RD20 Leaders Session

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Various International Collaboration Scheme

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Overview of NEDO

Two basic missions:

1. Addressing energy and global environmental problems
2. Enhancing industrial technology

FY2025 Budget: 146.4 billion JPY (excluding funds)

Currently, 71 major programs are being conducted.

NEDO's International Programs

① International Demonstration Project on Japan's Technologies for Decarbonization and Energy Transition（**IDP**）

② Program to Facilitate Private-Sector-Led Promotion of Low Carbon Technology Overseas（**JCM**）

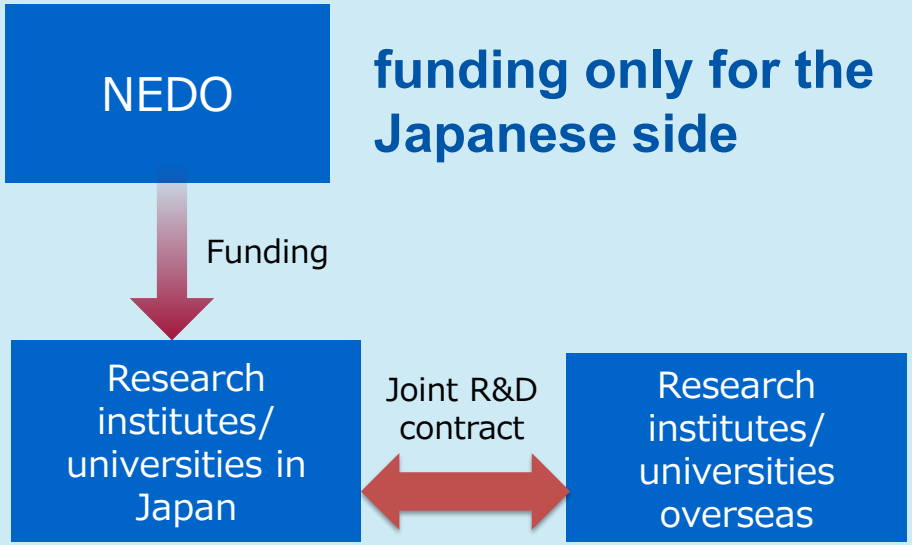
③ Research and Development Program for Promoting Innovative Energy and Environmental Technologies Through International Collaboration（**RDIC**）

④ Deep Tech Startup Support Program（**DTSU**）

Purpose of RDIC

- ✓ In order to address the global challenge of climate change, innovation in the field of energy and environment technology through international collaboration is important.
- ✓ The aim of this program is to develop and strengthen international joint research and development between Japan and other countries in order to create new and innovative energy and environment technologies that will have practical use after 2040.

Program Scheme



Program Image

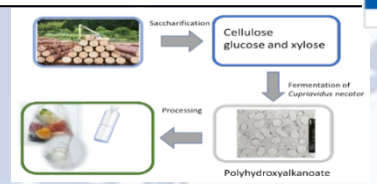
Summary of RDIC

	③ RDIC
Purpose	To create new and innovative energy and environment technologies that will have practical use after 2040.
Budget in FY2025	800 million JPY
Budget/case	**50 million JPY** per Year (Up to **3 Years**)
Subsidy rate	100% (national commissioned)
Applicant	Japanese organizations such as universities, research institutes, private companies ***note : private companies cannot participate alone.**
Call for Proposals	Once/year (This year public call has already finished)

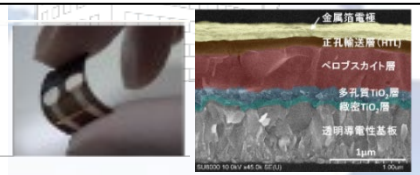
R&D Collaboration with Countries around the World

Collaboration with 18 countries and regions under 36 projects

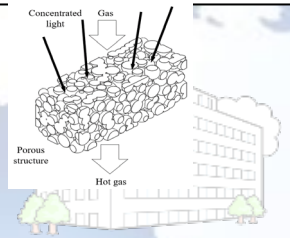
Next-Generation Polylactate from Biomass-Derived Sugars (Finland: VTT)

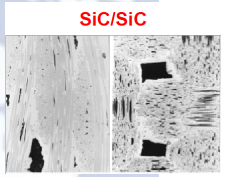


Multi-Junction Solar Cells (France: CNRS, Bordeaux University)



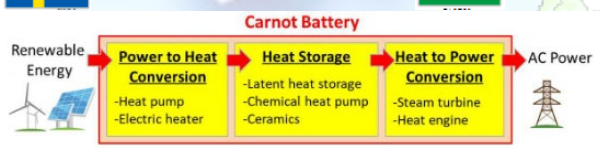
Solar Concentrating Reactor for Carbon Dioxide Decomposition (US: University of Colorado)



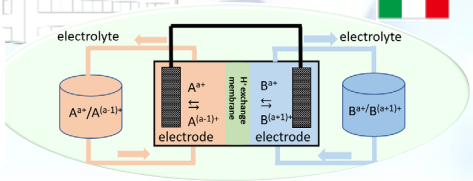


Innovative heat resistant materials (Advanced Ceramic Matrix Composites) for aircraft engines (US: University of California, UK: University of Birmingham)

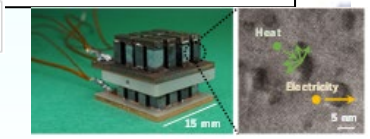
Innovative High-Temperature Heat Storage Technology (Sweden: KTH, India: IITJ)



Metal-free Redox Flow Battery (Italy: CNR-ITAE)



Innovative Thermoelectric Devices and Advanced Evaluation Technology (France: CNRS, CEA, Germany: DLR, Korea: KERI)



Foreign Research Organizations that have participated in RDIC

Country	Research Organization	
Germany	[University] Technical University Braunschweig, KIT, RWTH Aachen University [Research Institute] Forschungszentrum Julich GmbH, DLR, mi2-factory, Helmholtz-Zentrum Berlin fur Materialien und Energie, EIFER, Fh-ISE	9
US	[University] University of Kentucky, MIT, Virginia Tech.,University of Colorado, UCLA, UC Berkeley, Pennsylvania State University, UC Davis	8
France	[University] Bordeaux University [Research Institute] Centrale Lille Institut, CEA-LITEN, CNRS-IPVF, CNRS-CRISMAT, CNRS-SIMaP, East-Paris Institute of Chemistry and Materials Science	7
UK	[University] University of Oxford, Imperial College London,The University of Birmingham, Queen Mary University of London	4
Italy	[University] The University of Perugia, University of Rome Tor Vergata [Research Institute] CNR-ITAE, CNR-IOM	4
Europe	[University] ETH Zurich (Swiss), University of Oviedo (Spain), Delft University of Technology (Netherlands), University of Oslo (Norway), KTH (Sweden), Technical University of Denmark (DK) [Research Institute] IMDEA Energy Institute (Spain) , Paul Scherrer Institute (Swiss), VTT (Finland), MAX IV Laboratory (Sweden) [Private company] ArcelorMittal Innovacion, Investigacion e Inversion S.L (Spain)	11
Asia	[University] Chulalongkorn University (Thailand), King Abdullah University of Science and Technology (Saudi Arabia), IITJ (India), Monash University (Australia), National Tsing Hua University (Taiwan) [Research Institute] KERI (Korea), KAIST (Korea)	7

Collaboration with 50 research organizations (2020-2024)

Research Team Structure in the past 36 Projects

Representative Organization in Japan	total	Foreign side			
		University	Research institute	University & Research institute	Private company & University
University	23	15	3	5	0
Research institute	12	2	7	3	0
Private company	1	0	0	0	1
	36	17	10	8	1

Universities have been the primary type of organization on both the Japanese and foreign side. We would welcome the increased engagement from RD20 research institutes in the future.

R&D Issues for the FY2025 public call

Geothermal	Advance Underground Investigation and Analysis Methods for Further Implementation of Geothermal Power Generation
Biomass	Conversion Underutilized Biomass Resources Into High-Yield Carbon Feedstocks
Hydrogen	Innovative Hydrogen Production, Transportation, and Storage
Structural Bonding	Structural Bonding Technology to Achieve Automobile Weight Reduction and Resource Recycling
Power Device	Power Device Substrates With Excellent Optical Responsivity for High-Voltage High-Speed Switching

NEDO begins by identifying several research issues based on a public Request for Information (RFI), policy needs and its own technological strategies. A public call for project proposals was then conducted. Since NEDO supports Japanese research organizations, the language used in the public call is Japanese.

Research Projects adopted in FY2025

Issue	Project name (tentative)	Representative organization in Japan	Foreign side
Geothermal	Understanding the relationship between Hot Spring aquifers and Geothermal reservoirs	Kyushu Univ.	Institute of Geological and Nuclear Science (New Zealand)
Biomass	High-yield carbon recovery by hydrothermal carbonization of palm residue	Hiroshima Univ.	BRIN (Indonesia)
Biomass	Highly ethanol-producing microorganisms by improving xylose-utilizing microorganisms	Setsurotech Inc. & Tokushima Univ.	Brawijaya Univ. (Indonesia)
Hydrogen	Innovative porous multi-elemental catalysts for water electrolysis	AIST	The Univ. of Queensland (Australia)
Structural Bonding	Innovative adhesive bonding technology for automobile manufacturing	AIST	Technical Univ. Braunschwrig (Germany)
Power Device	Semi-insulating GaN substrates for photoconductive semiconductor switches	Mitsubishi Chemical Corp. & The Univ. of Tokyo	Sixpoint Materials Inc. & Univ. of New Mexico (US)

＊Each project name begins with the phrase meaning “International joint research and development on”

These projects are expected to launch successively from this autumn.

Schedule for the FY2026 Public Call

✓ RFI (Request for Information)	July to Augst 2025 (closed)
✓ Issue Setting	September to December 2025
✓ Call for Proposals	Late January to late March 2026
✓ Review of Proposals	Early April to early June 2026
✓ Decision of adopted Projects	Late June 2026

We are looking forward to receiving many proposals.

Key Messages

- ✓ International collaboration is crucial to accelerating innovation for Industrial Science and Technology .
- ✓ NEDO will continue to promote international collaboration to meet social needs and achieve sustainable development of our society.

Thank you for your attention.

http://www.nedo.go.jp/english/index.html

Q & A on RDIC

Question	Answer
What is the benefit for foreign researchers participating in RDIC?	We would be delighted if overseas researchers could experience the value of directly accessing Japanese research. Conversely, when such collaboration leads to high-quality outcomes, it demonstrates the excellence of the research and gives us confidence in selecting those projects for support.
Why doesn't NEDO provide direct funding to foreign research institutions?	The primary reason is the difficulty in responding to accounting inspections that verify whether research funds have been used appropriately. Due to differences in language, legal systems, and administrative practices across countries, it is extremely challenging to provide a unified and accountable response.
Is it possible to use RDIC funding for overseas-related expenses?	Yes, in certain cases. If NEDO determines that it is necessary for the Japanese side's research activities, it is possible to cover overseas facility usage fees or travel expenses for inviting foreign researchers to Japan.
Are there any plans to change systems?	Currently, there are no plans for specific system change. But I believe a co-funding approach—where NEDO and funding agencies of foreign countries collaborate to support the budgets of each country's research institutions—would be desirable. We are considering such system improvements, including other approaches.
What is the most critical challenge in conducting international joint research?	The most critical challenge is to establish rules for handling joint research outcomes such as patents and papers. Particularly when intellectual property (IP) requiring shared rights is generated, NEDO's intellectual property (IP) regulations apply to the Japanese party's share. It is necessary to obtain understanding from the overseas parties regarding the application of NEDO's IP regulations.