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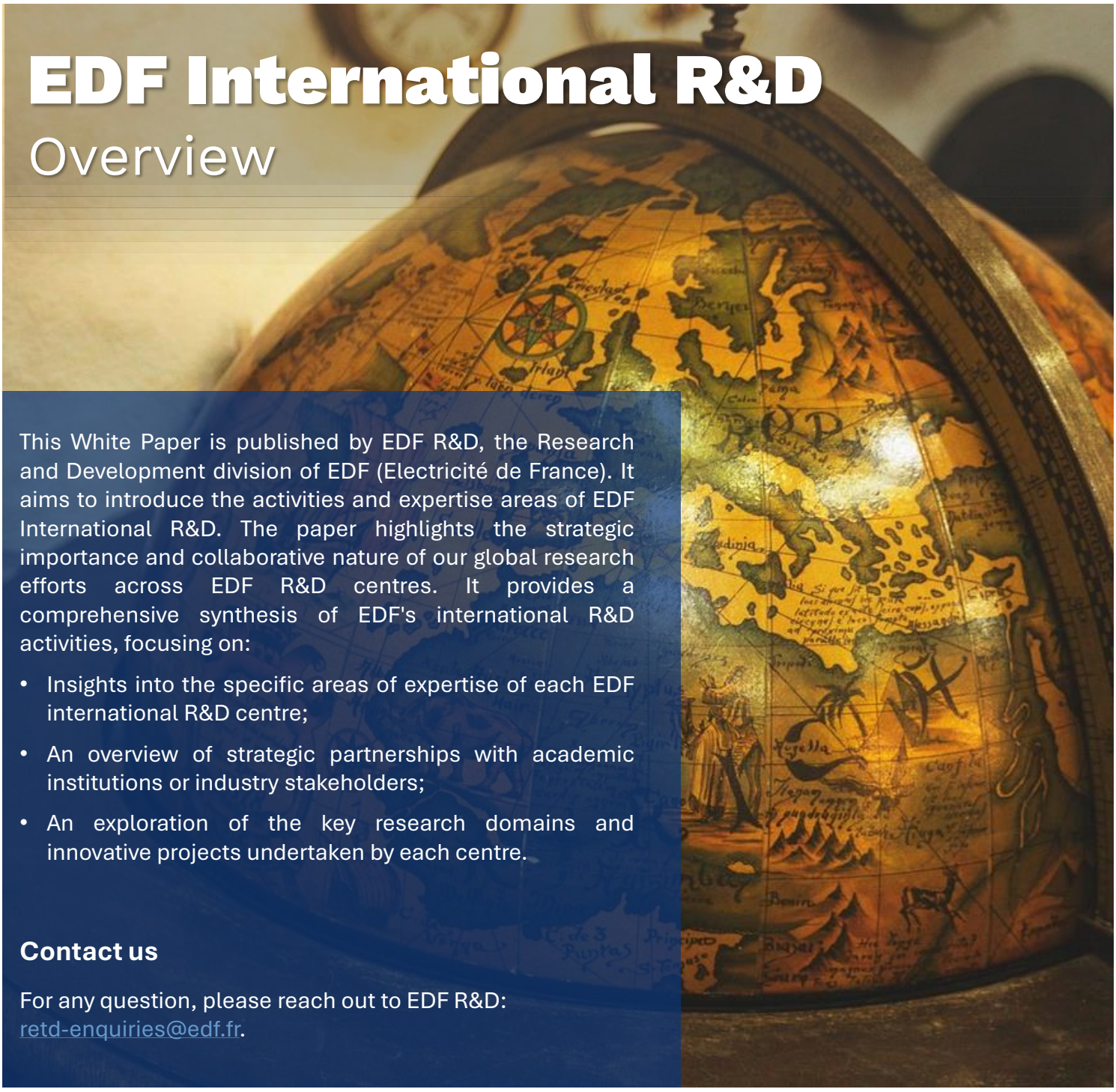
R&D WHITE PAPER



EDF International R&D

Overview

This White Paper is published by EDF R&D, the Research and Development division of EDF (Electricité de France). It aims to introduce the activities and expertise areas of EDF International R&D. The paper highlights the strategic importance and collaborative nature of our global research efforts across EDF R&D centres. It provides a comprehensive synthesis of EDF's international R&D activities, focusing on:

- Insights into the specific areas of expertise of each EDF international R&D centre;
- An overview of strategic partnerships with academic institutions or industry stakeholders;
- An exploration of the key research domains and innovative projects undertaken by each centre.

Contact us

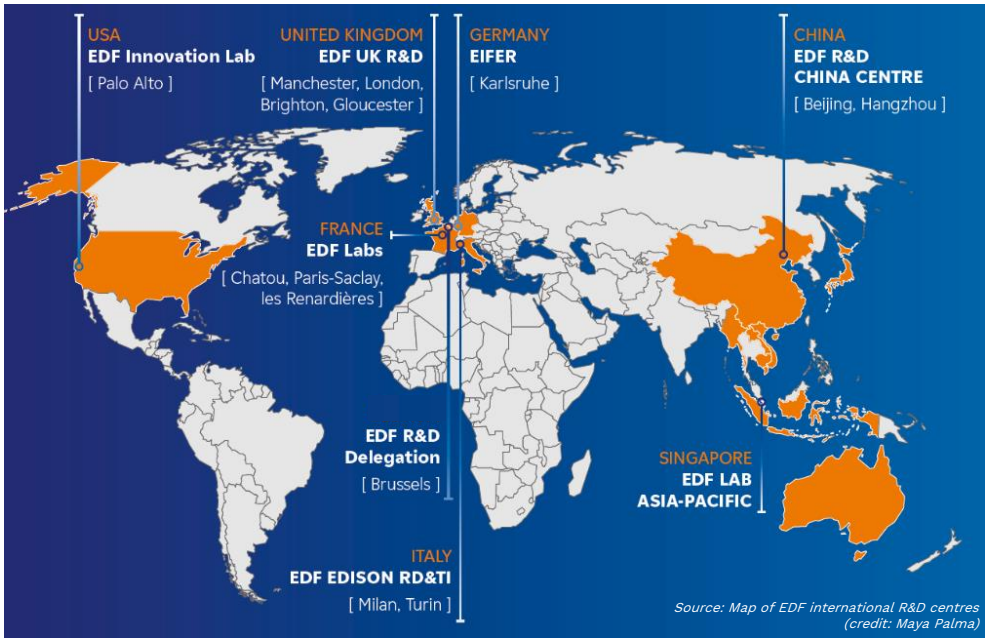
For any question, please reach out to EDF R&D: retd-enquiries@edf.fr.

Introduction

Introduction to EDF R&D

This White Paper aims to provide an overview of EDF international R&D activities, emphasising the strategic importance of our global research initiatives.

EDF R&D is a world leader in energy research, investing €532 million (2024) across multiple domains of the energy transition. The R&D division operates 9 labs worldwide, including major sites in France around Paris (Saclay, Chatou, and Renardières), and labs in the UK, Germany, Italy, China, Singapore, and the US. In addition, a representative office is located in Brussels.



Source: Map of EDF international R&D centres (credit: Maya Palma)

In France, an R&D team of 1,830 employees, including 220 experts and senior researchers, particularly leverages state-of-the-art testing, measurement, and simulation platforms.

- **EDF Lab Paris-Saclay**: specialised in digital modelling, data science, data processing, and advanced energy system simulation. Its expertise spans electricity networks, renewable energy integration, and cross-disciplinary fields such as energy economics, market analysis, commercial studies, and user behaviour sociology. The facility hosts supercomputers and digital testing platforms powering smart grids and resource optimisation.
- **EDF Lab Chatou**: this historic site is dedicated to energy production – nuclear, hydro, thermal and renewable - as well as numerical simulation, applied chemistry, ecotoxicology and microbiology. It is also home to the Innovation Hub team, bridging fundamental research and the Group's operational needs.
- **EDF Lab Les Renardières**: an experimental centre specialising in electrical materials and components – such as batteries and high-voltage equipment - and in system energy efficiency. Its research departments also focus on nuclear materials, smart grid testbeds and electric mobility.

Together, EDF French and international R&D centres form a unified innovation network that supports the Group's business lines by forging strategic partnerships with leading research institutions, identifying breakthrough technologies, and integrating start-ups and emerging technologies to EDF Group's Business Units.

EDF R&D is recognised for its cutting-edge expertise within EDF and at European and international levels.

Introduction

Introduction to EDF International R&D

Zooming out, this section, and the White Paper as a whole, highlights EDF international R&D activities. With nearly 300 colleagues working across the world, our international R&D centres play a crucial role in driving innovation and development within diversified ecosystems.

EDF international R&D is comprised of a diverse community of researchers and support staff, representing 44 nationalities and various profiles. Graduates from leading universities such as Stanford, Manchester, Tsinghua, Polito, Polimi, KIT, and NTU contribute to our research initiatives. 30 nationalities are represented, with 36% women and 64% men.

The collaborative efforts between French and international R&D teams ensure synergy and leverage different cutting-edge research approaches. Aligned with the R&D Scientific Plan, our international activities span digital technologies, renewables, energy markets, nuclear energy, decarbonisation, and hydrogen.

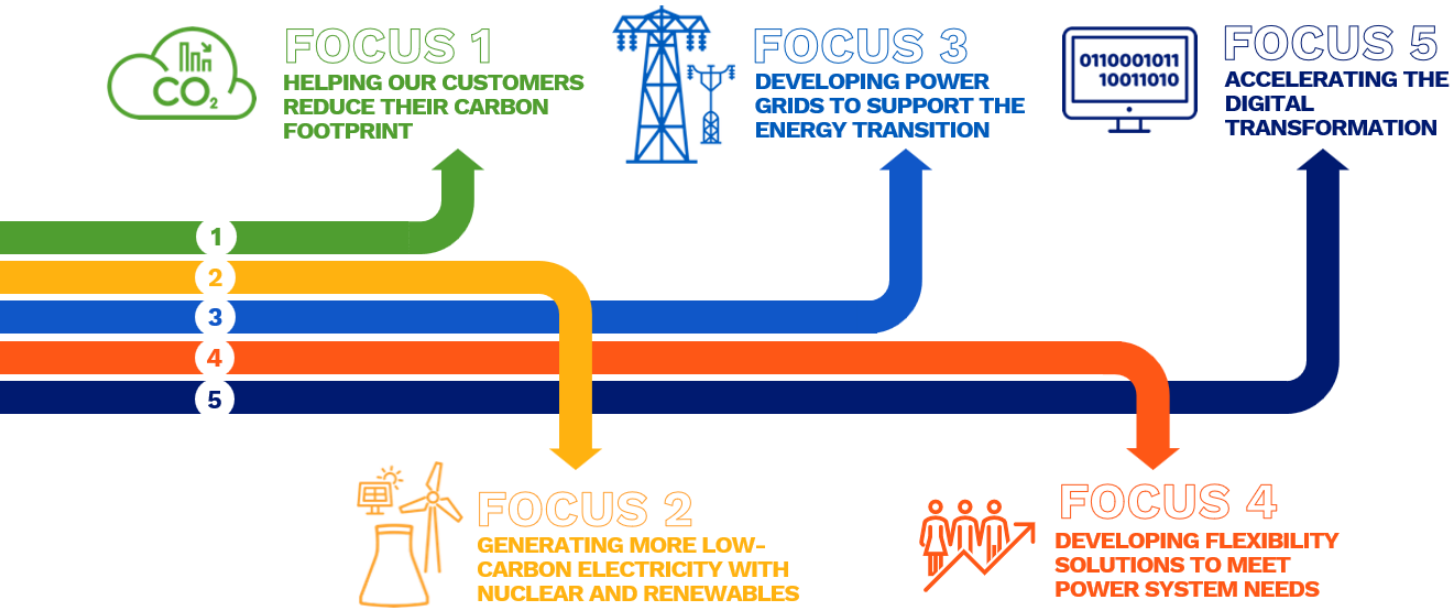
The EDF R&D Delegation in Brussels strengthens the connection between R&D teams and international research activities, particularly by engaging in European research and innovation dialogues.

With almost 100 European projects ongoing at EDF R&D, the Brussels office is crucial for ensuring the connection with the most innovative and influential partners in the EU.

In a nutshell, our international R&D strategy focuses on:

- Strengthening EDF's leadership in the energy transition by acting as outposts for detecting global trends, identifying advanced technologies, and understanding innovative business models;
- Providing local R&D support to EDF's business lines and subsidiaries, as well as services to external clients;
- Enhancing our scientific influence at European scale, in alignment with EDF's long-term vision.

EDF R&D SCIENTIFIC PLAN



EDF UK R&D

United Kingdom (Manchester, London, Brighton, Gloucester)

EDF UK R&D is at the forefront of pioneering research and innovation, dedicated to supporting Britain's transition to net-zero.

Digital for New Nuclear Construction

UK R&D is leveraging advanced digital technologies to optimise the construction and operation of EPRs. This involves developing models to extract insights from data to improve operational efficiency, using computer vision to support inspection activities, and employing AI for knowledge management in day-to-day operations. These solutions are shared and implemented across EDF projects in both the UK (Sizewell C) and France (EPR2).

Advanced Modular Reactors

Recognised as a key technology for achieving carbon neutrality, AMRs (Advanced Modular Reactors) are a focus area for EDF UK R&D. The team coordinates EDF's response to UK AMR initiatives, leveraging their expert knowledge and diverse networks in significant technical areas such as structural integrity, corrosion, and hazards.

Source: EDF Hinkely Point – John Cairns

Offshore Wind

For over a decade, UK R&D has coordinated offshore wind R&D activities for EDF Group, focusing on key topics relevant to the Group. The team supports businesses with operational challenges, identifies early market trends, and provides a strategic vision for offshore wind. Collaborations with offshore asset operators of EDF's existing wind farms (Blyth, Teesside) and new ones (US, China), as well as strong connections with academic partners (Plymouth, Exeter, DTU), are crucial for achieving these goals.

Source: Teesside Offshore Wind – Brown Graham

Flexibility and Storage

With extensive experience in modelling flexibility and storage, UK R&D has secured public funding for ambitious demonstrators. Embedded within the Customers and Renewables Business Units, the team quickly translates real-world experience into theoretical findings, supporting the development of behind-the-meter flexibility offers and positioning storage as a route to market for renewables projects.

Industry Decarbonisation

UK R&D prioritises the development of the Tees Green Hydrogen project and supports other Hynamics UK projects. The team is also exploring the Energy Hub concept, which involves coupling solid oxide electrolysis, direct air capture (DAC), and heat networks with nuclear, in support of the AMR programme. Close links with R&D Group and UK Business Units facilitate partnerships that drive project development, such as collaborations with Fuel Cell Energy, Heidelberg Materials, and British Steel. Emerging needs for large data centre connections to grids or power stations are also driving new research activities.

Source: EDF UK R&D

The University of Manchester

The collaboration between EDF and The University of Manchester has evolved over several years, initially focusing on computational fluid dynamics and later expanding to include research within the University's Materials Performance Centre. In 2011, the partnership further developed with the establishment of the Modelling and Simulation Centre (MaSC), broadening its scope to include solid mechanics. This joint effort primarily targets nuclear technologies such as Advanced Modular Reactors (AMRs) and High Temperature Gas Reactors (HTGRs), as well as projects like Sizewell B Lifetime and new builds such as Hinkley Point C and Sizewell C.

EDF EDISON RD&TI

Italy (Milan, Turin)

EDF Edison RD&TI in Italy is a key research and development facility focusing on innovative solutions for the energy sector.

Smart Homes & IoT

Edison pioneered smart home offerings nearly a decade ago, introducing tools for energy monitoring, app-controllable smart thermostats, and DIY automation kits. Over the years, Edison's portfolio has expanded through continuous research and development, incorporating technologies for monitoring household consumption and optimising self-consumption for customers with photovoltaic and storage systems. These innovative services are tested and developed daily in the Domus Lab at Officine Edison Milano.

Drones and Robots

Drones and robots have several applications within Edison, including the inspection of energy generation assets and industrial sites. These devices can be remotely piloted or autonomous, reducing the need for human intervention and optimising operators' time and skills. Edison continuously monitors technological advancements in drones and robots to enhance the reliability, productivity, and efficiency of inspection processes.

Source: Drone inspection – EDF Edison RD&TI

E-Mobility

EDF Edison RD&TI supports Business Units with experimental characterisation of commercial charging systems in the laboratory at Officine Torino. Long-term activities focus on Vehicle-to-Grid (V2G) and Vehicle-to-Home (V2H) paradigms, utilising electric vehicles as storage systems to feed the electric grid and homes. Experiments on Vehicle-to-Everything (V2X) benefit from a testing infrastructure shared with Politecnico di Torino, including an innovative "hardware-in-the-loop" real-time simulator of electric grids. Activities on V2H are conducted at Officine Milano, where bi-directional chargers are integrated into the Domus Lab to implement smart charging strategies for optimising costs and self-consumption.

Source: EDF Edison RD&TI

Advanced Photovoltaics

EDF Edison RD&TI continuously monitors the technology landscape of photovoltaic generation through analysis and research. Monitoring and testing activities include both commercially available products and technologies under development, focusing on innovative solutions such as perovskites, which are considered potential game-changers.

Energy Storage

The development of storage systems alongside renewable energy sources is crucial for Edison. These systems ensure the security and adequacy of the national electricity system and optimise the operation of renewable plants in Edison's portfolio, contributing to the country's decarbonisation. The focus is particularly on long-duration energy storage technologies, enabling discharge times greater than 6-7 hours.

Hydrogen and Decarbonisation

Edison RD&TI has been investigating hydrogen technologies for over 20 years. The Centre supports Business Units in implementing hydrogen projects and conducts experimental activities to assess the performance of promising technologies not yet market-ready. This area also focuses on technologies for decarbonising generation assets and industrial facilities through carbon capture and utilisation. Additionally, R&D contributes to Edison's efforts to support the potential revival of nuclear energy in Italy.

Politecnico di Milano & di Torino

Edison RD&TI collaborates with Italy's leading technological academic institutions, Politecnico di Milano and Politecnico di Torino. Since 2019, most activities are located in the "Officine Edison" premises in Milan and Turin, which are entirely focused on innovation, research, and digital growth within the campuses of the Politecnici. Activities span across smart home technologies, Internet of Things (IoT), and electric mobility, including advanced concepts like Vehicle-to-Grid (V2G) and Vehicle-to-Home (V2H).

EIFER

Germany (Karlsruhe)

Integrated into the German and European research landscape, EIFER (European Institute for Energy Research) delivers excellent scientific analyses and innovative solutions to public institutions and its two members, EDF and the Karlsruhe Institute of Technology (KIT).

Source: EIFER

Climate Neutral Communities

Supporting regions and industries on their path to climate neutrality, this research stream delivers methods and tools to facilitate decision-making and impact analysis. This involves intelligent energy management systems that optimise energy use and reduce emissions by leveraging embedded systems. Spatial data and modelling play a crucial role in assessing and handling data from IoT or real-time monitoring, data analysis, open data integration, predictive models, and user-friendly collaborative platforms. The overarching goal is to integrate innovative and transdisciplinary research approaches to solve complex territorial challenges.

Local Multi-Energy Systems

Developing and testing integrated energy solutions is at the heart of this research area, with a focus on combining multiple energy sources to enhance the efficiency, reliability, and sustainability of local energy systems. This research embeds core technical expertise in bioenergies, bio and synthetic fuels, and geothermal energy, complemented by strong activities in system integration and sector coupling, including storage options and optimal design of related systems. The scope covers industrial energy usage and district heating.

Low-Carbon Hydrogen Systems

Innovative hydrogen technologies are explored within the low-carbon hydrogen systems area, targeting the decarbonisation of hard-to-electrify sectors. This research covers the entire hydrogen value chain, from material components development and stack testing to system integration and field-testing. The main competences include hydrogen production through methods like electrolysis, as well as hydrogen storage to ensure a stable and reliable supply. Additionally, the team works on integrating hydrogen systems into existing energy infrastructures, optimising their operability, and ensuring efficient energy balance analysis.

Source: EIFER

Energy Transition, Markets, Environment

This research area focuses on understanding and facilitating the transition to low-carbon energy systems. It involves analysing energy markets, regulatory policies, and environmental impacts to support the development of sustainable energy solutions. The team works on various aspects such as energy modelling, market design, regulatory policies, the design and monitoring of nature-based solutions, ecosystem service assessment and mapping, as well as integrated environmental and economic evaluations. The goal is to provide insights and solutions that support decision-making processes, help monitor and mitigate project impacts, and contribute to an efficient and sustainable energy transition.

Source: EIFER

Karlsruhe Institute of Technology

The Karlsruhe Institute of Technology (KIT) is one of Germany's universities of excellence, creating and imparting knowledge for society and the environment. From fundamental research to application, KIT excels in a broad range of disciplines, including natural sciences, engineering, economics, and the humanities, making significant contributions to global challenges in the fields of energy, mobility, and information. KIT actively participates in EIFER's governance and contributes its multiple competences to joint research projects and infrastructure, such as laboratories on material science for energy and geotechnologies.

EDF Innovation Lab

United States (Palo Alto, California)

EDF Innovation Lab is dedicated to exploring new markets, innovative business models, and disruptive technologies for EDF Group. By leveraging the innovation ecosystem of Silicon Valley and the broader US, while building on local partnerships, the Lab aims to drive research that supports EDF Group's growth in low-carbon energy sectors.

Smart Grid

The Smart Grid program focuses on integrating Distributed Energy Resources (DER) into the power grid. The Lab conducts studies on advanced storage solutions, microgrids, and resiliency, supporting Business Units with innovative solutions. Research includes developing and evaluating Distributed Energy Resources Management Systems (DERMS) and cloud-based solutions for electric utilities. The team also supports the deployment of GeneSys, an industrial IoT platform, developed by EDF R&D, within EDF Power Solutions North America for real-time monitoring and control of renewable energy assets.

Source: Catalina giant photovoltaic solar farm – Frederic Neema

Electric Mobility

With transportation accounting for 27% of CO2 emissions in the US (40% in California), electrification is a top priority for decarbonisation and air quality improvement. The Lab's e-mobility activities include technology and product analyses, focusing on Smart Charging as a Service for workplaces as a new business model. The team collaborates with Powerflex, a local US Business Unit developing and operating EV chargers, and Izivia in Europe to share experience, knowledge and innovation.

Nexalis

Nexalis, an EDF spin-off, develops a cloud-based data historian that centralises and structures energy data. Focused on enhancing productivity in the energy sector, Nexalis ensures precise data accuracy and standardisation.

By leveraging advanced digital tools and AI-driven mapping, it consolidates diverse energy data sources into a unified model. This enables seamless integration with distributed resources such as photovoltaic, wind and storage assets, while standardising the technical information collected across platforms.

Energy Markets

The energy markets team builds models, tools, and analyses to inform US Business Units about future market trends and develop robust roadmaps. The Lab's mission is to enable EDF Business Units to ultimately make strategic decisions towards achieving net-zero carbon portfolios while mitigating market risks, primarily supporting EDF Power Solutions North America.

Customer Solutions

The Lab assesses customer relations and new offers or services in the US, leveraging its location in the San Francisco Bay Area's innovation ecosystem. Topics of interest include digital experiences, smart home and energy management services, 24/7 Carbon-Free Energy, and industrial decarbonisation.

Digital Solutions

The Lab explores transformative technologies such as artificial intelligence and blockchain, which drive industrial innovation. Research includes extended-reality training for asset maintenance, energy traceability using shared ledgers, and quantum computing for optimising the electric power system, notably with Optimal Power Flow.

Net-Zero Carbon Solutions

The Lab is committed to addressing net-zero emissions challenges, focusing on hard-to-abate sectors. By leveraging technologies like hydrogen, e-fuels, and carbon capture, the Lab aims to catalyse a transition to sustainable industrial practices. Benefiting from the significant growth of large data centres in the US, the Lab is actively monitoring actual projects, stakeholders' strategies, main challenges, and technical solutions for achieving fast and secured connections to grids or to nuclear power stations.

Electric Power Research Institute

EDF R&D has a long-standing partnership with the Electric Power Research Institute (EPRI), a non-profit research centre for the electricity sector. Managed by EDF Innovation Lab on behalf of EDF SA, this cooperation spans both nuclear and non-nuclear sectors, including smart grids, energy storage, and electrification. EDF is represented in EPRI's Board. This partnership allows EDF R&D to access and contribute to key EPRI research programs, particularly in areas such as low-carbon technologies and digitalisation, while EPRI benefits from EDF's advanced research and operational expertise in fields like nuclear energy and system modeling.

EDF R&D China Centre

China (Beijing, Hangzhou)

EDF R&D China Centre is a pivotal research and development facility, home to a team of dedicated research engineers and innovators.

Nuclear

The R&D China Centre is highly qualified in mechanics, thermal hydraulics, process engineering, and relevant simulation capacities. It provides EDF with expertise in innovative technologies in nuclear construction, application of additive manufacturing (AM) in the nuclear industry, multi-usage of nuclear energy, understanding materials ageing and rupture, AMR technologies, and passive systems. Researchers work jointly with French teams and Chinese partners to advance these areas.

Source: EDF R&D

Hydrogen

Aligned with the development of hydrogen (H2) and e-fuel production technologies, the R&D China Centre focuses on the performance of H2 production (electrolysers) and the combined effects with renewable energy and e-fuels in demonstration projects. Through cooperation with local partners, the Centre monitors progress in H2 production technologies, including e-fuels and their supply chain, and raw materials, while responding to requests from EDF's local Business Units.

Digital Innovation

The digital sector accounts for 35% of China's GDP but is relatively isolated due to the Great Firewall, creating a unique digital ecosystem distinct from Europe and the US. The Digital Innovation team explores innovations that illustrate these differences, developing expertise in artificial intelligence (especially computer vision, generative AI, and explainable AI) and quantum computing. With strong connections to the local open innovation ecosystem, the team pilots innovation events and activities for EDF in China, capturing key trends shaping the country's digital future.

Advanced Electric Power Systems

In a world in transition, the R&D China Centre supports EDF in developing and identifying key technical innovations for resilient electric network operations. Collaborating with local partners like SGCC (State Grid Corporation of China), the Centre prepares for future electric grid systems that must adapt to climate change and energy mix transitions. The Centre studies grid adaptations to enable reliable and flexible DER (Distributed Energy Resource) integrations, technical specifications of grid-forming converters, and grid architecture evolution in the context of high DER integrations. It provides field feedback on new DER control and operational strategies considering both rural and urban areas, as well as the French and Chinese network characteristics.

Decarbonisation

The EDF R&D China Centre monitors the progress of Chinese technologies such as CCUS (Carbon Capture, Utilisation and Storage), industrial decarbonisation (e.g. heat pumps), and innovative cycles. It follows decarbonisation roadmaps in identified industrial sectors, evaluating the technical-economic impacts and industrial feasibility of relevant innovative technologies through process modelling and simulation. The Centre collaborates with local partners like Shanghai Electric to test and demonstrate digital tools developed for decarbonisation solutions.

Source: PM2.5 and PV output – EDF R&D China Centre

Xi'an Jiaotong University

Xi'an Jiaotong University (XJTU) has been a key partner of EDF R&D China since 2015. This strategic partnership, extended for 2023-2026, focuses on collaborative research in nuclear thermal hydraulics and numerical simulation. Within the associated EDF-XJTU "High-Performance Computing for Reactor Thermal-Hydraulic Simulation" lab, the collaboration includes annual projects, joint doctoral programmes, and online courses by EDF experts. Mutual trust has grown through increasing technical agreements, driving innovation in energy technologies.

EDF Lab Asia-Pacific

Singapore

EDF Lab Asia-Pacific is dedicated to research and innovation activities targeting electrification and overall decarbonisation.

Energy Markets

The rapid evolution of energy markets in Asia-Pacific presents challenges that require thorough mastery of the regional environment, regulation, and financial instruments. EDF Lab Asia-Pacific is highly qualified in data science, optimisation, and artificial intelligence, providing valuable expertise on regional energy markets, assets, risk management, and innovative renewable energy contracts (PPAs). Current lab activities focus on the concept of 24/7 Carbon-Free Energy as a pathway to achieve decarbonisation in several countries.

Multi-Energy Testbed

To support socio-economic development in South-East Asia and the expansion of microgrids in remote areas, the Nanyang Technological University created the REIDS project. MASERA serves as a multi-energy testbed for EDF, enabling technology derisking and smart solutions development, including distribution grid interconnection, Energy Management Systems (EMS), smart charging and Vehicle-to-Grid (V2G), low-carbon hydrogen management, Renewable Energy Certificates (RECs), and 24/7 Carbon-Free Energy. The MASERA testbed is also open to external companies seeking to benefit from its advanced features.

Land and Maritime Electric Mobility

EDF Lab Asia-Pacific is advancing low-carbon mobility, notably through Ecotrust, a pioneering digital solution that automatically provides a portion of Renewable Energy Certificates to consumers charging their electric vehicles, using real-time green energy production and blockchain for reliable traceability.

Australia's energy challenges and opportunities

Australia, a pivotal player in the global energy transition, faces numerous challenges, especially within the mining sector. The electrification of remote sites and industrial machinery is a major objective. The APAC Lab is supporting EDF Australia for projects integrating renewable energy resources, energy storage and charging infrastructures for mining trucks. In 2025, R&D experts are investigating further opportunities to bring support to EDF businesses in Australia, while learning from the swift energy transition occurring in this country.

Source: EDF Lab Asia-Pacific

Low-Carbon Hydrogen

EDF Lab Asia-Pacific supports EDF's ambitions to play a leading role in the low-carbon hydrogen economy, focusing on production from low-carbon electricity sources, assessment of different carrier technologies, and life cycle analysis. The Lab operates a hydrogen loop with an AEM electrolyser on the MASERA testbed, building strong experience in permitting, installation, operations, and maintenance.

Renewable Energies and Storage

Renewable energy and storage systems are key to meeting growing low-carbon energy demand. EDF Lab Asia-Pacific provides crucial support on subjects such as floating solar and hybrid systems, including bulk and distributed energy storage. The MASERA testbed includes a li-ion battery with a six-year track record. The Lab is currently studying the integration of hydro-pumped storage in the Cambodian power system, expertise that will also benefit EDF's energy storage projects in Australia.

Quantum Computing

EDF Lab Asia-Pacific explores the potential of quantum solutions to enhance optimisation efforts. Collaborating with a leading Singaporean cargo terminal orchestrator and a major quantum solutions provider, the Lab addresses concrete use cases to improve current optimisation problems.

Source: EDF Lab Asia-Pacific

Nanyang Technological University

Nanyang Technological University, with 33,000 undergraduate and postgraduate students, is ranked 8th globally in Engineering & Technology and 1st in Asia. EDF Lab Asia-Pacific has established strong ties with NTU, particularly in the field of smart grids, by setting up the MASERA multi-energy testbed as part of the Renewable Energy Integration Demonstrator Singapore (REIDS) initiative led by NTU.

EDF R&D Delegation in Brussels

EDF R&D has a team based in Brussels and included within the EDF European Affair Division. Its main goal is to ensure scientific collaborations at European level, particularly with the European Commission and academic and industrial stakeholders.

Expertise and Network

The R&D Brussels office has three main missions :

- Delivering science-based facts to inform future funding programmes,
- Building a network of strategic partnerships with the best European science organisations,
- Supporting EDF R&D in building successful EU grants proposals.

The R&D team in Brussels develops collaborations with the best EU partners such as high-level research institutes or energy utilities to strengthen the Group's influence. Connecting with these strategic partners allows the R&D teams to grow the capacity to build collaborative projects, access complementary know-how and competencies while increasing the success rate of EDF EU submissions.

Source: Shutterstock

Influence

The R&D Delegation in Brussels maps and manages participations in relevant European associations, working groups and funding programmes, bringing the EDF Group R&D expertise in Brussels, helping and facilitating the exchanges with EU institutions and the EU R&I ecosystem. The team also contributes to the build-up of the EU Roadmap on future funding programmes in the short and long terms.

Credit: Bruno Conty

Securing EU Funding and Strategic Partnerships

The R&D Delegation in Brussels plays a pivotal role in developing strategic partnerships through European projects, bolstering innovation and collaborative thinking. By connecting with high-level scientific institutes and energy utilities, the Brussels team strengthens EDF's capacity to access complementary expertise.

EDF R&D Delegation in Brussels follows and screens a large number of EU funding programmes such as Horizon Europe, Life, Innovation Fund, Euratom and many others. In particular, Horizon Europe is the EU's key funding stream for research and innovation, with an indicative budget of 93.5 billion euros over 2021-2027. It addresses climate change, boosts the EU's competitiveness and growth, optimising investment in the European research area.

The EDF R&D delegation in Brussels is also part of the ENFIN (EDF Network for project financing) and can leverage on the ENFIN expertise for accompanying the Group Innovative projects also on national funding programmes such as ADEME or ANR in France and for providing training on EU institutions and funding.

European partnership ecosystem

In 2024, EDF R&D had almost 100 projects underway, supported by various EU funding programmes, including Horizon Europe, Euratom, MSCA, LIFE, Innovation Fund, Interreg.

Advancing collaborative research, EDF R&D works closely with key EU partners, such as SINTEF, KU LEUVEN, TECNALIA, INYCOM, CEA, and CNRS.

The Delegation in Brussels actively engages with leading professional associations, like SolarPower Europe, WindEurope, SNETP *(Sustainable Nuclear Energy Technology Platform)*, EASE *(European Association for Storage of Energy)*, SmartEn *(Smart Energy Europe)*, and Hydrogen Joint Undertaken.


© EDF – Denis Allard

EDF R&D offers a **wide range of services and training courses** for international partners and clients, professionals or scientists.

Several areas of research are open to customers willing to **benefit from EDF R&D analysis, expertise or lab testing**. EDF R&D services span across major domains: **Customers**, **Generation**, **Grids**, **Flexibility**, **and Digital**.

The **Institute for Technology Transfer (ITech)** is a training organization to share practices, expertise, and innovations based on EDF R&D activities.

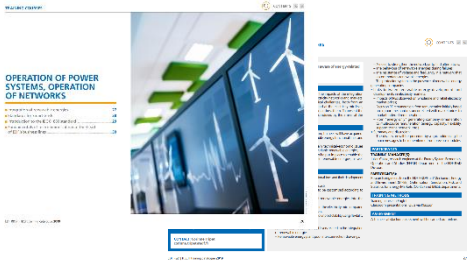
Various training courses are available on **renewable integration, smart grid solutions, microgrids, grid integration, energy storage, energy efficiency, control and communication technologies, etc (see EDF R&D ITECH catalogue).** Training is provided by EDF R&D leading experts in these key domains.

EDF R&D BROCHURE OF SERVICES

Consult the interactive document by clicking on the picture opposite

EDF R&D ITECH CATALOGUE OF TRAINING COURSES

Consult the interactive document by clicking on the picture opposite



R&D SCIENTIFIC PLAN ALIGNED WITH EDF STRATEGY FOR 2035

EDF R&D carries out **research for all EDF Group entities**, helping them improve performance and prepare the future integrating innovative technologies and solutions.

EDF R&D has **three Labs in France, six abroad** (China, Germany, Italy, Singapore, UK, USA) and a **R&D representative office in Brussels**.

OUR 5 SCIENTIFIC PRIORITIES

1. **HELPING OUR CUSTOMERS REDUCE THEIR CARBON FOOTPRINT**
2. **GENERATING MORE LOW-CARBON ELECTRICITY WITH NUCLEAR AND RENEWABLES**
3. **DEVELOPING POWER GRIDS TO SUPPORT THE ENERGY TRANSITION**
4. **DEVELOPING FLEXIBILITY SOLUTIONS TO MEET POWER SYSTEM NEEDS**
5. **ACCELERATING THE DIGITAL TRANSFORMATION**

EDF Lab's facilities in Saclay, one of EDF R&D research centres.

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EDF SA
22-30 avenue de Wagram
75282 Paris cedex 08
France
www.edf.com

EDF Research and Development
EDF Lab Paris-Saclay
7 boulevard Gaspard Monge
91120 Palaiseau - France

Contact:
EDF R&D
International & Partnerships
retd-enquiries@edf.fr