

Welcome to OIST

WIPO President's Summit

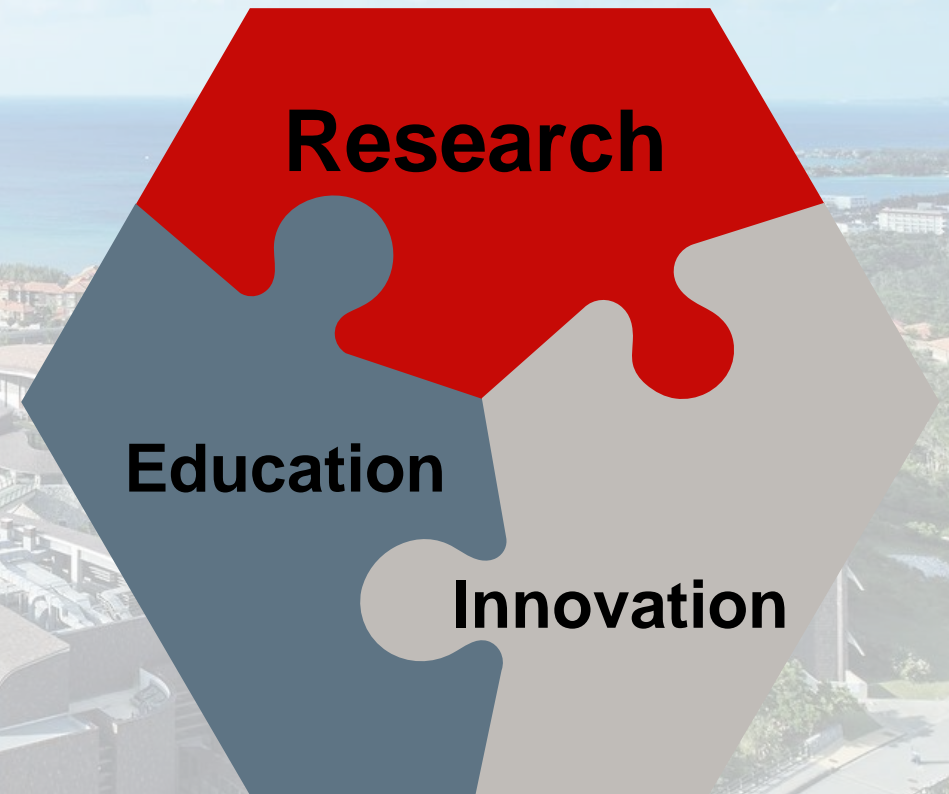
November 13-15, 2018



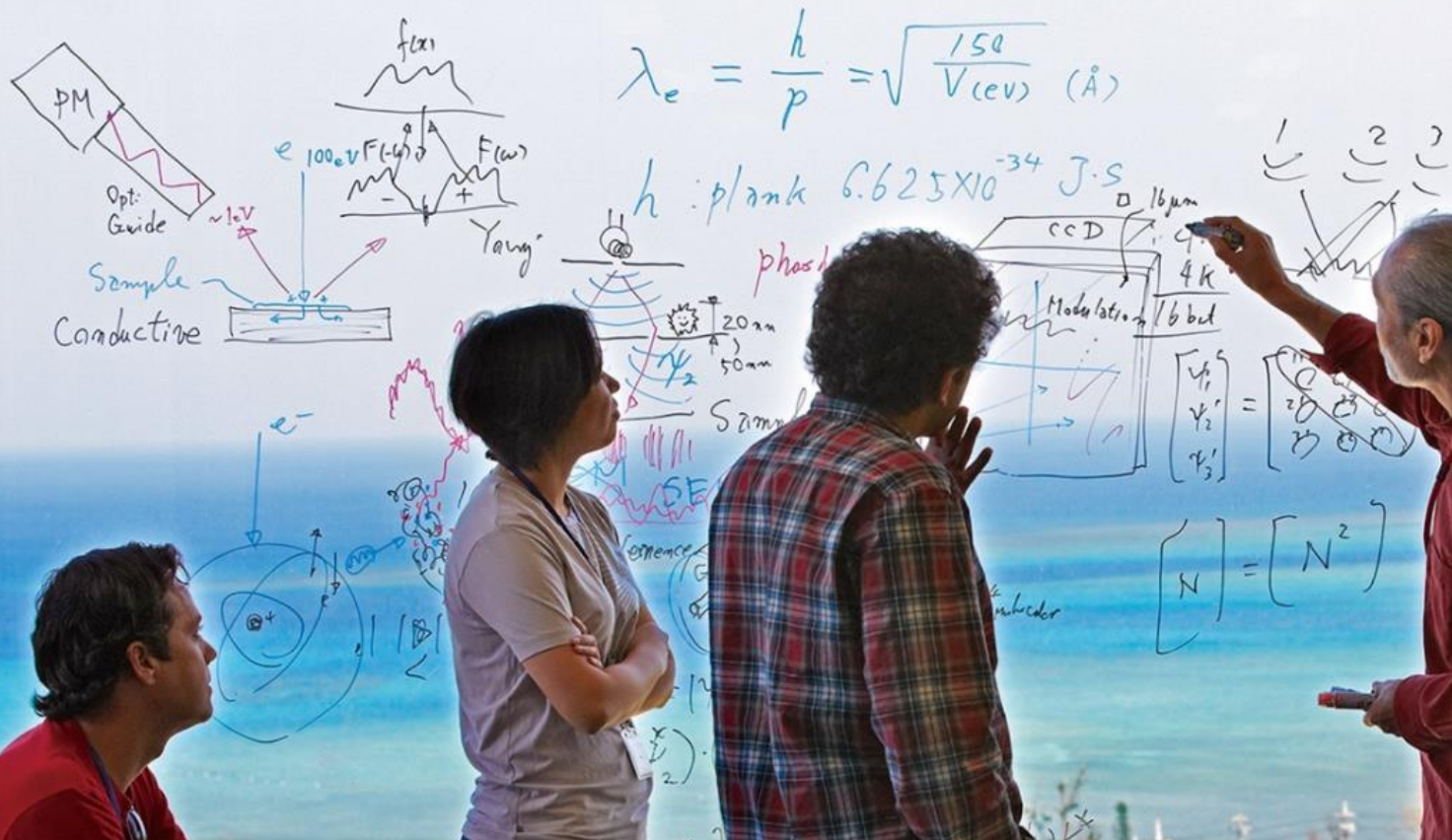


Our mission

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.**



Who we are

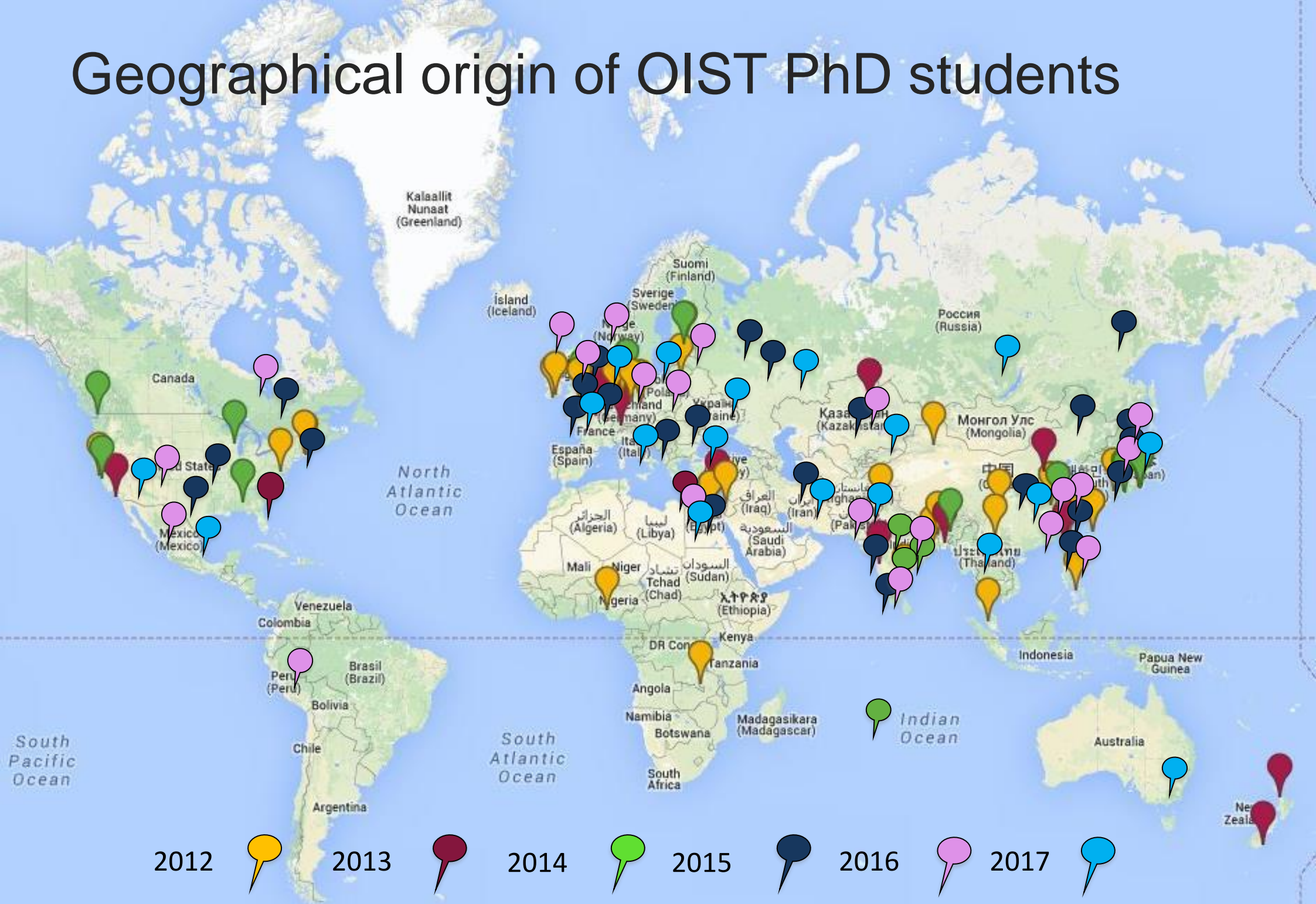


Mix of different fields of research

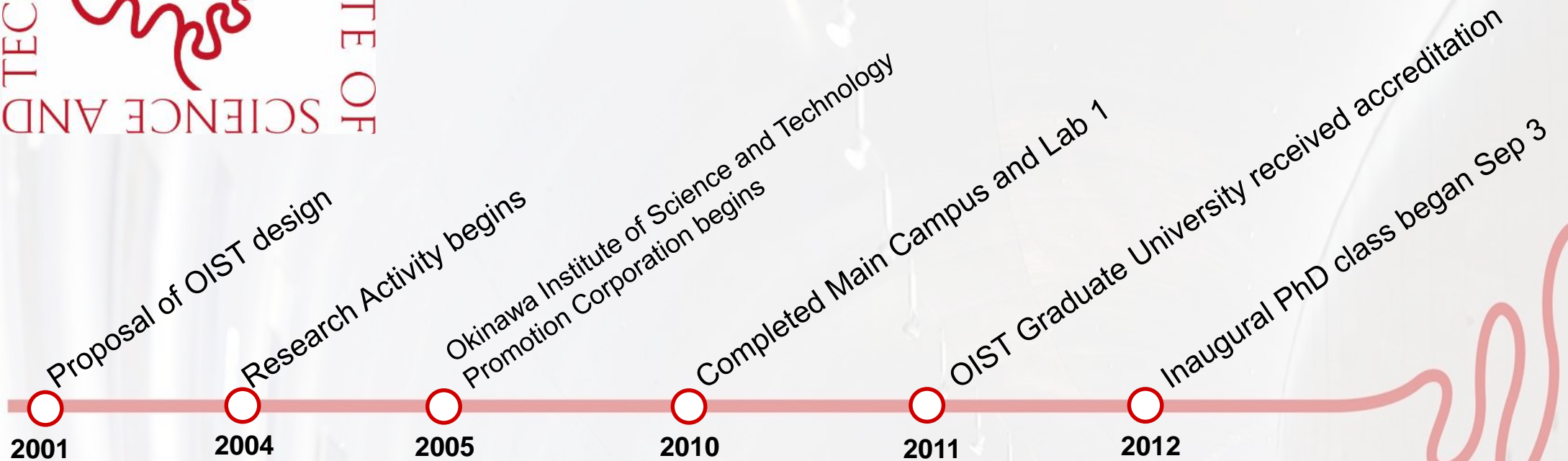
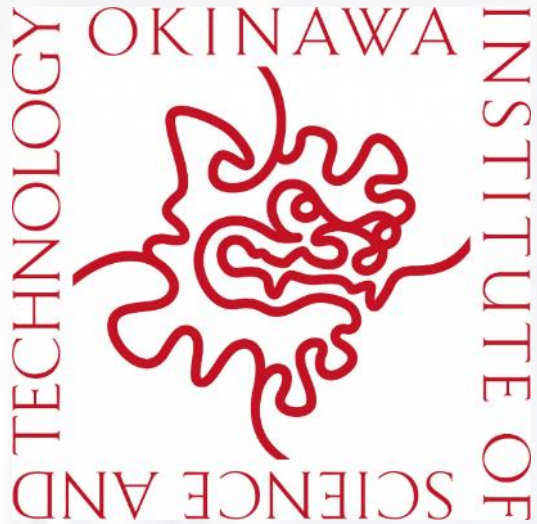
5 year integrated doctoral program

Education and research in English

Geographical origin of OIST PhD students



Our journey so far



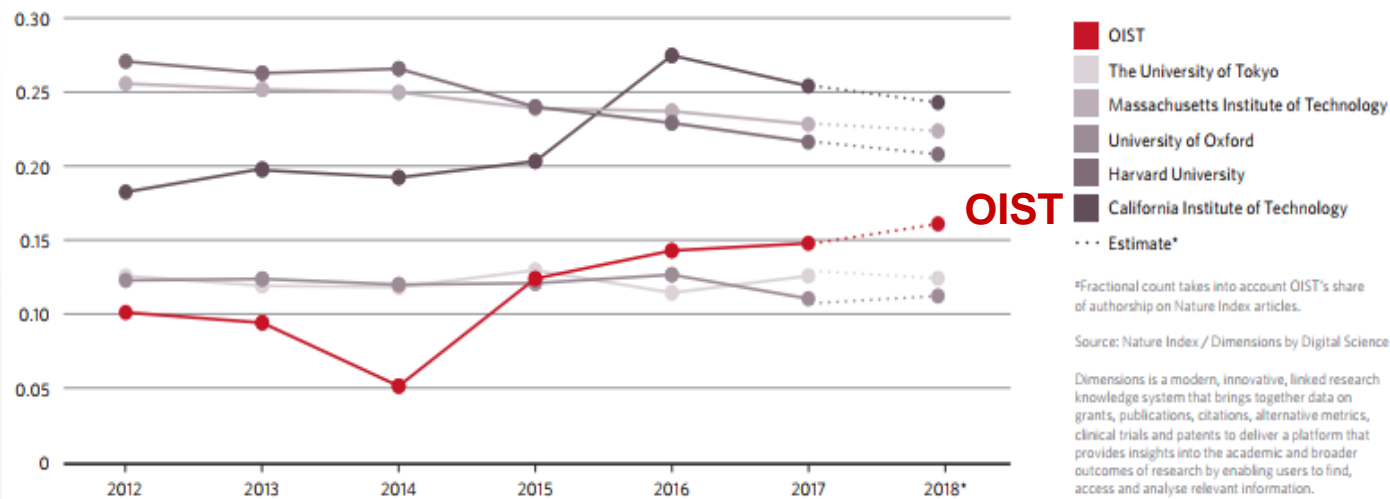
A short but excellent history!

Our performance so far

- The 8th academic institution in Japan for 2012-2017 by Nature Index Japan 2018.
- The proportion of high-quality papers has steadily increased since 2014.
- The 1st academic institution in Japan based on the proportion of high-quality publications in 2017.

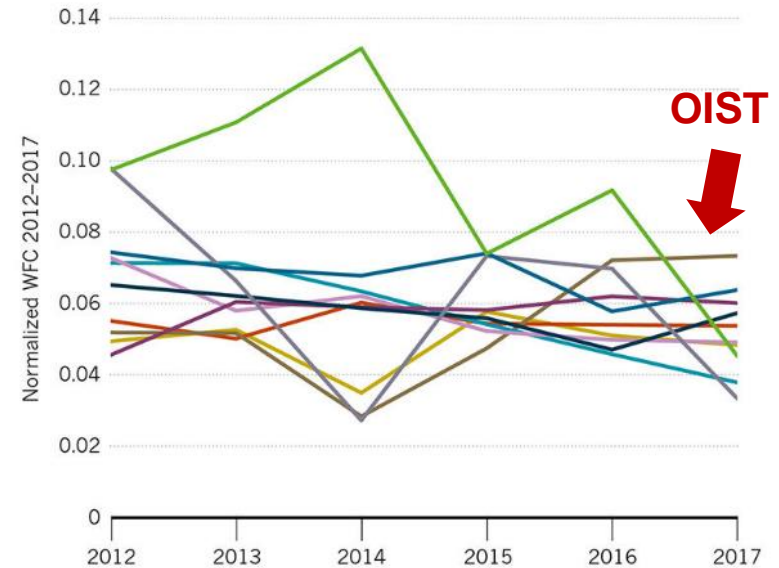
RISING BY THE NUMBERS

Normalizing the output of articles by OIST researchers in journals tracked by Nature Index by dividing the Fractional Count[#] (FC) by the total number of natural science articles in Dimensions allows comparison on a level playing field with much larger top institutions.



SMALLER INSTITUTIONS SHINE

When the playing field is levelled, to assess which Japanese institutions produced the most high-quality research relative to their total output in the natural sciences over the past six years, Gakushuin comes out on top.



Research highlights



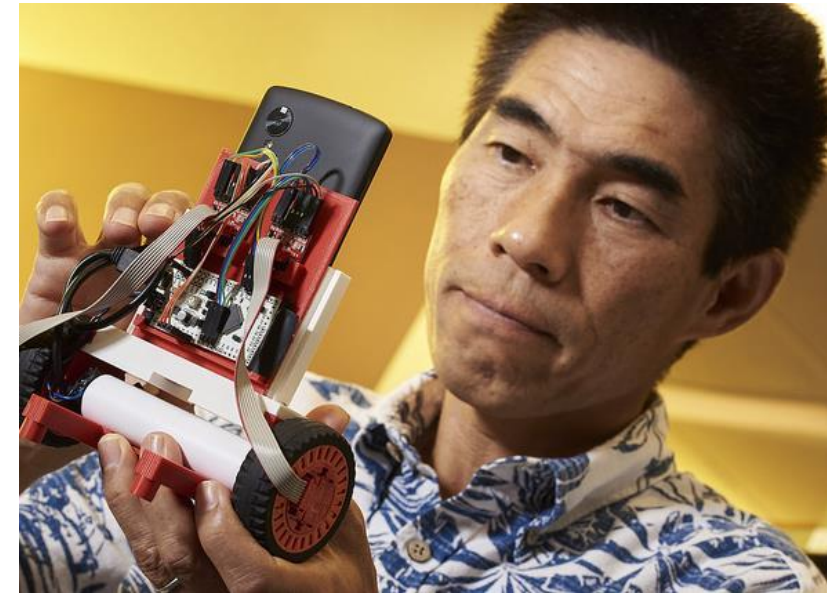
CAPTURING ELECTRON MOVEMENT

Researchers in the Femtosecond Spectroscopy Unit, led by Prof. Keshav Dani, combined a femtosecond laser and an electron microscope into a powerful system that captures both the time and spatial scale of the motion of electrons.



SUPRAMOLECULAR ASSEMBLIES

Prof. Ye Zhang and the Bioinspired Soft Matter Unit recently published their work on molecular scaffolds inspired by the extracellular matrix.



ROBOT LEARNING

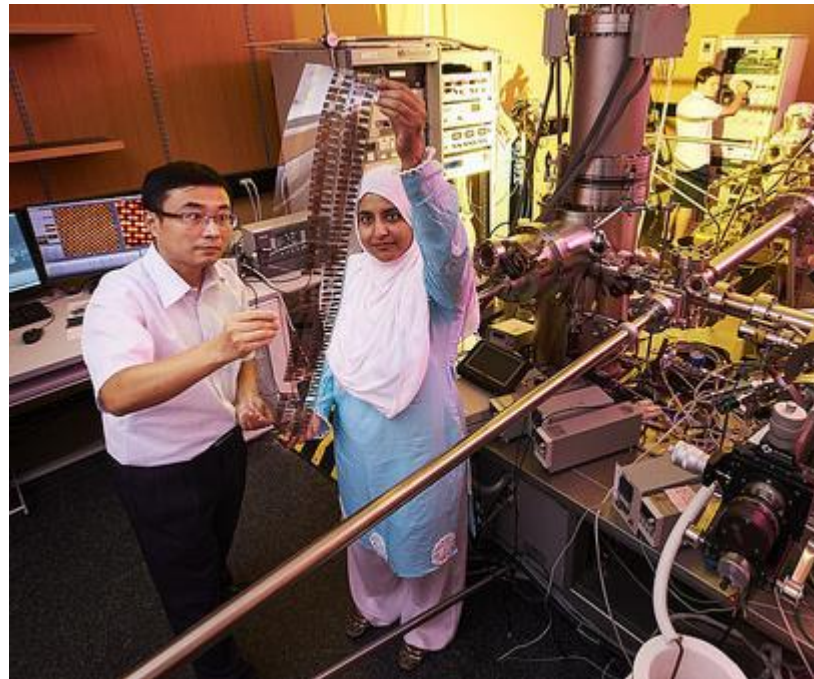
The Neural Computation Unit, led by Prof. Kenji Doya, investigates how robots can utilize simulation, similar to humans, to learn faster. Prof Doya is leading the Kakenhi project “Correspondence and Fusion of Artificial Intelligence and Brain Science”

Research highlights



ENERGY FROM THE OCEAN

Professor Tsumoru Shintake and the Quantum Wave Microscopy Unit reach for a clean future with energy powered by ocean waves.



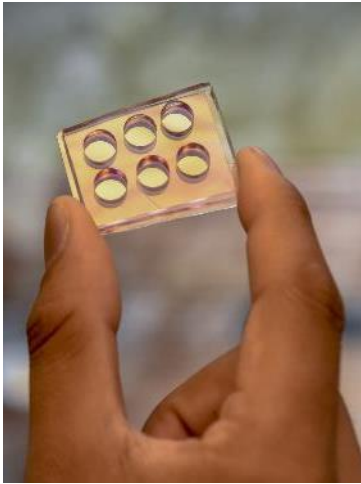
ADVANCED SOLAR CELLS

Prof. Yabing Qi and the Energy Materials and Surface Sciences Unit work to improve the lifespan, performance and production of perovskite solar cells.



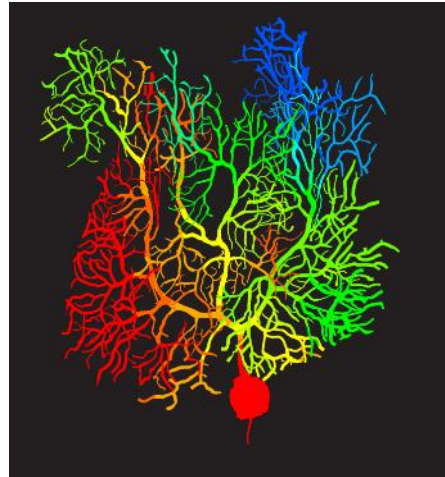
NEW BIOSENSORS

Researchers in the Micro/Bio/Nanofluidics Unit, led by Prof. Amy Shen, conduct fundamental research to develop a wide range of biosensors and other devices.



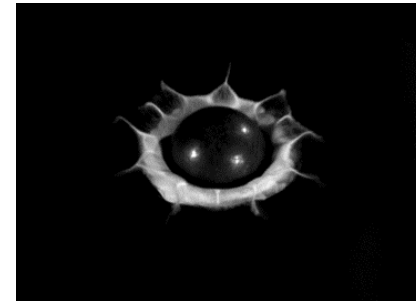
Biosensor chips made of nanostructures to aid in studying and developing treatments for bacterial infections

Published in ACS Sensors



Creating a better virtual model of a neuron to help understand how the brain works

Published in Cell Reports



Experiments and computer simulations shed light on how crater arrays form on the Moon and other planets

Published in Physical Review Letters

...and many other interesting research projects



Imaging technique allows researchers to observe individual molecules in living cells for longer periods than before

Published in Nature Chemical Biology



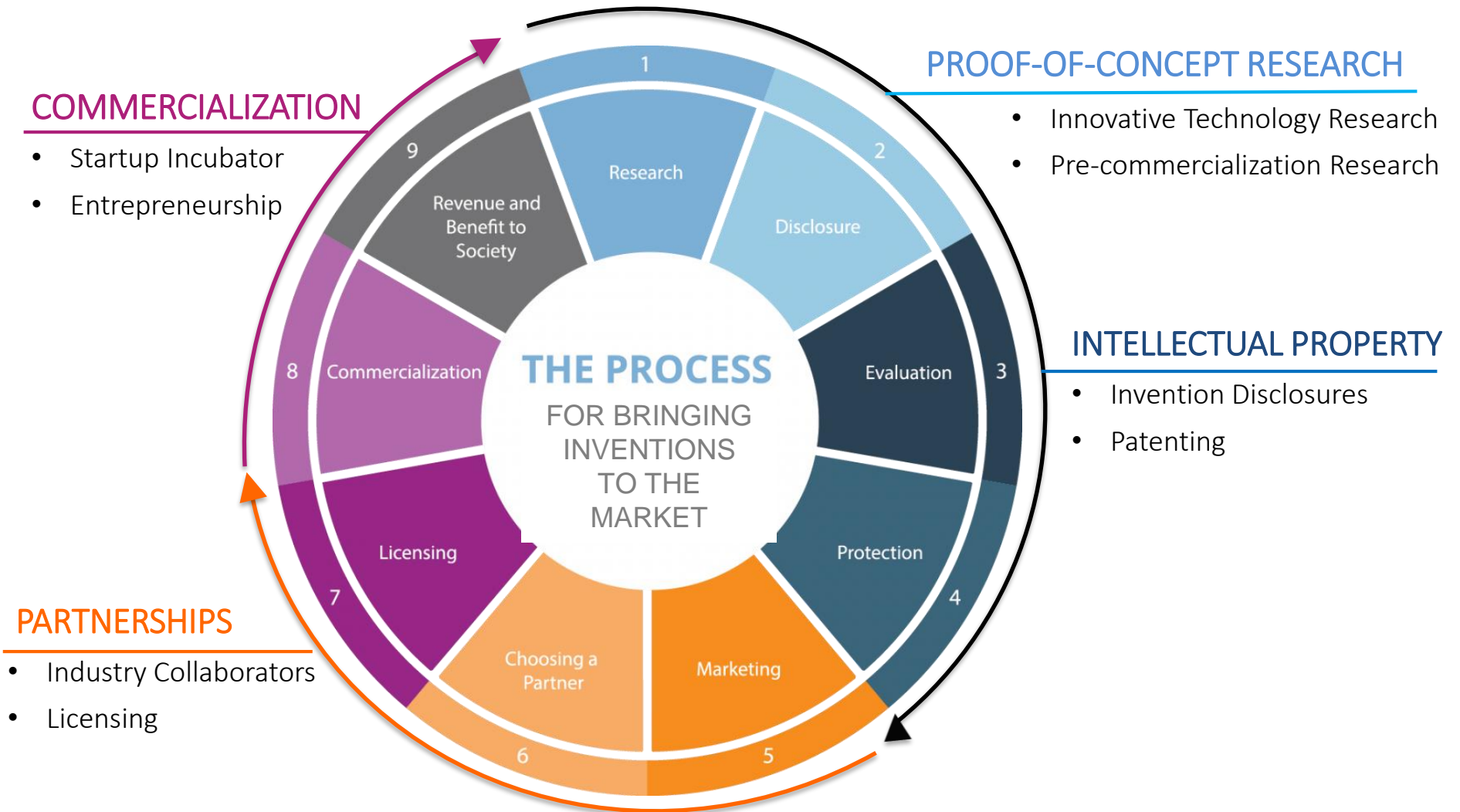
New technology to detect small particles with greater sensitivity and precision

Published in Optica



Technology Development & Innovation Center

Programs and services to support the entire technology transfer process

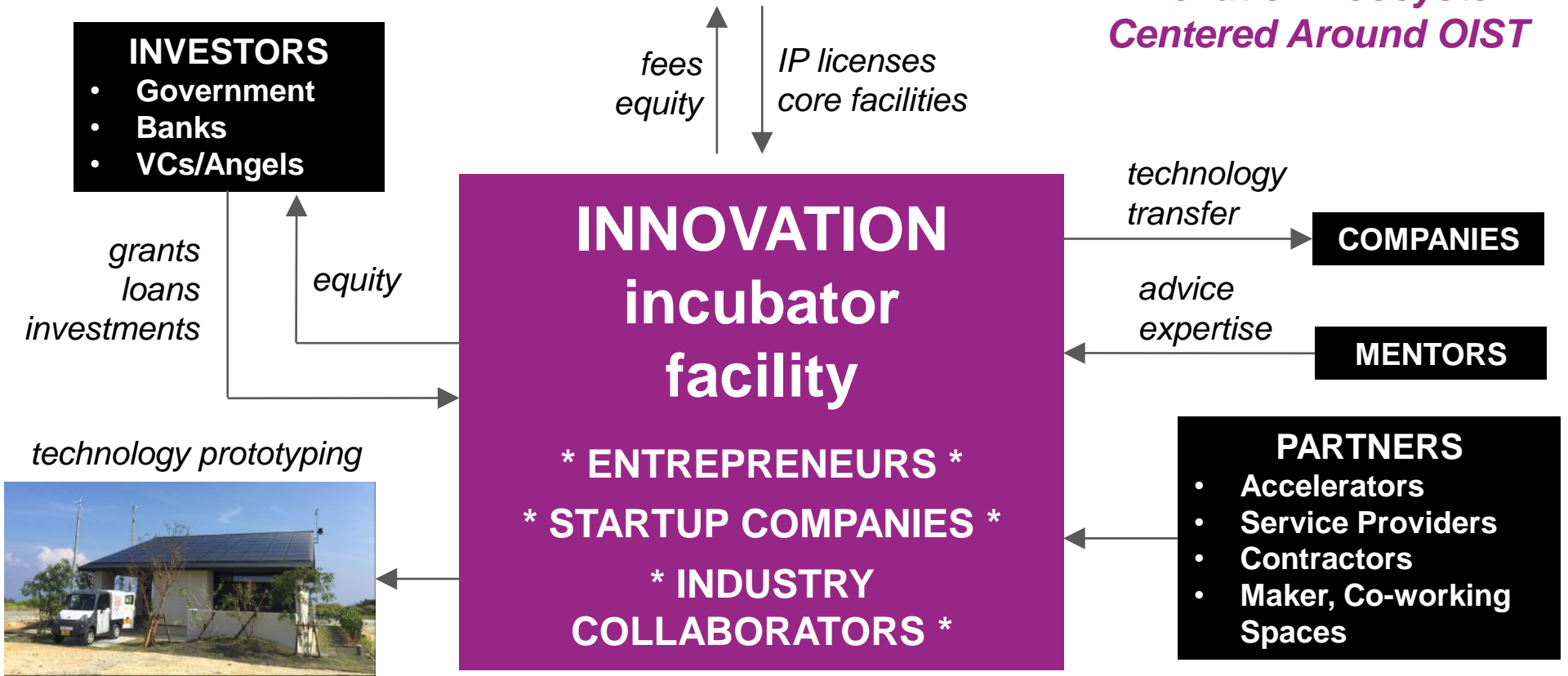




Startup incubation



Model of Innovation Ecosystem Centered Around OIST

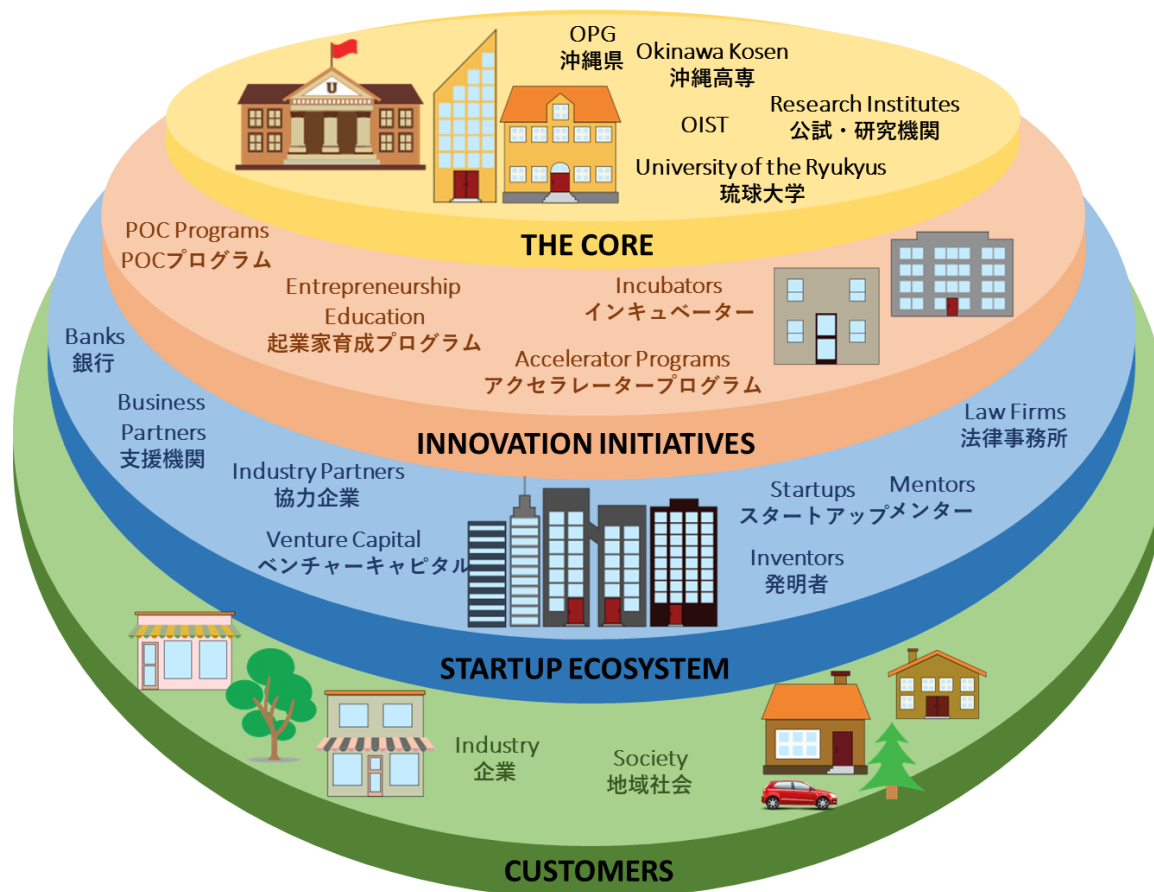




Innovation ecosystem

SEEDING AN INNOVATION ECOSYSTEM IN OKINAWA

Universities, Government, Startups & Industry



THE CORE: Provides the seeds of innovation: educated and trained personnel, research discoveries, and public funding for research

INNOVATION INITIATIVES: Provide facilities and programs to bridge the gap between research discoveries and innovative technologies and services

STARTUP ECOSYSTEM: Connects business expertise, market needs, and risk financing to support entrepreneurship and grow new ventures

CUSTOMERS: Industry expands markets with new technologies; social prosperity increases through new technologies, jobs, and higher wages.