France and Singapore Forge a Strategic Partnership to Accelerate the Energy Transition

Singapore, 30 May 2025 — A landmark Memorandum of Understanding (MoU) was signed today by **Université Grenoble Alpes (UGA)**, **Nanyang Technological University, Singapore (NTU Singapore) via the Energy Research Institute @ NTU (ERI@N)**, **EDF Lab Singapore**, **RTE international**, and **Think Smartgrids**, during the official State Visit of **French President Emmanuel Macron** to Singapore. This strategic agreement marks a significant milestone in deepening Franco-Singaporean cooperation on sustainable energy innovation.

The MoU sets the foundation for an ambitious Franco-Singaporean industrial-academic framework to foster joint research, innovation, and knowledge exchange in the fields of:

- **Renewable and decarbonized energy sources**
- **Smart and resilient power grids**, powered by advanced technologies and artificial intelligence
- **Energy storage and flexibility**, including the promotion of the **Flexready standard**
- **Simulation and experimentation platforms** for testing and validating emerging energy solutions
- Development of smart grid **roadmaps tailored to Southeast Asia's regional context**

The initiative draws strength from the scientific excellence of UGA and NTU—both global leaders in energy systems research—along with the industrial expertise of EDF, RTE international, and Think Smartgrids. From the outset, a shared vision and strong alignment between the academic and industrial partners have driven the formation of this collaboration, which is designed to deliver impact at both the national and regional levels.

Pioneering R&D Collaboration Between UGA, NTU and EDF

A key pillar of the MoU is the **targeted R&D collaboration between Université Grenoble Alpes, NTU, and EDF**, focusing on next-generation energy systems and regional interconnectivity. This initiative aims to address key research priorities, including:

- Enhancing the operation of **regional power grids**, with innovations in **HVAC, HVDC, and subsea cabling**
- Studying **resilience, flexibility, and economic performance** of interconnected regional systems
- **Demonstrating advanced energy solutions** using the **EDF MASERA Microgrid Testbed**

Together, the partners will jointly scope scientific challenges, co-develop R&D projects, and pursue funding opportunities under national and bilateral schemes, in alignment with the **France–Singapore Comprehensive Strategic Partnership**. Combining industrial expertise with academic excellence, the collaboration fast-tracks the development and real-world

deployment of low- to mid-TRL energy solutions, addressing concrete national and regional needs.

Prof Lam Khin Yong, NTU Vice President (Industry) said: "*This strategic partnership exemplifies NTU's commitment to advancing the global energy transition through collaborative innovation. By uniting the complementary strengths of academia and industry from France and Singapore, we are laying the foundation for pioneering solutions in Smart grids, Low-carbon electricity and Power/Industry decarbonization for an accelerated & sustainable energy transition. Together with Université Grenoble Alpes, EDF, RTE international, and Think Smartgrids, NTU is proud to contribute via ERI@N's deep research expertise and regional insight. This MoU marks a bold step forward in accelerating impactful research, nurturing talent, equipping with new skillsets and addressing Southeast Asia's unique energy challenges with sustainable & scalable technologies for a decarbonized future."*

Prof Yassine Laknech, President of Université Grenoble Alpes said: ""*This joint academic–industrial strategic partnership in research and innovation represents a milestone in France–Singapore collaboration.*
Building on the long-standing partnership between Université Grenoble Alpes (UGA) and Nanyang Technological University (NTU), and UGA's enduring commitment to academic–industrial cooperation, this initiative reinforces both UGA's and France's engagement in Southeast Asia.
In collaboration with NTU, EDF, RTE International, and Think Smartgrids—via the G2E-lab (CNRS, Université Grenoble Alpes — Grenoble INP-UGA)—UGA is proud to contribute to the global energy transition by developing innovative, sustainable solutions."

Veronika Milewski, CEO from RTE international declared: "*We are proud to contribute our engineering and system planning expertise to this Franco-Singaporean partnership. RTE international brings decades of experience in power system design, operation, interconnection strategies, and innovative HVDC technologies—core enablers for regional integration and decarbonization. These competencies are directly relevant to Southeast Asia's ambitions for secure, flexible, and sustainable grids. Through this collaboration, we will share operational know-how and help shape tomorrow's resilient electricity networks.*

Xavier Piechaczyk , chairman of Think Smartgrids stated*: "Think Smartgrids promotes French smart grid expertise on the international stage, helping the industry stand out in an increasingly competitive global market. Through this Memorandum of Understanding, we provide Singaporean stakeholders with a comprehensive overview of the French smart grid ecosystem and position ourselves at the forefront of innovation in South East Asia, in collaboration with NTU. We are confident that these partnerships will make a meaningful contribution to a sustainable and resilient energy future"*

Edouard Lavillonnière, Managing Director of EDF Lab Singapore, stated:
"As one of the world's lowest-carbon electricity producers, and with a deep industrial legacy in power generation and transmission in Asia, EDF is proud to support this strategic partnership. It reflects our long-standing commitment to Southeast Asia's energy transition and to innovation. Since opening EDF Lab Singapore 11 years ago, we've developed a vibrant hub for collaborative research. This new alliance with leading institutions NTU and Université Grenoble Alpes is a unique opportunity to shape the future of power systems in the region and co-develop solutions to its most pressing energy challenges."

A joint steering committee will oversee the MoU's implementation, guiding collaborative activities such as joint chairs, collaborative research programs, researcher exchange, demonstrator development, and joint strategic roadmaps.

This MoU stands as a testament to the depth of the Franco-Singaporean relationship and the shared determination to drive the global energy transition. Through scientific excellence and industrial cooperation, we will advance our common interests and make co-ordinated efforts for a sustainable world.