

Okayama University (Function to be enhanced: 1. Boost academic excellence in specific areas of the university's strength, 2. Generate innovation that can help solve global issues and advance societal reform.)

Participators : University of Tsukuba, The University of Tokyo, Tokyo Institute of Technology, University of Yamanashi, Osaka University, Yamaguchi University, RIKEN, National Institutes of Natural Sciences, and National Institute of Technology (KOSEN), Tsuyama College

Summary

A Research University Cocreating the Future of the Region and the Earth Together with Society and Contributing to Global Innovation: A Decade of Action for a Sustainable Society

Initiative 1: To create new technologies that can resolve global issues by dramatically enhancing our excellence

To elucidate "the mechanism of natural photosynthesis" and "the structure, genomic information, and various functions of plants".

To also accelerate the social implementation of artificial photosynthesis and the development of systems to produce clean energies and new materials that are stable and can maintain high strength even under extreme conditions.

Initiative 3: To establish a research environment that serves as a foundation for the creation of innovations by bringing together knowledge and skills

To strengthen our research base as a research university by enhancing and sharing necessary research equipment and developing highly skilled technical human resources.

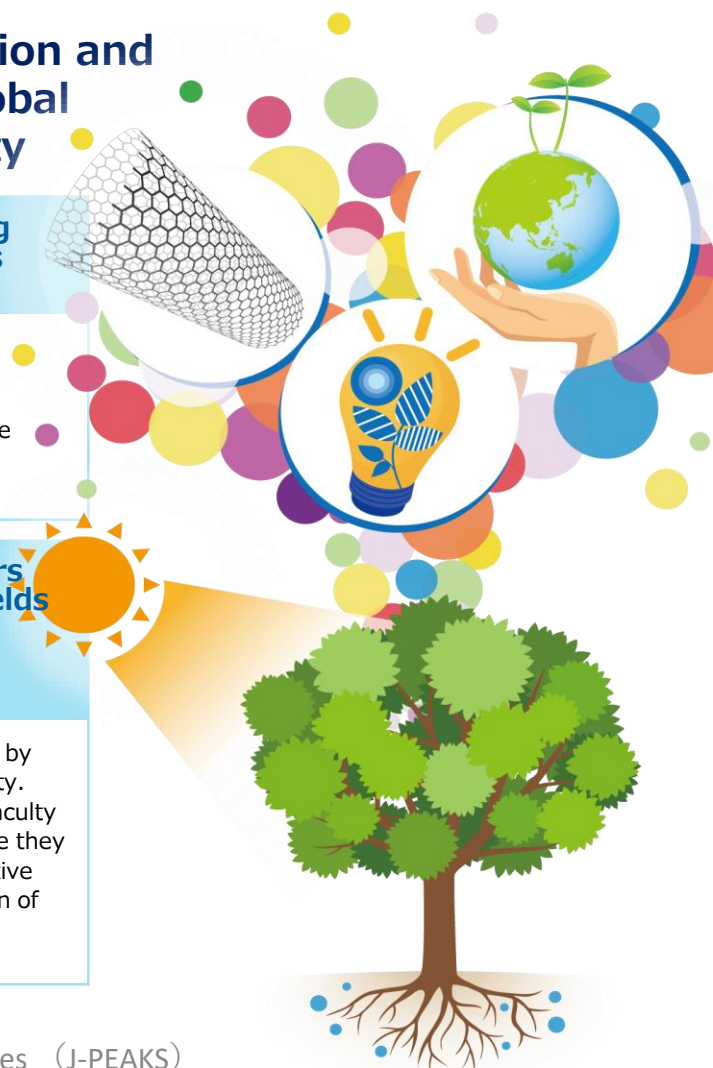
To promote a positive cycle of people and technology by creating an environment where people can gather in Okayama to refine their knowledge and skills and by strengthening cooperation with other institutions.

Initiative 2: To realize a well-being society by creating innovations

To realize a well-being society where everyone can live an enriched life by taking advantage of digital technology and the National Strategic Special Zones, against the backdrop of Japan's declining and aging population.

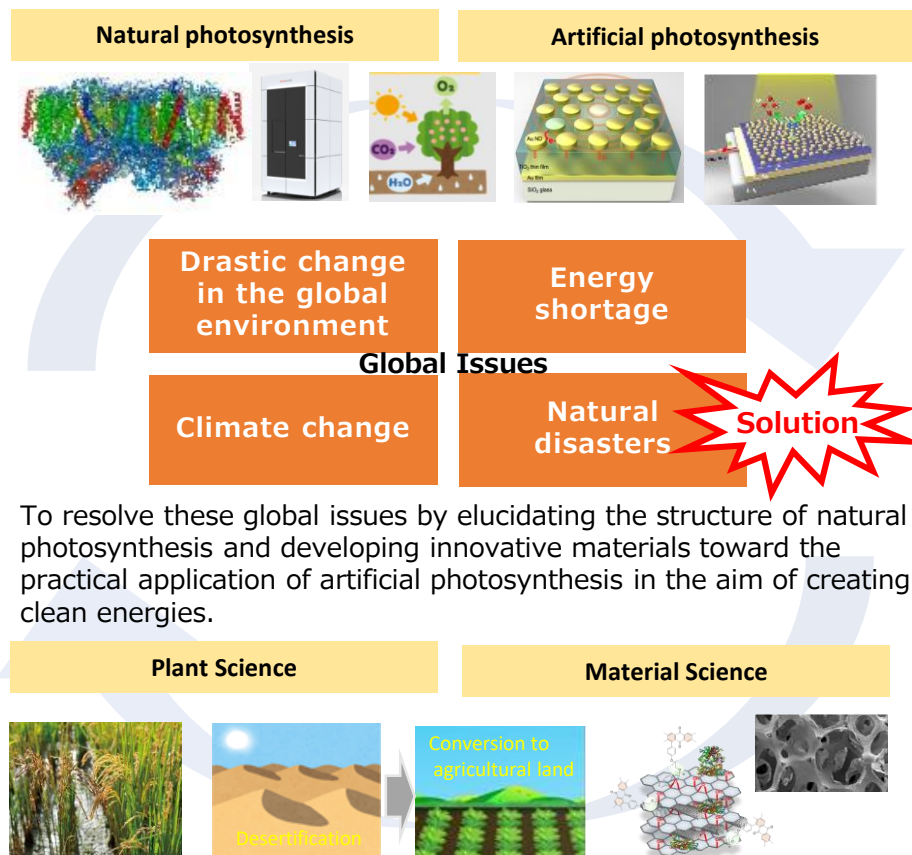
Initiative 4: To produce researchers who become leaders in their fields and knowledge workers who utilize knowledge to transform society

To enhance our organizational performance by optimizing human resources at our university.
To enhance the performance of individual faculty members by creating an environment where they can demonstrate their value in their respective areas of expertise through the diversification of their career paths.



Initiative 1: To create new technologies that can resolve global issues by dramatically enhancing our excellence

Establishment of Research Core for Plant Science and Photo Energy Development based on the highest priority research fields of the University (Plant Science and Innovative Materials) as one of research initiative of **the Advanced Research Initiative (Special Research Zone)**.

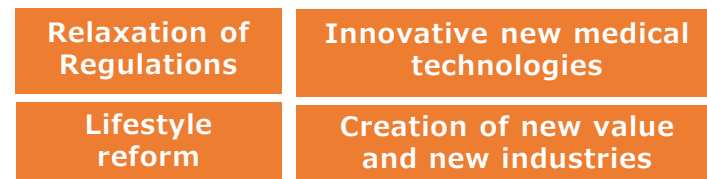


To resolve these global issues by elucidating the structure of natural photosynthesis and developing innovative materials toward the practical application of artificial photosynthesis in the aim of creating clean energies.

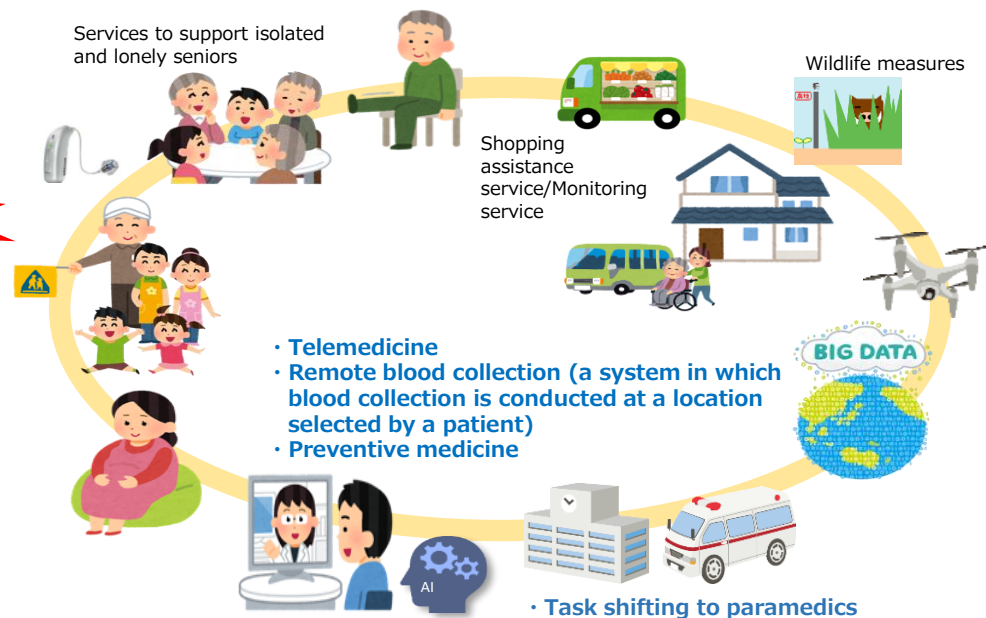
Ideal future to be realized 50 to 100 years from now:
Promoting the acquisition of new knowledge and the development of new technologies toward the realization of planetary health, with an eye toward the implementation of extraterrestrial activities in the future.

Initiative 2: To realize a well-being society by creating innovations

Maximizing the power of people through the power of digital technology to lead the transformation of healthcare systems and lifestyles



Implementation in Kibi-Chuo-cho, designated as a Digital Garden Health Special Zone



Promoting not only research and development but also human resource development.

Expanding good practices horizontally from Okayama to municipalities nationwide and eventually to the world.

Initiative 3: To establish a research environment that serves as a foundation for the creation of innovations by bringing together knowledge and skills

1. Promotion of the enhancement and sharing of advanced analytical and measuring equipment

- **Establishment of a collaborative network between Chugoku and Shikoku areas for cryo-electron microscopy**
- **Installation of a Remote Access Station** to access RIKEN SPring-8
- Establishment of a base for pre-experimentation of large-scale experiments through the installation of **state-of-the-art equipment**
- Promotion of shared use of basic and advanced equipment (**Promotion of utilization by industries**)
- **Providing one-stop access to research equipment** via the core facility portal system

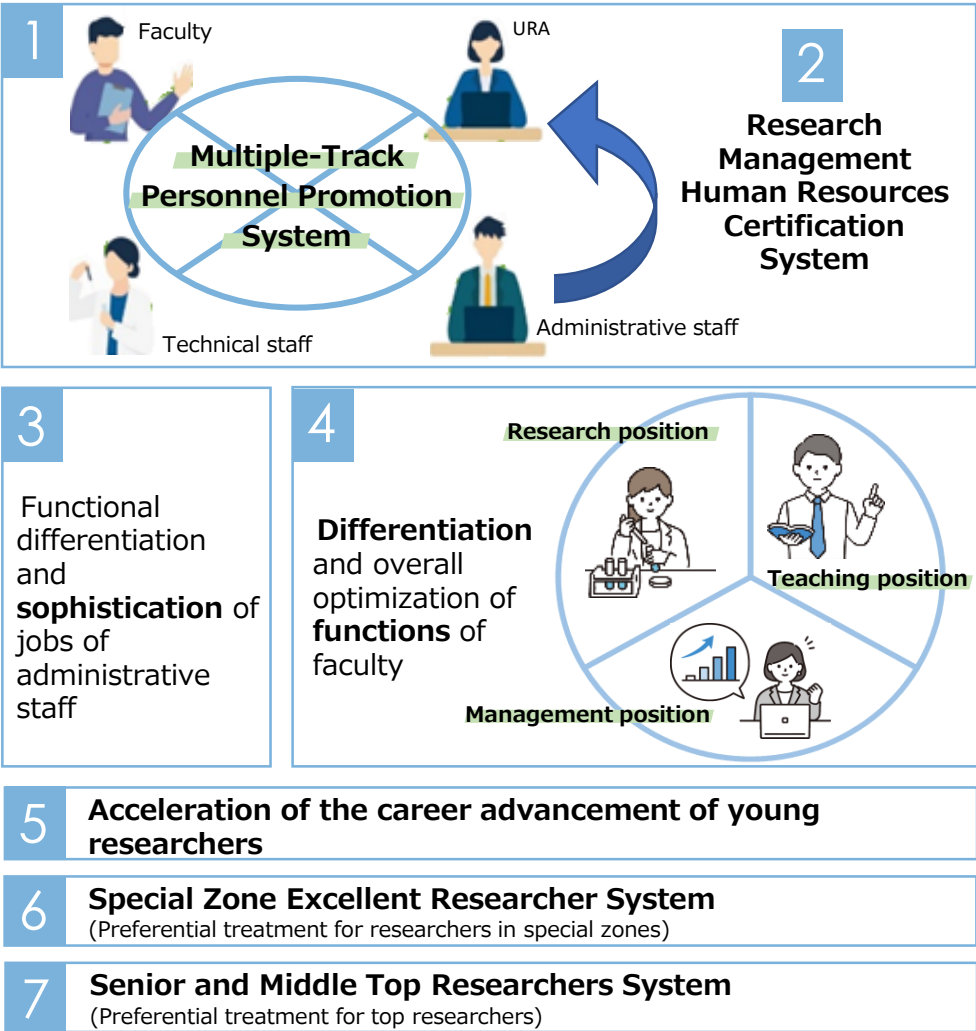
Synergy

2. Sophistication of technical staff

- Promotion of the development of certified **technical conductors (TCs)** through the completion of a program at TC College.
- **Promotion of brain circulation** among related organizations, companies, and other bodies
- **Active utilization of human resources with doctoral degrees**
- **Promotion of the acquisition of doctoral degrees** through the graduate school financial aid system
- **Promotion of the acquisition of the Project Management Professional (PMP) Certification**

Initiative 4: To produce researchers who become leaders in their fields and knowledge workers who utilize knowledge to transform society

Enhancement of organizational performance by optimizing human resources and diversifying career paths.



Creation of a strong foundation to support innovation:
Establishment of a research base and development of highly specialized human resources
Program for Forming Japan's Peak Research Universities (J-PEAKS)

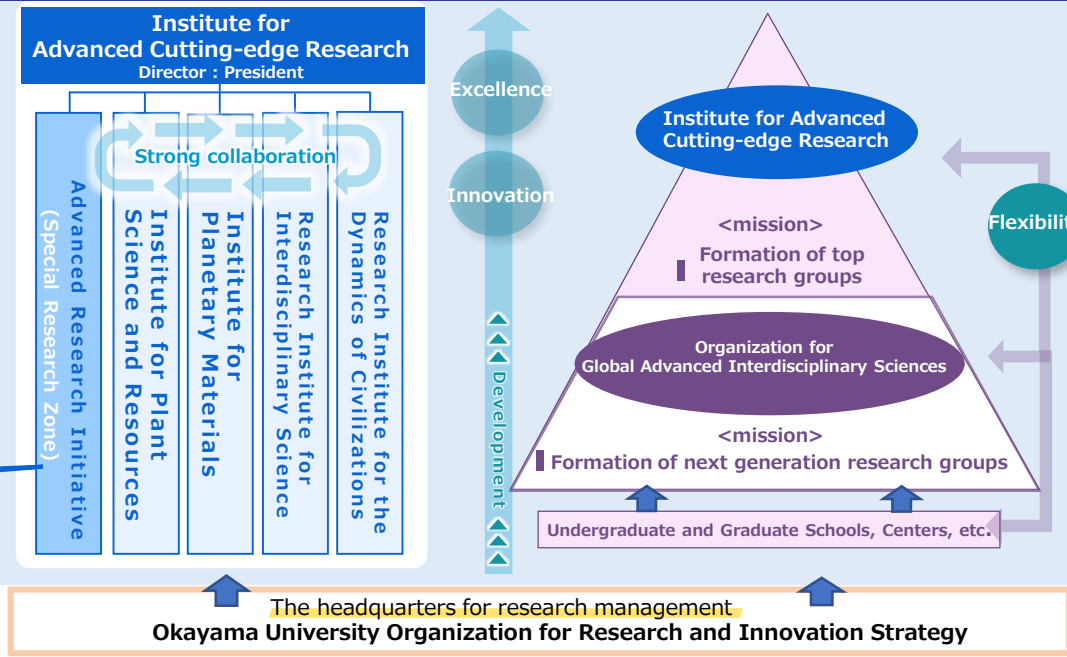
Framework

Overall project implementation structure:
To establish the Research Capability and Innovation Creation Enhancement Office to promote prompt decision-making and strong collaboration among faculty and other staff. **To realize an agile project implementation system and achieve the vision of Okayama University by establishing subcommittees.**



Selecting **the Research Core for Plant Science and Photo Energy Development** based on the highest priority research fields of the University (Plant Science and Innovative Materials) as the first step of **the Advanced Research Initiative (Special Research Zone)**. Realizing advanced structural analysis capabilities through collaboration with the University of Tokyo and RIKEN.

Initiative 1: Establishment of a flexible system for strengthening and developing researchers that contains performance-based evaluation



Initiative 2: Establishment of a collaborative system to promote cooperation among think tanks inside and outside the University in areas ranging from local issue resolution to innovation creation

✓ **Establishment of a collaborative system among universities related to the National Strategic Special Zones**

To promote the relaxation of regulations on medical matters regarding related special zones and realize the development of new medical technology and lifestyle reform, etc.

✓ **Establishment of a cross-university collaborative system**

■ **Okayama Global Academic Capital Headquarters**

It aims to promote social transformation together with the community by coordinating internal and external collaboration as a contact point for community needs.


■ **Okayama DX Core**

It develops new business models through the cooperation of diverse human resources including companies, academia, and students, with DX as the keyword.



Framework

Initiative 3: To establish a mechanism to enhance and strengthen research infrastructure (facilities and people)

- ✓ **Establishment of an organization that will play a key role in establishing the research infrastructure**
 - ◆ The Department of Comprehensive Technical Solutions, to which all technical staff belong
 - ◆ Establishment of the Office for Core-Facility in the Okayama University Organization for Research and Innovation Strategy.
 - ✓ **Strengthening of the collaboration with institutions with advanced technology**
 - ◆ Enhancement of techniques to utilize cryo-electron microscopy
The University of Tokyo
 - ◆ Acceleration of the utilization of SPRing-8
RIKEN (National Research and Development Agency)
- **Promotion**

Exchange of human resources through knowledge and skills

Domestic and international research institutions

Collaboration with non-academic institutions

PMI
Japan

**Companies
Consulting
firms etc.**

Promotion of inflow from the Kanto region

**National Institute of Technology
(KOSEN), Tsuyama College**

Yamaguchi University

OKAYAMA University

Tokyo Institute of Technology
(Leading University of “Technical College”)

The University of Tokyo

Initiative 4: A system to develop knowledge workers who can transform society by utilizing their broad perspectives and advanced knowledge

- ✓ **The Human Resources Strategy Subcommittee will work together with the Human Resources Strategic Evaluation Committee and other bodies to design a system to promote the acquisition of know-how on project management and the development, securing, and utilization of human resources, and roll out the system to the entire university.**
- ✓ **Promotion of sophistication of technical staff and development of junior human resources.**
 - ◆ Tokyo Institute of Technology ◆ Yamaguchi University
 - ◆ National Institute of Technology (KOSEN), Tsuyama College
 - ◆ National Institute of Natural Sciences (NINS)

Collaboration by taking advantage of geographical advantages

- ✓ **Promotion of the utilization and exchange of research management human resources such as university research administrators (URAs)**
 - ◆ Research University Consortium (RUC)

Timeline

