

2017 Survey on Promoting Development in Okinawa:
Practical survey on forming an innovation ecosystem in Okinawa

Research Activity Report at OIST

March 2018



Japan Economic Research Institute Inc.

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Introduction

The Okinawa Development and Promotion Bureau of the Cabinet Office analyzes and evaluates prospective efforts towards the formation of domestic and international innovation ecosystems, which has served as an impetus for activities in Okinawa along with the utilizing of exchanges of opinions with various players involved in ecosystem formation in the prefecture. Such activities include a survey project conducted with an aim to prepare basic materials essential for potential ecosystem formation in Okinawa.

In implementing the survey project mentioned above, it was necessary to fully examine the research activities of the Okinawa Institute of Science and Technology Graduate University (OIST), which is expected to play a key role in the formation of ecosystems in Okinawa. In preparation of realizing this purpose, it was important for each player to firmly grasp the research activities and other advancements made at OIST before exchanging opinions; thus, it was deemed necessary to produce and utilize materials that could present OIST's research activities in a straightforward manner.

This booklet is the result of the endeavor mentioned above and has been arranged for the use of existing and potential players as reference when exchanging opinions on ecosystem activity.

The preparation of this material was carried out by Japan Economic Research Institute Inc. and was commissioned by the Okinawa Development and Promotion Bureau of the Cabinet Office. In addition, a portion of the document preparation for this booklet was entrusted by Japan Economic Research Institute Inc. to Institute for Future Engineering.

To finish, We would like to thank everyone at the Technology Development and Innovation Center who gave us their full cooperation in preparing this material.

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Okinawa Institute of Science and Technology (OIST)

The OIST Graduate University shall conduct internationally outstanding education and research in science and technology, and thus contribute to the sustainable development of Okinawa, and promote and sustain the advancement of science and technology in Japan and throughout the world.

Central Concept

- **Best in the World** : Recruit the best students in the world to work in an environment that encourages creativity, uniqueness, and diversity.
- **Flexible** : Encourage innovation, creativity, and adaptability; accommodate new initiatives; ensure a thoroughly interdisciplinary academic environment; and treat every student as a unique individual.
- **International** : Recruit over half of the faculty and student body from outside of Japan and use English as the official language.
- **Global Networking** : Host, attend, and participate in international meetings, conferences, workshops, and other events to enhance the university's visibility and increase research and education opportunities.
- **Collaboration with Industry** : Create an environment where research outcomes are developed and applied by industry for the benefit of society, the sustained development of Okinawa, and the competitiveness of Japan.

Campus (Onna-son, Kunigami-gun Okinawa, Japan)



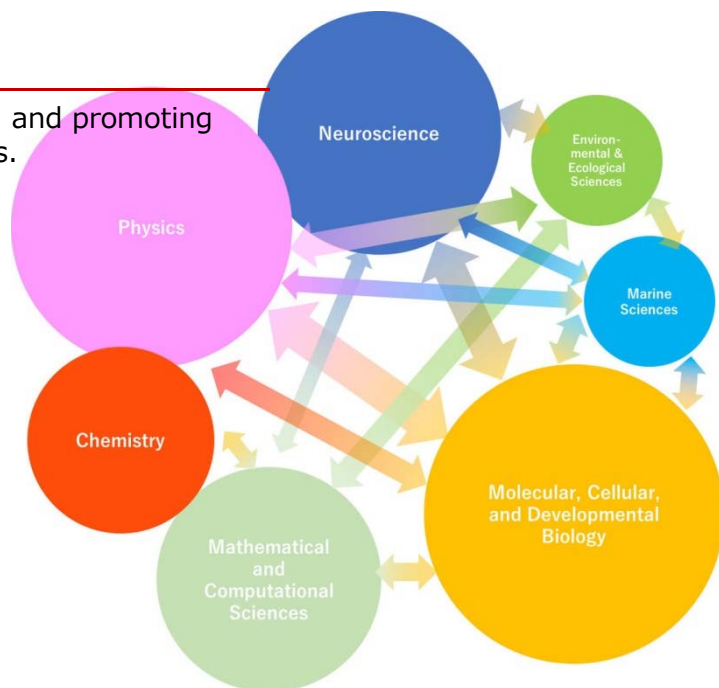
Research Fields

Seven fields are integrated into one graduate school, and promoting interdisciplinary research beyond the field boundaries.

Currently, 59 research units are active.

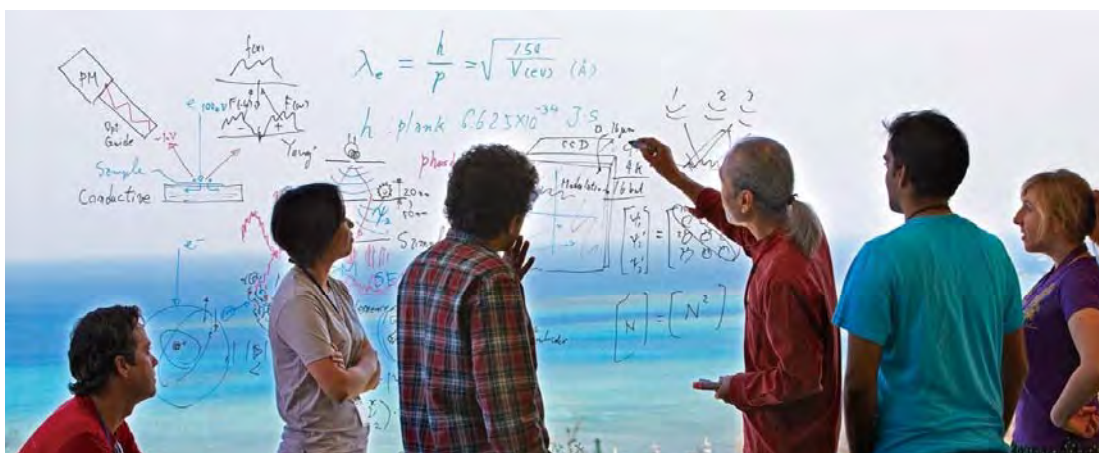
(As of August 2017)

- Physics
- Chemistry
- Neuroscience
- Marine Science
- Environmental and Ecological Sciences
- Mathematical and Computational Sciences
- Molecular, Cellular, and Developmental Biology



Education

OIST offers the innovative doctoral course program for five years.



International education and research environment

Education in English/
The Academic year begins in September

Cutting-edge science education

Small group education
by world-class faculty

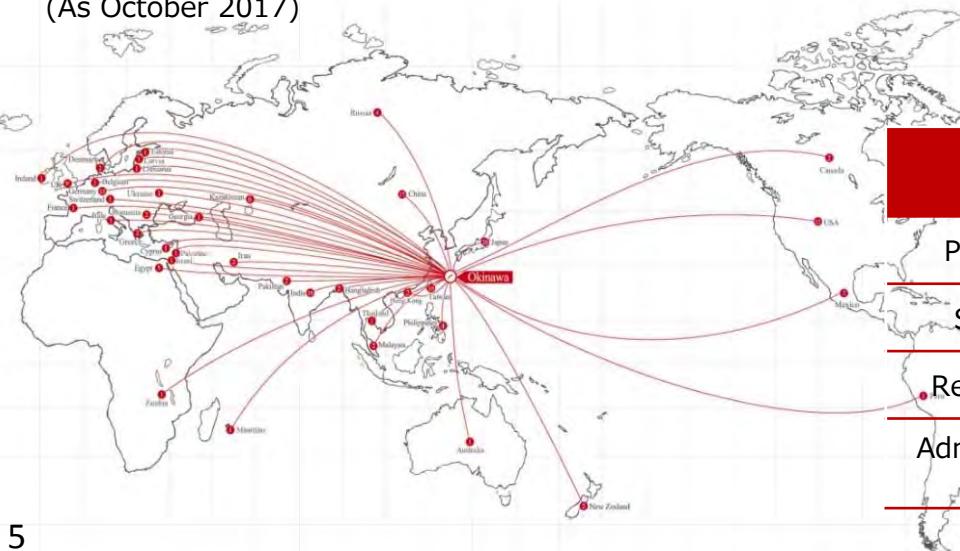
Interdisciplinary education

Three different fields
research rotations

Students and Staff Members

1,028 students and staff members have gathered from more than 50 countries.

(As October 2017)



	Japanese	Non-Japanese
Professors	22	39
Students	28	129
Researchers	154	232
Administrative Staff	360	64

TECHNOLOGY DEVELOPMENT & INNOVATION CENTER

The Technology Development and Innovation Center fosters innovation ecosystem in Okinawa to create new businesses and industries based on R&D.

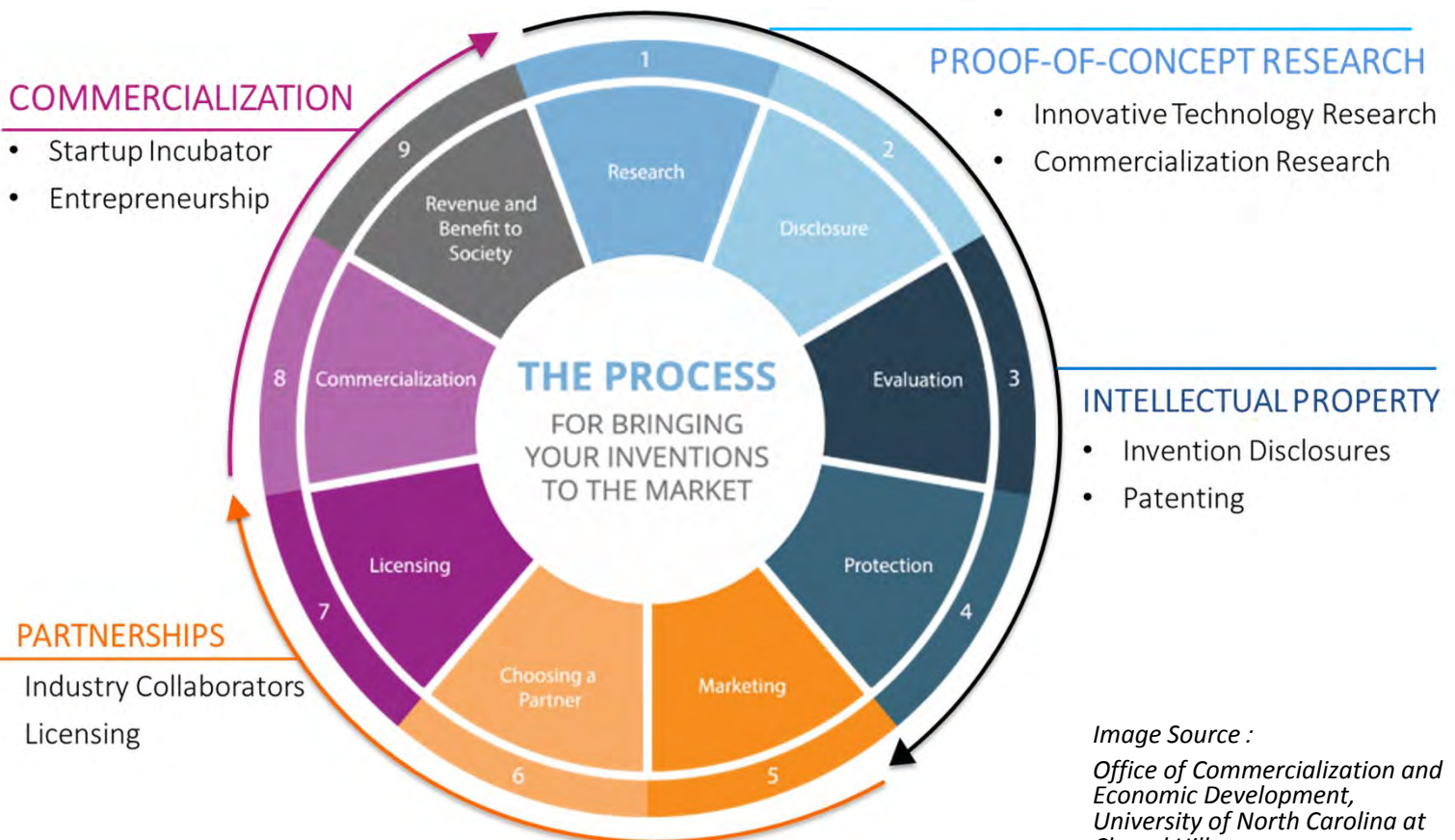
Organization

Technology Development Innovation Center is working as a one-stop shop office relating to industry-academia collaboration and technology transfer activities in OIST, to develop the inventions born from the laboratories into innovation that brings social and economic benefits.

- **Technology Licensing Section** builds a strong intellectual property portfolio of licensable technologies from discoveries made by OIST researchers and markets these technologies to established companies for commercialization.
- **Business Development Section** works closely with OIST researchers and companies to enable innovative research partnerships and negotiates sponsored and collaborative contracts with industry.
- **R&D Cluster Programs Section** supports developmental research projects that move discoveries made in OIST laboratories towards commercialization. The Section also promotes the development of Okinawa as regional center of R&D with OIST as a core component.

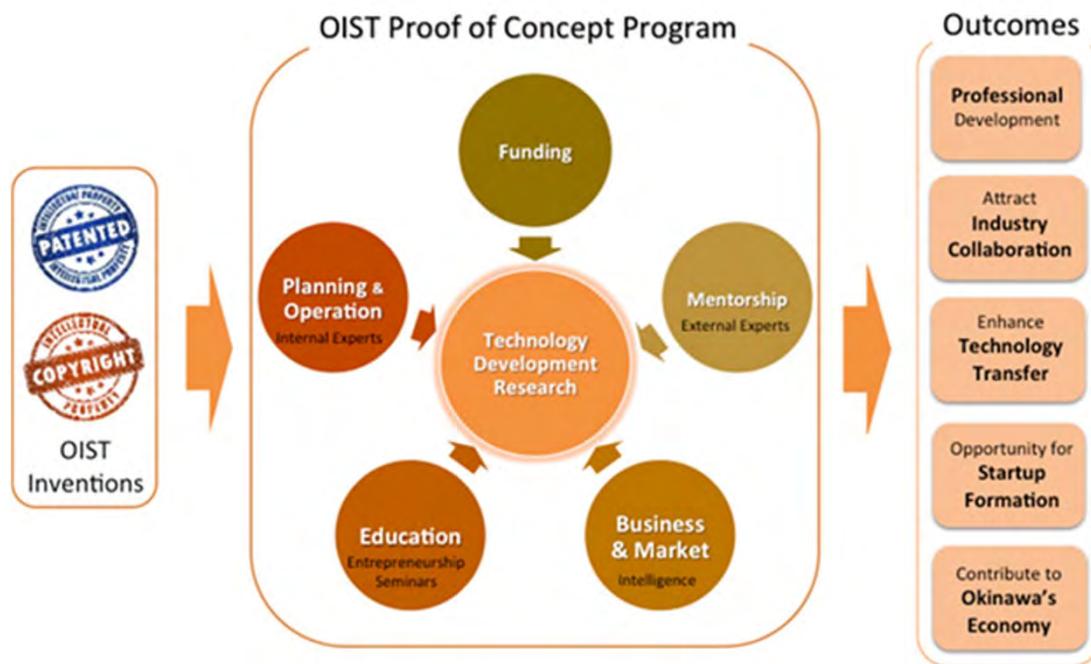
Series of support

Technology Development Innovation Center offers a series of support related to intellectual property and commercialization of research results.



Proof Of Concept Program

The OIST Proof of Concept (POC) Program is an internal, competitive funding program that is designed to help bridge the technical and funding gap between lab discoveries and commercialization, thereby enhancing the impact of OIST research on society.



Creating Ventures from OIST

OIST is also promoting the creation of high growth venture businesses in Okinawa, and holds seminars and workshops aimed at building networks and promoting entrepreneurial activities. In addition, it is also directly supporting promising projects derived from OIST's research.

Okinawa Protein Tomography Ltd. (Okinawa PT), which provides a molecular-structure-analysis service, was born as the first startup from OIST in 2014.

Now, preparation is advancing towards the second venture establishment from OIST based on the waste water treatment technology using a microbial fuel cell.

The future efforts towards the innovation ecosystem creation in OIST

OIST is planning to set up an incubator facility that will serve as a base for entrepreneurs and start-up companies. In addition to providing laboratories and offices, the incubator facility brings OIST's excellent research results and other innovative ideas to commercialization by intangible support such as finance and legal aspects is prepared to be offered.

