



OIST Strategy 2024-2029

5-Year Goals with Yearly Targets

Karin Markides, President & CEO





Preamble

- OIST has achieved remarkable scientific and **academic excellence** in its first 10 years, establishing itself as a landmark in the history of Japanese universities with a high-trust funding model.
- Currently, we are building on our world-class strengths in the forefront of scientific areas and in emerging **interdisciplinary** sciences to expand the impact and scope of research, education, innovation, and outreach.
- OIST mission guides us to grow to a **critical mass**, and the next phase includes 101 faculty, 9 pre-PI Buribushi Fellows*, and an extended visiting program, preparing OIST for the 3rd phase of development in the 2030s.
- We will achieve efficiency and effectiveness by optimizing our **organizational structures**, pursuing key strategic initiatives, and serving as a bridge between diverse communities and disciplines, both within Okinawa and across Japan and the world.
- We pursue **diversified external resources** of 20% by 2026, by continuously developing our attractive research and education environment and making it attractive for visitors and collaboration, and thus enabling resilience of OIST's unique governing model.
- We acknowledge the understanding and trust bestowed from CAO, MEXT, and METI to further develop OIST and its role as a benchmark and the importance of ongoing support by large **institutional funding**.

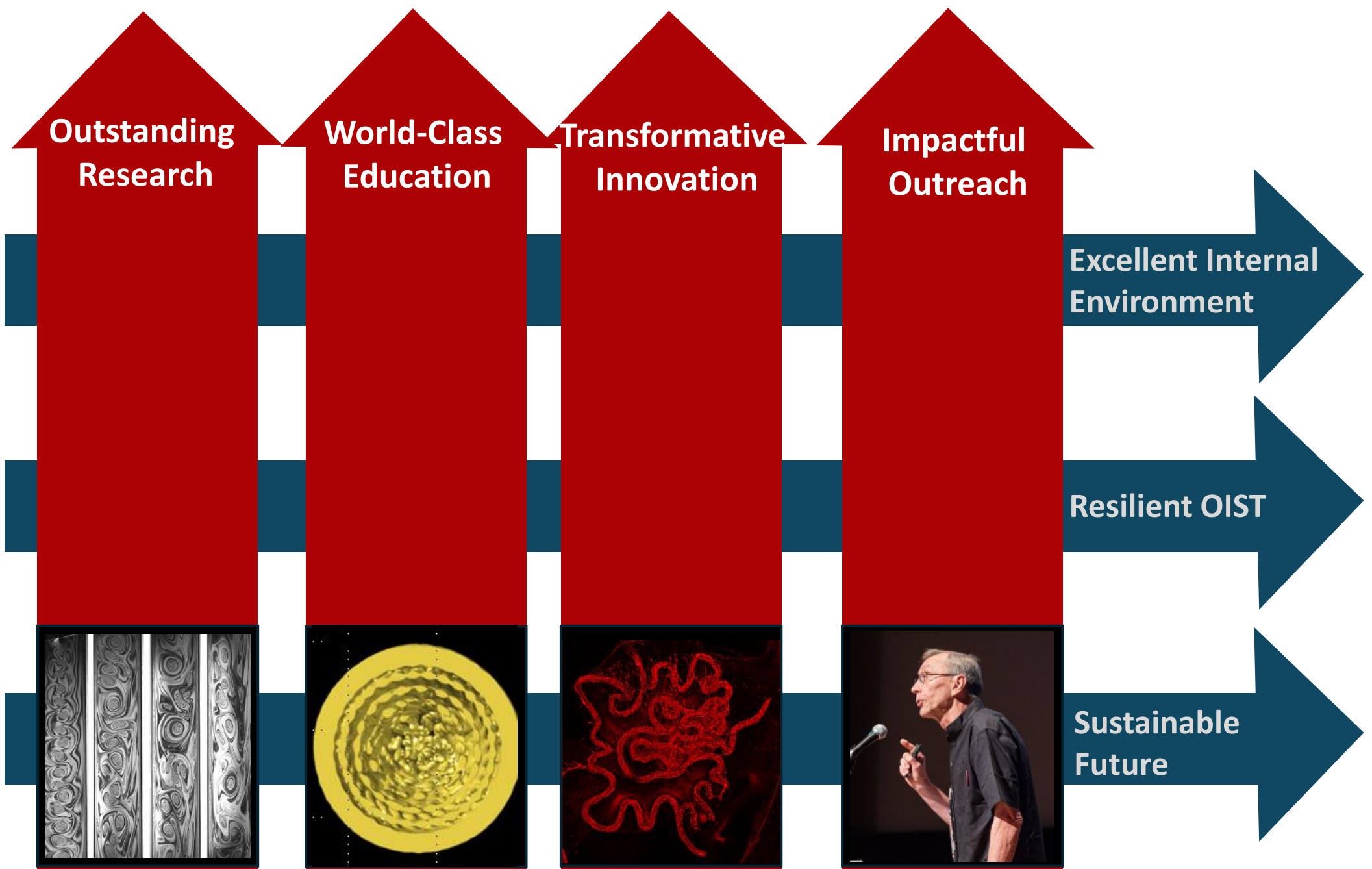
* Buribushi Fellowship: Buribushi means “a cluster of stars” in Uchinaaguchi (Okinawan language). The fellowship is a principal investigator position intended to give opportunities for early career independence, to boost promising researchers toward a tenure-track faculty position. We hope that it will come to be recognized as one of the most prestigious and desirable positions for pre-faculty researchers in Japan.



OIST Strategy 2024-2029 will Drive a Culture of One OIST

- To further enhance excellence in research and education, steadily grow and achieve a critical mass with an emphasis on top-quality faculty recruitment and international peer review.
- To foster synergy and visibility of interdisciplinary collaboration within OIST and with external partners in strategically important areas, such as quantum technologies, marine science, and sustainable energy through the launch of Open Centers, test-beds, and NeXus meeting places.
- To strengthen outreach efforts, to delivering socioeconomic and environmental benefits towards sustainable and prosperous development of Okinawa, building public-private-university partnerships aligned with OIST strengths and vision of the municipalities.
 - Examples: As a first step, we have already signed a cooperation agreement with Okinawa Electric Power Company for sustainable energy testbed in Okinawa and worked with Okinawa Prefectural Government on a survey with municipalities.
- To promote capacity building and infrastructure development in administration, with attention to organizational culture, streamlining and optimization of business operation.

OIST MISSION AREAS



One OIST goals for **Outstanding Research**

- ❖ **Further increase world-class standing in research output**
 - Enhance and maintain best-in-class international peer review assessment of each research unit every 5 years
 - Strengthen top-tier publications and other research output
- ❖ **Work towards critical mass of faculty - net hire 1-2 PIs per year**
- ❖ **Enhance OIST as gateway and catalyst for best practices in research collaboration between universities in Japan and the world**
- ❖ **Enhance research ecosystem for interdisciplinary and open science**
 - NeXus open centers
 - Visiting program
 - NeXus buildings (sea-, land-, innovation-)
 - Buribushi Fellowship for pre-PI independent scientists
- ❖ **Enhance Core Facilities to maintain world-class standards, ensuring broad utilization and effective networking**



Image credit: Chien-chia Liu, Rory Cerbus, Pinaki Chakraborty
Fluid Mechanics Unit



Where we will be in five years

Outstanding Research

| Target | Today | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|--|----------------------|--|
| Average score of research unit reviews evaluated by international peers | 5-year average score of 4.23 out of 5 | Written anonymous summary of review feedback and analysis | revise criteria to be further aligned with 5-year goals | Maintain and improve | Maintain and improve | 5-year average score of 4.5 out of 5 |
| Strengthen top tier publications & citation rates | ~580 papers/yr InCites Relative Citation Rate = 1.25 % Top 1% cited papers = 2.22% % Top 10% cited papers = 14.18% | ~600 papers/yr | ~620 papers/yr | ~640 papers/yr InCites Relative Citation Rate = 1.5 % Top 1% cited papers = 2.7% % Top 10% cited papers = 16.5% | ~660 papers/yr | ~680 papers/yr InCites Relative Citation Rate = 1.7 % Top 1% cited papers = 3% % Top 10% cited papers = 18% |
| International distinguished peer review and perspective panel for research and education | Review | | | | | |
| Critical mass of faculty hire net 1- 2 PIs per year | 91 | 96 | 98 | 99 | 100 | 101 |
| Buribushi Fellows | develop criteria 2 fellows | 4 fellows | 6 fellows | 8 fellows | 8 fellows | 9 fellows |
| Multi-coupled MOUs with active dialogue and dynamic project portfolio (# Japanese U) | 12 (9) | 13 (10) | 14 (10) | 15 (11) | 16 (11) | 17 (12) |

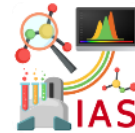




Where we will be in five years

Outstanding Research

| Target | Today | 2025 | 2026 | 2027 | 2028 | 2029 |
|--|------------------|-------------------------------|--------------------------------|----------------------|----------------------|--|
| Nexus open centers | 1 in preparation | At least 1 active Open Center | At least 2 active Open Centers | Increased activity | Increased activity | Covering high level transformative areas of OIST |
| Visiting program | | | | | | |
| • Short term | 80 | 80 | 80 | 80 | 80 | 80 |
| • Long term | 20 | 20 | 30 | 30 | 40 | 40 |
| Annual core facilities survey overall user satisfaction % | 79 % | 80 % | Maintain and improve | Maintain and improve | Maintain and improve | Maintain and improve |
| Number of external users of core facilities | 0 | 25 | Track and improve | 100 | Track and improve | 250 |
| Number of external participants in core facilities' training programs | 0 | 50 | 75 | 100 | 125 | 150 |



Vivarium



Marine Station



Machine Shop



High Performance Computing Cluster

One OIST goals for **World-Class Education**

❖ **Increase quality of new students**

- Prioritize quality: attract applicants with a strong interdisciplinary interest.
- Recruit top talent internationally and in Japan and conduct on-site interviews with top candidates.

❖ **Enhance graduate education and career aspects**

- Focus on high-quality teaching and mentoring, including short courses by visiting professors and scientists.
- Align with MEXT programs for enhancing PhD education in Japan
- Develop essential academic and non-academic skills: enhance proficiency in science communication, entrepreneurship, and leadership.
- Renovate teaching facilities.
- Organize regular job fairs to facilitate employment within Japan.

❖ **Catalyze internationalization of other Japanese universities**

- Develop partnerships with Japanese universities active in international education
- Support mobility, collaborations, conferences and workshops strengthening international graduate education.

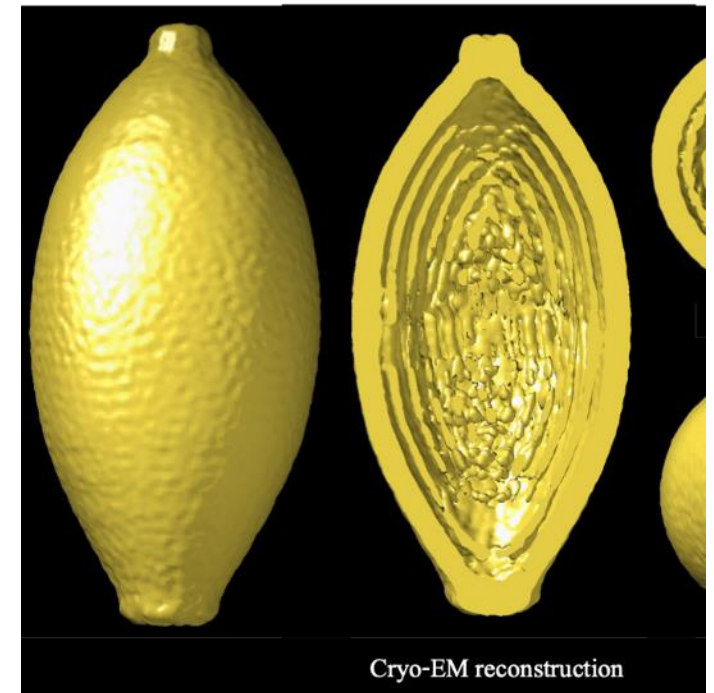
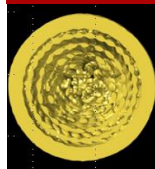


Image credit: Daniel Gutierrez (PhD student), Molecular Cryo EM Unit



Where we will be in five years

World-Class Education



| Target | Today | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|--------------------------|---|---|---|---|---|
| Increase the number of new graduate students | 287 | 290 | 292 | 295 | 298 | 300 |
| Track academic strength of applicants (~60 offers) | GPA, reference letters | GPA, reference letters, onsite admission workshop | 180 applicants with GPA>3.5 or first class degrees | 210 applicants with GPA>3.5 or first class degrees | 250 applicants with GPA>3.5 or first class degrees | 300 applicants with GPA>3.5 or first class degrees |
| Time to Ph.D | 5.8 years | 5.7 | 5.6 | 5.5 | 5.4 | 5.4 |
| Enhance non-academic training | PCD for academic careers | add PCD for industry careers; job fair created | job search training | extensive internship program | improvements | improvements |
| Enhance recent graduates' relevant employment within Japan | 27% | ~30%; annual job fair created | ~30%; full language learning support | ~32% | ~32% | >35% job fair established |

One OIST goals for Transformative Innovation

❖ Cultivate a vibrant and entrepreneur-friendly environment that encourages (but does not require) scientists to participate in innovation

- Enhance POC (proof-of-concept) program, training, and mentoring.
- Incentivize tech transfer professionals and scientists with clear rules to steer away from concerns for conflict of interests.
- Connect domains of research strengths with strong impact in Okinawa and Japan: longevity & health, quantum technologies, genomics, cybersecurity, energy & climate.

❖ Develop industry partnerships with emphasis on multi-level collaboration

- Strengthen global business development activities in transformative science and technology areas.
- Open dialogue between strategy-operation in industry and OIST to build trust and support for research, inventions, and innovations with commercialization potential (e.g. spin-out/spin-in).

❖ Focus startup accelerator and incubator on clustering a visible innovation zone

- Target entrepreneurs and startups in Asia.
- Leverage the new incubator facilities supported by CAO and METI.
- Continue to develop connections with leading up-and-coming innovation hubs in Japan such as Kyushu (PARKS) and Shibuya
- Launch VC Fund #2.

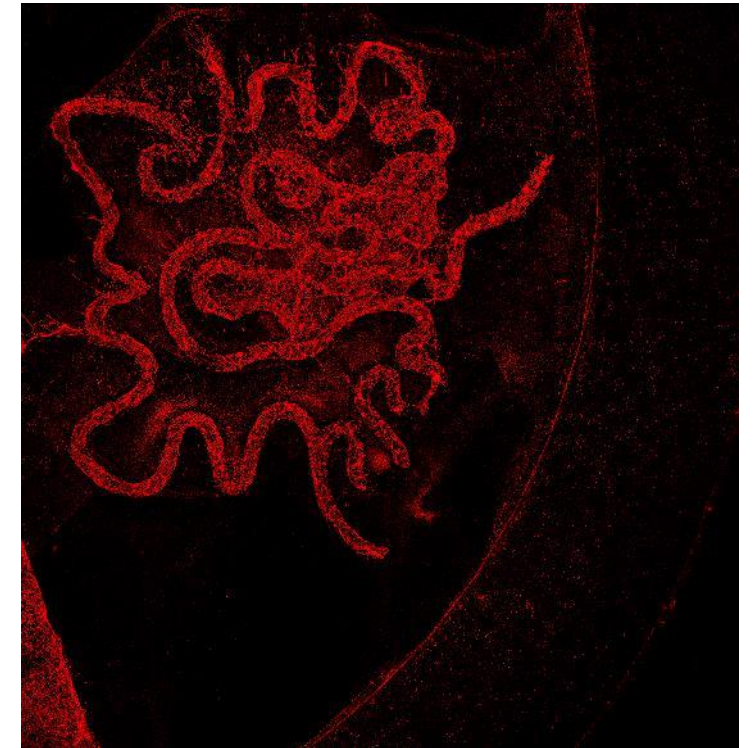


Image credit: Zakaria Ziadi and Dimitar Dimitov
Organic and Nanomaterials Unit and Synapse Biology Unit



Transformative Innovation

Where we will be in five years



New Incubators coming soon in FY2025

To help pave the way for an Okinawa Innovation Hub OIST | Innovation

| Target | Today | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|-------|------|------|------|------|------|
| Commercialization of OIST IP (per year) | 5 | 7 | 7 | 8 | 8 | 8 |
| Multi-level industry collaborations (PI-PI based) | 2 | 5 | 6 | 7 | 8 | 8 |
| OIST-connected* startups in Okinawa (total) | 23 | 30 | 38 | 45 | 53 | 60 |
| Jobs created by OIST-connected startups in Okinawa | 30 | 45 | 60 | 90 | 100 | 120 |
| Global Acceleration Program (startups incubated per year) | 4 | 4 | 4 | 6 | 6 | 8 |
| Number of startups and companies supported or hosted in OIST Incubators | 45 | 60 | 80 | 100 | 110 | 120 |

*Startups that: Licensed OIST IP or are based on OIST research or founded by OIST alumni/former staff or graduated from the OIST accelerator program (or similar program).

One OIST goals for **Impactful Outreach**

❖ **Promote public awareness and appreciation of science**

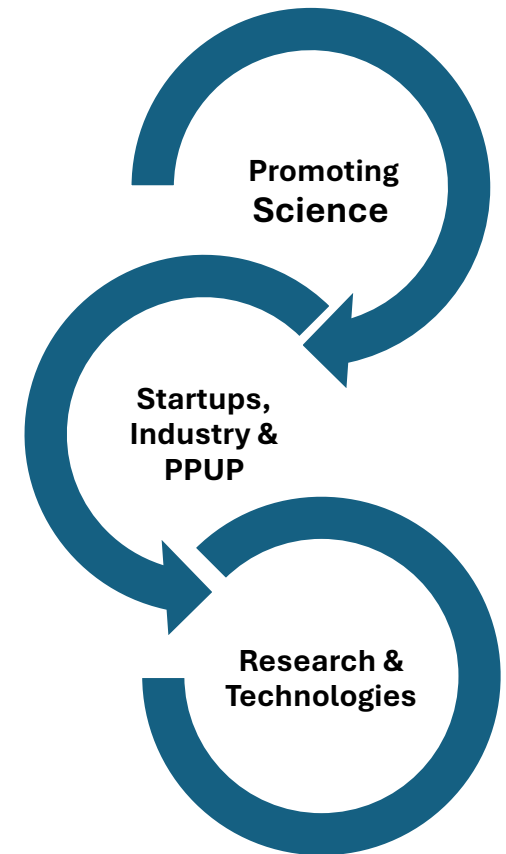
- Stimulate interest in science and introduce students, teachers, and adults to the world of science and technology to increase workforce development and socio-economic mobility.
- Further advance global citizenship as symbolized by Bankoku Shinryo of the Okinawan people, including promoting English proficiency, cultural diversity, and global connectivity.

❖ **Deep-tech Startup Ecosystem in Okinawa**

- Drive economic growth and technological advancement in Okinawa, while also contributing to broader national and global innovation efforts.

❖ **Use our scientific knowledge and advancements to help protect and maintain Okinawa's environment**

- From the forests to mangroves and coral reefs, use scientific knowledge and technologies to sustain life, connect us to tradition, and support the economy.





Where we will be in five years

Impactful Outreach

| Target | Today | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|--------|---------|--------|---------|--------|----------|
| Individuals with OIST impression (per year) | 30,000 | 32,000 | 34,000 | 36,000 | 38,000 | + 40,000 |
| High schools students participating in OIST science education SEED+ programs (per year) | 1,500 | 1,600 | 1,800 | 2,000 | +2,000 | 2,500 |
| Partnerships with municipalities in Okinawa | 0 | 1 | 2 | 3 | 4 | 5 |
| Longitudinal study to measure Impact* | - | Deliver | - | Deliver | - | Deliver |

* Longitudinal study to explore, measure, and demonstrate the impact of OIST outreach, which will help to prioritize the focus as we advance.



One OIST goals for **Excellent Internal Environment**

- ❖ **Build “One OIST” culture for alignment and pride in our identity, mission, and processes laying foundation for future growth and excellence**
 - Improve communication, transparency, and engagement across OIST
 - Community building and commitment to DEI
- ❖ **Focus on capability building and career development in administration**
- ❖ **Optimize business process, administrative reform, and system change**
 - IT system re-design to integrate work processes and data silos
 - Robust and efficient administrative and executive teams with clear R2A2*.
- ❖ **Enhance family support to increase attraction for recruitment and retention**

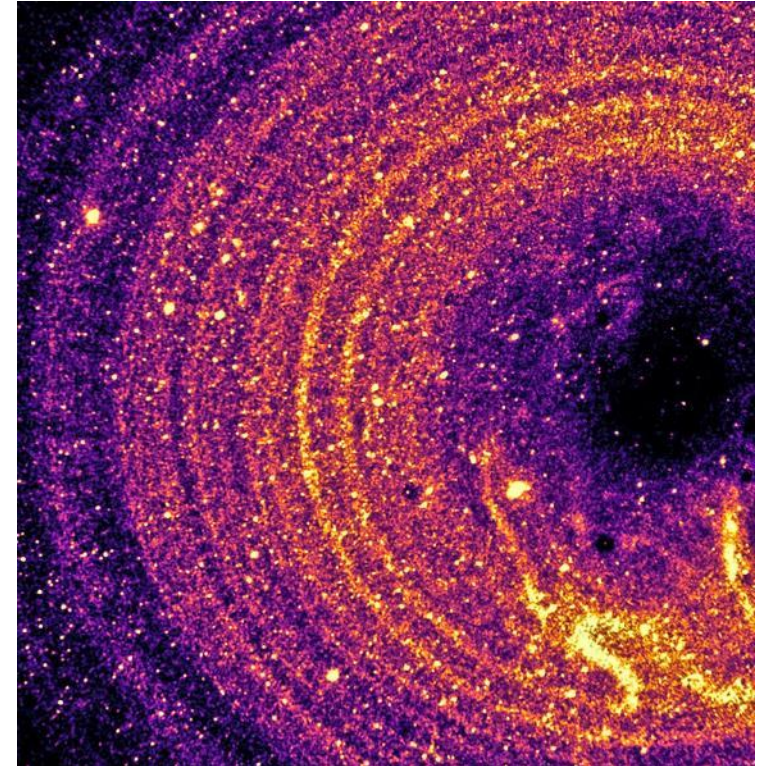
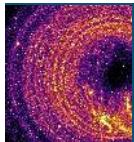


Image credit: Shivani Sathish, Arisa Yokokoji
R&D Cluster Program, Micro/Bio/Nanofluidics Unit

*R2A2 stands for Roles, Responsibilities, Authorities, and Accountabilities



Excellent Internal Environment

Where we will be in five years

| Target | Today | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|--|--|--|--|------------------------------------|
| Improved communication, transparency, and engagement across OIST | Limited format for communication | <ul style="list-style-type: none"> - Monthly letter from the president - Quarterly townhall - Encouragement and recognition of bottom-up initiatives - Proactive communication to build trust between Executives and Councils | Track | Track | Track | Track |
| Strengthened capability and career development in administration | Limited training to build staff capability | <ul style="list-style-type: none"> - Develop the on-the-job training program - Develop the Human Resource Development program (Managers' Training) - Develop personnel exchange program with some targeted/partner institutes | <ul style="list-style-type: none"> - Extend coaching and training to managerial level - Develop admin staff training program | Track/Adjust | Track/Adjust | Track/Adjust |
| Community building and commitment to DEI | DEI grant proposal submitted; limited community activities | <ul style="list-style-type: none"> - Develop and launch action plan for DEI, including outreach component - Increase community building activities across the university | Continue and refine the activities | Continue and refine activities | Continue and refine activities | Continue and refine the activities |
| Enhanced family support for recruitment and retention | No concrete plan on high school offering IB Diploma Program (IBDP) | <ul style="list-style-type: none"> - Draw a rough scheme for K-12 incl. IBDP - Develop employment opportunities for spouse/partner - Review services for family support | Refine scheme/plan | Relevant entities identified and action plan defined | Implement action plan | Implement action plan |
| Streamlined business process, administrative reform and reorganization | <ul style="list-style-type: none"> - Redundancies and incoherences across functions. - Delegation of authority defined but not functioning well. - Poor horizontal coordination in cross-functional efforts. | <ul style="list-style-type: none"> - Business process analysis for HR and financial management across university - Review and optimize R2A2* of Executives in the current structure. - Nurture culture of spontaneous, multi-layered horizontal coordination and collaboration through seminars on successful example, etc. - Develop operating model supported by Bain - Roadmap for major initiatives and promotion mechanism developed, integrated with overall strategic plan | <ul style="list-style-type: none"> - Incorporate all relevant processes into ERP renewal - Begin organization-level changes along the road map, together with the adjustment of R2A2*, including optimal reallocation of R2*, and possible staff replacement | Continue to implement OIST operation model, biennial progress assessment | Track/Adjust External review of top-level management and administration | Track/Adjust |

*R2A2 stands for Roles, Responsibilities, Authorities, and Accountabilities

One OIST goals for **Resilient OIST**

- ❖ **Enhance risk management**
 - Research integrity, security export compliance, and information security
 - IT system overhaul against cyber security attacks
- ❖ **Optimize budget planning and accounting for mission areas**
- ❖ **Improve external funding and efficiency gain to buffer the rising cost of research and operation**
- ❖ **Design and install new enterprise resource planning (ERP) and management system to enable Digital Transformation (DX)**
- ❖ **Review and revise the Policy Library by using the new Policy-of-Policies framework and add new relevant policies supporting the One OIST goals**

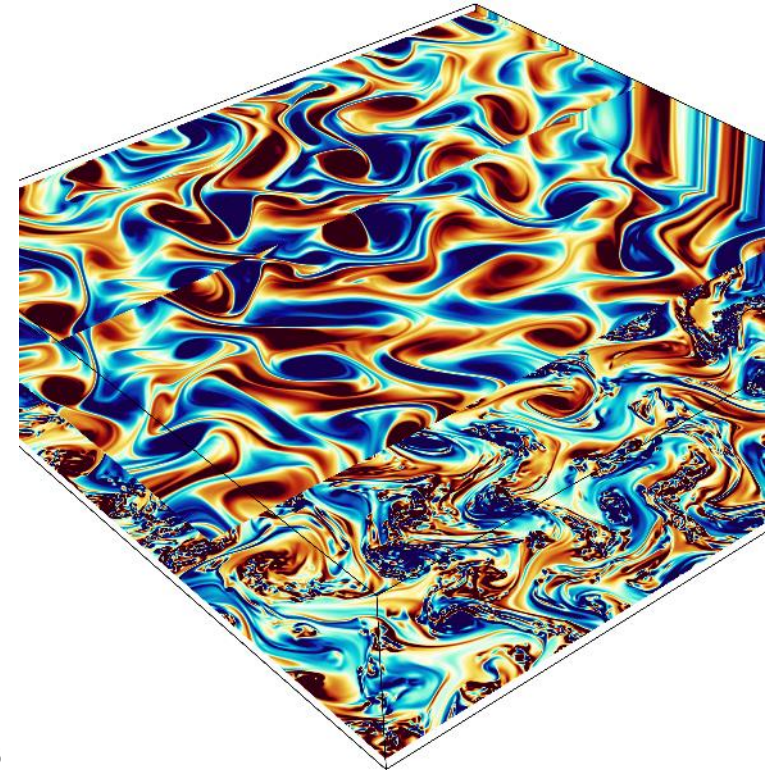
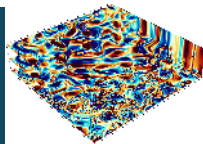


Image credit: Marco Rosti, Complex Fluids and Flows Unit



Resilient OIST

Where we will be in five years



| Target | Today | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|--|--|--|--|--|----------------------|
| Enhanced risk management including research integrity management and proper management of corporate documents and personal information | - Risk matrix developed, revised biannually, ensure BCP revision - Emergency response drill | - Risk management, secure ethics and compliance, reviewed yearly by exec and UMT | Implemented periodically | Track/Adjust | Track/Adjust | Track/Adjust |
| Increased revenue from external funding and efficiency gain | JPY 2.4B 13.7% | JPY 3.0B 16.8% | JPY 3.7B 20% | JPY 3.8B Above 20%* | JPY 3.9B Above 20%* | JPY 4B Above 20%* |
| Percentage of external funding to the baseline Okinawa promotion subsidy to OIST | | | | *The exact ratio is not known due to the lack of baseline expense budget of the subsidy amount yet to be determined. | | |
| Optimized and streamlined “Accounting” and “Budget Management” | Fragmented with inefficiencies | Complete the review and implement changes | Monitor and adjust | Monitor and adjust | Monitor and adjust | Monitor and adjust |
| PRP overhaul | New Policy on Policy on trial | - New policy and processes for policy development adopted. - Action plan in place for complete rewrite - Structure for central quality assurance set up. - Rewrite of most urgent chapters completed. | - Internal communication and training for rollout of new processes completed. - New policy webpage launched. - Remaining rewriting process started in accordance with agreed priorities. | - Rewrite completed - New processes for policy development become business as usual. | First scheduled policy reviews under new system. | |

One OIST goals for **Sustainable Future**

❖ **Establish a sustainable culture at OIST**

- Executive team leads by example.
- OIST Innovation and faculty-driven Open Centers take sustainability into account in all that they do.
- Educational activities to raise awareness and community engagement: graduate school and outreach activities to prioritize sustainability as part of our science culture.

❖ **Cultivate alumni network and sustainable stewardship of a life-long community of OIST friends and supporters**

- Gift catalogue developed for giving to OIST and OIST Foundation (USA)

❖ **Plan and launch OIST sustainability plans and set goals to action**

❖ **Build sustainable energy testbed to be a successful living lab for OIST partners and for OIST research and education**



Image credit: Kina Hayashi, Marine Eco-Evo-Devo Unit

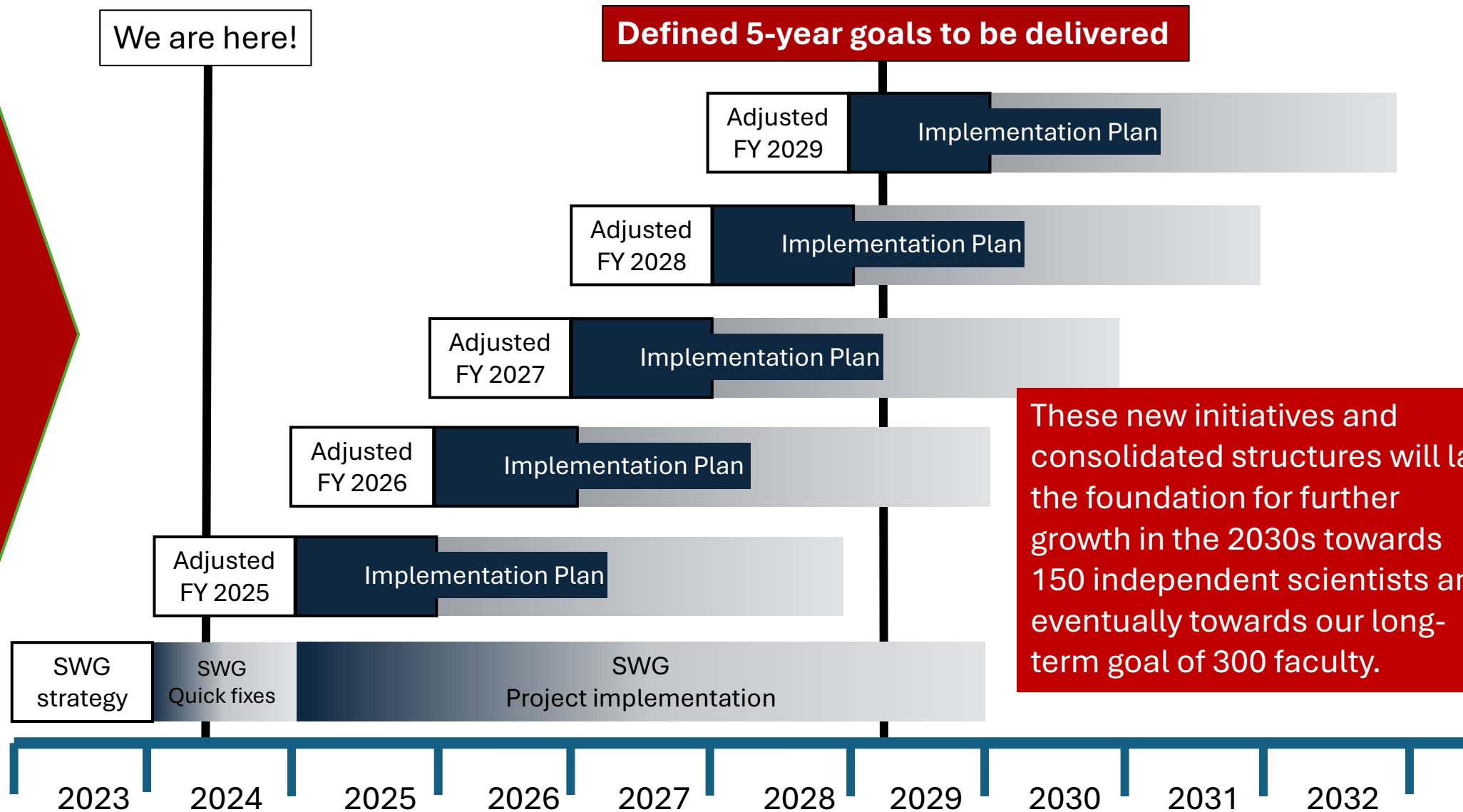


Sustainable Future

Where we will be in five years

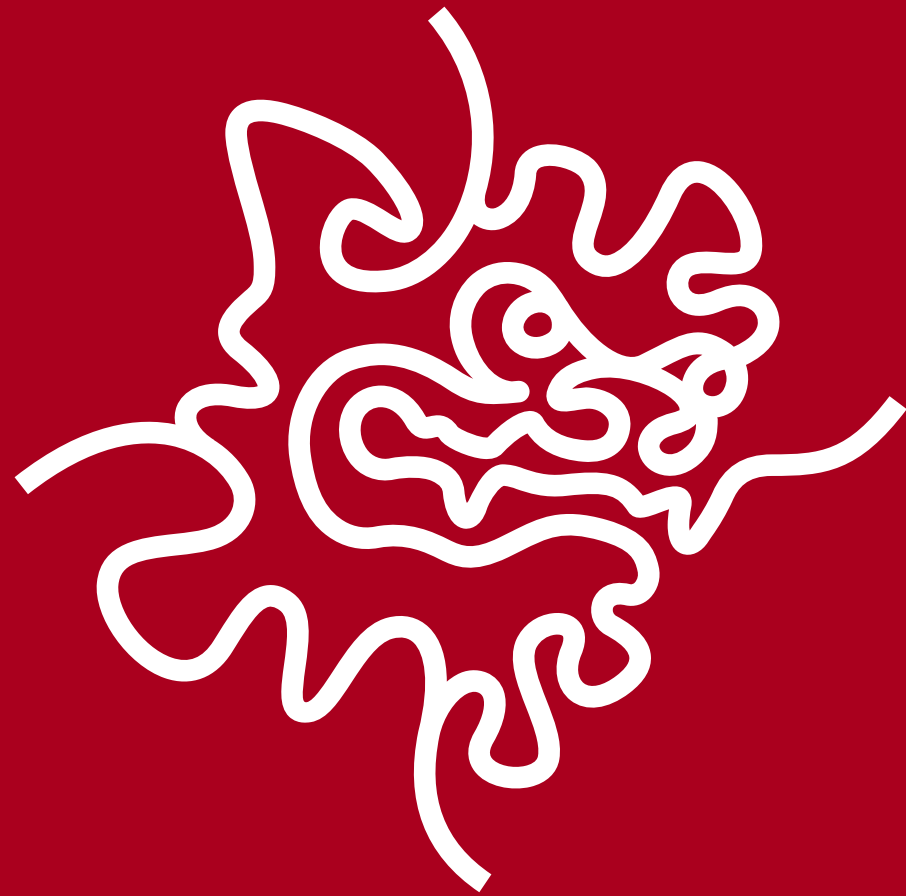
| Target | Today | 2025 | 2026 | 2027 | 2028 | 2029 |
|--|--|--|---|---|--|--|
| Alumni network | No indicators tracked yet due to small number of graduates | Alumni coordinator launched the first set of alumni community events | Online network growth to >50% of student alumni | Online network growth to >70% of student alumni | Alumni Office created to run independent and self-sustaining operation | Full tracking via online network; active engagement of 30% of alumni |
| Sustainability plans and actions | - | Working group reporting to Upper Management Team | Set and show yearly activity for sustainable campus | Set and show sustainability goals in collaborations | Set and show goals for sustainable impact in Okinawa | Active plan and actions in all Mission Areas |
| Gift catalogue for philanthropic giving and donations | Start to develop a gift catalogue with OIST community engagement | Deliver gift catalogue | Receive some gifts for transformative research and innovation | Improve outcome of donations | Improve outcome of donations | Show OIST values and branding for sustainable future |
| Sustainable energy testbed | Framing the idea | Agreement on microgrid and first public private partners | Showcase some research projects using the testbed | Okinawa – Hawaii symposium | Testbed grown beyond OIST campus | Showcase innovative outcome |

Flexible adjustment to reach 5-year goals 2024-2029



Input
Institutional projects from Strategic Working Groups, J-PEAKS, and others

These new initiatives and consolidated structures will lay the foundation for further growth in the 2030s towards 150 independent scientists and eventually towards our long-term goal of 300 faculty.



Thank you!