



復興庁

Reconstruction Agency

復興・創生 その先へ

Fukushima Institute for Research, Education and Innovation (F-REI)

26th September, 2022

Reconstruction Agency of Japanese Government

Fukushima Institute for Research, Education and Innovation (F-REI)

- Japanese Government will establish **Fukushima Institute for Research, Education and Innovation (F-REI)** in **April 2023**.
- And now, we are accelerating preparations.

Basic Concept

The Fukushima Institute for Research, Education and Innovation (F-REI) aims to be a **world-class, core center for creative reconstruction**, embodying the **dreams and hopes of realizing the reconstruction of Fukushima and other parts of the Tohoku region, driving Japan's scientific and technological capabilities and industrial competitiveness, and contributing to economic growth and the improvement of people's lives.**

Functions

- Fukushima Institute for Research, Education and Innovation (F-REI) has **4 functions**.

4 Functions

1. **Research and Development**
2. **Industrialization**
3. **Human Resources Development**
4. **Control Tower**

Function 1 : Research and Development

【①Robotics】

Development of advanced, remotely operated robots and drones that can contribute to decommissioning work, research on performance evaluation methods, other

Drones



Remotely operated robots

【② Agriculture, forestry and fisheries】

Realization of a regional circular economy model through intense labor-saving production and the utilization of agricultural, forestry and fisheries resources



Demonstrations on automated production systems



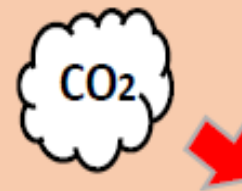
Identification and application of useful resources

【③Energy】

Demonstrations of technologies that will position Fukushima as a global pioneer in carbon neutrality, other



Development and demonstrations of hydrogen energy networks

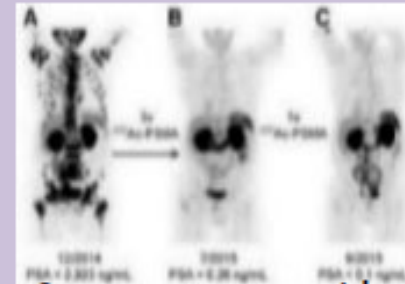


Negative emissions technology

Function 1 : Research and Development

【④ Radiation science, medicine and drug development, industrial applications for radiation】

Basic and fundamental research on radiation science and the development of advanced medical applications and drug discovery technologies for RI, and industrial applications for radiation, other



Cancer treatment with new RI drugs



Ultra-large X-ray CT machine (Monozukuri DX)

【⑤ Collection and dissemination of data and knowledge on nuclear disasters】

R&D and dissemination of information integrating the natural and social sciences to contribute to environmental recovery from nuclear disasters and preparations for nuclear disaster on an international scale, as well as the elimination of harmful rumors, other



Research on the environmental dynamics of radioactive substances

Function 2 : Industrialization

- **Build industry-academia collaboration programs** through financing venture companies originating from the F-REI, etc.
- Promote participation of domestic and overseas stakeholders, such as by utilizing **state-of-the-art facilities and demonstration fields** and by **promoting bold deregulation**.
- Secure incentives for researchers, such as through the **strategic management of intellectual property**.



The **Fukushima Robot Test Field** reproduces the operating environment of outdoor robots on land, at sea, and in the air.



World Robot Summit held in 2021 showcasing competing technologies and ideas in robotics.

Function 3 : Human Resources Development

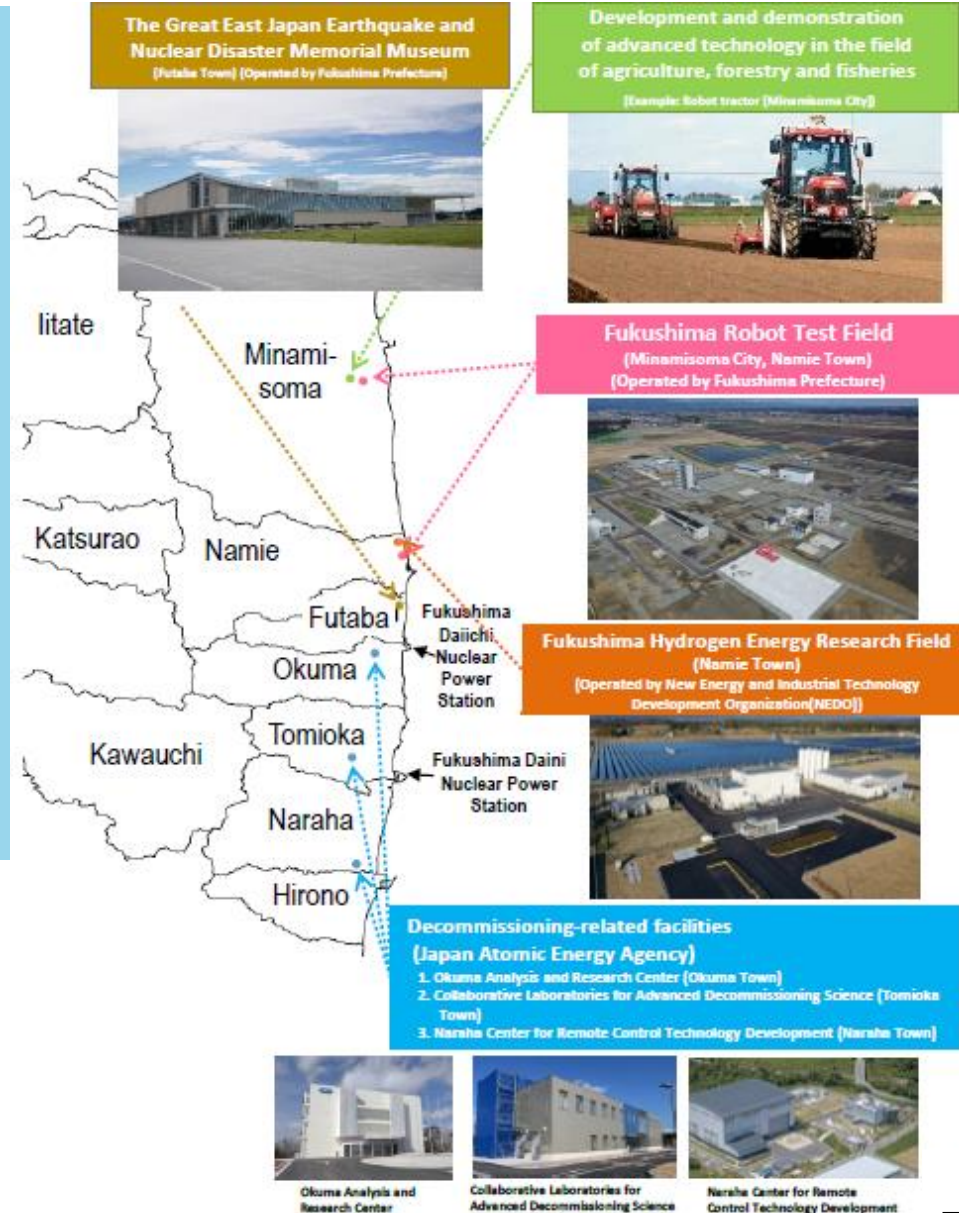
- **Collaborate with the IAEA**, etc. to train international researchers who can also do much for the decommissioning site.
- Utilize **joint graduate school programs**.
- **Create diverse opportunities for students of elementary, junior and senior high schools** and others to experience cutting-edge research.
- Develop **specialized human resources for industrialization**, through professional education and recurrent education targeting **corporate personnel and working students**.



On August 19, 2021, Mr. Kajiya Hiroshi, Minister of Economy, Trade and Industry, held a meeting with Mr. Rafael Mariano Grossi, Director General of the International Atomic Energy Agency (IAEA). Minister Kajiya proposed to cooperate in the areas of human resources development in the nuclear field and accurate information dissemination in view of continuous use of nuclear energy towards realization of a carbon-neutral economy.

Function 4 : Control Tower

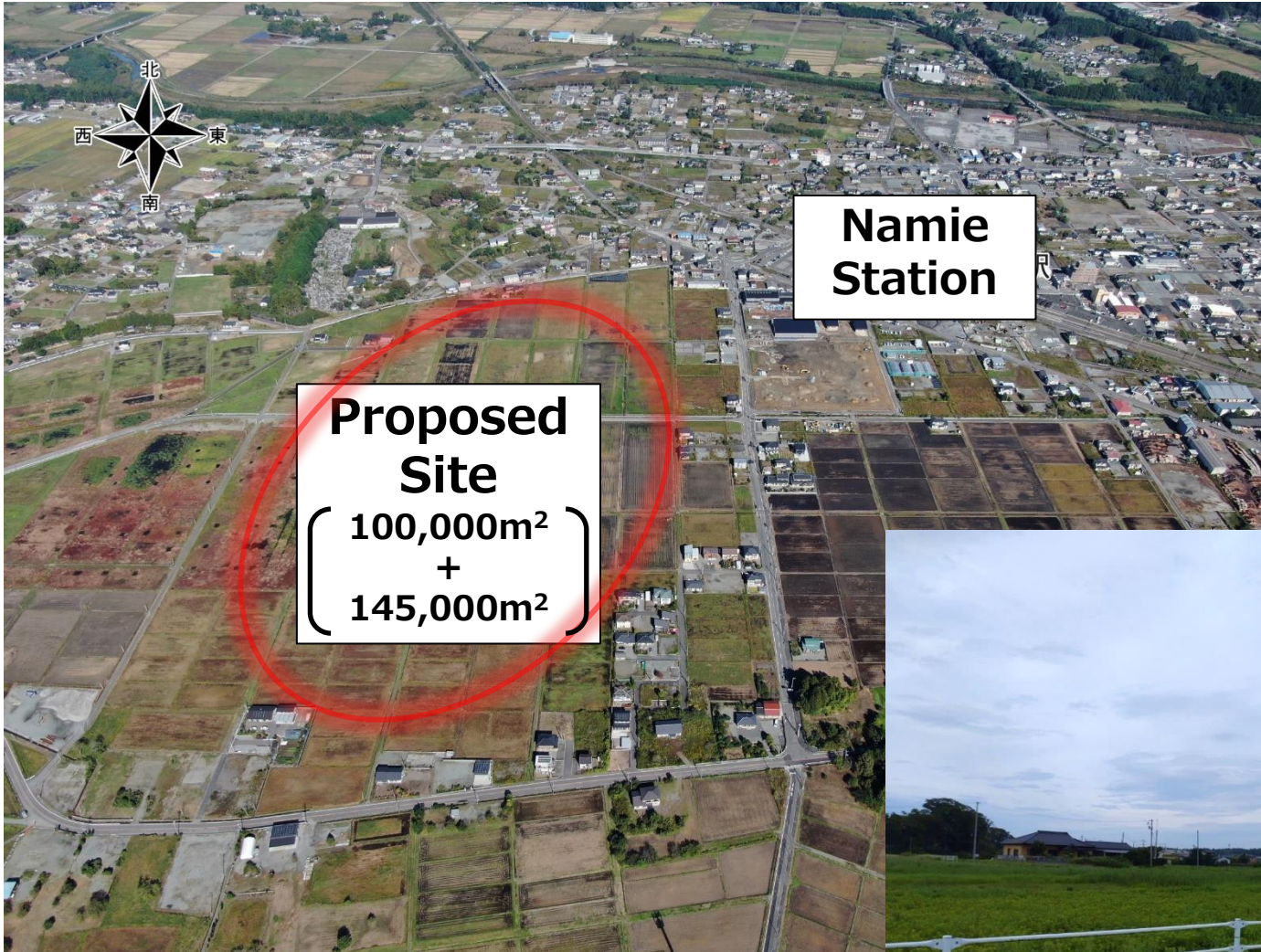
- Form the **Research and Development Council** to function as a **control tower coordinating efforts** across existing research facilities located in Fukushima.
- In order to accelerate and comprehensively coordinate research, gradually **integrate research on the environmental dynamics of radioactive materials** at existing facilities (JAEA, QST, etc.) .



Organization, Management

- Integrated promotion of R&D, industrialization, and human resources development under the **leadership of the President**.
- When the activities of the F-REI reach full scale, it is expected that about **50 research groups** and **several hundred outstanding researchers** from Japan and overseas will be participating.
- **Attractive research environment** for researchers (i.e., development of standards for salaries and other benefits, considering the need to retain globally competitive human resources).
- Active recruitment and promotion of **young or women researchers**.
- New facilities to be developed on an envisaged site of approximately **100,000m²**.

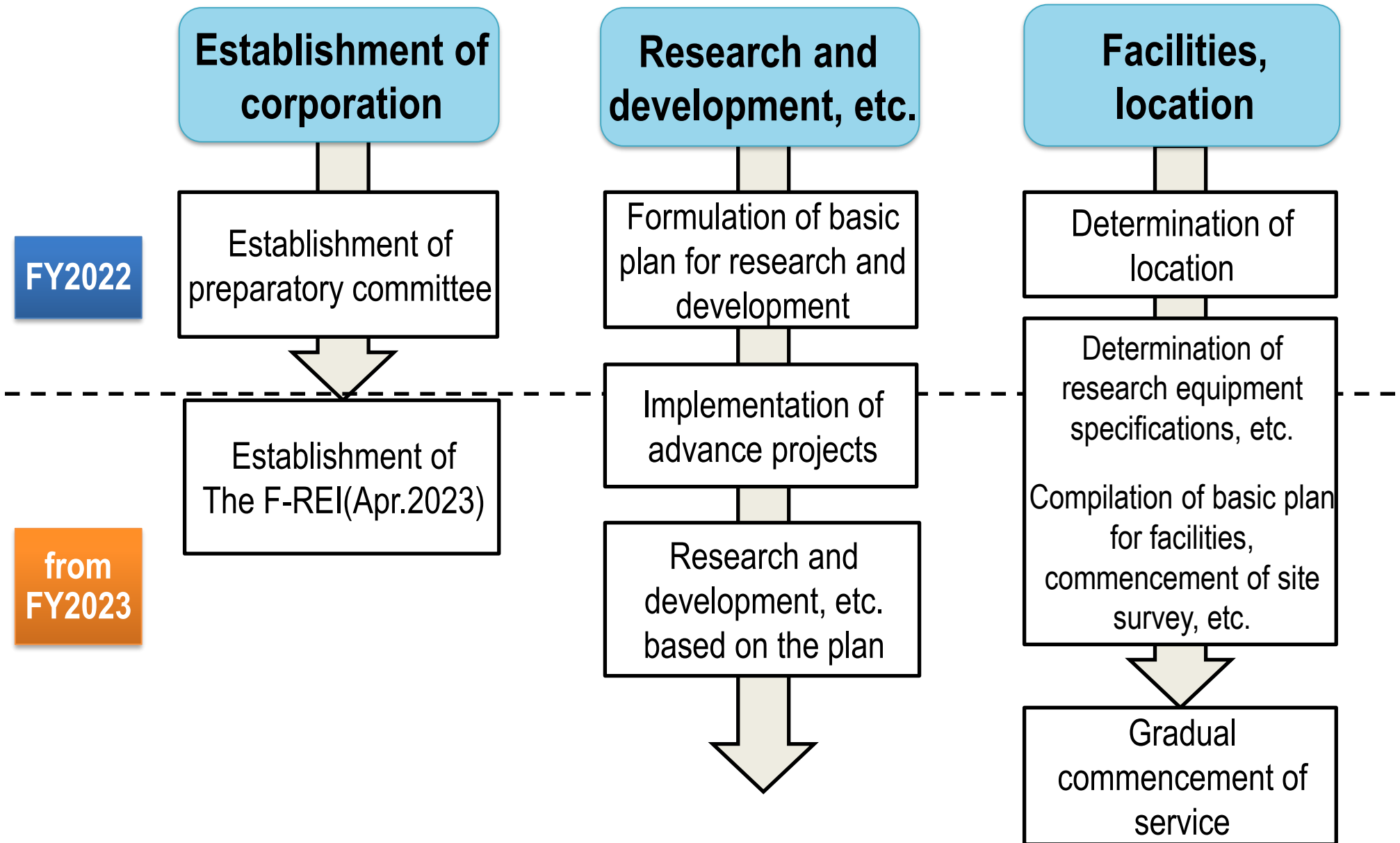
Proposed Site



Photograph
of Existing Conditions



Schedule



**Let's Join to
Fukushima Institute for Research,
Education and Innovation (F-REI)**