

Introduction of NEDO and our international projects

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New Energy and Industrial Technology Development Organization
Energy Conservation Technology Department

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Overview of NEDO

About NEDO



NEDO is Japan's largest funding agency focusing on technology innovation.

Mission:

- Address energy and global environmental problems
- Enhance industrial technology development

Organization: Established in 1980

Minister in Charge: the Ministry of Economy,
Trade and Industry of Japan

Head Office: Kawasaki City, Japan

Personnel: 1,525 (as of April 1, 2024)

Budget: Approximately 1.17 billion US dollars (FY 2024) *156JPY = 1USD
(*In addition, total 53.6 billion US dollars funding programs are also being implemented.)





JICA, IEEJ, ECCJ, AOTS
and JETRO etc.

New Energy and Industrial Technology Development Organization

Our Activity Fields

FY 2024 Budget total 174.9 billion yen (ca. \$1.1B)

Energy Systems (52.5 Billion yen)

Areas of focus

- Grid control technology
- Energy storage technology such as batteries
- Technology related to hydrogen production, storage, transport, and use
- Renewable energy technology



Energy Conservation and Environment (36.5 Billion yen)

Areas of focus

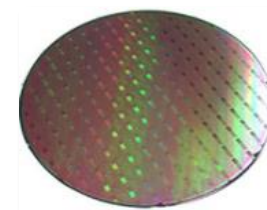
- Innovative energy conservation technology
- Environmentally-friendly process technology
- Development of high-efficiency coal-fired power generation technology
- CCUS technology
- Fluorocarbon control technology
- 3R technologies including resource sorting/metal refinery technology
- International demonstrations, JCM



Industrial Technology (31.6 Billion yen)

Areas of focus

- Robot and AI technology
- IoT, electronics, and information technology
- Manufacturing technology
- Materials and nanotechnology
- Bioeconomy

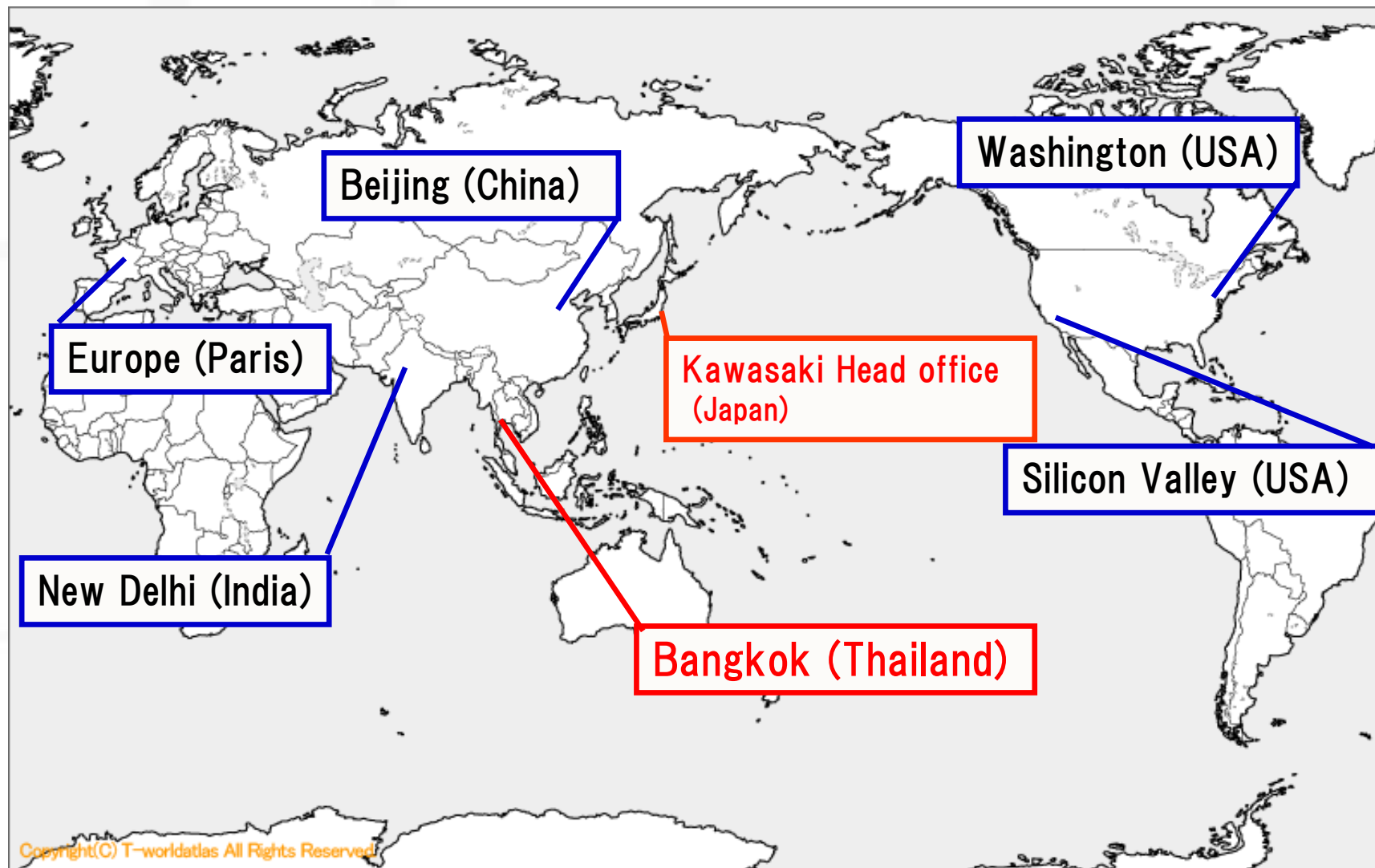


New Industry Creation & Discovery of Technology Seeds (54.3 Billion yen)

Areas of focus

- Fostering technology-based startups
- Promotion of open innovation

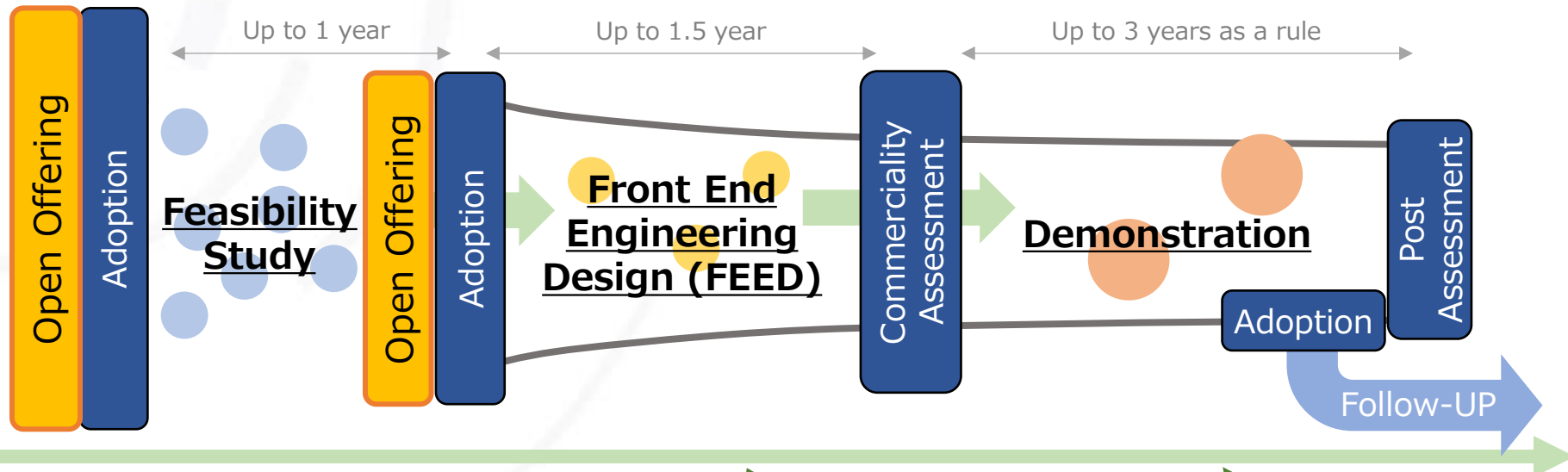
Overseas Offices



International Demonstration Project of NEDO

International Demonstration Project

Flow of Demonstration Project



- Survey of partner country's energy situations, related policies, business environment, etc.
- Consideration of demonstration elements, goals and possibility of dissemination

- Design of demonstration equipment and systems
- Detailed plan of demonstration research
- Commercialization plan after demonstration research
- Negotiations with partner country's company, etc.

- Design, procurement, manufacture, transport and installation of demonstration equipment and systems
- Demonstration operation

- Hosting of/participation in open days, seminars and exhibitions
- Human resource development, dispatch of experts, etc.

Purpose of International Demonstration Project

To demonstrate Japan's advanced technologies contributive to realization of S+3Es (Safety, Energy security, Economic efficiency and Environment) in overseas countries, and furthermore, to **contribute to dissemination and development of Japan's energy-related industry, domestic and overseas energy transformation and decarbonization, and Japan's energy security** through demonstration in institutionally advanced overseas energy markets.

Demonstration of large-scale hybrid storage battery system (Germany)



Demonstration of portable storage battery sharing (Indonesia)



Demonstration of expansion of EV's range (U.S.)



Demonstration of operations of large EV buses by 10-min. charging (Malaysia)



Demonstration of energy-saving cellulose sugar manufacturing system from surplus bagasse raw materials (Thailand)

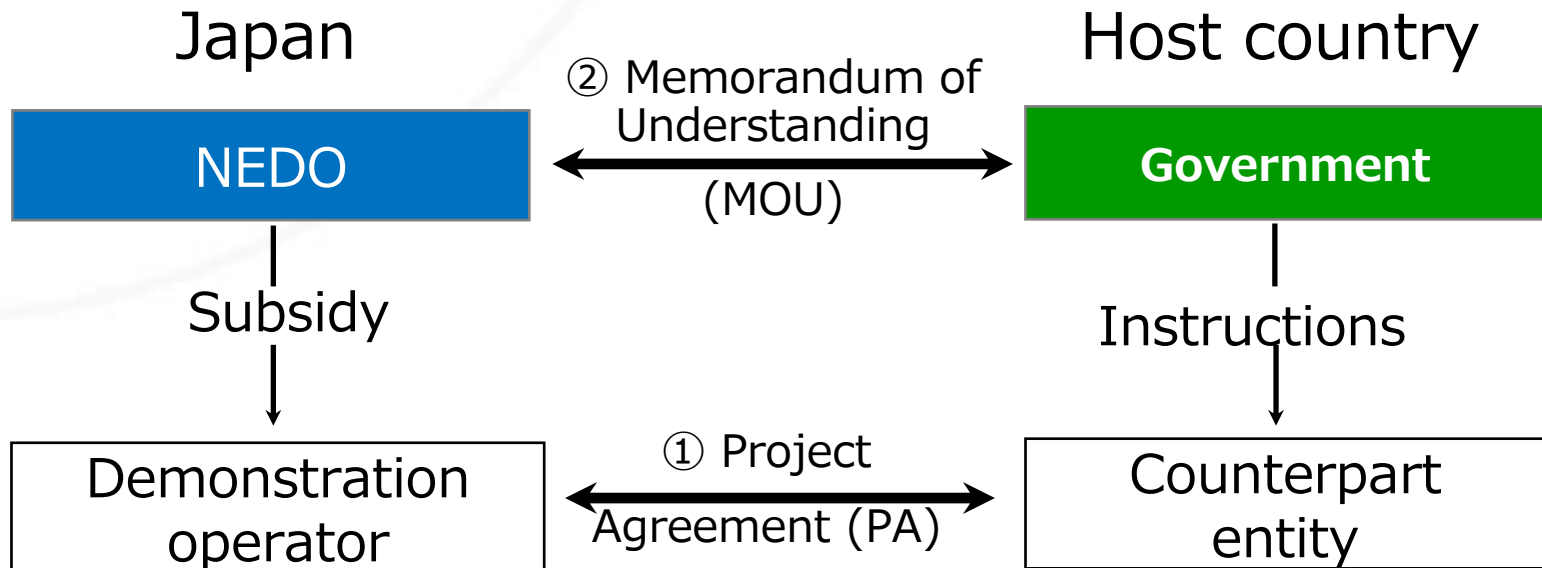


Demonstration of combined operation of power transmission and distribution of storage batteries (U.S.)



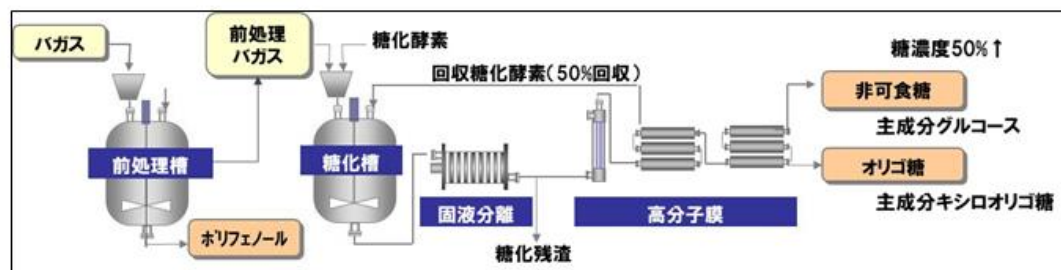
Cooperative Framework for Demonstration

- ① Demonstration operator and counterpart entity sign project agreement (PA) which stipulates details of demonstration, rights, and duties.
- ② NEDO and host country government may exchange LOIs (Letters of Intent) or conclude MOU (Memorandum of Understanding) to support implementation and dissemination.



Examples of Project Results

- Successfully demonstrated a system to produce plant-derived sugar from sugarcane pomace and other raw materials.
- Petroleum-derived chemicals can be replaced by plant-derived chemicals, **enabling the realization of a recycling-oriented society**.
- Sugar solution is concentrated using separation membranes, resulting in **energy savings of 50%** or more compared to conventional systems.
- Working with biomass holders and chemical manufacturers to establish a supply chain to produce chemicals derived from inedible plants.



Inedible sugar production flow



demonstration plant (Udon Thani Province, Thailand)

Last Year's Seminar

Participants

Number of in-person participants: 72

Number of online participants: 50

Innovative Design & Technology was adopted by International Demonstration Project on Japan's Technologies for Decarbonization and Energy Transition.



Scene from the venue



Greeting



exterior



Inside view

Thank you for your kind attention!!



More about NEDO