

Carbon Recycling Fund Institute

Contribution to Developing Innovation by Treating CO₂ as a Resource

Background and Objectives for Establishment

The global warming issue differs from regional environmental problems such as NO_x and SO_x in that it will be crucial to reduce CO₂ emissions throughout the world, meaning the issue cannot be resolved solely on the basis of those regulatory measures already in place.

How to improve the energy access, meanwhile, poses another major challenge, with approximately one billion people around the world still unable to achieve the benefits of electricity.

Given this situation, carbon recycling policies that see CO₂ as a resource to be used and promote innovation in this field are coming to play an important role in Japan's energy policies. Rather than seeing CO₂ in a negative light as has been the case in recent years, it is also recognized that, in order to achieve the goal of carbon neutral by 2050, further efforts will be needed that make active use of CO₂ as a source of carbon.

Accordingly, the Carbon Recycling Fund Institute was established on August 30, 2019 under a private sector initiative with the aim of both addressing the global warming issue and improving the energy access throughout the world. The new institute will foster innovation in carbon recycling by public relations and sponsoring the research and development in the field.

Overview

Name / Carbon Recycling Fund Institute
Established / August 30, 2019
Primary address / 3F Daiwa Nishi-Shimbashi Building, 3-2-1,
Nishi-shimbashi, Minato-ku, Tokyo 105-0003

Membership categories (annual membership fee)

Corporate members: 200,000 yen / Individual members: 10,000 yen
Local government members: – / Academic members: –

Executive Adviser / Yoshimitsu Kobayashi

(Chairman of the Board, Tokyo Electric Power Company Holdings, Incorporated)

Adviser / Takeo Kikkawa

(Vice President, International University of Japan (IUJ))

Chairperson / Nobuo Fukuda

(Representative Corporate Executive Officer, Executive Vice President, Mitsubishi Chemical Group Corporation)

Vice Chairperson / Masayoshi Kitamura

(Special Counselor, Electric Power Development Co., Ltd.)

Senior Executive Director / Masamichi Hashiguchi

Director / Susumu Nibuya

(Representative Director, Idemitsu Kosan Co., Ltd.)

Director / Chiaki Suyama

Auditor / Kouji Takeda

(Managing Executive Officer, President of Resources, Energy & Environment Business Area, IHI Corporation)

Members

(As of 1st
November 2022)

Corporate members

<Chemicals>

- AGC Inc.
- ASAHI KASEI CORPORATION
- BASF Japan Ltd.
- Cabot Japan K.K.
- Denka Co., Ltd.
- DIC Corporation
- JSR Corporation
- Mitsubishi Chemical Corporation
- MITSUBISHI GAS CHEMICAL COMPANY, INC.
- Mitsui Chemicals, INC.
- TODA KOGYO CORP.
- Toray Industries, Inc.

<Electric power>

- Electric Power Development Co., Ltd. (J-POWER)
- The Chugoku Electric Power Co., Inc.
- Tokyo Electric Power Company Holdings, Inc.

<Precision, Electronics>

- Adamant Namiki Precision Jewel Co., Ltd.
- Furukawa Electric Co., Ltd.
- Shimadzu corporation
- Ushio Inc.

<Energy>

- ENEOS Holdings, Inc.
- Hitachi, Ltd.
- Idemitsu Kosan Co., Ltd.
- INPEX CORPORATION
- ITOCHU ENEX CO., LTD
- Japan Petroleum Exploration Co., Ltd.
- NIPPON COKE & ENGINEERING COMPANY, LIMITED
- Osaka Gas Co., Ltd.
- Tokyo Eco Service Co., Ltd.
- TOKYO GAS CO., LTD.
- TOSHIBA ENERGY SYSTEMS & SOLUTIONS CORPORATION
- SANIN-SANSO CO., LTD.

<CO₂ Utilization, Renewable energy, Recycling>

- euglra Co., Ltd.
- Geothermal Energy Research and Development Co., Ltd.

- KANKYOU SYSTEMS, INC.
- Utilization of Carbon Dioxide Institute Co., Ltd.

<Iron, Metal, Cement>

- AIZAWA Concrete Corporation
- Kobe Steel, Ltd.
- Mitsubishi UBE Cement Corporation
- MITSUI MINING & SMELTING CO., LTD.
- Nippon Steel Corporation
- SUMITOMO OSAKA CEMENT CO., LTD.
- TAIHEIYO CEMENT CORPORATION

<Trading company>

- Cosmos Shoji Co., Ltd.
- ITOCHU Corporation
- JFE Shoji Corporation
- Marubeni Corporation
- Mitsubishi Corporation
- MITSUI & CO., LTD.
- SEIKA CORPORATION
- Sojitz Corporation
- Sumitomo Corporation
- Tokyo Boeki Holdings Corporation
- TOKYO SANGYO CO., LTD
- Toyota Tsusho Corporation

<Heavy industries>

- IHI Corporation
- Kawasaki Heavy Industries, Ltd.
- Mitsubishi Heavy Industries, Ltd.
- Sumitomo Heavy Industries, Ltd.

<Engineering>

- Chiyoda Corporation
- Ebara Corporation
- FUSO Corporation
- HITACHI ZOSEN CORPORATION
- Hitachi Power Solutions Co., Ltd
- JFE Engineering Corporation
- JGC HOLDINGS CORPORATION
- NGK INSULATORS, LTD.
- NIPPON STEEL ENGINEERING CO., LTD.
- Yokogawa Electric Corporation
- Toyo Engineering Corporation

<Printing, Visual creation, Translation>

- Dai Nippon Printing Co., Ltd.
- SunFlare Co., Ltd.
- Toppan Printing CO., LTD.

<Automotive>

- AISAN INDUSTRY., LTD.
- NGK SPARK PLUG CO., LTD.
- Nissan Motor Co., Ltd.

<Air, traffic, transportation>

- JAMCO Corporation

<Construction, Real estate>

- Dome Gold Mines Ltd.
- FKG Corporation .Inc
- FUTURE ESTATE Co., Ltd.
- Hitachi Plant Services Co., Ltd.
- Hulic Co., Ltd.
- HOUSEI
- Kumagai Gumi Co., Ltd.
- Mitsui Fudosan Co., Ltd
- OBAYASHI CORPORATION
- Ohmori Construction Co., Ltd.
- SHIMIZU CORPORATION
- Shin Nippon Air Technologies Co., Ltd.
- Social Welfare Research Corporation, Inc
- TAIHEI DENGYO KAISHA, LTD.
- TAISEI CORPORATION
- TOA CORPORATION
- Vertex Corporation
- WAKACHIKU CONSTRUCTION CO., LTD.

<Banks, Financing>

- Daiwa Securities Group Inc.
- FUKOKU MUTUAL LIFE INSURANCE COMPANY
- Mizuho Financial Group, Inc.
- MUFG Bank, Ltd.
- Nippon Life Insurance Company
- Sumitomo Mitsui Banking Corporation
- Sumitomo Mitsui Trust Panasonic Finance Co., Ltd.
- Tokio Marine & Nichido Fire Insurance Co., Ltd.

<Food>

- ASAHI QUALITY & INNOVATIONS, LTD.

<IT, Analysis, Assessment>

- Boston Consulting Group G.K.
- FUJITSU LIMITED
- Mitsubishi Research Institute, Inc.
- Mizuho Research & Technologies, Ltd.
- NTT Data Institute of Management Consulting, Inc.

<Others>

- Central Research Institute of Electric Power Industry
- JAPAN COAL FRONTIER ORGANIZATION
- KDDI CORPORATION
- Organization for Industrial Complex Transformation
- The Institute of Energy Economics, Japan

Individual members

- Einaga Yasuaki
- Katsu Kinichi
- Hanawa Moriyuki
- Hirai Hidetake
- Ohno Yotaro
- Sakurai Shigetoshi
- Takeishi masayuki
- Terashima Chiaki
- Yamada Hidetaka
- Yoshihara Tomomichi
- Kaku sen
- Kawamura Hiroyuki
- Hashimoto kazuyo
- Minemura kenji
- Onikata Hiroyuki
- Takahashi Tsuneo
- Takeuchi Aya
- Ueno Hiromoto
- Yoshida Taiji

Local government members

- Akita Prefecture
- Annaka City (Gunma Prefecture)
- Hiroshima Prefecture
- Hokkaido Prefecture
- Kagawa Prefecture
- Osakikamijima town (Hiroshima Prefecture)
- Saikai City (Nagasaki Prefecture)
- Takehara City (Hiroshima Prefecture)
- Tomakomai City (Hokkaido Prefecture)

Academic members

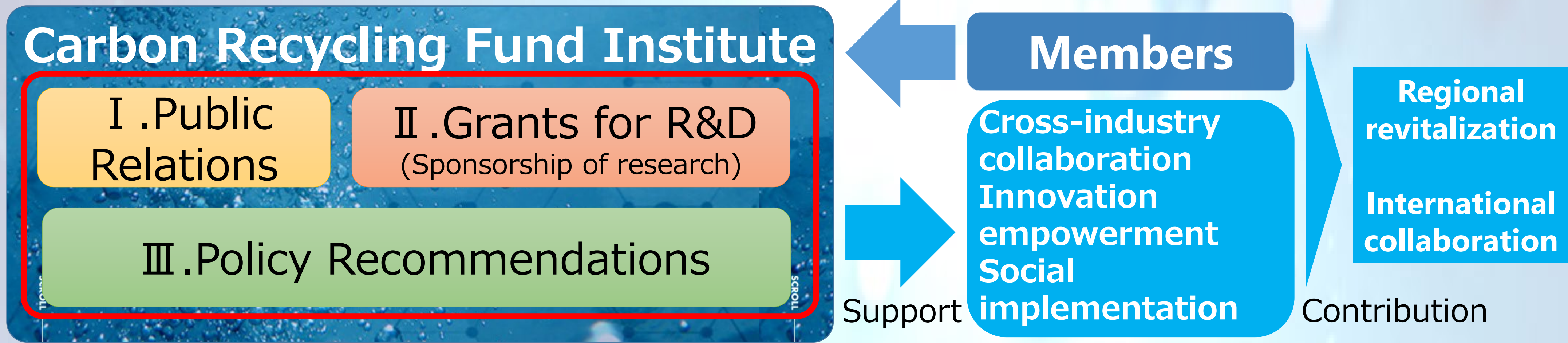
- Arimura Toshihide
- Kaze Momose
- NAGASAKI UNIVERSITY
- Sakanishi Kinya
- Tokyo University of Science Foundation

Note: by sector / in alphabetical order

**Total: Corporate 113,
Individual 19
Local government 9,
Academic 5**



Structure of Carbon Recycling Fund



Activities

(I) Public relations

Along with publishing its own website and a variety of other material to provide the latest information from Japan and elsewhere, the institute will also promote the field of carbon recycling through activities such as events, symposia, and workshops hosted in collaboration with media organizations.

(II) Sponsorship of research

A number of challenges are blocking the practical use of carbon recycling technologies, including issues of cost and a lack of fundamental research. The institute will sponsor the research by offering grants and other support to researchers and others who are taking on these challenges in the pursuit of innovation.

(III) Policy recommendations

The institute will offer its recommendations with regard to national policies on energy, the environment, and technology development, and also on the international rule making to facilitate CCUS (CO₂ Capture, Utilization and Storage), including carbon recycling.

Carbon Recycling Fund website



Carbon Recycling University

Carbon Recycling University is a program for fostering problem-solving thinking and developing human resources through start-up simulation experiences.

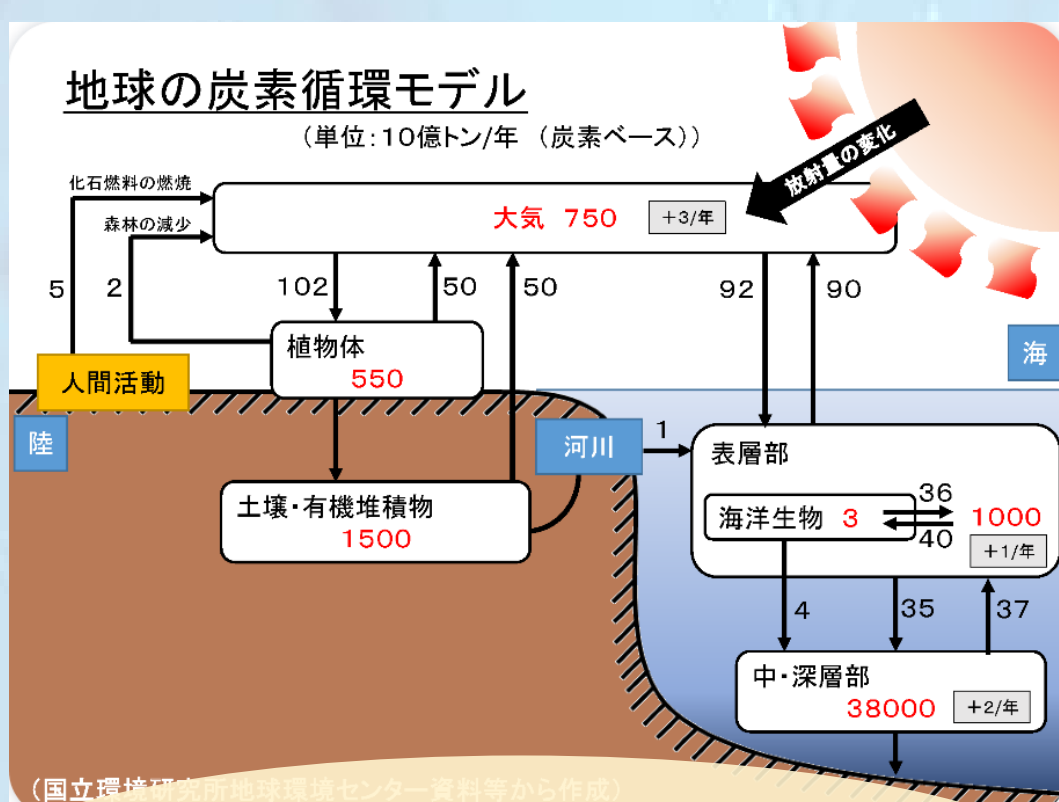


Research Grant Activities

	Features
Eligibility	Researchers or teams affiliated with companies, universities, etc. A startup support framework newly established in FY2022
Research targets	Research on carbon recycling that uses CO ₂ (or carbon atoms) as a resource, related technologies, and social science to solve social issues <Expected Fields> 1. CO ₂ fixation by mineralization (materials such as concrete) 2. Conversion to fuels 3. Conversion to chemicals 4. Separation and recovery (including direct-air capture) 5. Social science 6. Utilization of CO ₂ sinks (soil, forests, blue carbon, biologies, agriculture, forestry and fisheries) 7. Other (H ₂ production, geo-engineering, functional materials, medical fields, etc.)
Evaluation points	Creativity, innovativeness, superiority over conventional technologies, method to determine issues, and social realization potential through collaboration with companies
Grant scale	Approx. 10 million yen per case (average: approx. 7 million yen per case)
Attribution of research results	Research results basically belong to researchers

Promote research grants and public relations

Carbon Recycling World



Transmission of scientific information

Participation in symposiums



Cabo Lisa Story

Cabo Lisa Story is a story content that can enjoy the significance and efforts of carbon recycling for the next generation.



Public relations

