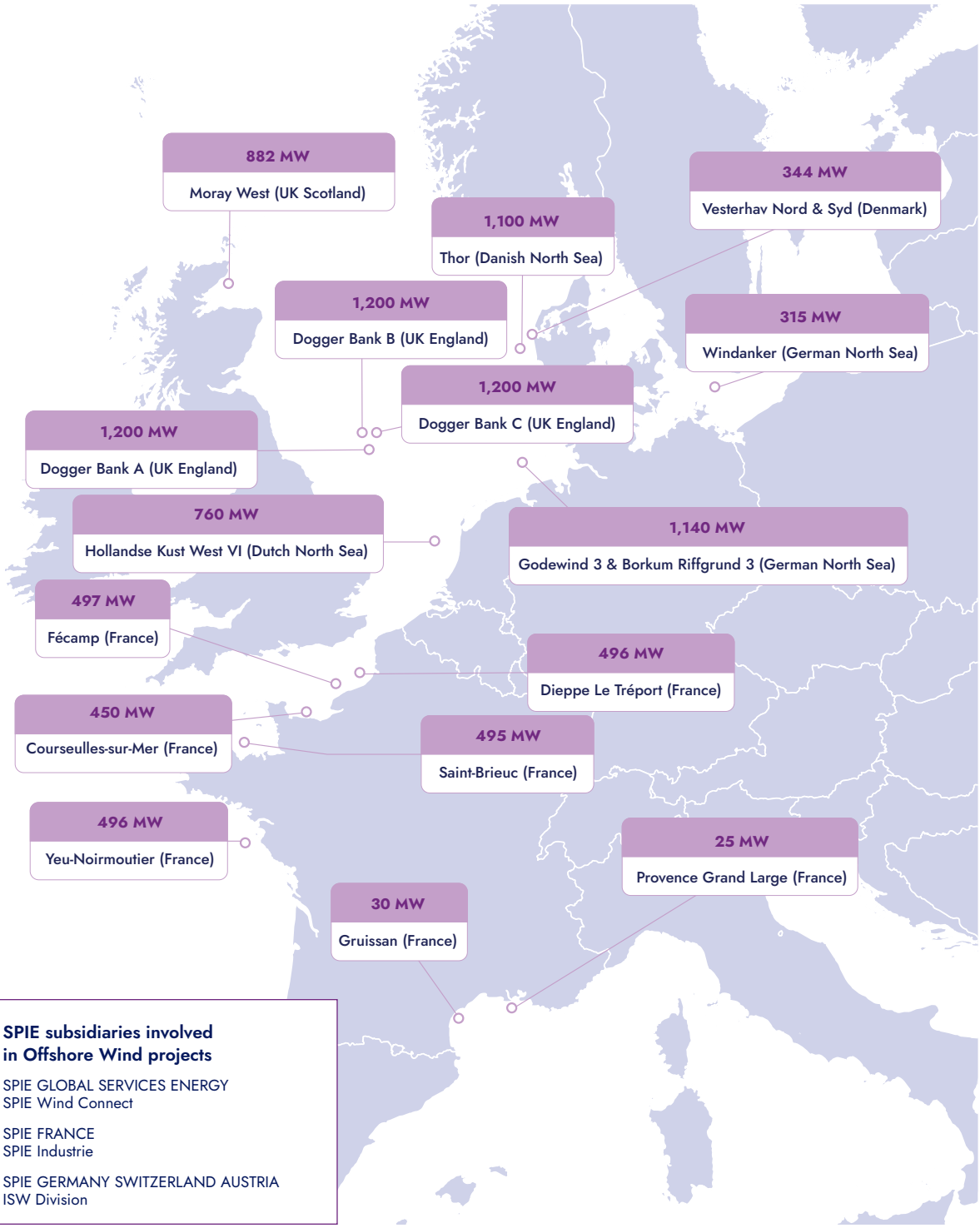
Offshore wind is rapidly becoming a cornerstone of clean energy generation. Around the world, SPIE helps developers and operators expand capacity through proven technical expertise and extensive project experience.

CONNECTING TURBINES TO THE GRID

From early design through long-term maintenance, SPIE plays a critical role in delivering offshore wind infrastructure at scale. Its expertise covers high-voltage systems, cable installation and termination, SCADA integration, commissioning, and structural assembly. Supporting both fixed and floating wind farms, SPIE provides mechanical and electrical services for key components including nacelles, transition pieces, and substations.

SPIE technicians perform detailed inspections and targeted repairs to ensure safety and reliability, and to maximise uptime. With projects delivered across continents and in diverse markets around the world, SPIE consistently helps bring offshore-generated power to shore. Our global expertise contributes to greater energy security and drives the worldwide shift toward renewable energy.

Offshore wind projects*



SPIE subsidiaries involved in Offshore Wind projects

SPIE GLOBAL SERVICES ENERGY
SPIE Wind Connect

SPIE FRANCE
SPIE Industrie

SPIE GERMANY SWITZERLAND AUSTRIA
ISW Division

* This is a non-exhaustive sampling of projects SPIE has worked on since 2023.

ONSHORE WIND

Expertise | References

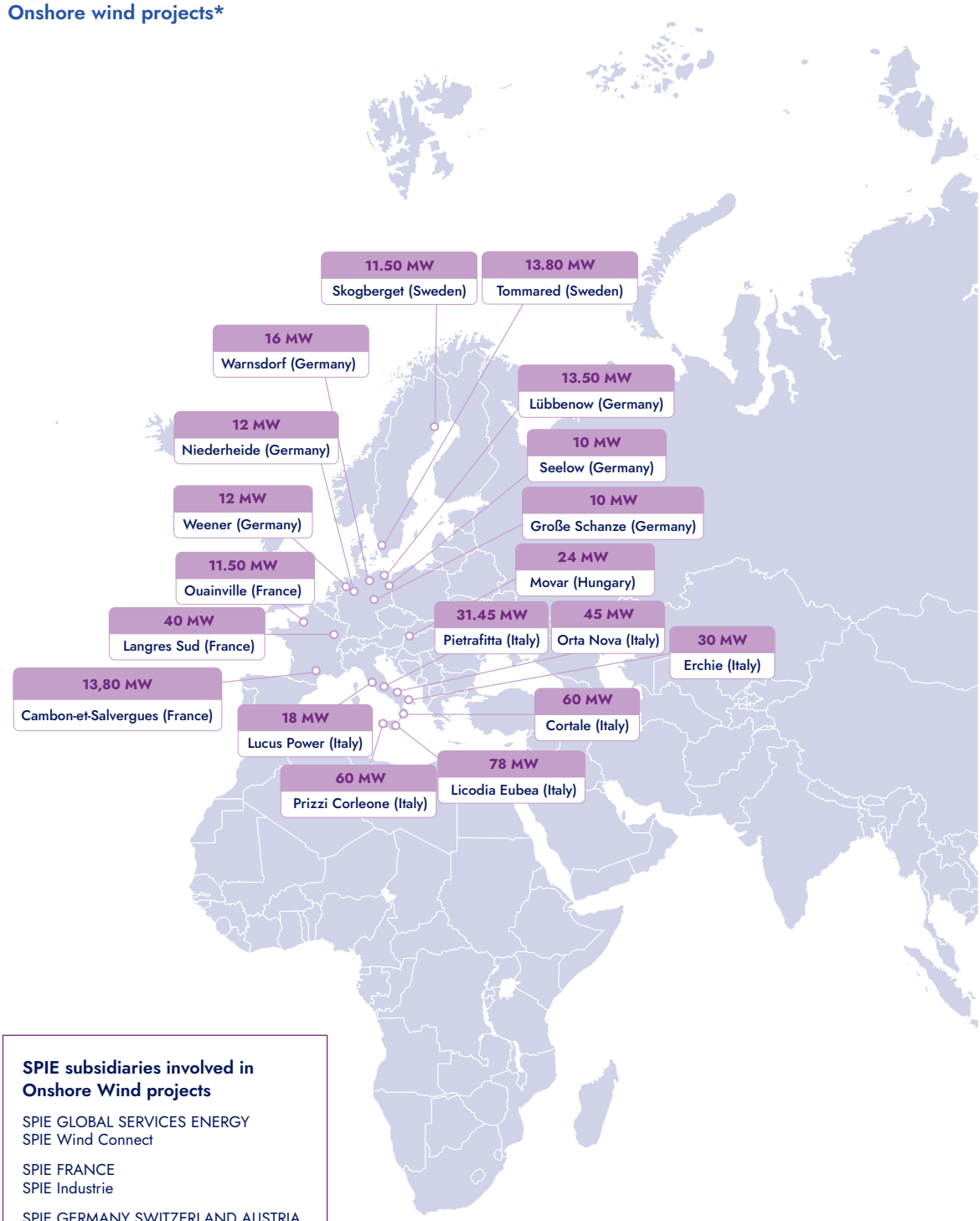
Powering progress across landscapes

Onshore wind is recognised as among the most mature and efficient forms of renewable energy currently available globally. SPIE supports its European clients with engineering and technical services from design and installation through to maintenance. The goal is to strengthen the integration of onshore power to the grid and boost the use of wind power on land.

SCALING WIND WHERE IT'S NEEDED

From repowering older parks to delivering full electrical packages for new sites, SPIE's services cover every stage of onshore wind deployment. Its teams connect turbines to the grid, manage high-voltage infrastructure, and carry out large component replacements—such as blades, gearboxes, and transformers. SPIE also offers detailed rotor blade inspections and lifetime extension expertise. With a strong local presence and turnkey capabilities, SPIE helps clients reduce costs and improve performance. By keeping wind assets safe, efficient and reliable, SPIE is supporting the long-term viability of one of today's leading renewable energy sources.

Onshore wind projects*



SPIE subsidiaries involved in Onshore Wind projects

SPIE GLOBAL SERVICES ENERGY
SPIE Wind Connect

SPIE FRANCE
SPIE Industrie

SPIE GERMANY SWITZERLAND AUSTRIA
ISW Division

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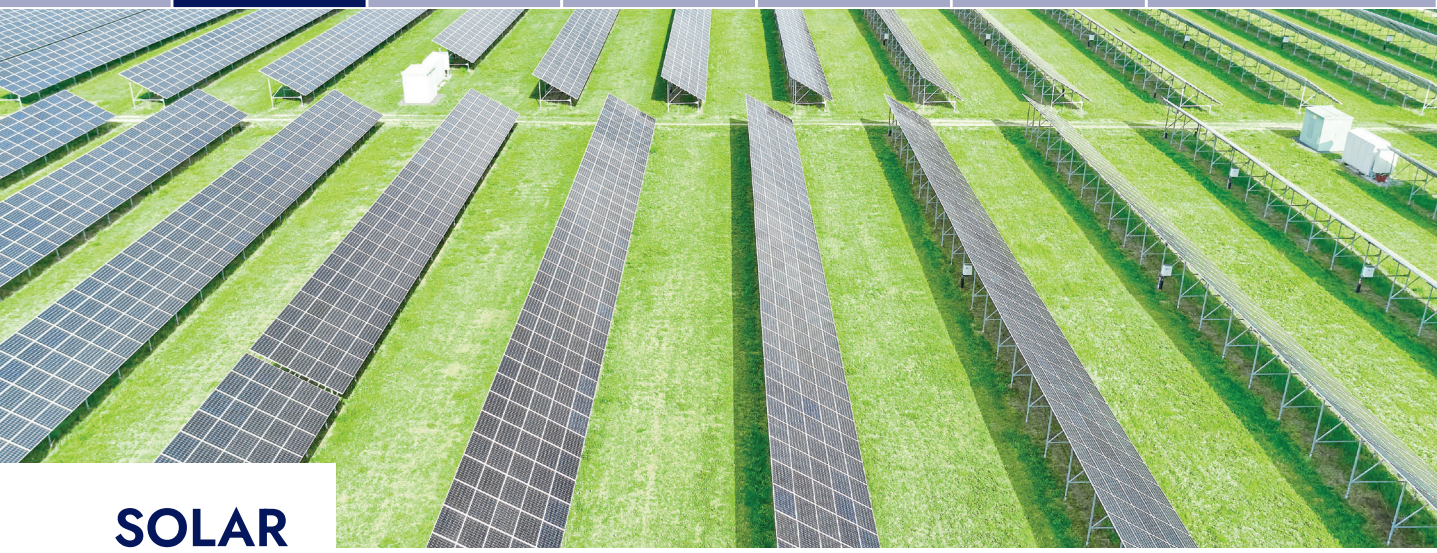


SOLAR

Expertise References

Capturing the sun's limitless energy

Solar energy is a clean source of power where sunlight is converted to electricity. This promising energy source continues to gain in popularity throughout much of the world. SPIE is helping businesses, industrials and public organisations alike to continue to develop solar for a low-carbon future.

MANAGING THE COMPLEXITIES OF SOLAR PROJECTS

SPIE provides multi-technical services to successfully build and run photovoltaic systems as well as solar power substations. This includes design, permitting, planning, materials procurement, assembly, grid connection, commissioning, maintenance and operation. SPIE's teams in Europe and beyond combine decades of experience with advanced technical solutions that can produce on-time results for the most complex solar builds. By creating the infrastructural prerequisites for a smooth energy transition, SPIE is playing its part in ensuring a climate-friendly future.

CONNECTING PLANTS TO THE GRID

SPIE's experts leverage their expertise during the vital process of connecting solar farms and photovoltaic plants to local electrical grids. This involves keen technical knowledge of how to convert electricity from direct current to alternating current, and how to transform voltage levels for safe electricity transport between sites. SPIE specialists provide turnkey grid connection services and use the latest digital technology to monitor and control transformer substations and the energy-generating plants. With its experience and knowhow, SPIE is helping create a secure energy transfer and enabling the energy transition.

80%
of the growth in global renewable capacity through 2030 will be thanks to solar photovoltaics(1)

Over 2,500x
more solar PV installed capacity in EU today than in 2000(2)

10.5%
of electricity generated in the European Union in 2024 came from solar power(3)

(1) Source: IEA
(2) Source: SolarPower Europe
(3) Source: EU

HELIOS solar farm

POWERING LARGE SOLAR FARMS

SUBSIDIARY **SPIE BELGIUM**
Industry Division
YEAR **2024**
SOLUTION **SOLAR**

14,000
tonnes of CO_2
emissions reduction per year

90,000
solar panels
an area equivalent to 56 football pitches

16,000
Belgian households
equivalent of energy generated by the project

With the newly commissioned HELIOS solar farm in Jemeppe-sur-Sambre (Belgium), SPIE is helping INEOS Inovyn reduce carbon emissions at its manufacturing plant.

Spanning 30 hectares (the equivalent of 56 football pitches), the solar farm is equipped with 90,000 solar panels. It will generate enough energy to cover 10% of the INEOS Inovyn site's electricity needs, enabling the leading PVC and chlor-alkali manufacturer to reduce CO_2 emissions by 14,000 tonnes annually.

SPIE worked on the project alongside industrial decarbonisation operator PerPetum Energy. Thanks to SPIE's high-voltage technical expertise, the energy produced by the solar panels was transformed from a voltage of 22,000 V to 70,000 V before transport to the nearby plant. The project produces an amount of renewable energy equivalent to the energy expenditure of around 16,000 Belgian households per year. Additionally, it helps INEOS Inovyn work toward its goal of reducing CO_2 emissions across all sites by more than 33% by 2030.

2030

HELIOS helps INEOS Inovyn to reduce its CO_2 emissions across all its sites by more than **33%** by 2030.

2050

In a carbon-intensive industry, INEOS Inovyn can now manufacture lower-carbon products while carving out a path to **net zero carbon** emissions by 2050.

Expertise References

Rimlingen solar farm

CONNECTING SOLAR TO THE GRID

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
BT&A Division

YEAR **2024**

SOLUTION **SOLAR**

SPIE designed a turnkey solution to connect Greencells' solar farm to the grid in Losheim am See, Germany.

SPIE provided commissioning support for the plant, which is composed of 8,500 solar modules. The team implemented a grid connection to the public 20kV grid, laying out 6 km of medium-voltage cable and 1.5 km of fibre optic cable. It also installed a transformer station, transfer station and two telecontrol systems.

1,200
tonnes of CO_2
emissions reduction per year

4
million kWh of electricity
produced per year, corresponding to the consumption of 1,300 households

Dunaföldvár solar plant

INTEGRATING TELECONTROL SYSTEMS FOR A TURNKEY SOLAR SOLUTION

SUBSIDIARY **SPIE CENTRAL EUROPE**
SPIE Hungaria Kft.

YEAR **2026**

SOLUTION **SOLAR**

SPIE is handling the grid connection for Uniper's Dunaföldvár photovoltaic plant, helping Hungary play a major role in European solar development.

The Dunaföldvár plant will add 61 MWp of capacity to the Hungarian energy market, generating enough energy to supply over 37,000 households. SPIE's expertise in grid connection is supporting Hungary's goal to produce 12 GW of photovoltaic installed capacity by 2030.

61 MWp
of capacity added to Hungary's energy market

37,000
households
receiving solar energy-based electricity from Dunaföldvár

Expertise References

Solar installations in Sables d'Olonne

INSTALLING CAR PARK SOLAR CANOPIES

SUBSIDIARY **SPIE FRANCE**
SPIE CityNetworks

YEAR **2024**

SOLUTION **SOLAR**

SPIE built two photovoltaic canopies in Les Sables d'Olonne, combining renewable power generation with user comfort and regional energy ambitions.

Shaded photovoltaic installations in car parks produce local, carbon-free green electricity, which an organisation can either sell back to the grid to generate income, or use to reduce its electricity consumption and energy bills. At the swimming pool car park in Les Sables d'Olonne (France), SPIE installed two photovoltaic canopies covering around 70 parking spaces. The four-month operation was one of the first completed under customer Vendée Énergie's regional programme to equip public car parks with photovoltaic installations. SPIE's team managed the entire process—from foundations and metal frameworks to electrical connection and commissioning.

The project reflects SPIE's expertise in solar infrastructure and its close collaboration with regional energy players. By combining engineering know-how with local partnerships, SPIE supports Vendée Énergie's ambition to make public spaces active contributors to the region's renewable energy mix. Beyond producing local green electricity, the installation also improves user comfort by providing shade in summer and shelter in winter. It also showcases how smartly designed solar infrastructure can serve both environmental and social goals—reducing emissions while improving everyday life in the community.

~ 70
spaces covered

by photovoltaic canopies at the swimming pool car park
(one of the first projects completed in a larger programme to equip French public car parks with solar panels).

Faced with demands related to the energy transition, we need to find a committed partner, and SPIE fits the bill. Their ability to take on an entire project is a real added value. The work they delivered bodes well for future projects. I hope SPIE will be there for the next ones.

Laurent Favreau, Vice President
—
VENDÉE ENERGIE

Berkvens solar installation

UPGRADING SOLAR INFRASTRUCTURE FOR ENERGY NEUTRALITY

SUBSIDIARY **SPIE NEDERLAND**
Industry Services
YEAR **2024-2025**
SOLUTION **SOLAR**

SPIE supported Dutch door manufacturer Berkvens in advancing its goal of becoming 100% energy neutral by upgrading its solar energy infrastructure.

When Berkvens expanded its facility with a new shipping hall at its Someren (Netherlands) site, SPIE provided technical expertise to integrate solar production into the company's wider electrical network. SPIE handled cabling, upgraded distribution boards, and reinforced transformers to optimise use of the electricity generated onsite. To maximise efficiency, SPIE is now deploying a digital monitoring system that visualises energy flows across production, heating, and storage systems.

~75%
of Berkvens' annual electricity needs covered

5,770 solar panels
installed across the Someren site

Qatar solar plants

DELIVERING INSTALLATION AND MAINTENANCE FOR SOLAR PLANTS

SUBSIDIARY **SPIE GLOBAL SERVICES ENERGY**
YEAR **2024-2025**
SOLUTION **SOLAR**

SPIE is handling all operational and maintenance duties for QatarEnergy's Ras Laffan and Mesaieed (Qatar) PV power plants.

With the successful start-up of the two plants in May 2025, the nation raised its installed solar capacity by 875 MW to a total of 1,675 MW. SPIE's services at the plants cover all equipment as well as all technical domains, including, high-voltage power, HVAC, mechanics and instrumentation.

458 MWp and 417.5 MWp
of installed capacity for the two solar plants

Solar park in Küpfendorf

SUPPORTING LARGE-SCALE SOLAR ROLLOUT

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
YEAR **2023**
SOLUTION **SOLAR**

SPIE helped Rapidsolar equip a major new solar farm in Küpfendorf (Germany) by providing essential cabling and infrastructure for transformer stations.

As Germany aims to improve on its leading role in the European energy transition, it continues to develop its solar power output. To achieve its goal of 215 GWp installed capacity by 2030*, it needs reliable, knowledgeable experts to connect power from new solar farms to the grid. Solar parks like the one in Küpfendorf, in southern Germany, illustrate how regional projects are helping the country expand grid-connected renewable capacity while strengthening local infrastructure. There, SPIE helped client Rapidsolar develop the massive solar farm, which comprises 45,000 photovoltaic modules and now generates around 28 million kWh of electricity each year. This is enough to power thousands of homes and businesses annually.

SPIE carried out the complete medium-voltage cabling installation for seven transformer stations—critical interfaces that ensure safe, efficient delivery of energy to the public grid. Drawing on SPIE's European network of specialists, the team combined precise engineering with onsite coordination to meet demanding technical standards and a tight schedule. In a 10-day span, SPIE's team completed the complex and technically demanding task, connecting power lines across the site. The result is a fully functional, high-performance system that demonstrates SPIE's contribution to Europe's low-carbon future and to the reliable integration of renewable power into national grids.

* Source: https://www.cleanenergywire.org/ (May 2025)

28
million kWh
of solar electricity generated per year

45,000
solar panels
installed across the Küpfendorf site

25 MWp
total installed capacity

NUCLEAR

Expertise References

Ensuring dependable low-carbon power

Nuclear power plays a critical role in the low-carbon energy mix. With decades of experience and a highly qualified workforce, SPIE supports the entire nuclear lifecycle—from construction and refurbishment to dismantling and site management.

FULL-CYCLE SUPPORT FOR NUCLEAR ASSETS

Nuclear energy remains a reliable source of emissions-free electricity as the world undergoes the transition to a low-carbon future. From life-extension projects to safety upgrades and regulatory compliance, SPIE delivers technical engineering services across the entire nuclear lifecycle. Offering essential services that ensure the performance, safety, and longevity of nuclear infrastructure, its teams deliver multi-technical expertise in HVAC, electrical and mechanical systems, radiation protection, and instrumentation and control.

ENGINEERING A NUCLEAR FUTURE

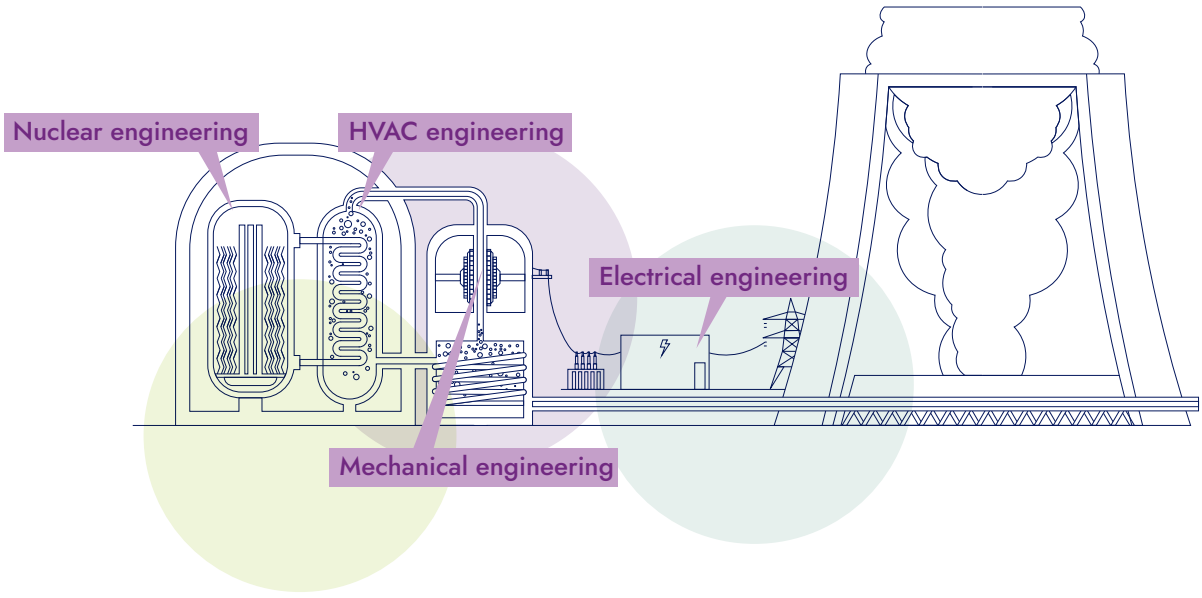
SPIE supports major clients across Europe, including operators of pressurised water reactors and research facilities, providing maintenance, upgrades, and decommissioning services. From engineering studies to onsite execution, SPIE plays a trusted role in meeting the nuclear industry's strictest standards. Through its nuclear activities, SPIE is helping to deliver secure, stable, and low-carbon energy for decades to come.

10%
of electricity generation globally is attributed to nuclear power, rising to almost 20% in advanced economies (1)

65%
of France's energy mix is composed of nuclear power (2)

(1) Source: IEA
(2) Source: EDF

SPIE services for nuclear producers



FOCUS ON: NUCLEAR MAINTENANCE

SUBSIDIARY **SPIE FRANCE** / SPIE Nucléaire

"Ice plugging" for enhanced nuclear

SPIE is applying temporary cryogenic sealing services to improve maintenance efficiency and safety across EDF's nuclear power stations.

As part of a national contract with customer EDF, SPIE is deploying its cryogenic sealing expertise throughout France's nuclear fleet. The technique, known as "ice plugging," temporarily isolates piping systems that cannot normally be shut down without a full power station shutdown. By freezing the fluid in the line, SPIE enables essential maintenance to be performed without draining the entire circuit. Along with reducing downtime and improving operational safety, this limits environmental impact: since the circuits do not require full draining, effluent production is reduced. Compatible with horizontal and vertical configurations, the technology offers broad adaptability across 900 MW, 1,300 MW, and 1,450 MW pressurised water reactors. SPIE's monitoring system combines thermography and acoustic sensors to enhance reliability through real-time supervision.

The innovative approach strengthens maintenance continuity and contributes to the ongoing performance of France's nuclear infrastructure.

HYDROPOWER

Expertise References

Harnessing the power of water

Hydropower has long been a key pillar of the clean energy transition, offering dispatchable, renewable electricity and long-term reliability. SPIE supports hydroelectric producers by delivering custom solutions in electrical engineering, control systems, and supervision.

EXPERTISE ACROSS THE FULL LIFECYCLE

From automation systems to remote monitoring, SPIE's teams design, install, and maintain high- and low-voltage systems that optimise performance, enhance safety, and enable producers to manage operations efficiently—even from a distance. With proven capabilities in project management and execution, SPIE helps optimise infrastructure while ensuring safe and reliable power distribution.

SMARTER MONITORING FOR STRONGER PERFORMANCE

Digitalisation is transforming hydropower operations. SPIE deploys advanced monitoring software that offers real-time visibility of production, machine temperatures, and power ratings via web or mobile. Combined with predictive maintenance, lifecycle cost analysis, and multi-sensor inspections, these tools enable operators to anticipate faults, extend asset life, and reduce downtime. This in turn makes hydro facilities more efficient and resilient contributors to sustainable energy systems.

680 TWh
hydropower generated in Europe in 2024*

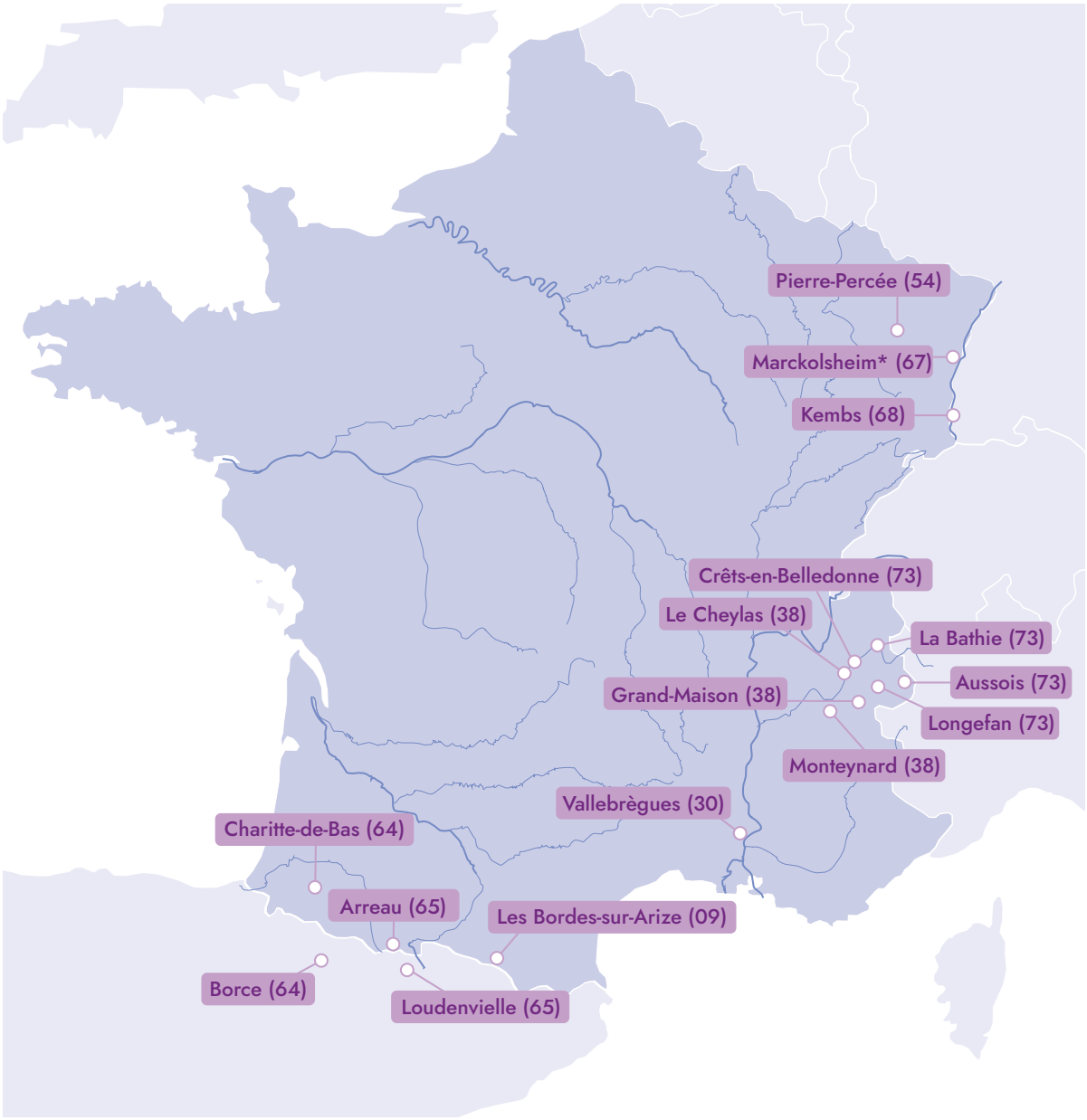
263 GW
hydropower installed capacity in Europe in 2024*

**Source: Hydropower.org*

SPIE supports hydroelectric producers

Map depicting a sampling of SPIE-supported French hydroelectric facilities

SUBSIDIARY **SPIE FRANCE**
SPIE Industrie



* SPIE is supporting EDF's effort to reintroduce salmon and other migratory fish into the Rhine by creating the two largest fish ladders in Europe. At EDF's Rhinau & Marckolsheim sites in eastern France, SPIE is providing the electrical, instrumentation and automation systems for the fish ladders.

This is a non-exhaustive sampling of projects in Hydropower SPIE contributed to in France.

HYDROGEN

Expertise | References

Covering the entire green hydrogen eco-system*

As hydrogen moves from promise to reality, SPIE is helping drive its safe, efficient deployment. From engineering to operations, SPIE's experts deliver integrated solutions across the hydrogen value chain.

DEPLOYING GREEN HYDROGEN INFRASTRUCTURE AT SCALE

Hydrogen plays a key role in the energy transition—helping decarbonise transport, industry, and the built environment. SPIE supports public and private customers in building, connecting and operating hydrogen systems, from renewable-powered production plants to storage, injection, and distribution. It can offer multi-technical services across every step of the value chain, including piping, electrical, instrumentation, civil works, and utility systems such as nitrogen, cooling and compressed air.

SPIE also provides turnkey integration of components such as electrolysers, refuelling stations, metering skids and fuel cells. Offering proximity and local expertise combined with deep technical know-how, SPIE combines industrial rigour with flexible project execution to scale up hydrogen safely.

SUPPORTING INNOVATION AND LONG-TERM OPERATIONS

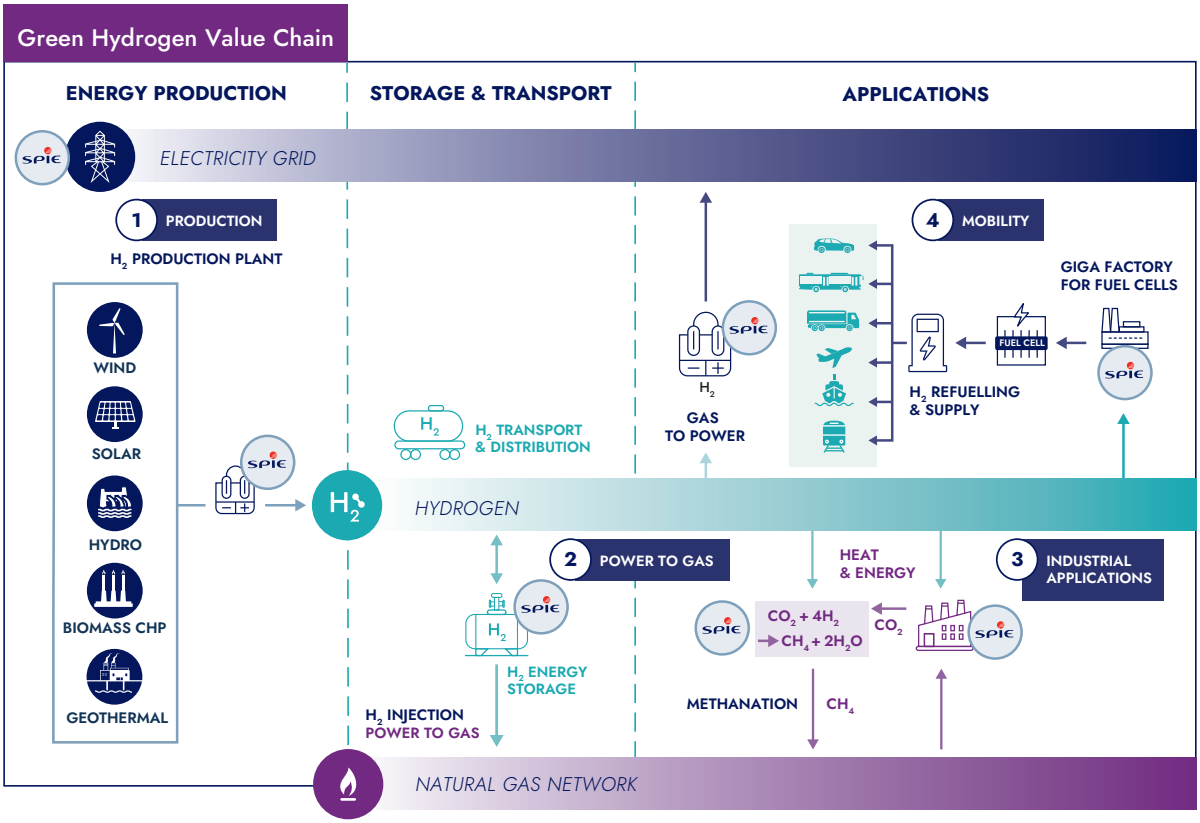
SPIE is active across a growing portfolio of hydrogen projects in Europe and beyond—from industrial production and power-to-gas to mobility applications and R&D. Offering full lifecycle services—from feasibility and engineering studies to commissioning, monitoring and maintenance—SPIE's teams work independently from technology suppliers, ensuring the right technical fit for each use case. Tools such as energy management systems, real-time diagnostics and predictive maintenance solutions help optimise performance and reduce energy losses. With deep experience across the energy and industry sectors, SPIE is well positioned to help clients navigate the regulatory, safety and technical challenges that come with non-mature technologies such as hydrogen—and support its role in a low-carbon, resilient energy system.

* Green Hydrogen is hydrogen produced from renewable sources.

10 million tonnes
of annual renewable hydrogen production in the EU by 2030

Source: European Commission

Watch the video "Green hydrogen, an essential driver for the decarbonisation of industry and mobility"



SPIE's fields of activity throughout the value chain.

Expertise | References

Mainz hydrogen project

INCREASING HYDROGEN USE

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
YEAR **2023**
SOLUTION **HYDROGEN**

A Mainz (Germany) based manufacturer of hygiene products needed to reduce its CO_2 emissions while switching to hydrogen for its production processes.

SPIE's pilot project involves the design and installation of an innovative gas pressure regulator that enables the company to use hydrogen for up to 100% of its manufacturing needs going forward.

Up to 100% hydrogen

can be used in the customer's production processes

PILOT PROJECT

Expertise References

Lhyfe electrical shelters

SUPPORTING HYDROGEN MOBILITY

SUBSIDIARY **SPIE FRANCE**
SPIE Industrie

YEAR **2023**

SOLUTION **HYDROGEN**

Lhyfe, a French producer and supplier of green hydrogen, called on SPIE to help it to convert the renewable energy being supplied to two of its production sites, in Bretagne (Buléon) and Occitanie (Bessières) in France. SPIE handled design, assembly, and onsite installation of two prefabricated shelters that house all electrical and control equipment. Each site can now produce up to 2 tonnes of green, renewable hydrogen per day, from an installed capacity of 5 MW.

The production of green, renewable hydrogen poses many new technical challenges. We are delighted to be working with a company as expert and innovative as SPIE to develop the right solutions for each of our sites.

Thomas Créach, Technical Director
—
LHYFE

19 buses and 2 passenger transport boats

run on hydrogen produced at Lhyfe's Buléon site

2 tonnes/day

of green hydrogen produced

5 MW

of installed capacity

Fossil-free brick production

TRANSITIONING PLANTS FROM NATURAL GAS TO HYDROGEN

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
BT&A, ICS and ISW Divisions

YEAR **2024**

SOLUTION **HYDROGEN**

"Green factories" are emerging as a way to reconcile industrial activity with climate goals. At a German brickworks site, SPIE is helping establish a green hydrogen supply by designing and implementing the loop line and feed-in system for a 10 MW electrolyser powered largely by onsite wind and solar energy.

0% fossil fuel energy

the plant's goal once hydrogen gradually replaces natural gas across all production processes

10 MW

wind- and solar-powered electrolyser

BILSTEIN GROUP hydrogen supply

REPLACING NATURAL GAS WITH HYDROGEN IN STEEL MANUFACTURING

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
City Networks & Grids Division

YEAR **2023**

SOLUTION **HYDROGEN**

SPIE's hydrogen-based energy supply system enabled carbon-neutral heat treatment for BILSTEIN GROUP's pioneering cold steel strip production plant in Hagen, Germany.

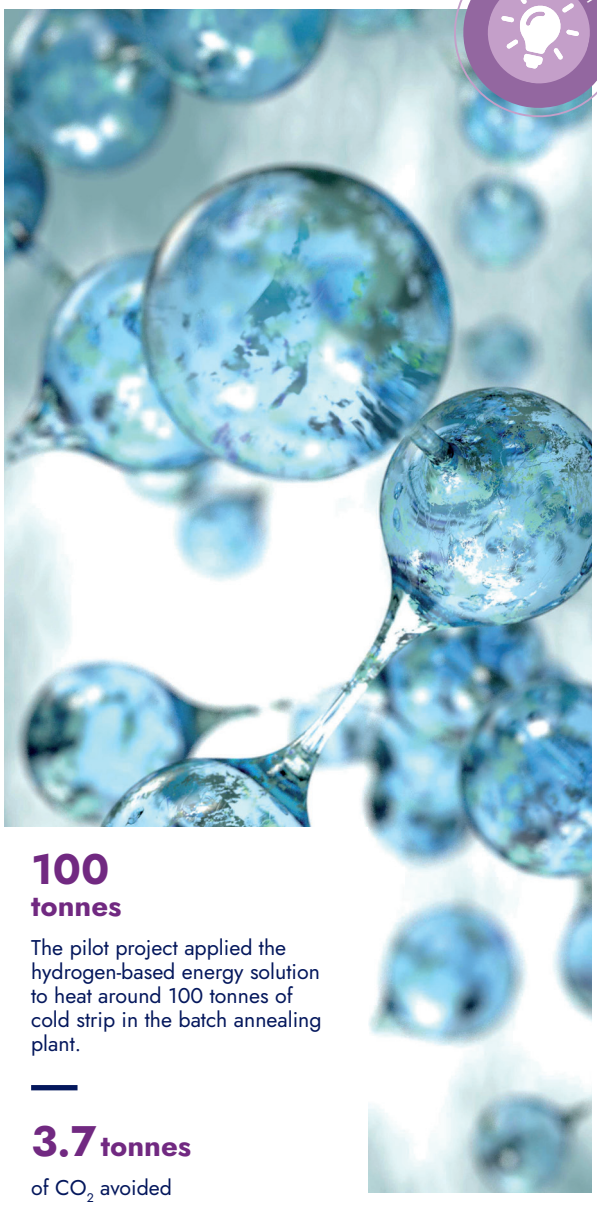
BILSTEIN GROUP, a world leader in cold strip manufacturing, aims to replace natural gas with hydrogen in the energy-intensive processes needed to produce cold-rolled steel strip. The strip must be heated to 500-800°C until it becomes ductile enough for downstream processing (e.g., for automotive applications). Switching from natural gas to hydrogen is extremely challenging, because to achieve equivalent performance, hydrogen must be supplied in much greater quantities.

SPIE installed an onsite hydrogen supply system for an entire heating mantle with 11 burners—a total heat output of 1,800 kW—with no loss of performance. With safety as a top priority, SPIE specially designed the equipment to withstand a high-pressure hydrogen flow of over 600 m^3 per hour from the system to the plant.

The project was a complete success. During the pilot run alone, we avoided emitting some 3.7 tonnes of CO_2.

Christian Hagenkord, Head of Sustainability Projects and Energy Supply
—
BILSTEIN GROUP

PILOT PROJECT



100 tonnes

The pilot project applied the hydrogen-based energy solution to heat around 100 tonnes of cold strip in the batch annealing plant.

3.7 tonnes

of CO_2 avoided

25,000 tonnes

BILSTEIN GROUP targets a complete switch to hydrogen. This could save 25,000 tonnes of CO_2—the equivalent of the annual consumption of around 2,300 people.

Expertise References

Vallée Sud Hydrogène

DEVELOPING GREEN HYDROGEN STATIONS

SUBSIDIARY **SPIE FRANCE**
SPIE Industrie

YEAR **2023-2026**

SOLUTION **HYDROGEN**

SPIE played an instrumental role in designing and installing two renewable hydrogen production and distribution stations in Hauts-de-Seine (France).

To help meet France's growing demand for clean public transport, SPIE equipped two production and distribution stations in the Hauts-de-Seine cities of Châtenay-Malabry and Châtillon. For customer Vallée Sud Hydrogène, SPIE provided the stations' turnkey electrical, automation and instrumentation systems. The Châtenay-Malabry site consists of an electrolysis hydrogen production station that produces hydrogen, which can be compressed and stored at several pressure levels (from 500 to 1,000 bar). The Châtillon site, equipped with a storage and distribution area, obtains its hydrogen supply from the Châtenay-Malabry site. The stations help Vallée Sud Hydrogène to power 30 buses managed by Île-de-France Mobilités and 27 household waste collection vehicles. With a production and distribution capacity of up to two tonnes of hydrogen per day, the stations make a significant contribution to decarbonising transport in the region.

2+ tonnes

of hydrogen per day produced and distributed by the stations

3,000 tonnes

of CO_2 emissions reduction per year thanks to the project

Expertise References

Bad Lauchstädt Energy Park

EQUIPPING A HYDROGEN-READY ENERGY HUB

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
BT&A Division

YEAR **STARTING IN 2025**

SOLUTION **HYDROGEN**

SPIE installed all technical building systems at the Bad Lauchstädt Energy Park in Saxony-Anhalt (Germany) for customer Elektrolyse Mitteldeutschland.

Elektrolyse Mitteldeutschland's Bad Lauchstädt Energy Park is Central Germany's first industrial-scale electrolysis plant. An important step towards the energy transition and the development of a sustainable hydrogen economy, the 30 MW capacity facility produces nearly 27 million m^3 of green hydrogen per year. The hydrogen is stored in a salt cavern, from which it can be fed into the hydrogen network via a converted gas pipeline. SPIE was brought onto the project to equip the technical buildings with air conditioning and cooling technology; heating; ventilation; sanitary systems; and measurement, control and regulation technology. SPIE used a reversible heat pump to generate the cooling and heating, helping to keep onsite energy consumption and CO_2 emissions to a minimum.

30 MW

capacity for the plant

~27 million m^3

of hydrogen can be produced annually at the plant

CARBON CAPTURE, UTILISATION AND STORAGE

Expertise | References

Delivering reliable carbon capture solutions

Carbon Capture, Utilisation and Storage (CCUS) technologies are key to decarbonising heavy industry, especially when direct emissions reductions are not feasible. By capturing up to 90% of CO_2 from industrial sites, these solutions can store it safely or recycle it into new applications such as fuels, chemicals, or food processing. Customers face the challenge of integrating complex systems without disrupting production. With its industrial expertise and local presence, SPIE designs and installs electrical, piping, and control systems that enable reliable CCUS technologies.

90%
of emissions from industrial sites can be captured for storage or recovery

Source: International Energy Agency

Heidelberg Materials cement plant

DELIVERING CCU TECHNOLOGY TO THE CEMENT INDUSTRY

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
ISW Division

YEAR **2025**

SOLUTION **CARBON CAPTURE, UTILISATION AND STORAGE (CCUS)**

SPIE GSA installed the world's first industrial-scale Carbon Capture and Utilisation (CCU) system for the cement industry at Heidelberg Materials' Lengfurt (Germany) plant.

To produce one tonne of cement in Germany, a plant generates on average 600 kg of CO_2 emissions. As a result, the cement industry accounts for 20 million tonnes of CO_2 per year in Germany—2% of the country's annual emissions. The CCU facility at the Lengfurt plant is thus a major milestone in the cement industry's ongoing decarbonisation efforts. The system has a capture capacity of 70,000 tonnes of CO_2 per year. Due to its high purity, the captured and processed gas can be utilised in both the chemical and food industries.

SPIE was responsible for most of the facility's mechanical installations. In addition to pre-installation preparatory work, it carried out pre-fabrication and assembly of 5,500 m of piping; assembled the complete steel structure; and installed the majority of equipment, mounting supports, and insulation and corrosion protection.

70,000
tonnes

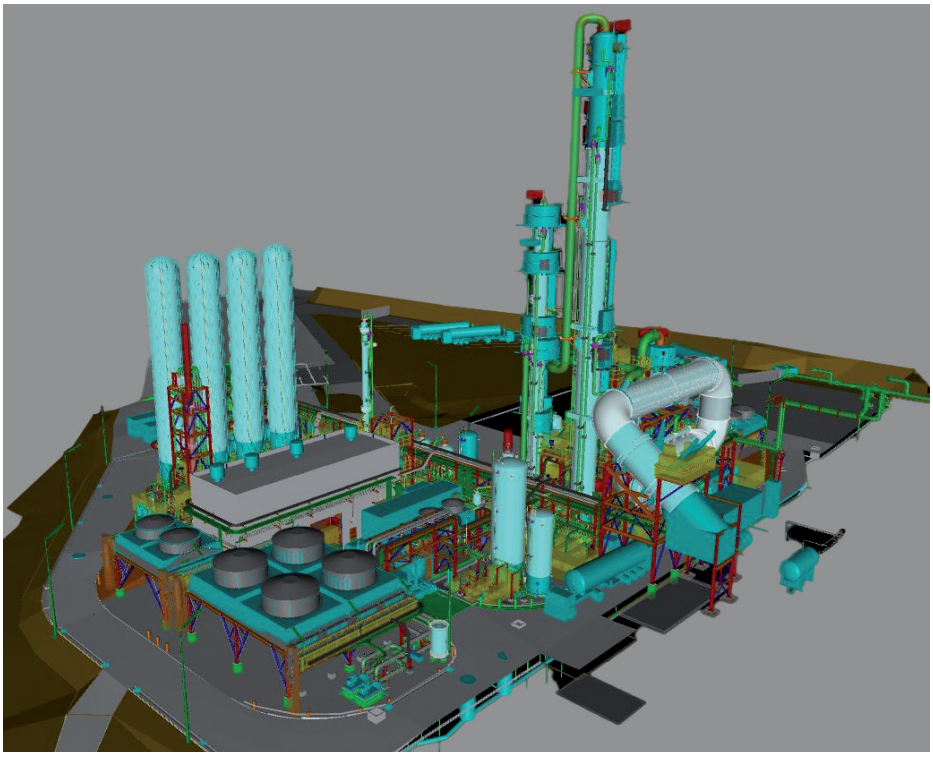
of CO_2 capture capacity per year

5,500
metres

of piping assembled by SPIE during mechanical works

Key fact

The project is supported by the Ministry for Economic Affairs and Energy - Bundesministerium für Wirtschaft und Energie (BMWE) under its "Decarbonisation in Industry" funding programme.



3D model

OTHER ENERGY PRODUCTION

Expertise References

Running the gamut of low-carbon solutions

The road to decarbonisation continues to widen, with low-carbon energy solutions emerging and evolving every day. SPIE is helping biofuel, geothermal and other energy producers deliver measurable impact within the global energy mix. Through technical expertise and practical innovation, SPIE is strengthening the development and use of these clean energy sources and more.

BRINGING INNOVATION CLOSER TO CUSTOMERS

Across Europe and beyond, SPIE partners with clients to deliver locally adapted solutions—from supporting the development of geothermal heat loops to modular biofuel plants. Its teams work hand-in-hand with customers to overcome complex technical and environmental challenges.
By combining proximity with a strong culture of innovation, SPIE is also helping develop new technologies.

12.8%
of EU renewable electricity in 2023 came from sources other than solar, wind or hydropower

Source: European Union

C-Green

TACKLING METHANE EMISSIONS FROM SLUDGE WASTE

SUBSIDIARY **SPIE NEDERLAND**
YEAR **UPCOMING PROJECT**
SOLUTION **BIOFUEL**

Sludge from wastewater treatment can emit methane—over 30 times more harmful than CO_2. Building on a cooperation agreement signed in 2023, SPIE is strategically positioned to deliver these modular units on a full turnkey basis. SPIE is supporting C-Green's ambition to establish its first modular biofuel plant in the Netherlands by preparing to install, manage and maintain compact, ready-to-use units that convert sludge into fuel at sites such as pulp mills and wastewater treatment facilities.

25,000 tonnes

of sludge can be processed by each plant annually

FOCUS ON: **CARBON-FREE ENERGY CARRIERS**

SUBSIDIARY **SPIE NEDERLAND**

Exploring iron powder as an energy carrier

Storing and transporting surplus renewable energy remains a key challenge. SPIE is exploring iron powder as a recyclable, carbon-free energy carrier. When burned, it emits no CO_2 and generates high heat—which can be used directly for industrial purposes or be converted to electricity. SPIE is providing technical and design expertise to develop this fully circular energy source.

~1.4 kWh/kg

energy density of iron powder—comparable in volume to gasoline yet fully recyclable

Source: Institute of Electrical and Electronics Engineers

Expertise References

Hôtel des Douanes restoration

UPDATING HVAC SYSTEMS WITH GEOTHERMAL POWER

SUBSIDIARY **SPIE BELGIUM**
YEAR **2023**
SOLUTION **GEOTHERMAL**

SPIE's innovative open-loop geothermal system is providing a sustainable way to update the HVAC systems of Brussels' historic Hôtel des Douanes.

The Hôtel des Douanes at the Tour et Taxis site in Brussels (Belgium) is a national treasure and is listed as a historic building. When building developer Nextensa began renovation work on the architectural beauty, it called on SPIE to overhaul its HVAC and electrical systems. SPIE's team combined an open-loop geothermal system onsite with two heat pumps that regulate the site's temperature through sustainable, renewable energy from the subsoil. The result is a historic space that is functional, pleasant and flexible for future needs.

2

heat pumps use subsoil renewable energy for heating and cooling

Geothermal plant management

OPERATING AN INNOVATIVE GEOTHERMAL LOOP SYSTEM

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
Efficient Facilities Division
YEAR **2025**
SOLUTION **GEOTHERMAL**

SPIE is managing operations for a groundbreaking geothermal plant in Geretsried (Germany) that uses hot rock—not thermal water—to generate electricity and heat for the district. The innovative plant, which SPIE client Eavor calls the Eavor-Loop™, uses a closed system, and is comparable to a giant underground radiator. Each loop consists of around 80 kilometres of borehole. SPIE maintains the Organic Rankine Cycle (ORC) system that converts the system's excess heat into low-carbon power. It also ensures round-the-clock availability of surface systems and advises on commissioning.

3
geothermal plants
currently being managed by SPIE in Bavaria

ATES* Heat Grid

INTEGRATING GEOTHERMAL HEAT GRID CONNECTIONS FOR INDUSTRY

SUBSIDIARY **SPIE BELGIUM**
YEAR **2025**
SOLUTION **GEOTHERMAL**

At a pharmaceutical site in Belgium, the SPIE team removed outdated steam units and replaced them with nine skids equipped with heat exchangers, pumps, and valves to utilise the geothermal energy onsite. The team handled engineering and installation of the skids. Its scope covered electrical, mechanical, piping and civil works, as well as commissioning and final handover. Close cooperation between SPIE's electrical and mechanical departments ensured quality, safety and on-time delivery.

* Aquifer Thermal Energy Storage

3,600
tonnes/year
onsite CO_2 savings thanks to the project

ENERGY MIX —
TRANSMISSION, DISTRIBUTION & STORAGE

Powering progress through strengthened grid resilience

Electricity transmission and distribution are the backbone of modern energy systems, ensuring reliable power for homes, businesses and industry. As the use of renewable resources expands, networks must evolve to deliver clean electricity efficiently and securely. Energy storage now plays a vital role in balancing fluctuating supply and demand.

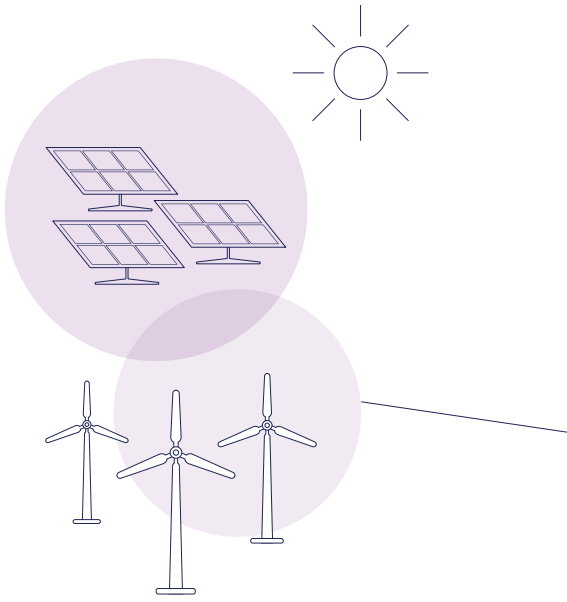
Meeting these challenges requires more than modernising high-voltage lines: it also means building innovative new substations that can manage voltage transformation and distribution. Together, advanced overhead lines, smart substations and storage solutions are combining to create the next generation of smart grids and enabling sustainable, reliable electricity for end users.

+20%

increase in length of European electricity grids by 2030 to meet energy and climate pledges

(Source: European Parliament)

GETTING POWER TO THE RIGHT PLACE, AT THE RIGHT TIME



— Global demand for energy is growing, with electricity consumption increasing an estimated 4% annually through 2027. In this context, transmission, distribution and storage systems throughout Europe must be strengthened and modernised to meet society's real-time needs. SPIE supports industries, municipalities and organisations in the design, modernisation and maintenance of new and existing energy infrastructures. It is making energy systems more reliable and resilient through better grid infrastructure, power management systems and Battery Energy Storage Solutions (BESS) tailored to each local context.

MODERNISING ELECTRICITY NETWORKS

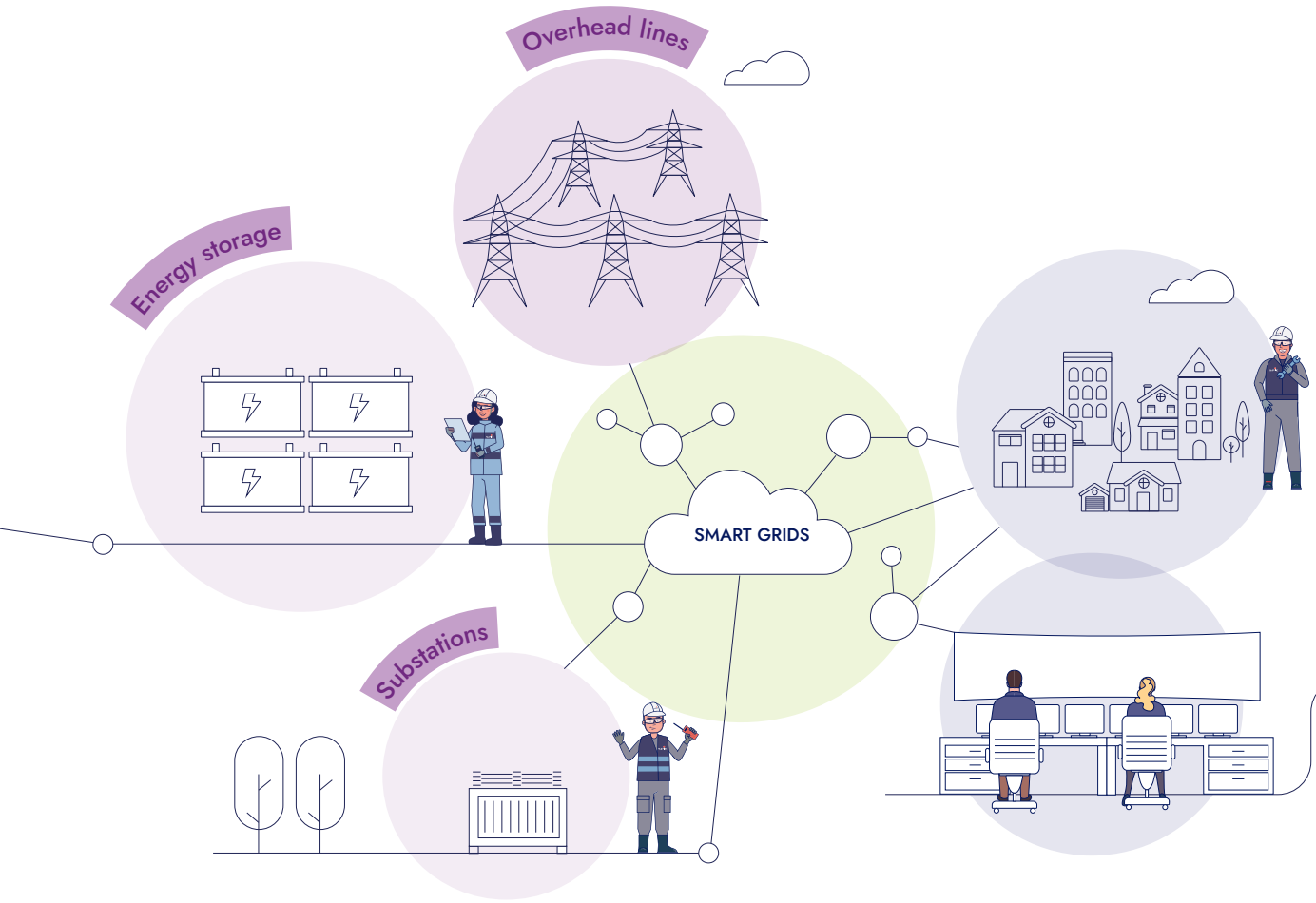
Responding to the call for more robust and innovative energy transmission, distribution and storage solutions, SPIE delivers a complete range of services to its customers: SPIE's experts design, install and maintain overhead and underground networks, substations and switchgears that bring electricity from central and renewable sources to end users. From permitting and civil works to inspections and commissioning, SPIE ensures reliable delivery while reducing environmental impacts and integrating new renewable generation.

ENABLING SMARTER ENERGY MANAGEMENT

To operate modern grids, real-time monitoring and control are essential. SPIE implements power management systems, communications, protection and digital tools that optimise network performance. Its solutions improve responsiveness, reduce losses and enable operators to monitor usage, manage risks and control infrastructure remotely—essential capabilities for today's increasingly decentralised, digitalised energy systems.

STABILISING SUPPLY WITH BATTERY STORAGE

As intermittent renewables become a larger share of the energy mix, storage is key to ensuring grid stability and economic viability. SPIE provides comprehensive energy storage solutions for industrial, commercial and utility-scale use. These systems reduce pressure on the grid by smoothing consumption peaks, lowering energy costs and enabling time-shifting of energy supply.



€584 billion

in investment is needed to modernise, expand, and adapt EU transmission and distribution grids between now and 2030

(Source: European Parliament)

~24%

of total electricity demand (~288 TWh) in the EU electricity system by 2030 will require system flexibility to account for an estimated renewable energy share of 69%

(Source: EU)

~5x

expected growth of Europe's battery storage capacity by 2030, compared to 2024

(Source: Reuters)

OVERHEAD LINES

Expertise References

Modernising grids for renewable integration and electrification growth

High-voltage overhead lines are essential to transporting electricity safely and efficiently across regions. As energy systems evolve, they must adapt to handle growing renewable generation while protecting surrounding ecosystems. Upgrading, modernising and maintaining these networks is critical to ensuring secure supply and supporting the energy transition.

MANAGING COMPLEX TRANSMISSION PROJECTS

Overhead line projects demand expertise across the full lifecycle: from preliminary studies and route planning to civil works, tower erection, and high- and low-voltage connections. SPIE engineers design and install new lines and modernise existing ones to increase capacity, efficiency and resilience. Innovative solutions such as high-capacity bypasses help maintain supply during the project build, ensuring uninterrupted service while strengthening the grid for the future.

BALANCING INFRASTRUCTURE WITH ENVIRONMENT

Beyond technical delivery, overhead line projects must respect the environments they traverse. By adapting designs to minimise impact—such as lowering line profiles and safeguarding waterways or habitats—SPIE helps reconcile energy infrastructure with biodiversity protection. With this combined approach, modernised overhead lines both expand renewable integration and safeguard the landscapes and communities they cross.

60%
projected increase in electricity demand in the EU by 2030[1]

390,000 km
of high-voltage transmission lines in the EU[2]

20-40%
with grid-enhancing technology[3]

(1) Source: European Parliament

(2) Source: ERT – Strengthening Europe's Energy Infrastructure, 2024

(3) Source: European Parliament

Expertise | References

Amprion overhead line upgrades

UPGRADING THE GRID FOR RENEWABLES

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
High Voltage Division

YEAR **2025**

SOLUTION **TRANSMISSION**

SPIE is working for long-time customer Amprion to modernise two critical sections of Germany's electricity grid—ensuring safe, uninterrupted power and enabling greater integration of renewable energy.

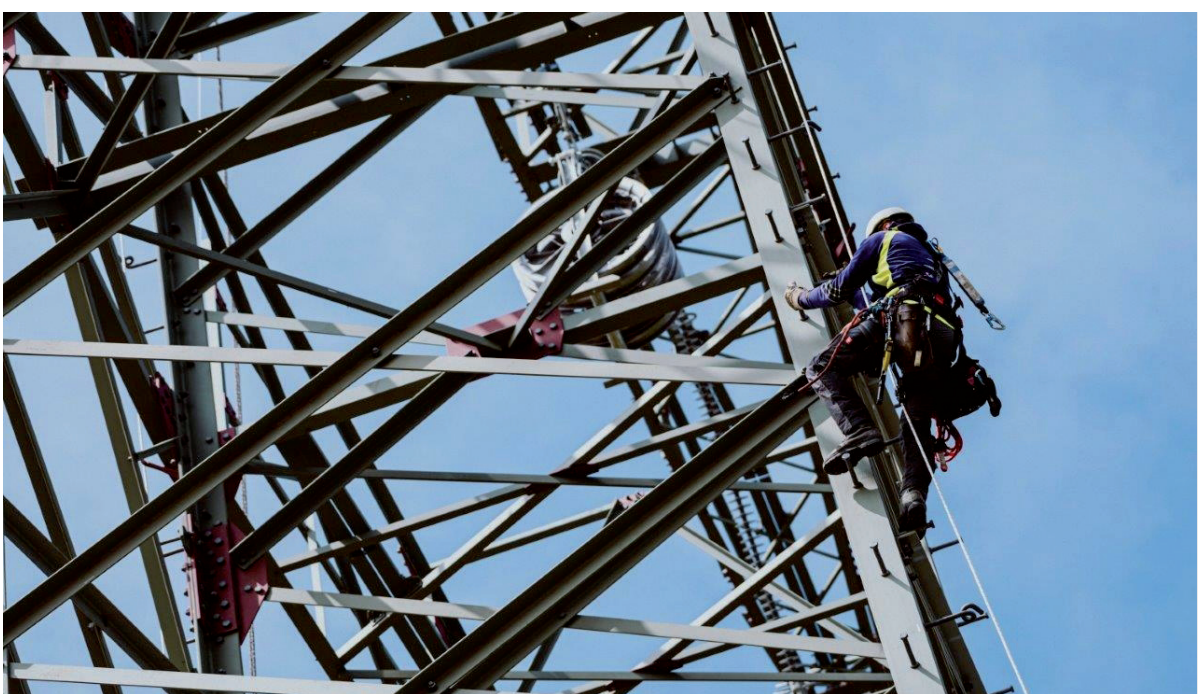
SPIE is delivering two major grid upgrades for transmission operator Amprion: a 20.3-km 380 kV line between Osterath and Gohrpunkt and two sections of 380 kV line between Metternich and Niederstedem. Both projects are central to Germany's energy transition, helping route large volumes of renewable energy across the country's north-south corridor.

SPIE's role spans planning, infrastructure development, foundation work, pylon installation and cable mounting. To avoid outages during the Gohrpunkt project, SPIE engineered high-capacity bypasses to maintain supply. Throughout both projects, SPIE's precision, adaptability and deep partnership with Amprion have been key to maintaining safe, uninterrupted operations while delivering long-term improvements to efficiency, load capacity and grid sustainability.

Key fact

SPIE's custom-built transmission bypasses eliminate unplanned outages.

> ***(SPIE's) entire team is characterised by excellent expertise and particular precision in implementation... The flexibility with which everyone here repeatedly acted, especially at the beginning of the conversions, deserves special mention.***
>
> **Tobias Wollschläger,** Project Manager
> —
> AMPRION



Expertise References

Hastière–Pondrôme line upgrade

SUPPORTING REGIONAL ELECTRIFICATION

SUBSIDIARY **SPIE BELGIUM**
YEAR **2024**
SOLUTION **TRANSMISSION**

To respond to the demand by Wallonia's business and residential communities for more electricity, SPIE helped replace outdated overhead lines and updated the system to respond better to renewable energy intermittency concerns.

Originally built in 1967, the overhead line between the Hastière and Pondrôme substations in Belgium's Wallonia region was reaching the end of its life. At the same time, the region's citizens as well as its businesses are demanding more electricity as they switch from fossil fuel-based energy to more renewable sources. Network operator Elia needed to replace the entire 18.8 km stretch of lines to help ensure the energy transition and meet future challenges. SPIE upgraded the high-voltage lines from one 70 kV line to two 110 kV lines, which are connected by new lattice towers assembled and installed by SPIE technicians. This new system prevents grid saturations.

> *Electrification is creating new needs and new behaviours on the network. We have more production, but also more demand for electricity, both from individuals and from businesses and industries that are increasingly electrifying their processes.*

Charlotte Quevedo, Project Communication Manager
—
ELIA

110 kV lines
provide greater grid reliability

German power line upgrade

BALANCING BIODIVERSITY AND OVERHEAD POWER LINE UPGRADES

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
SPIE City Networks & Grids Division

YEAR **2022**

SOLUTION **TRANSMISSION**

SPIE performed a large-scale overhaul of overhead power lines in Rhineland-Palatinate and Saarland (Germany) while ensuring environmental protection of the region.

Pfalzwerke Netz AG needed to upgrade the 20 kV overhead lines in the German states of Rhineland-Palatinate and Saarland, which are composed of protected areas such as the Bliesgau biosphere reserves and important waterways. Tasked with building new infrastructure alongside the waterways, SPIE mitigated the project's impact on water-dwelling bird species in the region, taking into account EU regulations protecting nature. The teams involved complied with the latest environmental requirements, including flood retention planning and the creation of waterway and road crossings. Through installation of these modernised lines, SPIE helped Germany achieve one of its key energy transition goals while preserving its biodiversity.

> *In projects of this size, it is essential that every aspect of power lines regulation – including environmental protection aspects – are clarified before our network expansion specialists begin work... Thanks to SPIE, our long-term partner, this has never been a problem.*
>
> **Thomas Müller,** Project Manager
> —
> PFALZWERKE NETZ AG

20 kV
pylon foundations ensure power supply continuity even during flooding

SUBSTATIONS

Expertise | References

Vital cogs in the power grid

Electrical substations are essential for power distribution. By transforming high-voltage electricity into lower voltages, they make reliable supply possible for homes, businesses, and industries. As grids continue to evolve to integrate more renewable energy sources, substations are becoming central to a more sustainable, efficient energy system.

ENABLING RENEWABLE GRID INTEGRATION

From wind and solar farms to expanding transmission corridors, substations are needed to handle the ever-rising volumes of low-carbon electricity. Playing an invaluable role in stabilising power grids, they are transforming voltage and distributing power to ensure that new capacity reaches end users without compromising supply reliability. SPIE enhances substations with innovations such as digital monitoring, intelligent control systems and rapid switchgear upgrades, ensuring reliable operation while supporting the wider energy transition.

DELIVERING FULL LIFECYCLE SERVICES

SPIE supports the complete lifecycle of substation projects, from planning and engineering to the building phase, commissioning and long-term maintenance. Its teams design and install high- and low-voltage systems, transformers and switchgears, and implement protective and control technologies. With expertise in digital monitoring and environmental compliance, SPIE helps ensure substations operate efficiently, safely and sustainably for decades.

42.5%
is the EU's new minimum binding target for renewables in the energy mix by 2030 (1)

>40 years
The age by 2030 of around half of all EU grid assets(2)

(1) Source: EU

(2) Source: European Roundtable for Industry

Expertise | References

Choczewo substation

CONNECTING RENEWABLE ENERGY TO A NATIONAL GRID

SUBSIDIARY **SPIE CENTRAL EUROPE**
YEAR **2025**
SOLUTION **SUBSTATIONS**

SPIE's new substation in Choczewo, Poland will help connect valuable renewable energy resources to the national grid.

Traditionally, Poland has relied on coal for most of its electricity production, but photovoltaics (PV) and offshore wind are both on a rapid rise. PV counts 23.6 GW of capacity as of August 2025, and the government is targeting an offshore wind capacity from Baltic Sea wind farms of up to 11 GW by 2040. As renewable energy production in Poland continues to ramp up, new projects must safely and reliably connect to the grid.

The 400 kV Choczewo substation is helping to meet this need. It is the first and largest of its kind in Poland, equipped with cutting-edge technology that helps stabilise the grid. As SPIE continues to build substations around the country, it plans to be heavily involved in the next development phase: energy storage installations.

5.1 GW
of energy

transmitted through the Choczewo substation

23.6 GW

In August 2025, the installed renewable energy capacity generated by photovoltaics exceeded 23.6 GW, accounting for approximately 65% of the total renewable energy capacity.

2040

Poland is targeting 11 GW of offshore wind capacity from its Baltic Sea wind farms in the next 15 years.

Expertise References

North Amsterdam power grid

CONNECTING RENEWABLES TO THE GRID WITH A SUBSTATION

SUBSIDIARY **SPIE NEDERLAND**

YEAR **2025**

SOLUTION **SUBSTATIONS**

SPIE constructed a 150 kV high-voltage substation for Dutch national grid operator TenneT—the first station set for grid reinforcement in north Amsterdam (Netherlands).

As wind and solar energy use grows throughout the Netherlands, businesses and households need new connections or more power for existing ones. For high-voltage operator TenneT, SPIE is currently designing and building a 150 kV substation in Oostzaan (Netherlands). Once completed, it will work in combination with an existing 380 kV station nearby to feed a transformer station. The Oostzaan substation consists of two GIS (Gas-Insulated Switchgear) buildings and a central service building, with control cabinets. Supplying north Amsterdam and the port with needed extra electricity, the station is the first link in the strengthening of Amsterdam's grid, which will gradually increase capacity and make room for new connections in the future.

150 kW high-voltage substation,

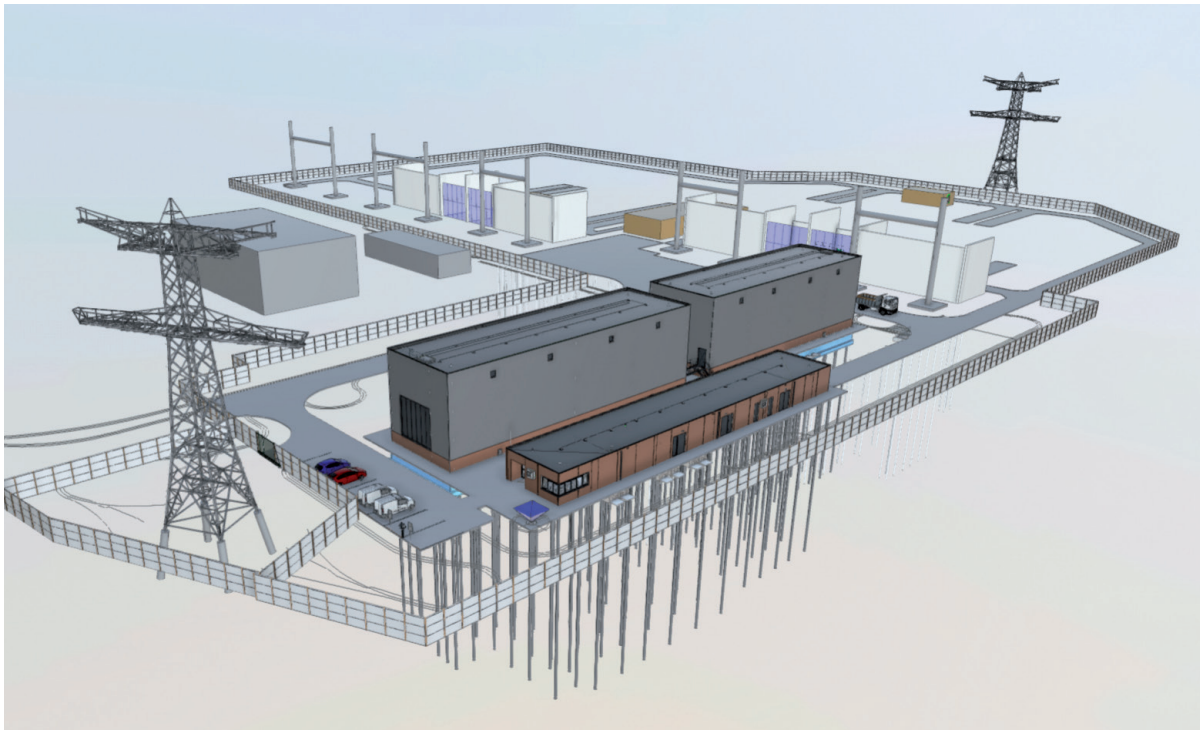
reinforcing Amsterdam's electricity grid

Over the next 10 years, TenneT will invest around €60 billion to strengthen the high-voltage grid in the Netherlands. SPIE is one of TenneT's key partners in this expansion.

Maarten Abbenhuis, COO

—

TenneT



Expertise | References

Klimapark Steinhöfel

INSTALLING SUBSTATIONS FOR A LARGE AGRI-SOLAR PROJECT

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
High Voltage Division
YEAR **2025-2026**
SOLUTION **SUBSTATIONS**

SPIE is working for agrivoltaics developer SUNfarming to design and install an innovative green power substation in northeastern Germany.

Klimapark Steinhöfel is SUNfarming's flagship climate park project, combining sustainable energy generation with agricultural production across 500 hectares of land. The innovative project utilises bifacial glass-glass photovoltaic modules to generate onsite power that, when connected to the grid, will generate a total installed capacity of up to 753 MWp.

753 MWp
total installed capacity

SPIE is helping SUNfarming to connect to the grid by providing all project services from planning through commissioning. Connection to the grid, scheduled for 2026, will demonstrate how agrivoltaic systems can help to protect the environment against climate change while bringing added value to agricultural regions.

> ***Agrivoltaic systems protect the environment, nature and groundwater against climate change while bringing real added value.***
>
> **Edith Brasche,** Managing Director of Project Development
> —
> SUNFARMING

Kettlasbrunn substation

DELIVERING LARGE SUBSTATIONS FOR RENEWABLES

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
Austria
YEAR **2024**
SOLUTION **SUBSTATIONS**

SPIE delivered the largest substation in customer Netz Niederösterreich's history to support the energy transition in Lower Austria's Weinviertel region.

The substation project is a key enabler of Lower Austria's 2030 climate and energy plan. SPIE completed the substation in just 20 months for Netz Niederösterreich. The Kettlasbrunn facility, operational since late 2024, channels up to 378 MW of green electricity—enough to supply 250,000 households—into the 110 kV distribution network.

The contract included primary and secondary engineering, delivery and installation of all components, commissioning, testing and full documentation. SPIE's in-house teams managed the entire scope, including over 150 km of cabling, 10 km of busbar wiring and 200 tonnes of steel.

By drawing on SPIE's expertise and internal production capabilities—such as the delivery of 40 custom-built switchgear cabinets—the team delivered to schedule despite a tight timeline and greenfield conditions.

36%
reduction
in greenhouse gas emissions thanks to the project

250,000
households
in Lower Austria can be supplied with clean electricity

Expertise References

Landwind Gruppe substation

CONNECTING A TURNKEY SUBSTATION TO THE GRID

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
High Voltage Division
YEAR **2024**
SOLUTION **SUBSTATIONS**

When renewables company Landwind Gruppe needed a supplier that could provide a full range of services to connect renewable energy to the grid, it turned to SPIE and its turnkey substation offer.

Today's wind and solar farms require transformer stations to feed the generated energy into high-voltage overhead power line networks. As Germany ramps up its solar and wind use, it needs numerous transformer stations close to these renewable installations. In Gevensleben (Germany), wind and solar operator Landwind Gruppe tasked SPIE with building a substation to connect renewables to the grid. SPIE managed planning and engineering, performed civil and foundation works, and delivered steel components. The team supplied, assembled and commissioned high- and medium-voltage components, including cabling, to customer specifications. SPIE also connected the customer-supplied power transformer to the new substation, integrating it into the site's high- and medium-voltage systems.

140 MW
substation
power capacity

We are delighted to have found a partner in SPIE, which is capable of fulfilling our requirements with full integration.

Alexander Heidebroek, Managing Director
—
LANDWIND GRUPPE

Ampyr Solar Europe solar farm

ALLEVIATING GRID CONGESTION

SUBSIDIARY **SPIE NEDERLAND**
YEAR **2025**
SOLUTION **SUBSTATIONS**

SPIE designed and installed a high-voltage substation to connect Ampyr Solar Europe's solar farm project to the power grid in the Netherlands.

The massive solar farm provides enough energy to annually supply 28,500 households with renewable energy. But such a large-scale power plant requires a high-voltage substation that can transfer that power directly to the grid. SPIE was involved from the project's start, planning how to connect to the TenneT high-voltage station at Westermeerdijk and devising an optimal configuration for the substation.

The solar farm is located between and next to existing wind turbines. Wind and solar energy complement each other, as sunny weather often means wind is diminished. By connecting both wind and solar to the substation, SPIE is contributing to solving grid congestion and helping the Netherlands reduce CO_2 emissions.

The associated TenneT substation will also host a major 250 MW / 1 GWh BESS in the near future, further strengthening the site's strategic relevance and long-term value creation for shareholders.

28,500
households

fulfilling their annual electricity needs through the solar farm

200,000
solar panels

covering the entirety of the project

45 hectares

The solar farm takes up 45 hectares, the equivalent of 85 football pitches.

2030

Ampyr Solar Europe is helping the municipality of Noordoostpolder to achieve its goal of becoming energy-neutral by 2030.

> ***SPIE's proactive attitude ensures that sustainably generated power will be available on the Dutch grid.***
>
> — AMPYR SOLAR EUROPE

ENERGY STORAGE

Expertise References

Bringing stability to the grid for a renewable future

Battery Energy Storage Systems (BESS) are key to unlocking the full potential of renewable energy. By absorbing excess power during peak production and releasing it for consumption when production is lower, BESS stabilise electricity supply and reduce reliance on fossil fuels. SPIE brings multi-technical expertise across Europe to design, install and operate these critical systems.

MANAGING COMPLEXITY FROM DESIGN TO GRID CONNECTION

SPIE delivers turnkey BESS projects with deep technical knowledge and local presence. Its services cover the full lifecycle: engineering, permitting, procurement, commissioning, grid connection, operation, and maintenance. SPIE's teams support a wide range of use cases—including load shifting, peak shaving, frequency regulation and energy arbitrage—for grid operators, utilities and industrial clients. Whether deploying modular containers or building complex large-scale infrastructure, SPIE ensures every project meets demanding performance, safety and delivery standards.

ENABLING FLEXIBILITY ACROSS EUROPE'S POWER NETWORKS

With intermittent renewables like wind and solar now exceeding combustible fuels in EU power production, storage capacity is critical. SPIE has installed BESS at key sites across Germany, Belgium, France, the Netherlands and Poland. Its experts help ensure electricity flows reliably from generation to end users—even during peak demand or grid disruptions. From cabling, power conversion energy management systems and cybersecurity to transformers, SPIE offers integrated solutions that enhance grid stability and accelerate the transition to decarbonised power.

400 GWh
forecast total BESS capacity in Europe by 2029

Source: Solar Power Europe

Watch the video "BESS: unleashing the full potential of renewable energy"

Volvo energy storage

INNOVATING GRID STABILITY THROUGH BESS DEPLOYMENT

SUBSIDIARY **SPIE NEDERLAND**
Building Solutions and Industry Services

YEAR **2025**

SOLUTION **ENERGY STORAGE**

A smart battery system installed by SPIE is helping Volvo's Dutch subsidiary in its ongoing shift to more sustainable energy solutions at its Netherlands headquarters.

As grid capacity constraints became a factor for Automaker Volvo Car Netherlands in Beesd (Netherlands), the increasing demand for electric vehicle charging called for a smarter energy approach. To complement the available grid connection, Volvo installed onsite solar panels, though weather-dependent generation led to fluctuations in available energy.

To manage these variations, SPIE integrated a 500 kWh battery energy storage system (BESS). The system manages peak loads and optimises charging efficiency for the 50 electric vehicle charging stations, even during periods of lower solar production.

The project focuses on the strategic shifting of loads rather than pure storage. For 12 weeks, data on the battery system, charging stations and weather conditions was collected and integrated into a digital twin, enabling the simulation of different future energy scenarios. This supports Volvo Car Netherlands in achieving its sustainability goals.

> *More than a temporary solution, this battery is our next step towards a smarter, more sustainable energy system.*
>
> **René Traa,** Manager Facilities & Sustainability
> —
> VOLVO CAR NETHERLANDS

500 kWh
installed onsite to handle peak loads

Expertise References

Industrial BESS installation

STABILISING THE GRID THROUGH BESS

SUBSIDIARY **SPIE FRANCE**
SPIE Industrie
YEAR **2025-2026**
SOLUTION **ENERGY STORAGE**

SPIE is installing a 65 MW / 130 MWh battery energy storage system to support French grid stability and integrate renewable energy.

To address renewables-based grid intermittency, SPIE is delivering a turnkey battery energy storage system (BESS), scheduled for completion in the first quarter of 2026. With a capacity of 65 MW and 130 MWh, the installation will help stabilise the French transmission grid. Aiming to optimise existing infrastructure, multiple SPIE Industrie entities are contributing their expertise, from civil works, foundations, and cabling to the modernisation of a high-voltage substation, creation of new substations, and integration of control and supervision systems. The teams are providing a remotely controllable, efficient and compact storage solution that has also been designed with biodiversity preservation and anti-pollution standards in mind. This project underlines SPIE's expanding capabilities to respond to increasing BESS demand.

65 MW / 130 MWh
capacity of the BESS solution (installed)

20 kV
medium-voltage substation installed

0.4 kV
low-voltage substation installed

Expertise | References

Aspiravi BESS park

ENABLING ENERGY TRANSITION THROUGH BESS DEPLOYMENT

SUBSIDIARY **SPIE BELGIUM**
YEAR **2025**
SOLUTION **ENERGY STORAGE**

SPIE is installing a BESS park for renewable energy company Aspiravi in Brecht (Belgium) to supply 25 MW of energy to Elia's high-voltage grid.

Renewable energy pioneer Aspiravi continues to drive the energy transition in Belgium through the building of a battery energy storage system (BESS) park in Brecht. Upon completion in 2026, the park will connect to an existing transformer station and have an installed capacity of 25 MW, with an output of 100 MWh. To bring the project to fruition, SPIE is responsible for the entire installation (excluding civil engineering) of the BESS, as well as all components of the energy management system, cabling work, and medium-voltage transformers. The project began in August 2025, and SPIE will power up all 27 batteries by the year's end.

10,000
households per year –

equivalent annual energy consumption powered by the park

25 MW
of energy

supplied to Elia's high-voltage grid

100 MWh

output from the park

Expertise References

ASFINAG battery storage

MAXIMISING SOLAR POTENTIAL VIA BESS

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
Austria
YEAR **2024**
SOLUTION **ENERGY STORAGE**

In Austria, SPIE is supporting the development of an electricity-autonomous transportation landscape by implementing two 36-tonne battery storage systems.

Austrian transport infrastructure company ASFINAG aims to become completely independent in terms of its electricity supply by 2030. To accomplish this, it needs to reduce its energy consumption by 20% and expand its own production of green electricity through photovoltaics. In order to ensure that energy generated on sunny days can also be used on cloudy and rainy days, ASFINAG needed reliable battery storage facilities. SPIE supported ASFINAG's objectives, building two energy storage facilities near the S1 expressway on the outer ring road of Vienna (Austria). Each has a 2,500 kWh capacity and an inverter output of 1.3 MW. SPIE's experts provided single-source support from purchasing to installation, which included associated inverters, a transformer station, an energy management system, fibre optic cables, and IT integration.

5,000 kWh

from the two facilities could power the equivalent of 1,000 households every day

20%

reduction in energy consumption, ASFINAG's stated goal

Roompot battery storage

MANAGING PEAKS IN ENERGY DEMAND

SUBSIDIARY **SPIE NEDERLAND**
YEAR **2023**
SOLUTION **ENERGY STORAGE**

To ensure optimal use of the solar energy produced by Roompot Beach Resort Brouwerdam's 83 resort cottages, SPIE installed a central BESS. This overcame two challenges: how to capture solar energy generated and not used by the park, and how to reduce peak energy demand issues.

5,000 full charges

over the system's lifespan

RWE battery storage

DELIVERING GRID-SCALE BATTERY STORAGE

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
YEAR **2023**
SOLUTION **ENERGY STORAGE**

To support grid stability and renewable energy integration, SPIE installed one of Germany's largest BESS facilities for RWE in Neurath (Germany). Working on a small site, SPIE used an innovative crane-based solution to position 250 battery cabinets and supporting equipment, completing cabling, connections and commissioning within just 16 months.

84 MWh

storage capacity delivered by the Neurath BESS for emergency backup and grid balancing

ENERGY PERFORMANCE

Powering cities, buildings and industries more efficiently

Cities, buildings and industries account for the majority of today's global energy consumption and emissions. From public spaces and municipal infrastructure to offices, hospitals and data centres, energy use must be reduced without sacrificing comfort or reliability.

Smarter systems are central to this effort. Intelligent HVAC controls, LED lighting and real-time monitoring can drastically cut energy demand, while automated management systems ensure efficiency across multiple facilities.

At the city level, sustainable campuses and public lighting upgrades improve quality of life while lowering costs. For building operators, digital solutions and lifecycle planning help identify where improvements matter most—paving the way toward a low-carbon future.

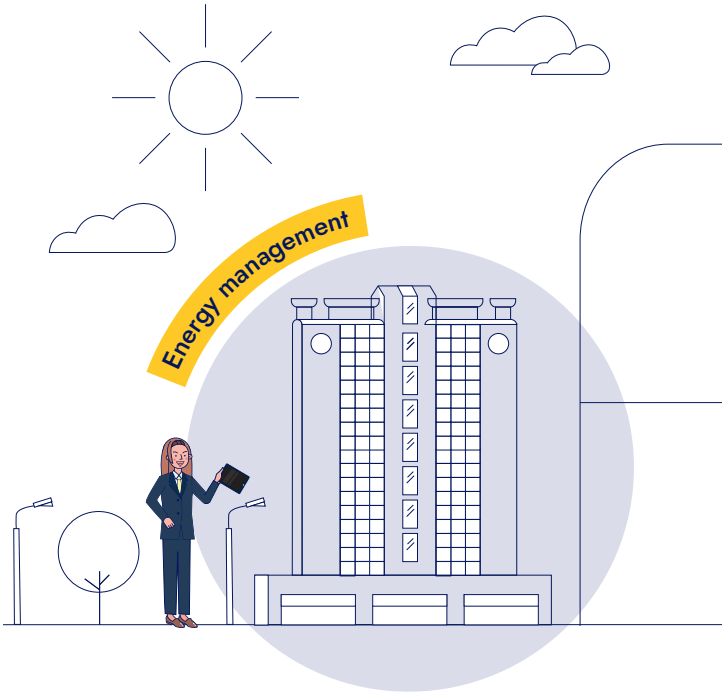
40%

of global energy is consumed by buildings

(Source: European Council)

OPTIMISING ENERGY USE TO REDUCE THE CARBON FOOTPRINT

— Buildings, industries and city systems account for a large share of energy use—and with that come high levels of CO_2 emissions. Improving their energy performance is essential to reaching climate goals. SPIE provides its customers with a range of sustainable solutions to meet energy performance goals. Its skilled and experienced teams of engineers and technicians offer proven energy management strategies for buildings, city systems, industry processes, and IT activities.



EXECUTING ENERGY-EFFICIENT STRATEGIES

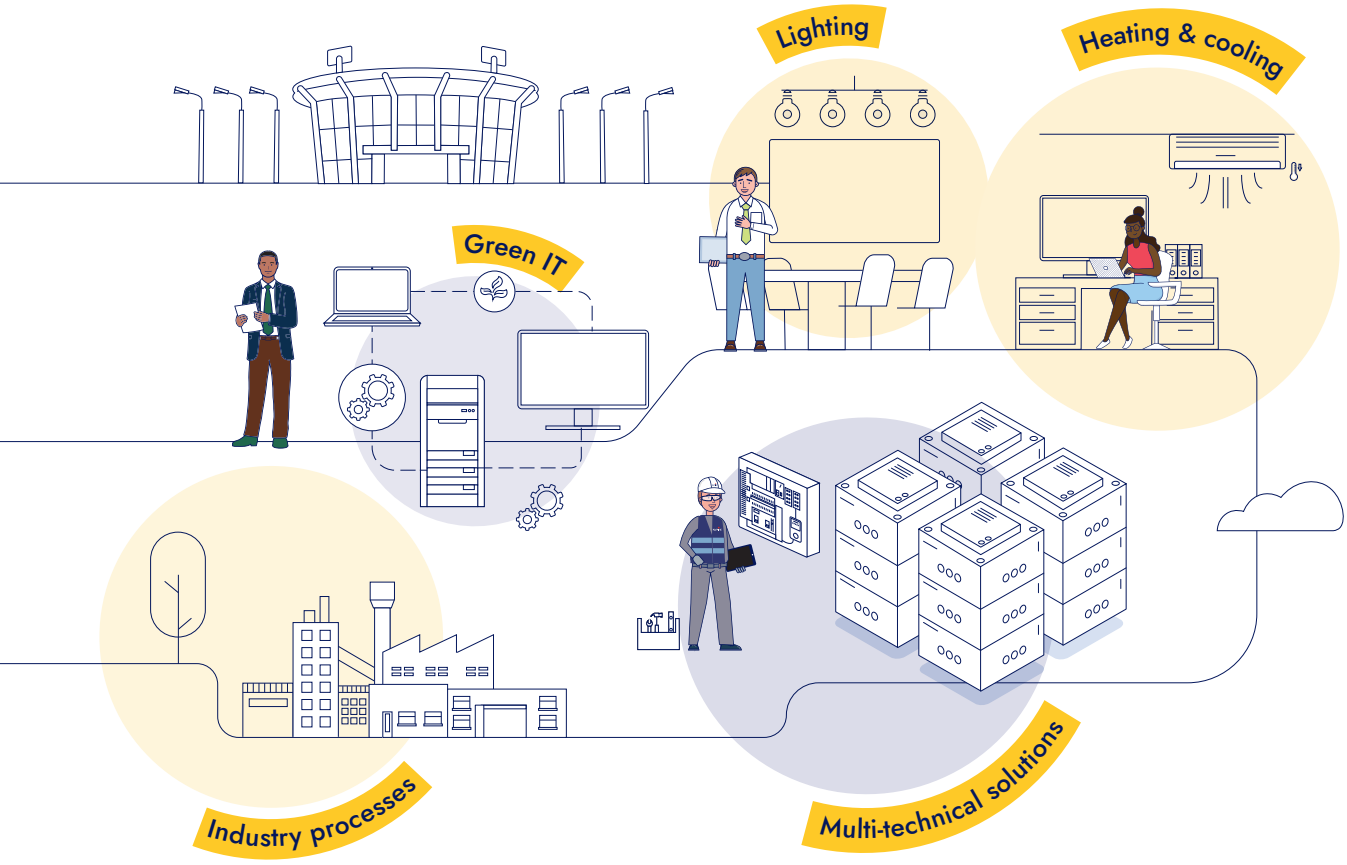
By introducing less energy-intensive equipment into a new building, or by improving existing systems, SPIE supports building management companies, industrial players and municipalities to significantly reduce their energy consumption. For example, SPIE installs connected monitoring systems that provide insights into how energy is being used. With this valuable data, SPIE is enabling customers to better control their energy use and make decisions on where and when to make improvements.

INNOVATING FOR BETTER PERFORMANCE

SPIE is continuously seeking out and developing new solutions that help customers improve their sites' energy performance, such as using innovative techniques like free cooling to lessen the need for air conditioning in data centres. Utilising innovative and efficient energy models, SPIE aims to accelerate the energy transition by helping buildings, cities and industry do better with less.

GUIDING ORGANISATIONS ALONG A GREEN IT PATH

Dedicated to Green IT practices, SPIE supports its clients in discovering how to more sustainably use their digital technology. To accomplish this, SPIE offers a full service spanning the entirety of the improvement process. Its team first evaluates a customer's sustainability objectives to determine where it is in terms of digital responsibility, and it defines a roadmap for improvements. It then conducts a thorough evaluation of the carbon footprint generated by a customer's digital assets and finds ways to reduce it. Finally, SPIE runs simulations of the environmental impact of applications according to how they are hosted.



Up to
80%

reduction in electrical consumption when a city switches from traditional lighting to LED

(Source: French Government Energy Sobriety Plan, 2023)

49%

of buildings' heating and cooling should come from renewable energies by 2030, according to the EU's Renewable Energy Directive (2023 revision)

(Source: IEA)

24.6%

of the EU's final energy consumption came from the industrial sector in 2023

(Source: European Commission)

LIGHTING

Expertise | References

On a bright path toward lower emissions

Lighting is central to energy performance in both public spaces and buildings. By replacing outdated systems with solutions such as intelligent LED dimming systems, municipalities and businesses alike can cut energy costs, reduce emissions, and improve comfort and safety—while also extending equipment life and easing long-term maintenance needs.

CITIES: SMARTER LIGHTING FOR PUBLIC SPACES

For small towns and large cities alike, SPIE brings the technical expertise to execute projects and the proximity to ensure success. Its teams support municipalities in modernising public lighting networks—replacing conventional lighting with smart, connected solutions that adapt to real-time needs. Using dimming profiles, motion detectors and remote-control systems, SPIE helps reduce energy consumption, light pollution and maintenance costs. From design and installation to maintenance, SPIE ensures reliable, low-carbon lighting systems tailored to each urban environment.

BUILDINGS: EFFICIENCY THROUGH INTELLIGENT SYSTEMS

SPIE supports clients with turnkey lighting solutions adapted to their buildings' operational needs. These include advanced control systems for remote supervision and scheduling, as well as automation technologies that respond to occupancy and daylight levels. Paired with energy performance services, these solutions help clients pursue certifications such as BREEAM* while reducing environmental impact.

* BREEAM certification is a global system for assessing and certifying the sustainability of buildings and infrastructure. It evaluates a building's performance across categories such as energy, water, waste, materials, health and wellbeing, and land use.

30x
longer lifespan of the average LED light compared to an incandescent light(1)

40%
of energy consumed in the EU is in buildings(2)

(1) Source: US Department of Energy

(2) Source: European Commission

Geoffroy-Guichard Stadium

OPTIMISING STADIUM LIGHTING

SUBSIDIARY **SPIE FRANCE**
SPIE CityNetworks

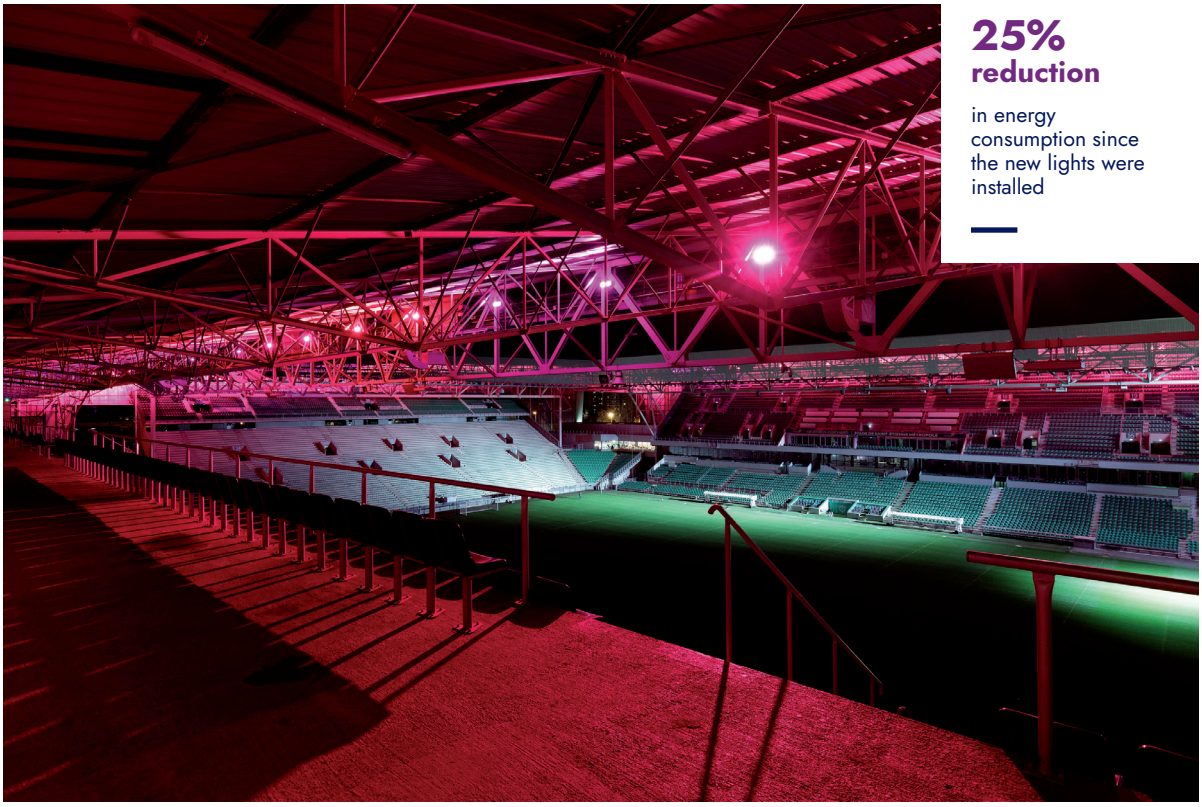
YEAR **2023**

SOLUTION **PUBLIC LIGHTING**

SPIE France undertook a significant renovation project to modernise the lighting system of the Geoffroy-Guichard Stadium in Saint-Étienne (France), enhancing its energy efficiency and overall visitor experience.

Geoffroy-Guichard Stadium, a historic venue in Saint-Étienne and the seventh-largest French stadium, regularly hosts 42,000 fans for professional and international sporting competitions. Originally built in 1931, it required a comprehensive upgrade to its lighting system to reduce its environmental impact and transform the game experience for spectators. SPIE France took on the significant renovation work, supplying and installing 252 LED floodlights for the playing area, as well as 60 special lights to create dynamic colour effects during games.

The project also involved installing a modern sound system to ensure high-quality audio throughout the stadium. These upgrades reduced the stadium's energy consumption and have greatly enhanced the atmosphere during events, providing a better experience for spectators and players alike.



25%
reduction

in energy consumption since the new lights were installed

BIM

SPIE used advanced 3D Building Information Modelling (BIM) technology to create the LED installation schematics.

DMX2

To ensure thorough and precise monitoring and management of the entirety of the lighting system, SPIE implemented a cutting-edge DMX2 software system.

Expertise References

RAI Amsterdam

REPLACING OUTDATED LIGHTING SYSTEMS IN A CONVENTION CENTRE

SUBSIDIARY **SPIE NEDERLAND**
YEAR **2024**
SOLUTION **PUBLIC LIGHTING**

SPIE Nederland conducted a series of renovation works at the RAI Amsterdam Convention Centre. Along with lighting replacement, works ranged from installing a new HVAC system covering the centre's eight "Entrance G" conference spaces to laying down kilometres of cable data connections to an updating of the facility's sound systems.

RAI Amsterdam put sustainability first in its renovation project at "Entrance G." A major portion of the work involved the replacement of outdated fluorescent lighting. SPIE advised the venue to go with modern LED systems in all halls and parking garages. In collaboration with its supplier, SPIE installed energy-saving lighting throughout the site. This is leading to huge energy savings and a smaller ecological footprint. With the switch, the conference centre intends to cut its CO_2 emissions by around 85%.

85%
targeted reduction
in RAI Amsterdam's carbon emissions

Wołczyn Street lighting

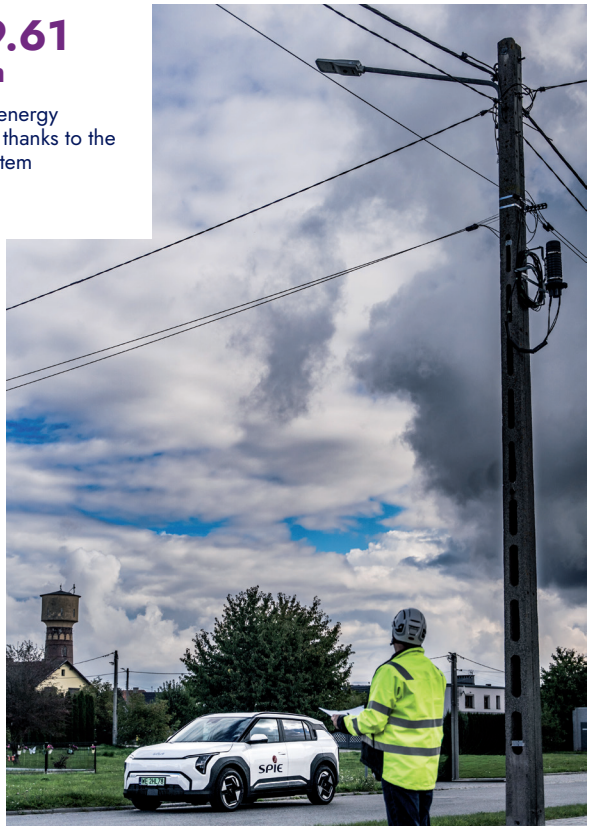
UPGRADING STREET LIGHTING WITH INDIVIDUAL CONTROL SYSTEMS

SUBSIDIARY **SPIE ENERGY POLAND**
YEAR **2025**
SOLUTION **PUBLIC LIGHTING**

To meet stringent environmental conditions, the Polish municipality of Wołczyn (Poland) needed to greatly reduce its power consumption and CO_2 emissions while upgrading its street lighting. SPIE lent its light installation expertise and completed the project within a tight deadline.

SPIE's team switched out 1,284 sodium luminaires, replacing them with energy-saving LED luminaires. To save time and reduce installation costs, it also integrated individual control systems in each luminaire. These control systems are highly reliable and intuitive. Assembly and configuration of the innovative street lighting management systems transformed the traditional streetlights into intelligent, energy-efficient lighting solutions for the municipality.

139.61
MWh
annual energy savings thanks to the LED system



Erkelenz public lighting

LIGHTING UP THE NIGHT WITH FEWER CO_2 EMISSIONS

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
YEAR **2023**
SOLUTION **PUBLIC LIGHTING**

SPIE is operating the public lighting network of Erkelenz (Germany), helping the town substantially reduce its CO_2 emissions every year.

The 10-year contract between SPIE and the town of Erkelenz, located in North Rhine-Westphalia, includes a major upgrade in its public lighting system. SPIE is replacing 4,500 out of a total of 7,700 lamps from incandescent lighting to LED over the first four years of the contract. It is also putting into practice a variety of energy-efficiency measures that will ensure energy savings. This includes a dimming profile that reduces the system's brightness to 30% at night. The added benefit to this is reduced light pollution for the town.

An eight-person team provides on-call maintenance services and 24/7 troubleshooting. The team provides support to the town in planning and establishing a new public lighting control system. It is also offering its expertise on such topics as funding and annual reporting.

4,500
street lamps
converted to LED technology

250
tonnes of CO_2
emissions reduced per year

"We will achieve lower energy consumption and lower light pollution for the town of Erkelenz, so that CO_2 emissions and energy costs can also be reduced."

Ansgar Lurweg, Technical Deputy
—
TOWN OF ERKELENZ

Gournay-sur-Marne lighting

REDUCING MUNICIPAL ENERGY CONSUMPTION WITH LED LIGHTNING

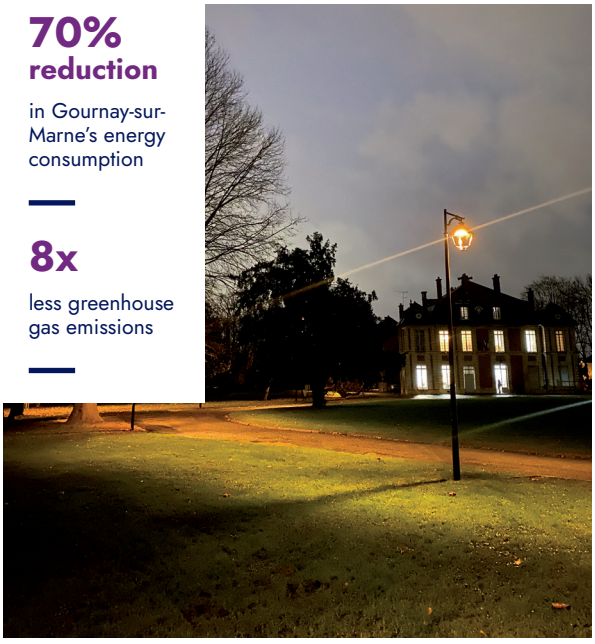
SUBSIDIARY **SPIE FRANCE**
SPIE CityNetworks
YEAR **2024**
SOLUTION **PUBLIC LIGHTING**

Improving inhabitants' quality of life in Gournay-sur-Marne (France), SPIE installed a more efficient, higher-quality LED street lighting system.

LED lighting offers good light output with minimal energy consumption, while reducing light pollution at night. SPIE CityNetworks installed over 1,000 LED lights on local streets as well as in the town hall's park, and on the Chetivet Bridge. The system's 50,000-hour service life is five times that of conventional lighting.

70%
reduction
in Gournay-sur-Marne's energy consumption

8x
less greenhouse gas emissions



HEATING AND COOLING

Expertise | References

Optimising HVAC systems

Heating and cooling are among the most energy-intensive systems in buildings. For operators aiming to reduce consumption, installing high-efficiency HVAC systems and advanced controls is a logical first step. SPIE supports clients with solutions that span the full lifecycle, from design and installation to maintenance and optimisation.

CUSTOMISING HIGH-EFFICIENCY SYSTEMS

SPIE's teams deliver HVAC systems tailored to each building's use—integrating energy recovery, high-efficiency chillers and heat pump solutions. By combining climate engineering with smart building technologies, SPIE helps customers reduce fossil fuel reliance while accelerating the transition to all-electric systems. Energy metering, automation and air quality monitoring all contribute to long-term performance gains.

TOWARDS DECARBONISED THERMAL COMFORT

To help industrials to set and meet low-carbon goals, SPIE partners with them to discover strategic equipment upgrades and put in place energy performance monitoring. This includes optimised temperature control, predictive maintenance, and digital monitoring platforms. Whether for sensitive industrial sites or commercial spaces, SPIE ensures comfort, compliance and cost-efficiency.

33%
of the EU's energy-related GHG emissions are caused by buildings[1]

>70%
of all energy consumed in the EU for heating and cooling comes from fossil fuels[2]

2030
year by which all new buildings in the EU must emit zero emissions[3]

(1) Source: European Environment Agency

(2) Source: European Commission

(3) Source: EU

HeiligHartziekenhuis hospital

ENHANCING HOSPITAL ENERGY EFFICIENCY

SUBSIDIARY **SPIE BELGIUM**
YEAR **2023**
SOLUTION **HEATING AND COOLING**

SPIE Belgium installed a new central Combined Heating & Power (CHP) plant at HeiligHartziekenhuis hospital, helping it take a step toward meeting sustainability goals.

HeiligHartziekenhuis hospital, located in Lier, Belgium, added an ultra-modern wing in 2022, housing a new intensive care unit and operating theatre extension. The new building was conceived not only as a space where patients would get the most advanced care available, but one that would be viewed as a model of sustainability.

The SPIE-installed 3.2 MW CHP plant (with a 140 kWe cogeneration unit) produces heat and electricity efficiently, while emitting as little CO_2 as possible. SPIE also renovated five heating substations as part of the scope of work. The entire hospital complex is more energy-efficient due to SPIE's renovations of all HVAC and hot water systems, as well.

16.4%
energy savings

265
tonnes

of CO_2 emissions reduction per year

100% continuity

SPIE installed the CHP plant without the need for any service downtime at the hospital.

9.5 years

The entire installation will save enough energy for full payback in less than a decade.

Clean Cells

INSTALLING ENERGY RECOVERY SYSTEMS

SUBSIDIARY **SPIE FRANCE**
SPIE Building Solutions

YEAR **2023**

SOLUTION **HEATING AND COOLING**

SPIE Building Solutions has installed energy-saving HVAC systems for new buildings at Clean Cells' site in Montaigu (France).

SPIE leveraged its building intelligence and performance expertise to respond to Clean Cells' stringent energy performance requirements. The team installed two 4th generation 600 kW HFO (HydroFluoro-Olefins, fourth-generation refrigerant fluids) cooling units, which produce chilled water to ensure stable temperature—of utmost importance within laboratory environments. Alongside the cooling unit in the 3,500 m² technical building, SPIE installed a hot water production system via two boilers and burners. Meanwhile, temperature is controlled in the 1,750 m² tertiary building's offices by an energy recovery Variable Refrigerant Flow (VRF) air conditioning system. The project was awarded an Energy Efficiency Certificate thanks to the substantial energy savings at the site: over 4,800 MWh per year.

4,800 MWh
per year of energy savings

We are delighted to have worked with the SPIE Building Solutions teams on this pivotal project in our development strategy.

Cécile Guémas, Director of Infrastructure and Project Manager

CLEAN CELLS

The Wings office building

REDUCING CO_2 EMISSIONS WITH GEOTHERMAL ENERGY AND HEAT PUMPS

SUBSIDIARY **SPIE BELGIUM**

YEAR **2023**

SOLUTION **HEATING AND COOLING**

SPIE supported EY Belgium in installing an HVAC system for the company's new headquarters. The system uses geothermal energy alongside cooling towers and heat pumps to reduce CO_2 emissions by 70%.

EY Belgium wanted a new headquarters that would stand out as a state-of-the-art, sustainable office site. Aiming for a BREEAM excellent**** Worldwide label, EY Belgium contracted with SPIE for the HVAC installation at the 40,000 m² office building.

The result: a fully sustainable site that uses a large geothermal installation, cooling towers and heat pumps. All offices are equipped with sustainable and circular climate ceilings, offering high energy performance as well as flexibility for the future. The building generates the energy required for all in-house businesses and amenities, without consuming any fossil fuels. Along with its BREEAM label, EY Belgium also attained WELL and DGNB certifications for the building.

70%
reduction in CO_2
emissions thanks to geothermal use

1st
office building
in Belgium to use geothermal energy

Nike Techknit

DRIVING THE SHIFT TO 100% RENEWABLES

SUBSIDIARY **SPIE BELGIUM**
YEAR **2025**
SOLUTION **HEATING AND COOLING**

American athletic footwear and apparel company Nike has long sought to put sustainability at the core of its operations. In line with this objective, Nike aimed to power its 250,000 m^2, state-of-the-art European Logistics Campus, in Laakdal (Belgium) with 100% renewable energy. SPIE integrated the Flanders region's largest geothermal installation at the site to help Nike realise these ambitions. SPIE's team created innovative new pumping stations and heat pumps along with piping that distributes heat and cool air to all existing buildings. The system uses geothermal energy as well as hydropower to regulate the temperatures of Nike's buildings.

100%
of Nike's Belgian campus is powered by renewable energy

4 MW
of installed capacity thanks to the heat pumps

AMTC heat pump

DELIVERING SUSTAINABLE HEATING AND COOLING

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
YEAR **2025**
SOLUTION **HEATING AND COOLING**

Advanced Mask Technology Center (AMTC) in Dresden, Germany aims to achieve carbon-neutral production on campus by 2035. To support this goal, SPIE installed a heat pump and connected it to the cooling centre. Thanks to the heat pump, AMTC is reducing CO_2 emissions by around 800 tonnes annually while using 100% renewable electricity.

80%
reduction in CO_2
emissions by using the heat pump with renewable electricity

3,000 MWh
worth of natural gas use avoided

ENERGY MANAGEMENT

Expertise References

Making buildings and cities energy-effective

Energy management is more than just cutting costs and emissions. It means getting the highest performance possible out of one's energy usage. From municipal networks to commercial buildings, effective monitoring and supervision enable operators to track consumption, prevent faults and improve performance. Performing a range of services including HVAC and LED lighting replacement, SPIE contributes to its clients' improved energy performance through solutions and expertise that support decarbonisation while enhancing energy efficiency.

CITIES: OPTIMISING URBAN NETWORKS AND SYSTEMS

SPIE helps local governments to reduce energy costs while supporting climate targets. It upgrades HVAC systems, deploys intelligent monitoring tools, and integrates renewable energy sources into existing infrastructure. With expertise across heating networks, technical building systems and real-time data analysis, SPIE equips cities to meet decarbonisation goals with confidence.

BUILDINGS: INTEGRATED PLATFORMS FOR CONTROL AND SAVINGS

Paired with its technical facility management services, SPIE's digital tools enable precise building performance tracking and proactive maintenance. Customers can monitor temperature programming, respond quickly to fluctuations, and benchmark consumption to identify areas for improvement. Whether supporting office buildings, retail centres or public facilities, SPIE provides the tools and expertise to optimise operations.

11.7%
targeted reduction in EU building energy consumption by 2030 compared to 2020

Source: European Commission

Expertise References

RTE Grand Est

CUTTING ENERGY USE AT REGIONAL HEADQUARTERS

SUBSIDIARY **SPIE FRANCE**
SPIE Facilities

YEAR **2024**

SOLUTION **ENERGY MANAGEMENT**

SPIE helped French electrical network operator RTE reduce energy consumption across its 21 sites in Eastern France by 25%, thanks to targeted energy management improvements and upgrades to lighting and equipment.

RTE targeted significant improvement in terms of the energy performance of its 21 sites in eastern France, including its 20,000 m² headquarters in Villers-lès-Nancy. SPIE implemented three key measures at the headquarters to make a decisive difference. First, it optimised centralised technical management schedules. This included a reduction in average temperature within the buildings to help better regulate consumption. Next, it created an EcoWatt button—a new system that enables the entire site to switch to low-consumption mode in real time. It promotes more reactive and efficient energy management while striking an optimal balance between comfort and consumption. Finally, SPIE replaced existing energy-intensive equipment with more energy-efficient versions and upgraded to LED lighting across three buildings. As a result, the headquarters achieved a 25% reduction in energy consumption compared to 2021.

25%
reduction

in energy consumption compared to 2021

> ***SPIE was the ideal partner to help us to significantly reduce the energy consumption of our regional headquarters. We now want to take this even further by extending SPIE's consulting.***
>
> **Élisabeth Bertin,** Delegate for the Grand Est and Bourgogne-France-Comté regions
> —
> RTE

RCI Banque

CERTIFYING BETTER BUILDING PERFORMANCE

SUBSIDIARY **SPIE FRANCE**
SPIE Facilities

YEAR **2023**

SOLUTION **ENERGY MANAGEMENT**

SPIE Facilities supported RCI Banque in securing BREEAM In-Use certification for its Paris headquarters, demonstrating its commitment to environmental and operational excellence.

RCI Banque, a financing and insurance subsidiary of the Renault Group, relocated its head office to a 7,568 m² building in Paris (France). Reflecting the company's proactive approach to improving energy and environmental performance, RCI Banque partnered with SPIE to improve the site's energy performance. SPIE first audited the building through a series of site visits, then conducted a feasibility study followed by an action plan with weekly monitoring. That plan included energy consumption monitoring, waste management, and equipment upgrades.

As a result, the building achieved BREEAM In-Use "very good" certification—a widely recognised international standard for assessing existing buildings. By meeting BREEAM In-Use standards, RCI Banque has strengthened the long-term value and efficiency of its Paris site—an important milestone in its sustainability strategy.

62.9% and **59.1%** **BREEAM scores**

for asset performance and management performance, respectively

Obtaining BREEAM In Use certification ... rewards our efforts in terms of sustainable development and enhances our image with our customers and suppliers, while complying with the Green Bond eligibility criteria.

Olivier Chagnou, Director of Facilities and HR Projects

RCI BANQUE SA

Commerzbank service centre

MODERNISING BUILDING SYSTEMS TO REDUCE EMISSIONS

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
BT&A Division

YEAR **2025**

SOLUTION **ENERGY MANAGEMENT**

Commerzbank's service centre in Frankfurt (Germany), known as the DLZ, is composed of 105,000 m² of floor space, housing 2,500 workstations and other business spaces. SPIE has worked on various DLZ projects dating back to 2001. Recently, it continued this long-standing relationship by implementing a range of energy efficiency measures. These included a metering network that monitors 30,000 energy consumption data points. Additionally, it upgraded refrigeration units, renewed the refrigeration re-cooling systems, and converted the air conditioning equipment to energy-efficient fans.

1,800 **tonnes of CO_2**

eliminated from 2021 to 2025

30,000 **energy consumption data points**

monitored

VanderLande campus

IMPROVING BUILDING PORTFOLIO ENERGY EFFICIENCY

SUBSIDIARY **SPIE NEDERLAND**
YEAR **2025**
SOLUTION **ENERGY MANAGEMENT**

Leading logistics company VanderLande was searching for ways to make its Veghel (Netherlands) campus more climate-friendly. It is now contracting with SPIE to measure consumption at the campus's 17 buildings, and implement ways to reduce energy use. SPIE's automated monitoring SPIE's automated monitoring system (PULSE Core platform) now provides real-time information on the installations' performance to identify areas of improvement.

170,000 m²
total area of VanderLande's Veghel campus

Industrial Park Tychy

ACHIEVING BREEAM CERTIFICATION WITH WATER-SAVING SYSTEMS

SUBSIDIARY **SPIE CENTRAL EUROPE**
SPIE Building Solutions
YEAR **2023**
SOLUTION **ENERGY MANAGEMENT**

Industrial Park Tychy in Poland was targeting BREEAM certification, and thus needed to implement strict measures to reduce its environmental impact. SPIE, which has provided technical facility management services for Tychy since 2016, conducted a review of the water consumption in the 97,000 m² site's eight logistics buildings. It subsequently replaced conventional equipment with water-saving systems that resulted in the site achieving BREEAM In-Use certification.

BREEAM In-Use "very good"
equipment category rating

BREEAM In-Use "good"
building management category rating

Expertise References

Ametzondo Shopping Centre

STRENGTHENING ENERGY PERFORMANCE COMMITMENTS

SUBSIDIARY **SPIE FRANCE**
SPIE Facilities

YEAR **2024**

SOLUTION **ENERGY MANAGEMENT**

To further support Ametzondo Shopping Centre in Bayonne (France) in reducing its energy consumption, SPIE integrated a digital solution into its ongoing energy management services.

The partnership between SPIE and Ingka Centres—the owner of the 53,000 m² site—began as a multi-technical maintenance contract in 2018. It quickly evolved, however, enabling SPIE to place a greater focus on ways to enhance the site's energy performance. Thanks to SPIE, Ametzondo achieved a 30% reduction in energy consumption over the first five years of collaboration.

In renewing the contract in 2023, SPIE integrated a digital platform into its scope of services. The tool offers access to energy data across all of the site's common areas. With this digital solution, a SPIE energy manager can more precisely monitor daily consumption and react quickly when there are any upward fluctuations in energy usage. The platform also can integrate operating parameters such as timed temperature programming across the site's equipment systems.

30%
electricity savings achieved

compared to 2019 levels

BREEAM

The Ametzondo centre earned international BREEAM In-Use certification, attesting to the environmental performance of existing assets.

SPIE has helped our shopping centre achieve substantial energy savings. With a new energy performance contract, the Group is now more than ever a key player in our energy transition.

Anthony Brault, Technical and Safety Director
—
INGKA CENTRES

Fashion brand distribution centre

OPTIMISING ENERGY EFFICIENCY IN A DISTRIBUTION CENTRE

SUBSIDIARY **SPIE CENTRAL EUROPE**
SPIE Building Solutions

YEAR **2025**

SOLUTION **ENERGY MANAGEMENT**

A 100,000 m² logistics centre in Głuchów (Poland) needed to reduce its energy use across a variety of systems, notably its lighting and HVAC systems, while increasing user convenience. SPIE adjusted the algorithm used in the site's ventilation equipment and integrated programmable logic controllers (PLCs). These keep temperature within thresholds and increase recycled air use while improving onsite air quality. The local SPIE team modernised the lighting control system by relocating the motion sensors and adjusting their settings.

45.3%
reduction

in energy consumption after implementing lighting optimisation measures

Department of Yonne buildings

IMPROVING BUILDINGS' ENERGY PERFORMANCE

SUBSIDIARY **SPIE FRANCE**
SPIE Facilities and SPIE Building Solutions

YEAR **2023**

SOLUTION **ENERGY MANAGEMENT**

SPIE's 10-year contract with the Department of Yonne is helping authorities keep their commitment to reducing energy consumption and CO_2 emissions.

SPIE's building intelligence and performance experts are reducing energy consumption across the department's 147 buildings, including offices, schools, museums and historical sites. Work includes optimisations of existing installations, such as replacing heating systems with more efficient solutions. SPIE consultants are also running energy awareness workshops for building occupants and local technical workers throughout the contract term.

25%
targeted reduction

in energy consumption by 2026

43%
less

CO_2 emissions commitment

Expertise References

CAPBP

REDUCING ENERGY USE AND CO_2 EMISSIONS

SUBSIDIARY **SPIE FRANCE**
SPIE Facilities
YEAR **2023**
SOLUTION **ENERGY MANAGEMENT**

The *Communauté d'Agglomération de Pau Béarn Pyrénées* (CAPBP) is partnering with SPIE Facilities on a public energy performance contract, aiming to cut energy use by more than 20% by 2028.

In 2021, CAPBP announced its sustainable development plan, committing to reducing energy consumption and greenhouse gas emissions from its assets. Its ultimate goal: carbon neutrality by 2040. To this end, SPIE is overhauling systems across a total of 146 CAPBP buildings, with work scheduled for completion by 2028. This includes the use of digital technology to ensure better regulation of energy consumption. SPIE's experts are renovating heating and ventilation systems and making improvements to equipment rooms. The teams are developing ways to utilise renewable resources, such as geothermal energy, to provide power to some of the buildings. Along with its full range of services, SPIE is targeting a 20% reduction in energy consumption among the ensemble of CAPBP's buildings.

20%
reduction in energy consumption by 2028

2040
Target date for CAPBP to achieve carbon neutrality

Thanks to this contract... we can meet the challenges of the current energy crisis in the best possible conditions, and we are counting on SPIE Facilities to help us.

Christian Lesport, Deputy Managing Director
—
CAPBP AND THE CITY OF PAU

Jumbo supermarket

INSTALLING AN INNOVATIVE ENERGY HUB SYSTEM

SUBSIDIARY **SPIE NEDERLAND**
Building Solutions
YEAR **2024**
SOLUTION **ENERGY MANAGEMENT**

Dutch supermarket chain Jumbo could not build a new store in Scherpenzeel (Netherlands) because grid congestion in the area could not provide sufficient power. SPIE installed an innovative energy hub consisting of an energy storage system, power router, solar panels and the energy management system. With the hub in place, Jumbo was able to construct the new store knowing it could now source enough power capacity even during peak hours.

70 kWh/m² per year
Jumbo's max energy consumption goal per store

Kromhout Kazerne

RETHINKING BUILDING COMPLEXES' ENERGY CONSUMPTION

SUBSIDIARY **SPIE NEDERLAND**
YEAR **2024**
SOLUTION **ENERGY MANAGEMENT**

Kromhout Kazerne is an ultra-modern complex serving as office space for 3,000 Netherlands Ministry of Defence employees and housing an additional 150 personnel. A biomass power plant heats part of the complex, and 3,800 solar panels generate 10% of the site's energy needs. Under a contract running through 2035, SPIE is developing ways to further reduce the complex's CO_2 emissions, energy and water consumption, as well as waste volume. It has installed hundreds of sensors that measure building usage, system performance, costs, malfunctions and more, so SPIE's onsite team can predict deviations, malfunctions, and behaviour—and perform planned maintenance. The results: a longer lifespan for equipment and systems, reduced energy consumption, and lower maintenance costs.

10%
of Kromhout Kazerne's energy is generated through onsite solar power

FOCUS ON: ENERGY SOBRIETY AWARENESS

SUBSIDIARY **SPIE FRANCE /** SPIE Facilities

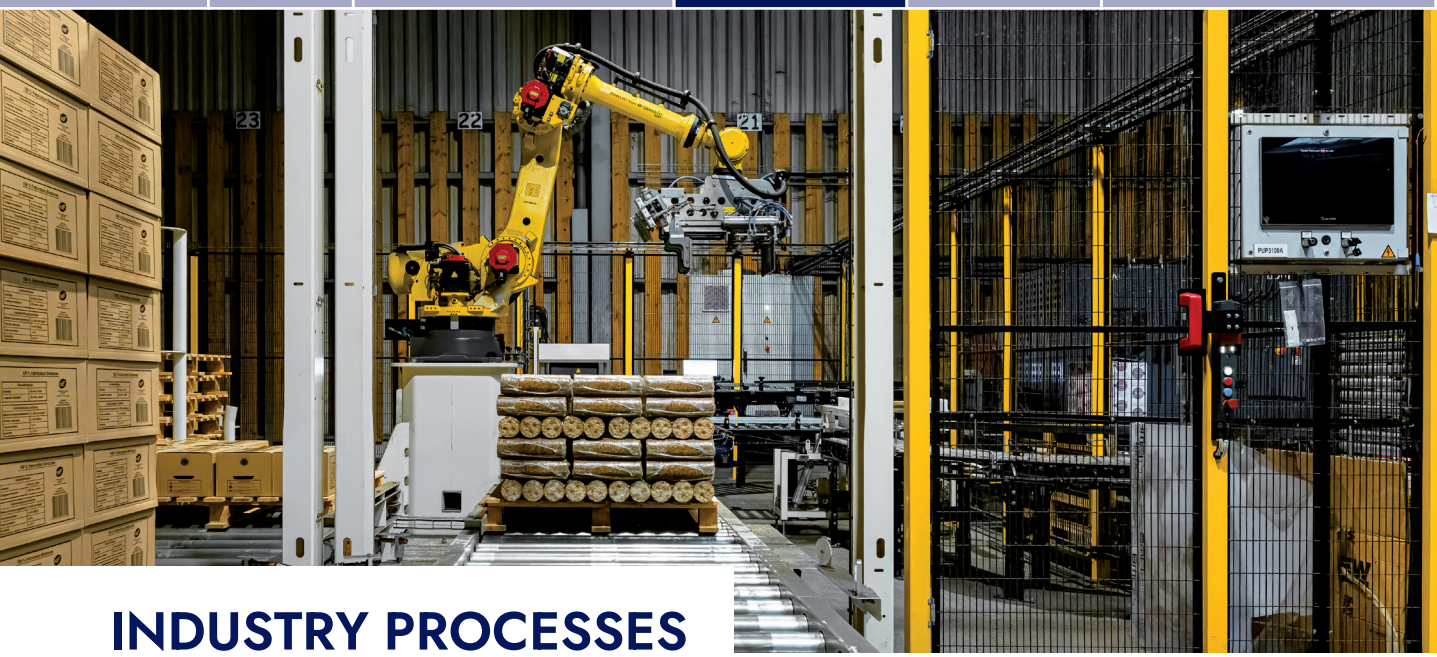
What is "energy sobriety"?

Energy sobriety means reducing consumption by rethinking needs, behaviours and system settings—not just improving efficiency. It responds to the issues we face today in terms of climate and natural resources. SPIE supports its customers in a "100% energy sobriety" approach by raising their awareness about how to limit their carbon footprint, putting them on a path toward changing behaviours, and helping them put into effect concrete actions onsite to drive change.

Podcasting for change

SPIE France has produced a podcast entitled "Les Petits Bonheurs de la Sobriété Énergétique," which provides customers' workforces with simple eco-gestures they can carry out in their daily work to help shape their collective energy mindset.

Listen to the podcast "The Small Wins of Energy Sobriety". (in french only)



INDUSTRY PROCESSES

Expertise | References

Decarbonising production and utilities

As industries face rising energy costs and carbon reduction targets, improving the energy performance of production and utility processes has become critical. SPIE supports manufacturers in reducing their consumption and emissions—without sacrificing reliability, safety or output.

TARGETING INDUSTRIAL DECARBONISATION

Industrial operations represent nearly one-quarter of global CO_2 emissions, with most stemming from energy use in production processes. Companies across sectors—from steel and auto manufacturing to agri-food and pharmaceuticals—need help to reduce the carbon and energy intensity of their sites. SPIE's experts analyse a company's entire production environment: heating, cooling, compressed air, steam and other utilities. They identify where energy is being lost and where performance can be optimised. Digital twins, thermal audits and real-time monitoring systems support this process, enabling better control of consumption and emissions.

RETROFITTING AND ELECTRIFICATION

SPIE supports industrial clients in replacing or upgrading their equipment—prioritising electrification, process heat recovery, and the use of high-efficiency motors and variable-speed drives. By deploying low-carbon technologies and integrating renewable heat sources, SPIE helps manufacturers advance toward greater emissions reduction while improving overall performance. With support that spans design, integration and maintenance, SPIE works alongside operators over the long term to manage their energy performance in real time and meet compliance objectives as regulations evolve.

~25%
of EU final energy consumption is due to industrial use[1]

2.3%
decline in emissions from industrial processes from 2023 to 2024 (62 Mt CO_2)[2]

8%
of global final energy demand is from the iron and steel manufacturing sector[2]

(1) Source: European Commission

(2) Source: IEA

Safran Aircraft Engines

SUPPORTING MANUFACTURING'S LOW-CARBON TRANSITION

SUBSIDIARY **SPIE FRANCE**
SPIE Building Solutions

YEAR **2024**

SOLUTION **ENERGY MANAGEMENT IN INDUSTRY**

SPIE Building Solutions supported Safran Aircraft Engines' low-carbon project at its Le Creusot (France) site, where the company has committed since 2018 to halving its CO_2 emissions by 2030.

Safran's 15,000 m² site manufactures turbine discs for LEAP engines on medium-haul aircraft for several major aircraft manufacturers. The gas combustion chambers used to heat the workshops were outdated and energy intensive. SPIE's solution was to replace them with a more environmentally friendly option. The team installed three heat pumps that now produce water for the heating system. The site's hydraulic energy consumption fell from 2,300 MWh of gas in 2024 to 900 MWh by the end of 2025.

Additionally, SPIE deployed an innovative solution for monitoring electricity consumption in real time. The technology enables Safran to closely monitor its energy savings and cost reductions that have been made possible by the new equipment.

50%
reduction

in the Le Creusot site's CO_2 emissions by 2030 (compared to 2018 figures)

900
MWh

of onsite gas consumption in 2025, down from 2,300 MWh in 2024

The solutions proposed by SPIE Building Solutions ensure an efficient transition for us to electricity. Reducing the carbon footprint of the Le Creusot site is an integral part of Safran's Low-Carbon strategy.

Laurent Skladzien, Project Manager
—
SAFRAN AIRCRAFT ENGINES

Expertise References

Trumpf energy centre

OPTIMISING HEATING AND COOLING IN HIGH-TECH PRODUCTION

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
YEAR **2022**
SOLUTION **HEATING AND COOLING IN INDUSTRY**

To expand Trumpf's laser and systems technology capabilities, SPIE commissioned its new technology and energy centre—leveraging energy-efficient and environmentally friendly solutions.

German mechanical engineering company Trumpf, based in Ditzingen (Germany), needed to ensure that the sensitive laser manufacturing equipment and systems in its three new production halls were kept at precise temperatures. This would involve the installation of not only powerful but energy-efficient heating and cooling technology. Building on a relationship dating back to 2016, SPIE's specialists took charge of the project, laying 30 kilometres of piping, some to a depth of 15 metres. SPIE installed five chillers, six recooling units, a heat pump, radiant ceiling panels, air curtain systems, and the heating and cooling supply for ventilation and air conditioning systems. Thanks to climate-certified refrigerants, the technical centre is energy-efficient and environmentally friendly. Moreover, the waste heat from the refrigeration systems is also used to supply heat—thus producing a low-CO_2 cycle.

6
recooling units installed in the
6,500 m²
of clean room space

GSK line decarbonisation

HELPING DECARBONISE PRODUCTION LINES

SUBSIDIARY **SPIE FRANCE**
SPIE Building Solutions & SPIE Industrie

YEAR **2024**

SOLUTION **HEATING AND COOLING IN INDUSTRY**

Leveraging its experience and expertise, SPIE implemented the new production line at GSK's aerosol inhaler manufacturing site and helped to reduce the product's carbon footprint by 90%.

GlaxoSmithKline (GSK) is committed to reducing the carbon footprint for its production line for its new-generation, low-carbon aerosol inhalers in Évreux (France). Its objective was to reduce by 90% the carbon footprint of its inhalers, which are used for treating asthma and chronic obstructive pulmonary disease (COPD). SPIE supported the biopharmaceuticals company chiefly through its HVAC work, which helped to guarantee a controlled production environment. SPIE also handled all structural, steel frame, flooring and sprinkler work in setting up the low-carbon production line onsite. Thanks to these solutions and the completion of work under a quick timeline, SPIE was able to support GSK in achieving its decarbonisation goals.

90%

reduction in GSK's product's carbon footprint, thanks to the low-carbon production line

GREEN IT

Expertise References

Digital responsibility for a reduced-carbon future

Green IT involves implementing practices that reduce the environmental impact of digital technology, from data centres to everyday IT systems. SPIE helps its clients build responsible digital strategies by measuring and understanding IT-related emissions, optimising infrastructure for efficiency, and providing organisations sustainable digital roadmaps that support broader energy transition goals.

EXPERTISE IN SUSTAINABLE IT INFRASTRUCTURE

With decades of experience in critical digital environments, SPIE's experts help clients who are seeking efficiency without compromising reliability. Its solutions include advanced cooling systems, energy-efficient equipment upgrades and predictive maintenance. By lowering Power Usage Effectiveness (PUE) in data centres and extending hardware lifecycles, SPIE helps reduce costs and emissions while supporting uninterrupted service.

SUPPORTING RESPONSIBLE DIGITAL STRATEGIES

Across cities and organisations, SPIE enables customers to embed sustainability into their digital operations. From supporting municipalities in meeting statutory sustainable IT obligations, to offering tools such as the Carbon Calculator to assess Scope 3 emissions, SPIE helps clients align IT use with climate goals. These services provide a clear pathway for reducing the carbon footprint of digital infrastructures while maintaining growth and innovation.

2021

The year that SPIE subsidiary SPIE ICS (France) became the first digital services company to earn the Sustainable IT label.

Expertise References

Clermont Auvergne sustainable IT

SUPPORTING MUNICIPAL SUSTAINABLE IT STRATEGIES

SUBSIDIARY **SPIE FRANCE**
SPIE ICS
YEAR **2023**
SOLUTION **GREEN IT**

SPIE is putting its digital services expertise to work for Clermont Auvergne (France) and its surrounding areas to reduce the carbon footprint of its digital activities through energy-efficient solutions.

The city and its neighbouring areas aim to align with targets laid out by the French *Réduction de l'Empreinte Environnementale du Numérique* (REEN) law. Under the law, in effect since January 2025, all communities of more than 50,000 inhabitants must have a responsible digital strategy in place. SPIE has worked alongside Clermont Auvergne's city teams for several years, focusing on IT management, integration and cybersecurity. The 2023 project had several steps, starting with a workshop to clarify statutory obligations. SPIE then conducted a mapping phase with stakeholders to define a sustainable IT vision. After a thorough analysis of the area's IT maturity, SPIE worked with it to develop a roadmap that has now led to the creation of Clermont Auvergne's sustainable IT strategy.

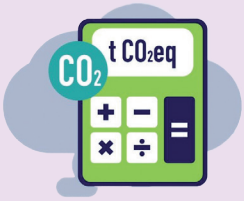
FOCUS ON: **SUSTAINABLE IT INITIATIVES**

SUBSIDIARY **SPIE FRANCE**

Using digital labeling and CO_2 reduction tools to support sustainability

Committed to sustainable IT
As industries across the spectrum continue to embrace digital transformation, businesses often overlook the enormous amounts of energy required to power digital tools and data centres. As energy consumption rises, the environmental impact of IT is a great challenge to overcome. Responsible organisations need to understand the consequences of their IT footprint, and find ways to minimise it.
Since 2021 several subsidiaries of SPIE France have been awarded Sustainable IT labels.These labels demonstrate SPIE's ability to deliver responsible digital services and contribute to reducing clients' Scope 3 emissions.

Carbon calculator: supporting decarbonisation efforts
In France, SPIE launched its Carbon Calculator in 2024. The tool aids its customers in establishing a concrete estimate of the emissions related to SPIE's offer (encompassing equipment and services, which fall within the category of Scope 3 emissions). It also helps raise their awareness of environmental data, so they can more efficiently identify the most significant areas of carbon emission in their organisation.



MULTI-TECHNICAL SOLUTIONS

Expertise | References

Integrating systems for higher efficiency

True expertise in multi-technical solutions requires knowledge and experience in a range of fields such as energy production, electricity, heating & cooling and digital systems. These come together to enable complex sites—from critical data centres to sports parks and historic buildings—to operate more efficiently. SPIE's team of multi-technical solutions experts uses smart design, renewable energy integration, and advanced energy management solutions to help clients to align with ambitious decarbonisation goals while ensuring reliability, safety and long-term performance.

DATA CENTRES AND NETWORKS

Data centres are among the most energy-intensive facilities worldwide, requiring near-perfect uptime. SPIE works to lower data centres' energy use and emissions while safeguarding continuity. Solutions include free cooling, waste-heat recovery, rainwater collection and renewables integration. These measures cut consumption, extend equipment life, and bring sites closer to higher sustainability standards.

COMPLEX SITES

By integrating multi-technical solutions and services, SPIE is helping large public facilities, campuses and historic buildings reduce their environmental impact. Its experts combine renewable generation, storage and advanced heating and cooling systems to enable operators to capture and reuse energy, optimise consumption, and modernise infrastructure. These solutions lower emissions while preserving comfort, usability and lasting efficiency.

150%
expected growth in EU data centre electricity demand by 2035—to 236 TWh total[1]

33-42%
of electricity demand in Amsterdam, London, and Frankfurt was consumed by data centres in 2023[2]

96 TWh
in 2024 (~3.1% of total) Europe's estimated power demand from data centres[3]

(1)(2) Source: Ember Energy

(3) Source: Independent Commodity Intelligence Services

Bouygues Telecom

POWERING EFFICIENCY ACROSS DATA CENTRES

SUBSIDIARY **SPIE FRANCE**
SPIE Facilities

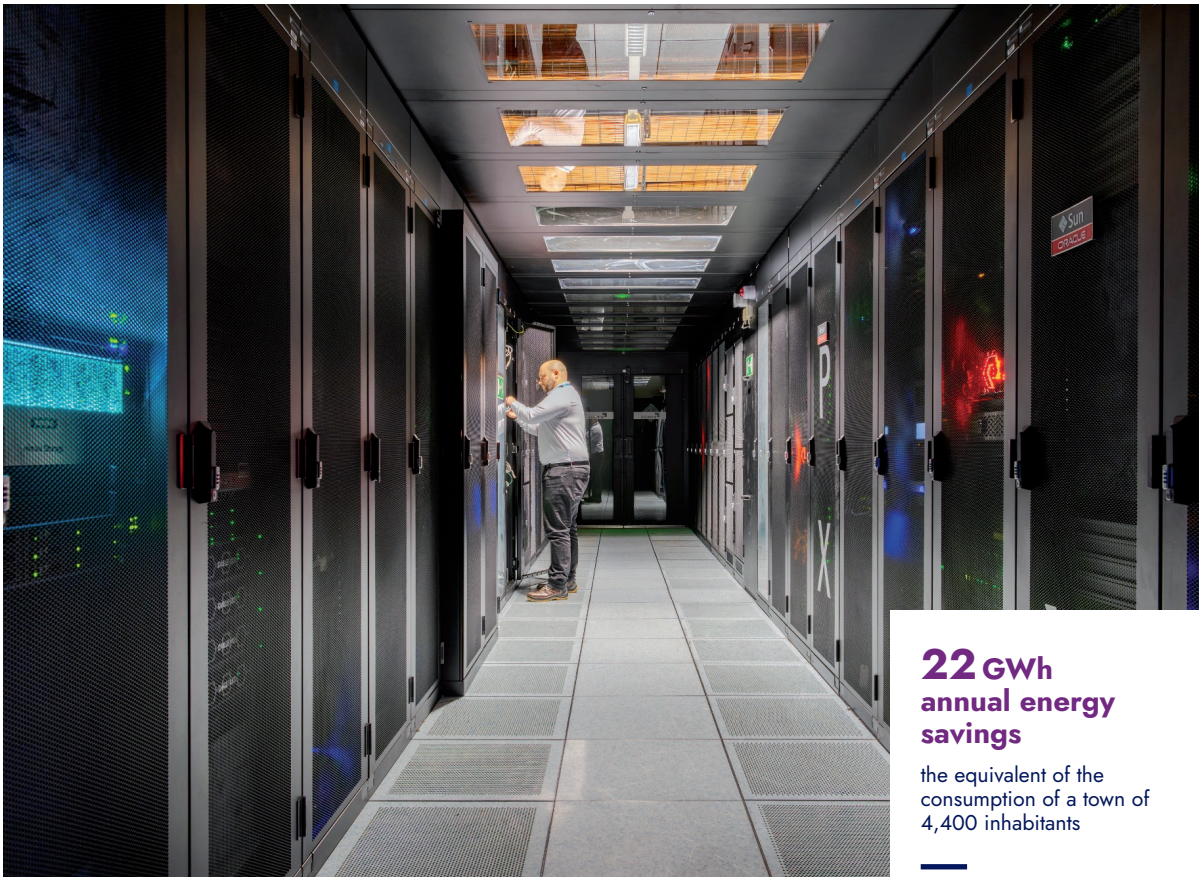
YEAR **2023**

SOLUTION **ENERGY MANAGEMENT, DATA CENTRE**

SPIE supports France's Bouygues Telecom in managing over 130 critical hosting sites, balancing near-total availability with energy performance objectives.

SPIE's infrastructure management partnership with Bouygues Telecom in France goes back 15 years. It first began with the management of three Paris data centres and has since grown to over 130 technical sites across France. These facilities support cloud, 5G, and FTTH services for 28 million users. SPIE ensures service continuity at every site while actively reducing the environmental footprint.

Energy performance is a key factor to the contract's success. To lower sites' Power Usage Effectiveness (PUE), SPIE has targeted reductions in energy use and CO_2 emissions and extensions to equipment life. It is employing free cooling techniques to use air-to-air heat exchangers instead of cooling units whenever the temperature outside a facility drops below 17°C. In Toulouse and Bordeaux, it utilises waste heat recovery to meet 40% of district heating demand. With these measures in place, SPIE and Bouygues Telecom envision annual savings of 22 GWh—without compromising Bouygues Telecom's 99.999% availability objective.



22 GWh
annual energy savings

the equivalent of the consumption of a town of 4,400 inhabitants

40%
reduction

in Scopes 1&2 emissions by 2030 – Bouygues Telecom's targets

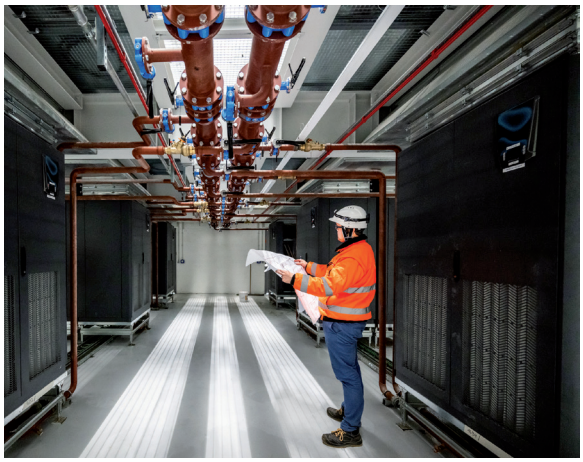
Expertise References

Nexus data centre

COOLING A 100% SUSTAINABLE DATA CENTRE

SUBSIDIARY **SPIE BELGIUM**
YEAR **2025**
SOLUTION **DATA CENTRE**

In Brussels (Belgium), Nexus built a fully sustainable data centre that has achieved Uptime Institute Tier 3 certified status. This means it has multiple paths for power and cooling, with systems in place to update and maintain it without taking it offline (1.6 hours of downtime annually). To accomplish this, it turned to SPIE to install cooling systems for the 7.2 MW, 10,000 m² space. Electricity onsite is generated by solar photovoltaic panels that cover two of the four facades. An adiabatic cooling system uses recuperated rainwater from the roof of the data centre and surrounding buildings to minimise the energy needed to cool the site. Finally, waste heat is transferred for reuse, creating a closed loop sustainable system. Thanks to these technologies, the data centre was named Best Data Centre Sustainability Project of the Year at the 2025 Datacloud Awards.



1st
Triple-certified data centre:
BREEAM Excellent, EDGE Advanced and Uptime Institute Tier 3 certified

Key fact

Best Data Centre Sustainability Project of the Year at the 2025 Datacloud Awards

FRA03 data centre

SUPPORTING SUSTAINABLE DATA CENTRES

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
BT&A, ICS and ISW Divisions
YEAR **2025**
SOLUTION **DATA CENTRE**

The FRA03 data centre in Frankfurt am Main (Germany) is being built by data centre developer/operator maincubes, which is prioritising sustainability. To ensure a power usage effectiveness (PUE) below 1.2, it asked SPIE to install the technical equipment, including 66 recirculating air cooling units. Some of the waste heat generated will be reused by the municipal heating network. The centre also features rainwater collection systems, as well as photovoltaic panels to generate additional electricity.

100%
of electricity
used onsite will issue from renewable sources

We are already gearing our data centre to meet future legal requirements in relation to planning, construction and operation, which also includes optimal energy efficiency.

Thomas Wacker, Chief Development Officer
—
MAINCUBES

Delft Mining Building

ALIGNING HISTORIC BUILDING TO THE PARIS AGREEMENT

SUBSIDIARY **SPIE NEDERLAND** Building Solutions
YEAR **2025**
SOLUTION **MULTI-TECHNICAL SOLUTIONS**

The Dutch Green Building Council's "Paris Proof" initiative aims to align building energy consumption with the goals of the Paris Agreement. The Netherlands' Delft University of Technology (TU Delft) wanted to earn the designation for its national monument, the Mining Building constructed in 1912. To do so, it needed to decrease its energy consumption to 70 kWh/m² per year. Thanks to SPIE's installation of heat pumps linked to a geothermal energy system, along with LED lighting replacement and solar panel additions on the roof, the building now only consumes 63 kWh/m² per year.

63
kWh/m² of energy
consumed by the building per year

604
solar panels
installed on the atrium roof

Glanerbrook Sports Park

INTEGRATING SMART ENERGY AT A SPORTS PARK

SUBSIDIARY **SPIE NEDERLAND** Building Solutions
YEAR **2025**
SOLUTION **MULTI-TECHNICAL SOLUTIONS**

The Glanerbrook Sports Park in Geleen (Netherlands) aims to become an energy-neutral* sports facility. To do so, SPIE delivered an integrated system for power generation, storage, management and energy reuse, which accounts for factors like weather and peak usage. A standout feature is the ammonia compressors used to produce ice for the complex's ice rink. The heat generated by the compressors is repurposed to warm the rink's floors, as well as the park's swimming pools and showers.

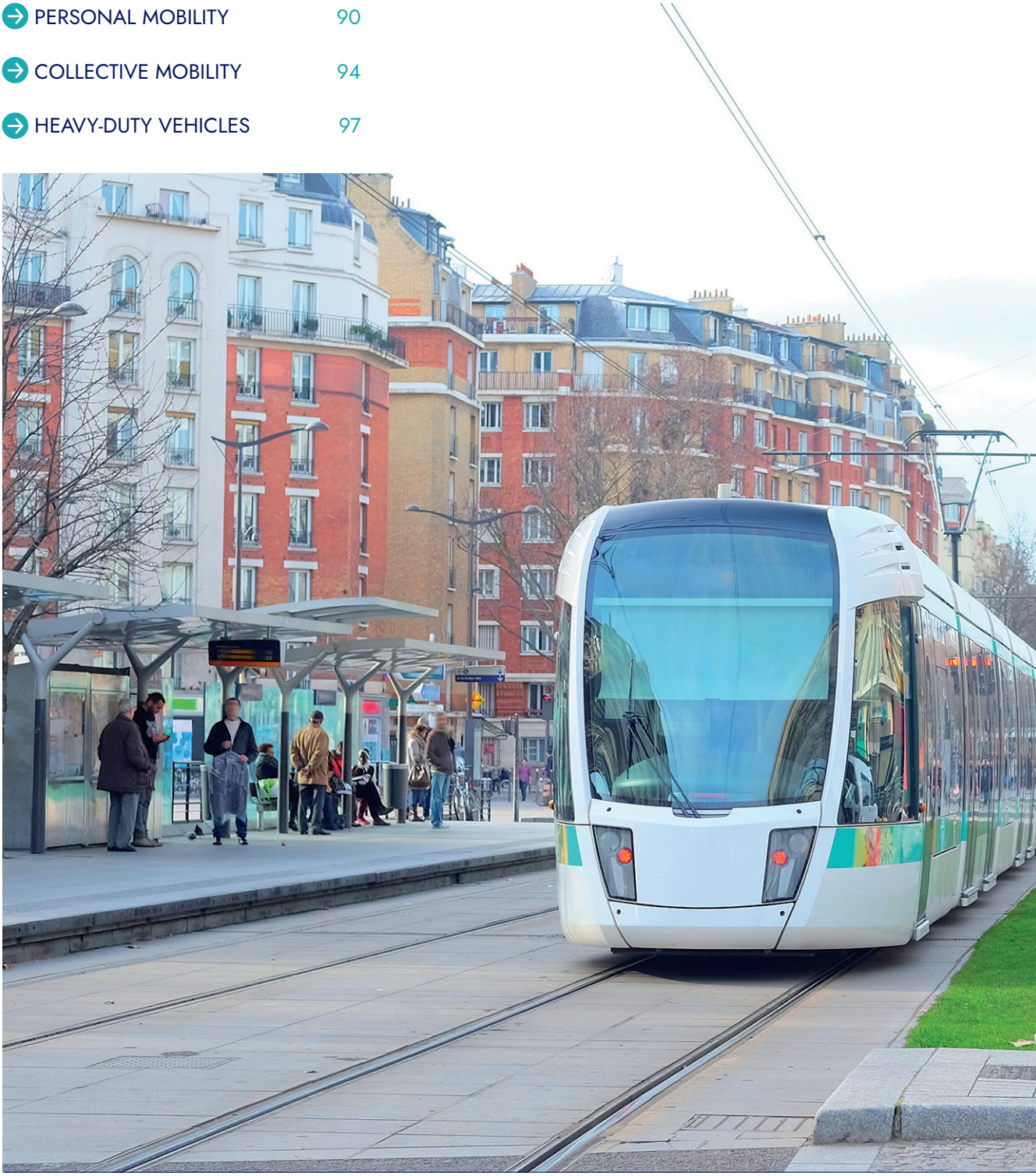
* Excluding construction-related emissions

2
stationary batteries
(750 kW/2.1 MWh)

5,200
solar panels
installed for a total of 530 kWp

50
EV charging points
installed by the end of 2025

MOBILITY



Electrifying transportation for a low-carbon society

Transport accounts for a major share of global CO_2 emissions, making mobility central to the energy transition. Around the world, businesses, countries and cities are expanding their electric vehicle infrastructures, investing in collective transport, and adopting smarter traffic management systems. This involves a major scaling up of charging points. It means electrifying bus fleets. And it comprises the development of efficient urban mobility solutions.

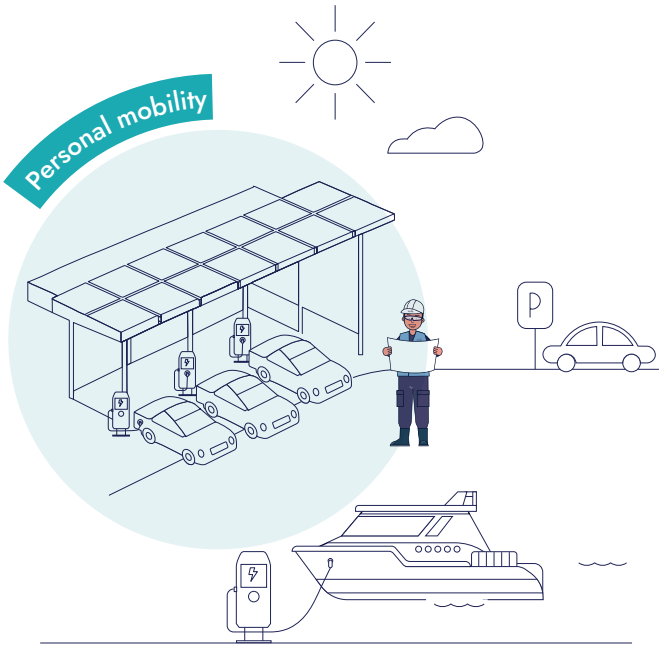
These are all necessary steps toward reducing congestion and reliance on fossil fuels. Smart, sustainable mobility networks will not only cut emissions but also improve quality of life for millions of people.

50,000

electric vehicle charging points installed by SPIE in Europe by the end of 2024

DRIVING TOWARD A SMART, MORE ECO-FRIENDLY FUTURE

— Businesses and municipalities alike are searching for ways to reduce their carbon footprints. This involves the development of a thorough e-mobility infrastructure for both individual, collective and logistic transportation. SPIE is engaged in this important aspect of the energy transition. It helps both municipalities and businesses to set up charging station infrastructures scaled to their needs in terms of the size of their networks as well as the types of vehicles concerned.



CHAMPIONING PERSONAL MOBILITY

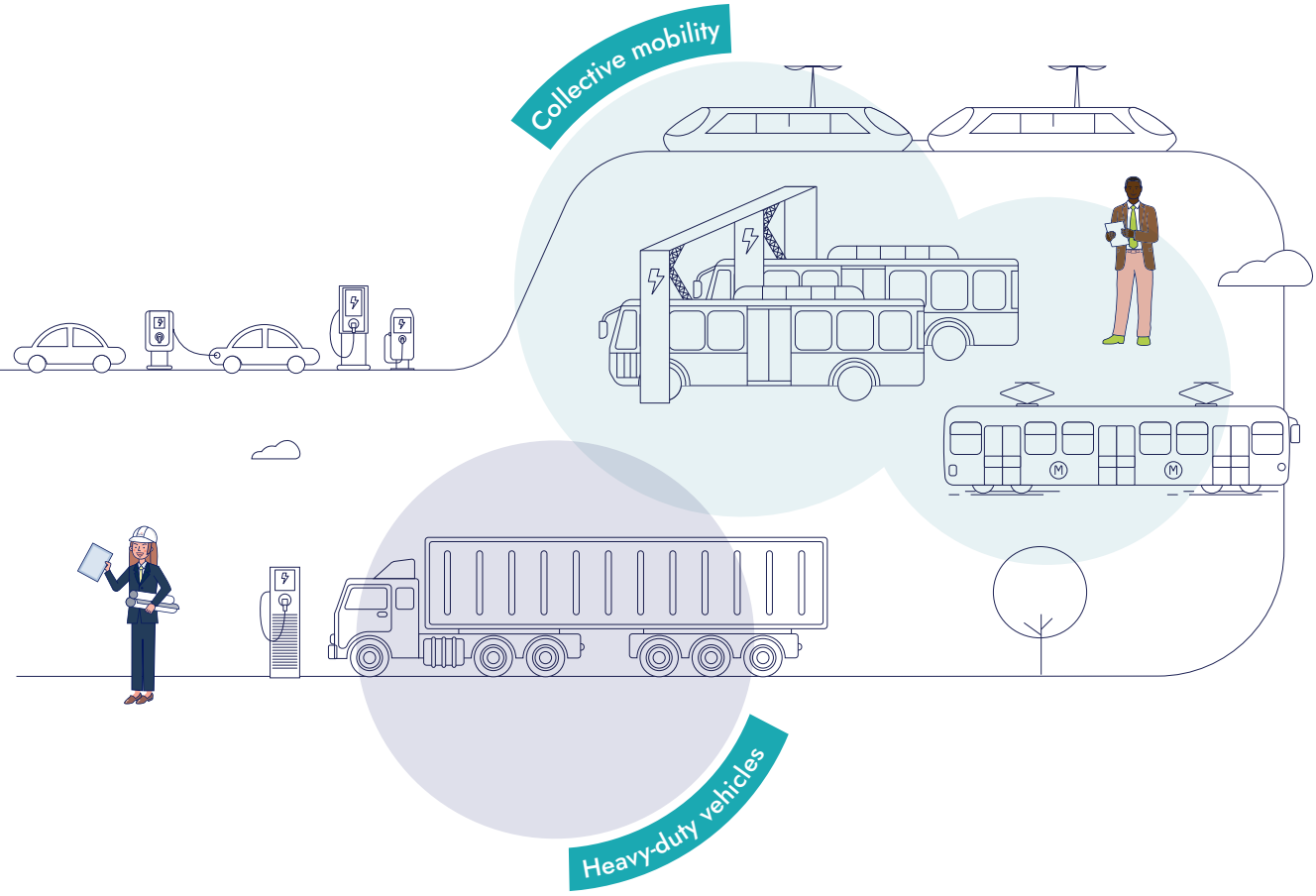
SPIE is accompanying the public and private sectors with services that help create more efficient mobility and pave the way towards a low-carbon society. Its personal mobility solutions include the installation and maintenance of charging station infrastructure, traffic management solutions, and smart parking digital solutions.

COLLABORATING WITH CITIES FOR COLLECTIVE MOBILITY

On the collective mobility side, SPIE helps public authorities make roads, cities and regions greener by boosting the use of electric public transport. Its information technology and security services provide real-time user information and traffic regulation systems. To shift more people from cars to public transport, SPIE also prioritises passenger experience: facilitating intermodality with real-time traffic and service updates so users can plan efficient journeys.

OPTIMISING HEAVY-DUTY FLEETS

SPIE also supports the decarbonisation of truck and utility vehicle fleets as well as collective transport vehicles through the development of large-scale charging infrastructure. From design and permitting to installation, grid connection and long-term maintenance, its experts provide turnkey solutions for operators of public transport and logistics networks. By partnering with major operators across Europe, SPIE is helping make electrified heavy-duty transport a reliable, efficient reality.



40 million

expected number of electric vehicles in Europe by 2030

(Source: VIRTA)

3.5 million

public charging points needed across the EU by 2030

(Source: European Commission, AFIR)

Watch the video "SPIE: e-Mobility made easy"

PERSONAL MOBILITY

Expertise | References

Expanding EV charging networks

Personal mobility is evolving with the steady rise of electric vehicles. Reliable charging infrastructure is critical to adoption, helping drivers transition confidently toward cleaner, low-carbon transport options.

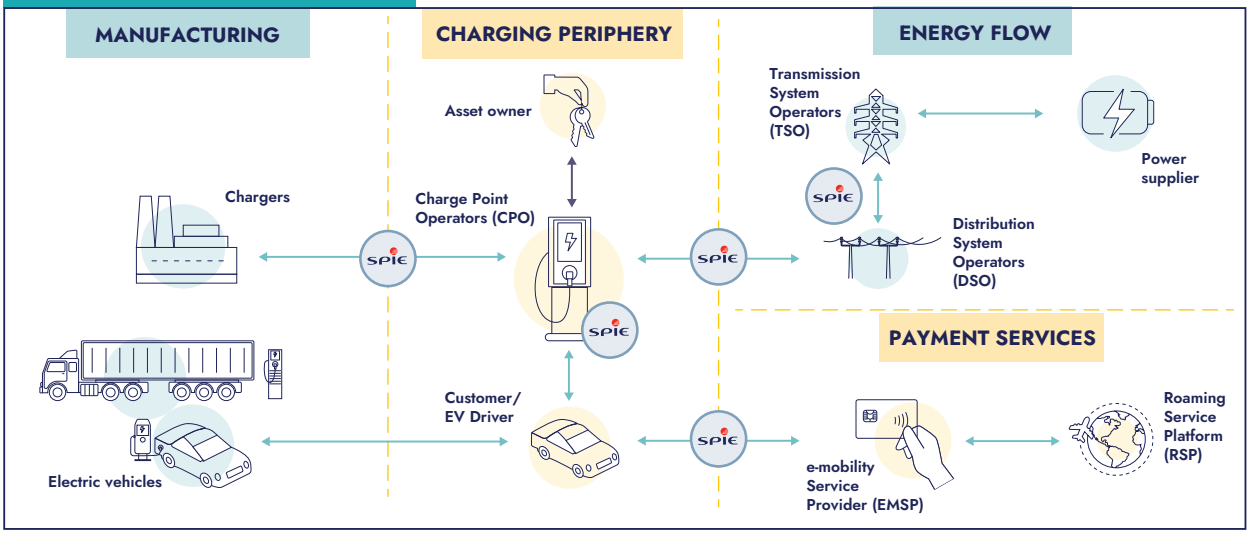
SUPPORTING EVERYDAY EV DRIVERS

SPIE is a trusted partner in the rollout of charging infrastructure across Europe. Its teams manage every stage—from planning and electrical works to installation, commissioning and long-term maintenance. In France, SPIE is expanding the e-Vadea ultra-fast charging network into city centres and rural areas. In Germany, it has installed thousands of fast-charging points under the nationwide Deutschlandnetz initiative. By delivering charging hubs in both urban and remote locations, SPIE ensures EV drivers have reliable, convenient access to clean transport.

>1 million
public EV charging points in Europe in 2025(1)

(1) EV Magazine

EV charging stations Value Chain



SPIE's fields of activity throughout the value chain.

Expertise References

e-Vadea network

EXPANDING ULTRA-FAST CHARGING STATION NETWORKS

SUBSIDIARY **SPIE FRANCE**
SPIE CityNetworks

YEAR **2025**

SOLUTION **PERSONAL MOBILITY**

SPIE installed the first ultra-fast charging stations within the e-Vadea network in 2022, and added 19 new municipalities to it in 2025. The latest stations—including around 100 charging points at strategic tourist sites—are the first to be installed away from motorways. This marks the acceleration of an implementation strategy focused on city centres and rural areas in France. The 120 kW ultra-fast terminals enable vehicles to go from a 20% to an 80% charge in around 25 minutes, while the network's 60 kW rapid charging points can do the same in around an hour.

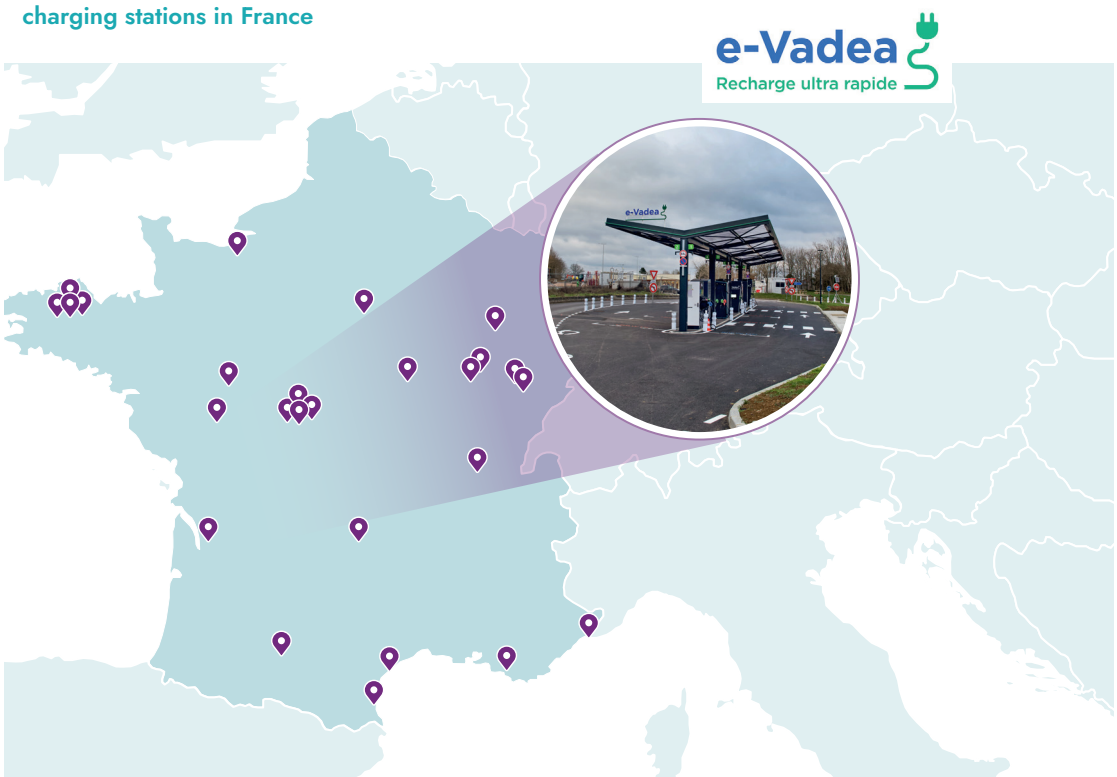
30,000 charges

registered on the e-Vadea motorway network during 2025 Q1

10 million kWh

distributed since the creation of e-Vadea

Map depicting locations of e-Vadea charging stations in France



Expertise References

Deutschlandnetz project

SETTING UP EV FAST-CHARGING POINTS

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA**
YEAR **2024**
SOLUTION **PERSONAL MOBILITY**

SPIE set up over 300 fast-charging points across 30 locations in Germany for the EWE Go HOCHTIEF Charging Partner Construction Consortium.

This is part of Germany's aggressive Deutschlandnetz initiative. Its goal is for electric vehicle (EV) drivers to be able to reach the nearest fast-charging point in only a few minutes, no matter where they are in the country. With the number of registered EVs in Germany continuing to grow, this is a vital national need.

SPIE's team was responsible for the planning, coordination, electrical installation, civil engineering and safe commissioning of the 300 charging points. Fast-charging points are being installed in both urban and rural areas, making for a pivotal contribution to the Deutschlandnetz plan. Since 2018, SPIE has installed around 3,000 fast-charging points across Germany for various charge point operators and is also providing expertise in planning and building truck charging solutions.

3,000
fast-charging points
installed by SPIE in Germany

9,000
fast-charging points
is Germany's goal by 2026

13.6%

In 2024, 13.6% of all newly registered passenger vehicles in Germany were EVs—a total of over 380,000 vehicles.

1,000

The project calls for a fast-charging point every 15-30 km along highways—at 200 new sites for a total of around 1,000 new charging stations.

Belgium charging stations

ACCELERATING LOW-CARBON MOBILITY

SUBSIDIARY **SPIE BELGIUM**
YEAR **2023**
SOLUTION **PERSONAL MOBILITY**

With the rising number of electric vehicles on today's roads, there is a rapidly growing demand for more robust fast-charging EV stations. To help encourage more EV use and meet rising demand, SPIE supported Electra in a project to develop 21 sites across Belgium, each with three to six rapid charging stations. SPIE handled installation of the stations as well as the preliminary study and design phases. SPIE also ensures ongoing smart energy performance through sophisticated management systems that optimise efficiency and signal when maintenance is needed.

We are thrilled that we can rely on SPIE Belgium as a partner, working hand in hand on the deployment of these 21 rapid charging stations across the country.

Louis-Charles Mosseray, General Manager
—
ELECTRA

Netherlands EV charging stations

ENABLING THE SHIFT TO ELECTRIC VEHICLES

SUBSIDIARY **SPIE NEDERLAND**
YEAR **2024**
SOLUTION **PERSONAL MOBILITY**

SPIE has installed 50 high-power EV charging points as part of the bp pulse network in the Netherlands. The charging points are situated in four different stations: with 12 points in Dordrecht, 18 in Barendrecht, 10 in Bergschenhoek, and another 10 in Sliedrecht. As part of the EPC contract, SPIE's local teams were on site from engineering through commissioning. Work included supply and installation of the substations, as well as connecting of all AC and DC cables, data cables and light poles—also supplied and installed by SPIE.

50 high-power EV
charging points delivered

COLLECTIVE MOBILITY

Expertise | References

Supporting low-carbon public transit

Reducing transport-sector emissions is a critical factor in the transition to a low-carbon tomorrow. From electric buses to smarter passenger services, SPIE supports cities and operators in creating greener, more efficient collective mobility networks for a more sustainable urban future.

BUILDING FLEET INFRASTRUCTURE

SPIE equips municipalities and transport providers with charging and energy systems tailored for zero-emission bus networks and depots. Its teams manage projects from planning and engineering to installation, commissioning, and maintenance—ensuring reliability at every stage. Solar generation, battery storage, and energy management systems can be integrated onsite to optimise energy use. With years of experience across Europe, SPIE provides the technical backbone that enables authorities to transition to large-scale, all-electric fleets in line with ambitious EU targets.

ENHANCING PASSENGER EXPERIENCE

Cleaner fleets are only part of the equation—public transport must also be efficient and attractive to passengers. SPIE facilitates intermodality by deploying digital technologies that deliver real-time traffic updates and journey planning tools. Its experts also install and maintain connectivity solutions such as onboard Wi-Fi, ensuring a modern, seamless travel experience. By combining decarbonised infrastructure with passenger-focused services, SPIE helps municipalities encourage more citizens to choose buses, trams and other collective modes of transport over private cars—strengthening air quality, comfort, and accessibility in cities.

100%
of new EU buses in 2035 must be zero-emission[1]

1.3%
of EU buses were battery-electric as of 2023[2]

(1) Source: EU
(2) Source: ACEA

Expertise | References

De Lijn charging stations

SUPPORTING ZERO-CARBON GOALS FOR TRANSPORT SERVICES

SUBSIDIARY **SPIE BELGIUM**
YEAR **2024**
SOLUTION **COLLECTIVE MOBILITY**

The 100th electrical charging point for public transport is a milestone for both SPIE Belgium and Flemish transport company De Lijn.

De Lijn's goal is ambitious: to provide zero-carbon transport services by 2035. By delivering on its 100th bus charging point, SPIE is helping to move De Lijn closer to its objective. The contract between SPIE and De Lijn originally called for the supply and commissioning of 252 charging points in total, and has since been upped to 300 in Flandre (Belgium).

The project is in line with European Union climate goals for the transport sector. In 2024, the European Council adopted new standards for heavy-duty vehicles such as trucks and buses. The regulation calls for emissions from the road transport sector to be reduced by 45% by 2030, and all new urban buses must be zero-emission by 2035.

300
total bus charging points
to be installed in Flanders by 2032

2035
year by which De Lijn is aiming for zero-carbon transport services

Thanks to this collaboration with SPIE, we are developing the infrastructure needed for the mobility of the future. We can rely on their expertise in the supply, installation and commissioning of our electric charging stations, which was a key criterion in choosing them as a partner.

Ann Schoubs, CEO
—
DE LIJN

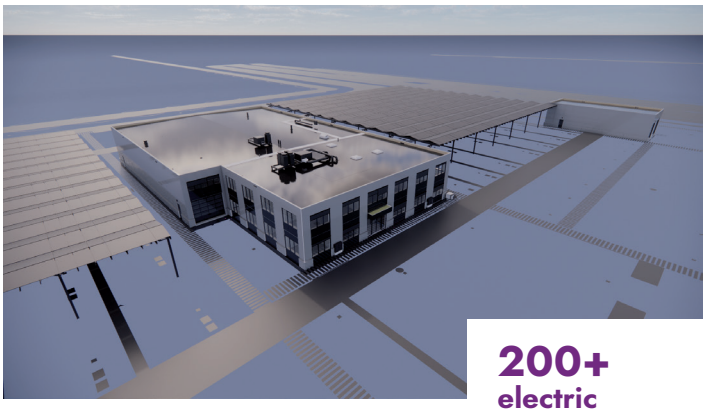
Expertise References

Amsterdam electric buses

INSTALLING BUS CHARGING INFRASTRUCTURE

SUBSIDIARY **SPIE NEDERLAND**
YEAR **2023**
SOLUTION **COLLECTIVE MOBILITY**

Dutch public transport company EBS built new bus depots in Purmerend and Zaandam (Netherlands) for its electric buses. SPIE handled the depots' design, engineering, delivery, installation, and commissioning of energy supply and distribution systems. Onsite solar carports generate energy that is stored in battery systems for use during peak hours. SPIE also supported the implementation of the energy management system that monitors energy use.



200+
electric buses

around Amsterdam use the charging stations

Paris metro extension

ACCELERATING PUBLIC TRANSPORT NETWORK EXPANSION

SUBSIDIARY **SPIE FRANCE**
SPIE CityNetworks
YEAR **2024**
SOLUTION **COLLECTIVE MOBILITY**

To support Paris in enhancing its transport infrastructure, SPIE contributed to the extension of metro line 14, connecting southern Paris to Orly Airport. SPIE handled high- and low-voltage work, including the installation of electrical systems and related infrastructure. This extension enables an additional 150,000 passengers per day to use public transportation in Paris. As the largest automated line in the network, line 14 represents a major step forward in improving mobility and accessibility for the region.

800,000
passengers per day

can now use line 14, representing a 23% increase over pre-extension figures

Source: Île-de-France

HEAVY-DUTY VEHICLES

Powering electrified freight transport

Electrifying trucks and coaches is essential to cutting freight emissions. SPIE supports operators with fast-charging infrastructure that reduces downtime and enables reliable, low-carbon logistics.

SUPPORTING HEAVY TRANSPORT CHARGING

The shift to electric heavy-duty vehicles is more complex than for cars or buses, with higher power needs and longer charging times for operators. SPIE helps overcome these hurdles by installing max-power charging stations—capable of fully charging a 40-tonne truck in just a few hours—and integrating them with renewable generation onsite. With expertise spanning engineering, civil works, cabling and commissioning, SPIE's teams deliver turnkey charging infrastructure that keeps freight and passenger fleets moving while advancing the energy transition.

~40%
of global road transport emissions come from trucks and buses

Source: OECD/ITF

Metzger Spedition charging points

INSTALLING FAST-CHARGING POINTS FOR TRUCKS

SUBSIDIARY **GERMANY SWITZERLAND AUSTRIA**
YEAR **2024**
SOLUTION **HEAVY-DUTY VEHICULES**

After German freight forwarding company Metzger Spedition installed photovoltaic panels on the roof of its Kupferzell (Germany) site, it looked to SPIE to provide max-power charging points to fuel their truck fleet with green electricity. SPIE installed four 400 kW charging points, which could each fully charge a 40-tonne truck's engine in 2-3 hours. Up and running within just two months, the charging points are a first step toward Metzger being able to charge its whole fleet.

2-3 hours
to fully charge a 16+ metre-long electric truck

Source: OECD

CIRCULAR ECONOMY

Closing the loop for sustainability

The circular economy seeks to decouple growth from resource consumption. It does this by extending product lifecycles, re-using materials, and reducing waste. In industries from construction to IT, this approach minimises environmental impact while creating new value streams.

Renovation projects that prioritise reuse over new construction cut demand for raw materials, while responsible management of electronic equipment ensures devices are refurbished or recycled rather than discarded. Across sectors, circular strategies are increasingly embedded into climate goals, helping organisations meet sustainability targets and conserve resources in line with EU and global ambitions for a low-carbon future.

Circular economy strategies also bring with them the potential for great economic benefits. Less consumption and waste mean that businesses, municipalities and individuals can reduce their own expenses.

22.4%

target for recycled material use in the EU by 2030, nearly double its 2023 rate (11.8%)

(Source: European Environment Agency)

Expertise References

REDUCING WASTE BY EXTENDING VALUE

— The circular economy is all about reducing waste, extending equipment life, and reusing resources. For companies and municipalities, this means building sustainability directly into infrastructure and IT lifecycles. SPIE supports its customers by embedding circularity into engineering, maintenance, procurement and reuse strategies. This helps them lower emissions, optimise costs, and ensure long-term performance while meeting growing regulatory expectations.

DESIGNING WITH CIRCULARITY IN MIND

SPIE integrates circularity from the earliest stages of project design. This includes choosing eco-designed equipment, managing obsolescence, and raising awareness among customers about the value of circular engineering. Renovation projects such as the Nederlandsche Bank show how job site waste can be repurposed and reused, avoiding unnecessary material consumption. By focusing on circularity from the start, SPIE helps clients achieve climate targets while reducing lifecycle costs.

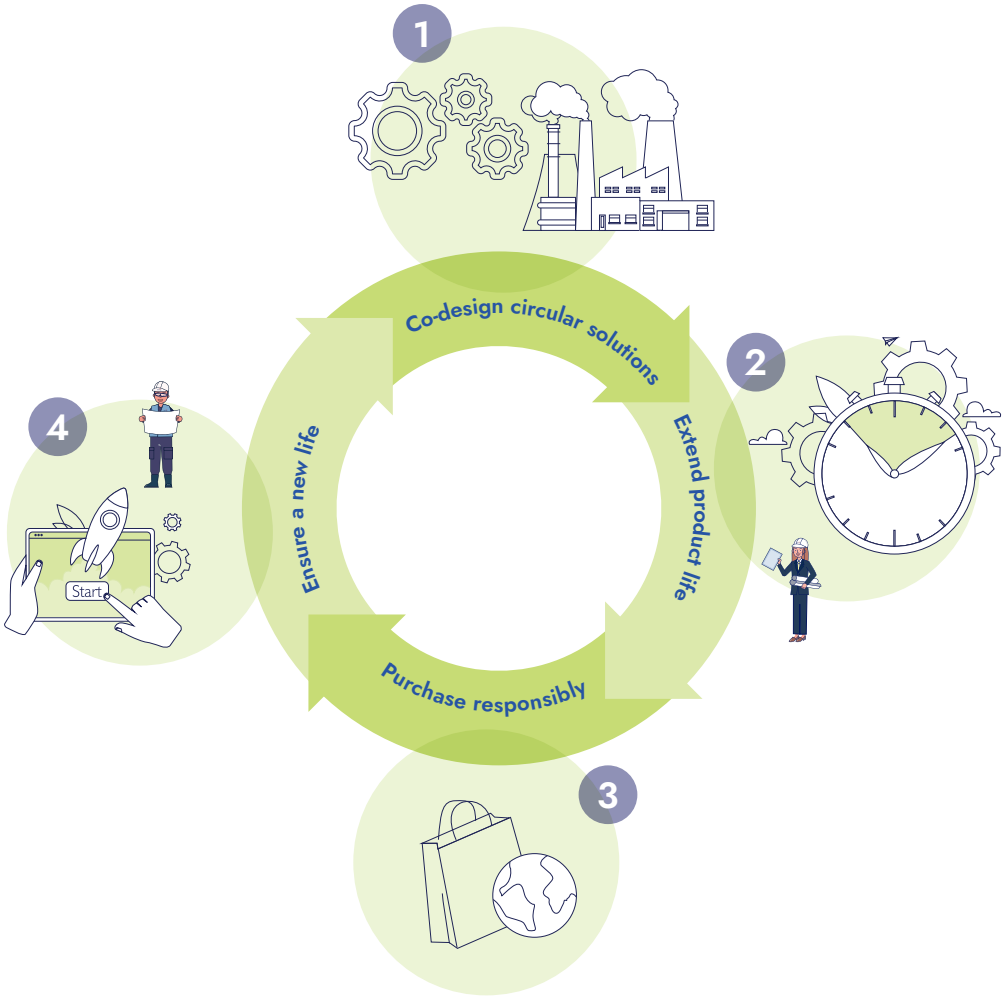
EXTENDING EQUIPMENT LIFECYCLES

Circularity is not just about design, though. It's also about ensuring the long-term use of equipment. SPIE provides sustainable maintenance services, promotes refurbished equipment, and integrates digital tools to manage the performance of this equipment throughout its lifecycle. The launch of re-useIT in Switzerland reflects this strategy—offering clients secure IT asset decommissioning, refurbishment and resale through certified partners. By extending lifecycles, SPIE reduces environmental impact while offering new value streams for its customers.

REUSING AND RECOVERING RESOURCES

SPIE helps customers close the loop by facilitating the reuse and recycling of materials and equipment. Working with local recovery networks and certified partners, SPIE helps ensure waste is properly processed, documented and given a second life. From repurposing decommissioned IT hardware to reusing concrete and timber in projects, SPIE enables clients to improve sustainability outcomes while reducing costs and demonstrating compliance with regulations.

Building a responsible, circular value chain



500 billion

tonnes of materials consumed globally between 2018 and 2023—nearly as much as during the entire 20th century

(Source: Circle Economy Foundation / Deloitte)

40%

of the EU's electronic waste—its fastest-growing waste stream—is currently being recycled

(Source: Circle Economy Foundation / Deloitte)

11.5%

circularity rate in Europe in 2022, the highest proportion of recycled materials consumed in the world

(Source: European Environment Agency)

Expertise References

Nederlandsche Bank renovation

TAKING A CIRCULAR APPROACH TOWARD BUILDING RENOVATION

SUBSIDIARY **SPIE NEDERLAND**
YEAR **2025**
SOLUTION **CIRCULARITY**

Through five years of extensive renovation work, SPIE Nederland helped to transform the Nederlandsche Bank (DNB) into an energy-neutral building complex fit for the future.

DNB's central bank building was constructed in 1814 in the heart of Amsterdam (Netherlands). Needing a nearly complete overhaul to modernise the original building and others on the 67,000 m² site, DNB called on SPIE to integrate sustainable solutions under strict logistical and technical constraints in the city centre.

SPIE's experts brought an innovative and circular approach to ensure the updated facility would meet the BREEAM Outstanding Sustainability Standard. This involved evaluating all construction-related waste to reuse it whenever possible. For example, all concrete removed from the building was recycled and reused around the city, from the Singelgracht Canal quay to social housing units. SPIE also took some of the city's old, diseased poplar trees and repurposed them for the building's ceiling slats.

Platinum-level WELL certification

SPIE's building renovations helped DNB achieve this certification for an environment that offers the highest standards of quality and well-being for its 2,300 employees onsite.

Biodiversity improvements

5,200 m² of biodiverse greenery was added in and around the building complex.

1,380
solar panels
installed on the buildings' roofs

70,000
tonnes
in building material savings by choosing renovation over new construction

Jin Social Club restoration

REUSING MATERIALS FOR BUILDING OVERHAULS

SUBSIDIARY **SPIE FRANCE**
SPIE Building Solutions
YEAR **2025**
SOLUTION **CIRCULARITY**

SPIE supported the refurbishment of the Jin Social Club (formerly the Arc de Seine building) in Paris by first conducting a thorough assessment of the 23,300 m^2 building's electrical, HVAC, and plumbing systems. The team determined that much of the existing equipment—from smoke extraction motors and air ducts to transformers and cable trays—could be reused. Only selected air handling units and electrical cabinets need to be replaced to meet new standards. SPIE is also deploying smart building systems to enhance energy management, comfort and efficiency, while achieving SmartScore Gold and R2S 2 certifications.

SmartScore Gold

SmartScore Gold status is awarded to buildings delivering high innovation through integrated smart technologies and systems.

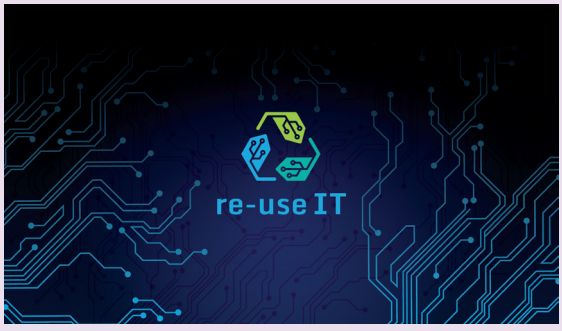
Ready2Services label

The Ready2Services 2 (R2S 2) label spotlights non-residential buildings' digital performance and operating systems, specifically regarding the environmental impact of their digital technology.

FOCUS ON: REUSING IT EQUIPMENT

SUBSIDIARY **SPIE GERMANY SWITZERLAND AUSTRIA /** SPIE Switzerland

Extending IT lifecycles



Four steps to a successful deal

Tell us what equipment you want to sell.

We obtain several quotations and submit the best offer to you.

You decide whether you want to accept the offer or not.

After conclusion of contract the units will be collected from your premises.

Re-useIT, launched in 2024 by SPIE and currently offered exclusively in Switzerland, is an innovative B2B service that extends the lifecycle of IT hardware while ensuring security, compliance, and environmental responsibility.

For many companies, decommissioning unused IT hardware has long been a challenge, with inefficiencies, storage costs, security risks and environmental impacts. To address this, SPIE created re-useIT, a B2B platform that gives decommissioned devices a second life.

The service relies on a network of certified partners to provide collection, GDPR-compliant data erasure, refurbishment, upcycling and resale of IT assets. By sourcing multiple offers from the partner network, re-useIT secures the best market price while ensuring transparent, responsible handling. In this way, the platform supports the circular economy in IT, helping businesses cut costs, strengthen security and reduce their environmental footprint.

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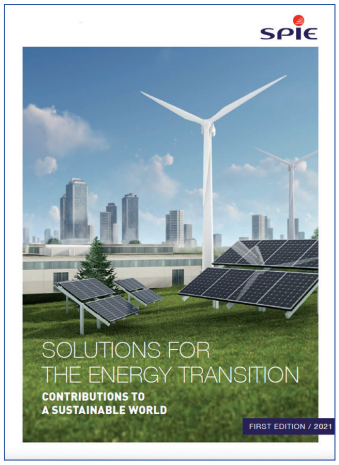

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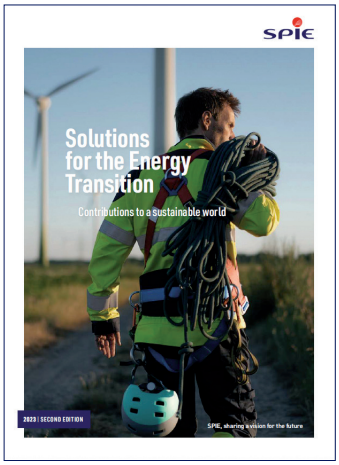

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SPIE is the independent European leader in multi-technical services in the areas of energy and communications. The Group's 55,000 employees are committed to the decarbonisation of the economy, supporting the energy transition and responsible digital transformation.

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Energy is our future, so let's save it!