

Okinawa Institute of Science and Technology School Corporation

Fiscal Year 2016 Business Plan

Okinawa Institute of Science and Technology School Corporation

FY2016 Business Plan

Introduction

In November 2011 the Okinawa Institute of Science and Technology School Corporation Act (OIST SC Act) came into effect, with the objectives of contributing to the promotion and sustainable development of Okinawa as well as contributing to the advancement of science and technology in Japan and throughout the world. In connection, and with the prior authorization by the Minister of Education, Culture, Sports, Science and Technology, the Okinawa Institute of Science and Technology School Corporation (OIST SC) was established as a school corporation to operate the Okinawa Institute of Science and Technology Graduate University (OIST Graduate University) which conducts world-class education and research in science and technology.

This Business Plan (BP) has been developed by OIST, discussed with the OIST Board of Councilors and approved by the OIST SC Board of Governors. The BP guides the operations of OIST SC by setting goals and providing action items for the fiscal year (FY) 2016, from April 2016 to March 2017.

Status of OIST at the end of FY2015

In FY2014 OIST published the “Okinawa Institute of Science & Technology Graduate University Framework Document II”. This report reviewed the progress OIST had made so far and outlined the future development toward 300 faculty with a detailed plan of expanding its size up to 100 faculty in the next 10 years.

In July 2015 an external “Peer Review” was conducted to evaluate OIST’s progress and expansion plan. The focus of the evaluation was to assess whether OIST Graduate University is on track to become a world-class education and research university capable of generating sustainable development for Okinawa.

The Peer Review Panel unambiguously confirmed that progress across all key measures of excellence has been outstanding. In these measures, OIST was judged in the reviewed aspects to be a par with the 25 universities ranked highest by World University Rankings 2014/2015.

As a central recommendation the Panel endorsed the general plan of growth suggested in the Framework Document II, aiming at a goal of approximately 100 outstanding research groups, with a proper balance among different fields of research, and a graduate school of a

few hundred students, one decade from now, by the mid 2020's. Toward the end of this decade of development, further growth of OIST should be deliberated and planned.

Key Elements for the Business Plan FY2016

The key elements of the Business Plan for FY2016 follow directly from the recommendations of the Peer Review and the resulting decision of the Japanese Government to start the funding of the expansion of OIST. These key elements are directly related to the three core missions of OIST: i) International leadership in (interdisciplinary) research, ii) outstanding graduate education while training students in transdisciplinary thinking and research in an international environment, and iii) contribution to the development of Okinawa (and Japan) through the establishment of a strong academia-industry-government partnership and other measures. In addition, OIST is becoming a role model for the development of world leading research centres in Japan (see 5th Science and Technology Basic Plan).

Expansion of the university

The plan for the expansion of OIST has been outlined in the Framework Document II. This plan includes the construction of new laboratory buildings, the hiring of new staff to double the present faculty size from 50 to 100 over a ten year's period and an expansion of the number of students.

Following the successful Peer Review, the Japanese Government released FY2015 funds for the detailed design of Laboratory 4, committed FY2015 supplementary budget funds and FY2016 funds for the start of construction, and is establishing an "act incurring liabilities on the treasury" for the entire construction of Laboratory 4 (FY2015 to FY2018) with a total amount of 11.3 billion yen.

The number of Faculty members will be increased in FY2016, with 60 Faculty members as goal, aiming at a further strengthening the present areas of competence and maintaining the highest quality standards in the selection. In FY 2016 the annual intake of new Graduate students will increase to 35 students, while maintaining the highest quality standards in the selection.

Research

OIST will continue publishing world-leading research in high-impact journals. FY2016 will see the official inauguration of the Okinawa Marine Science centre, the start of two new units for which the hiring process has been completed, one in biology and one in marine science, and the hiring of new faculty members mentioned above. A proposal for the establishment of the "Okinawa Marine Science Centre" and the associate Marine Laboratory was finished in November 2015 and internationally reviewed, with a very positive resonance. An International Advisory Board is being formed which is scheduled to meet for the first time in

July 2016. The Dean of Research plans an international review of the research support facilities, which constitute a key to the research strength of OIST.

Education

OIST will continue to develop an innovative graduate program. FY2016 will be the first year in which students complete their Ph.D. at OIST. This is a major milestone for OIST. The enrolment of more students as mentioned above, and a strong effort to recruit a larger fraction of Japanese students will be integral part of the “growing university”. The increasing number of Faculty will enable OIST to provide a broader spectrum of courses and new research opportunities.

Okinawa Development

Okinawa Development is the third core element of the OIST mission. The expansion of OIST will further strengthen the interaction of OIST with academic and research institutions and industry in Okinawa and beyond, including the University of the Ryukyus, as well as the governmental sector such as Okinawa Prefecture Government and Onna Village. The main focus areas are: business development, technology transfer, the “Proof of Concept” approach to bridge the gap between academia and the introduction of a product to the market, and R&D cluster development. In addition, OIST continues to make important contributions to the elementary and secondary education in Okinawa by collaborating with local schools to inspire young people with scientific activities.

Budget related issues

The total *approved budget* for FY2016 is the same as for FY2015 (16.7 billion yen). This budget contains, compared to FY2015, an increased allocation for new constructions (+1.5 billion yen), a decreased allocation for the facilities of R&D clusters (-0.5 Billion yen), a decrease in R&D cluster programs, their related expenditures and non-recurrent items (-3.0 billion yen), and an increase in the base budget for operation (+2.0 billion yen).

The budget approval requires that OIST introduce a set of measures to promote and enhance the acquisition of external funds such as increased success rate in grant applications and incentive measures to enhance grant applications. OIST has already defined a set of actions to increase the income through external funding and taken a number of concrete steps. It will continue to put a major emphasis on this. An additional source of external income is through collaborative research with industry. Here OIST has been very successful and will increase its efforts further. Consistent with becoming a new model for universities in Japan, OIST is developing its Fundraising Office following the model of North American universities where private and corporate donations are sought to support the mission of the university.

Concerning the construction of Laboratory 4, OIST is strengthening the project and budget

management in order to assure that the project will be completed on time and within budget.

Governance and Administration

Successful operations of an international graduate university in science and technology require flexible, efficient, and effective administrative management, which will enable it to adjust to the rapid changes in academic and business environment as well as global competitions. Administrative procedures should provide appropriate support for creativity and innovation. A high level of transparency is one of the requirements, as are compliance with the laws and regulations, and accountability to the Japanese taxpayer.

OIST Graduate University aims to provide a new model for universities in Japan not only in science and education, but also in approaches to the administration and financing of an international university. This aim has also been stated in the 5th Science and Technology Basic Plan.

Planning framework and evaluation approach

This Business Plan states the goals of FY2016 and the action items to achieve the next step in the growth of the Graduate University, described above. In accordance with the Cabinet Office Ordinance for enforcement of the OIST School Corporation Act (Cabinet Office Ordinance No. 59 of 2011)), the plan has the following 5 chapters: 1) Education and research, 2) Governance and administrative transparency and efficiency, 3) Finance, 4) Contribution to self-sustainable development of Okinawa, and 5) University campus and community development; safety and environment protection. Each chapter has subchapters consisting of Goals and Actions.

Based on the Bylaws of the OIST SC, the draft Business Plan will be submitted to the Board of Councillors (BOC) for their review and to the Board of Governors (BOG) for their final approval. The plan will be submitted to the Prime Minister for approval based on the OIST SC Act. The government will provide financial support to the OIST SC based on the assumption that the OIST SC will implement the approved Business Plan appropriately.

As a corporation established on the basis of special legislation and largely funded by the government, it is our responsibility to implement the Business Plan steadily and to demonstrate accountability for our activities, including status of implementation of the Business Plan, to the general public. A key to achieving these aims effectively is the relationship between the BOG as an overseeing body and the CEO/President executing daily operations. The BOG is responsible for overseeing the CEO/President's implementation of the Business Plan, and the CEO/President is responsible for reporting the status of implementation of the Business Plan to the BOG. In addition, the Auditors of OIST SC will

supplement this relation by conducting independent and rigorous auditing on all aspects of operations including the status of implementation of the Business Plan.

After the end of each fiscal year, the organizational performance will be reported to and evaluated by the BOG and the BOC. The evaluation results will be utilized in planning and executing business as a basis for the next step to achieve our objective. In addition, the annual report together with the evaluation results will be posted on the OIST web site to ensure transparency by the end of June of the following fiscal year.

For a transparent and quantitative monitoring of progress against the plan, metrics will be provided for sub-sections of the Business Plan whenever appropriate. These metrics will also allow for analyses of the growth of OIST Graduate University and international comparison with bench-marked institutions. Most of the metrics should be evaluated in the spirit of achieving the goals described above. Therefore, these metrics themselves are not the objectives. The final judgement of achievements has to come through the process of a Peer review similar to the one in 2015, which laid the groundwork for the current stage of expansion of OIST.

Chapter 1 Education & Research

1.1 Ph.D. Program

Goal:

Using feedback from 2015, refine and improve measures to ensure that student recruitment, admissions, and enrolment proceed smoothly.

Actions:

(Courses)

- Continue to develop the curricula including courses taught by newly recruited faculty, and submit an application of additional faculty teaching to MEXT in June 2016.
- Continue to provide the customized Ph.D. program, including pre-thesis research training and laboratory rotations and assignment of an Academic Mentor for each student.
- Continue to provide the programs for Professional Development for students including training that focuses on group activities and presentation skills, research conduct, career development, teaching experience and a program of student-invited visiting speakers.
- Continue to provide the examination for progression to thesis research based on oral examination by prominent external examiner.
- Prepare the procedures for final examination of the thesis and graduation, degree

certificate, graduation clothing and ceremony.

- Continue to provide the Gap period training in language and research experience for incoming students, especially those who graduate from Japanese universities in March.

(Educational Environment)

- Continue to enhance collaborative relationships with other universities by developing exchange agreements concerning interns, course credits, TA opportunities, and other exchange opportunities.
- Continue to maintain and enhance student record systems for monitoring of student progress, grades and completions.
- Continue to enhance teaching support systems to manage laboratory classes, teaching materials, lecture and tutorial rooms, AV support, computer labs, and liaison between teaching faculty and academic services section.
- Increase opportunities for OIST PhD students to learn essential research skills by organizing short courses in identified topics (such as mathematics, computer programming) and special topic courses by visiting researchers.

(Student Support)

- Continue to refine and improve the orientation programs for the incoming students providing information on the educational program, available laboratories for thesis research, and life in Japan.
- Enhance international student understanding of Japanese culture by organizing cultural visits and provide opportunities for interaction with students in other Japanese universities.
- Continue to provide an environment for the students entering our Ph.D. program in which they will be able to concentrate in their research activities under the living standard comparable to that of the students of the best universities in the world that we are competing with.
- Continue to track the occurrence, response and outcome of incidents involving students.
- Continue to collect and provide information of external scholarship opportunities to the students.
- Continue to support career development of students by professional development activities including arranging of TA opportunities at other universities and colleges, promotion of networking with leaders of universities and research institutions in Japan and around the world, active provision of the information concerning post-doctoral and other job opportunities, including a program of visiting speakers.
- Resource Center will continue and enhance its direct support to the students and their family members by (1) proactively engaging potential users through welcome emails to incoming staff and their families, (2) creating and distributing promotional materials (brochures, videos, etc.) detailing our services, and (3) expanding the RC website to

include more information on daily life issues and administrative processes.

- Clinic opens with full-time bilingual members of one doctor, one nurse and one admin staff and cover the students' needs for general health on campus. Ganjuu Wellbeing Service will continue its activities to support in particular psychological health. In addition, a range of seminars on stress management and stress warning signs will be developed and offered.

Goal:

We will continue to attract and select the graduate students for our Ph.D. program from amongst the best available worldwide in science and technology. At least half of the students will be non-Japanese.

Actions:

- Review previous student recruitment and admission activities. Reflect the results of the analysis in the updated procedures and implement them effectively in a planned manner.
- Continue to carry out student recruitment activities globally to attract the highest caliber graduate student candidates for the next intake of students arriving in September 2017 as follows:
 - The number recruited: About 35 students
 - Major recruitment activities:
 - Continue to develop the graduate school website as a recruiting tool. In addition, print a concise and well edited student recruitment brochure.
 - Continue holding OIST Café in major Japanese cities by providing OIST recruiting information and English training.
 - Hold the Science Challenge Workshop for undergraduate Japanese students, and the International Collaborative Workshop for undergraduate Japanese and other students to provide experience of cutting edge research and OIST graduate school educational experience.
 - Print specially targeted brochures to recruit applicants from disciplines that have fewer students at OIST such as Chemistry and Marine Sciences.

*Particular attention and effort will continuously be made to advertise OIST's unique educational opportunities to Japanese undergraduates. Increase participation by Japanese students through a range of targeted approaches, via holding briefing sessions in some universities and events such as graduate school experience workshop in FY2015.

Metrics:

- Number of A excellent applicants for the Ph.D. program (Japanese and non-Japanese)
- Number of admitted students (Japanese and non-Japanese)

- Caliber of incoming students (list of institutes from which the students received degrees, etc.)
- Increase of students receiving external scholarships, etc.

1.2 Scientific Research

Goal:

OIST Graduate University will continue to conduct world-class research in cross-disciplinary fields of science. OIST Graduate University is committed to the pursuit of new knowledge through basic science. We are committed to the training of an international community of students. OIST Graduate University will encourage, motivate and support its talented faculty, students and scientists by promoting a collaborative cross-disciplinary research environment, providing excellent facilities and equipment, and by conducting regular and rigorous peer review.

OIST Graduate University aspires to be responsive and relevant to the needs of society. We believe that the most significant contributions will result from the discoveries made through basic science. Following “Basic Policies for Economic and Fiscal Management and Reform” by the Cabinet, we will continue applying our science and technology to the needs of society and industry in Okinawa.

Actions:

(Promotion of cross-disciplinary research)

- Success in cross-disciplinary research depends on the strength of the Research Unit, led by our faculty members. To this end, we will continue to recruit the best people to our Faculty. We will actively develop the Research Support Division that supports the common and shared instruments and services for the researchers and students at OIST. Completion of Lab 3 has created space to support companies to co-locate with OIST researchers. This will enhance our mission to support the development of Okinawa.
- The architecture of our buildings, the rotation of each new class of graduate students through disciplines outside of their areas of interest and social activities all contribute to promoting joint projects across disciplines.
Attachment #1-1 lists the Research Units at OIST as of February 2016. Attachment #1-2 lists the major scientific areas of research.

(Research Support)

- The Research Support Division (RSD) has undergone a restructuring. The nine Sections of the Division all now have function-related names, as well as one or more faculty members advising and leading the Sections with the RSD Section Leaders.
We replaced the Vice Provost for Research position with a Dean of Research position. This position leads the RSD.

As OIST grows, recruitment of excellent professional staff into each Section will continue. The area of engineering support has been strengthened. The Engineering Support Section is now specialized to the Mechanical Engineering and Micro Fabrication Support Section. A new Section, the Electrical Engineering Support Section has been created. This important area will enable technology development and advancements that will support both our research and teaching. It will be housed in the planned Engineering Support Building, planned for the FY2015.

The engineering and technical staff in the two Engineering Sections must have design, fabrication, and testing expertise that includes mechanical systems, electrical systems, vacuum systems, microwave systems, chemical systems, bio-molecular systems, environmental systems, digital and analog electronics, process engineering, geodetics, and fluids.

- Work is progressing on the building of the Seragaki Marine Laboratory that will support marine science and the Marine Centre at OIST.
- Continue the completion, development and improvement of the Research Equipment Database and Reservation System for effective management and use of common research resources.
- To enable continuous, real-time monitoring of Okinawan coral reef ecosystems, two cabled, ocean-observing systems have been installed. Physical, biological, and chemical parameters are monitored and underwater cameras designed for plankton monitoring have been installed to capture temporal variations. Water samples are collected several times every month and stored in order to determine the accuracy of underwater sensors and to process samples in the laboratory (mass spectrometry and electron microscopy). Collaborators are permitted to bring their own sensors and OIST will connect them and carry out maintenance. Data storage will be available, thereby allowing OIST to be an excellent testing site for ocean observing instruments.
- Enable the use of OIST research facilities by external academic and industrial users, while ensuring prioritized access by internal users. To write a PRP Chapter dedicated to the use of OIST research facilities by external entities. Develop the procedures and processes to support that PRP.
- Utilize a high-performance-computing cluster and DNA sequencers facility to support the R&D Cluster-related and other research at OIST.
- Committee for the Promotion of Proper Research Conduct will encourage all OIST researchers and students to take research ethics education in order to promote responsible conduct of research. The committee also take initiative to establish necessary manuals or procedures so that all researchers and students perform appropriate and effective operations over storage and disclosure of research data in compliance with relevant administrative guidelines.
- Reorganize sections and offices related to health and safety, and then establish the

Environmental health and safety Section to support and advance the teaching, learning and research activities of the University through promotion of a safe and healthy campus environment by providing and coordinating programs and services that minimize safety, health, and environmental and regulatory risks to OIST community in a manner consistent with responsible fiscal and environmental stewardship.

(Publication and communication)

- Continue to promote publication of research results in international science journals with the highest quality of research and participation in international conferences by encouraging researchers through publicity of research results and rigorous research evaluation.
- Continue to provide accessible information about OIST research and its results to the scientific community and to the general public in Japan and overseas through OIST Web articles, press releases, press conferences, OIST newsletter, brochures, and the OIST social media. To do this, we will:
 - Continue moving all OIST website contents to a responsive design to enhance usability for users on mobile devices, work which began in FY2014. Continue to optimize the OIST Website and maintain the high percentage bilingual content.
 - Employ a proactive media strategy by organizing press visits and press briefing sessions in Okinawa and on the mainland.
 - Disseminate OIST's research results to local, national and international media via electronic clearing houses such as Alpha Galileo and Eureka! Alert and through Japan's press clubs.
 - Strengthen the media presence by creating and maintaining a global network of press officers with other universities and journalists.
 - Streamline the working skills of science writers by regularly providing professional courses in collaboration with other universities.
 - Leverage social media to increase visibility of and support for OIST.
- Increase the number of meetings with other institutes by improving the technical support.

(Research Evaluation)

- Continue the evaluation of research units by external committees consisting of world-class prominent scholars at the internationally highest standard – the committees will rigorously evaluate the achievements, uniqueness, future possibilities, and other elements of the research unit with fair and transparent standards. The evaluation results will be used in judgments of promotion of faculty members and continuation of the research units. (In FY2016 evaluation of up to 7 units is planned.)
- Continue to publish the summary of research evaluation expeditiously to fulfill the accountability to the public in using public expenses for the research projects.

Metrics:

- Number of researchers (faculty, postdocs, technicians, and students)
- Number of research publications
- Number of press announcements and/or conferences about research results
- Number of research honors
- Number of research units evaluated

1.3 Faculty Recruitment

Goal:

The University will continue to recruit international and Japanese scientists, with a mixture of senior scientists with an established record of excellence in research and junior scientists with a strongly emerging record of excellence in research.

Publicize OIST and solicit faculty recruiting to the conference participants by inviting and hosting prestigious international conference in computer science to OIST.

Actions:

- A series of appointments of outstanding Faculty is planned which strengthens the OIST research portfolio following broadly the proposals set out in the Framework Document II by both broadening and deepening the coverage of the different scientific disciplines while maintain a balance between seniority, international and Japanese faculty and enhancing the gender balance. The aim is to recruit up to 9 new Faculty positions driven mainly by the excellence of the candidates, to increase the number of Faculty to 60 toward the goal to reach 100 Faculty units by 2023 in the Framework Document II. The research areas include Biology, Chemistry, Computer Science, Ecology and Environmental Science, Marine Science, Mathematics, Neuroscience, and Physics.
- Provide suitable research and work space for new faculty members in FY2016 by implementing the following actions.
 - Continue to adapt the reserved spaces in Lab 3 to the needs of faculty.
 - Refit the vacated labs and work spaces in other lab buildings.
 - Create additional space by optimizing use of existing labs and workspaces.
 - Encourage sharing of equipment and common facilities by faculty members to increase available spaces.
 - Coordinate closely with new faculty members to meet space requirements.Coordinate with Resource Allocation Committee for efficient use of space.

1.4 Global Networking

Goal:

OIST Graduate University will continue to create strong networks with the international science community. It will do this, for example, by increasing collaborative agreements with universities and institutions, and by hosting academic workshop. OIST will increase its reputation as an International Graduate Research University committed to the betterment of society through conducting leading basic research and training the best scientists.

Actions:

- Enable and enhance collaborative relationships with other universities by developing exchange agreements concerning interns, course credits, and other exchange opportunities. (Repeated. See 1.1).
- Continue to host international courses and workshops at the highest level in the world and provide students and young researchers with the opportunities of learning forefront science and interacting with outstanding peers. In addition, invite world-class international conferences to OIST venue to increase opportunities for the OIST researchers and students to establish networks with other researchers through academic and social events. Maintain flexible and efficient operation of each workshops by keep ensuring a reduction of cost for each workshop by reducing the travel support for the workshop participants, obtaining funding support from other institutes and more efficient travel and accommodation procedures.
- Continue to host top undergraduate students in residential courses and laboratory placements as research interns in research units.
- Continue to implement special research student programs, and through those programs, accept students from universities in Japan and around the world for practical trainings in research units.

Metrics:

- Number of collaboration agreements with universities and research institutions
- Number of international courses and workshops
- Number of participants of international courses and workshops
- Number of students accepted from domestic and international universities

Chapter 2 Governance & Administrative Transparency and Efficiency

2.1 Basic structures for governance and business operations

Goal:

The Board of Governors (BOG), which consists mainly of non-executive members based on the OIST SC Act and the OIST Bylaws unlike the case of most Japanese traditional institutions, takes ultimate responsibility for operation of the OIST SC and OIST Graduate University. The

Board of Councilors (BOC) reviews the operations of the corporation with broad views of the society, including those of the local community. These two boards play key roles together in ensuring effective and transparent governance of the OIST SC in accordance with pertinent Japanese laws and the OIST SC Bylaws. The CEO/President will continue to provide the leadership in the execution of the Business Plan and accountable to the BOG and the BOC. The governance of OIST SC especially features the appropriate relationship between these boards and the CEO/President. Auditors of the corporation will conduct rigorous audits to ensure appropriateness and efficiency of the operations of the corporation.

Actions:

(Basic Management)

- Commences the fifth year since the School Corporation began. Regular BOG meetings will be held in May, September and February, and regular BOC meetings will be held in May and February 2017. In the BOG meeting in May, the performance and achievements of FY2015 will be reported and evaluated. The results of this assessment are made available to the CAO for public sharing.
- BOG and BOC have established subcommittees to ensure effectiveness of their functions. Activities of these subcommittees will receive sufficient administrative support (Subcommittees of the BOG: Steering, Budget and Finance, Academic and Research, Audit and Compliance, and (Ad-hoc) Community Relations and Future Planning. Subcommittees of the BOC: University Management, Budget and Finance, Academic and Research and Sustainable Development for Okinawa.). A web or telephone conference system will continue to be utilized for the BOG and BOC meetings to enhance efficiency as well as promote active participation of governors and councilors who are in distant locations.
- The CEO/President will continue to exercise leadership in all matters of daily operation of the OIST SC and the OIST Graduate University and ensure steady implementation of the Business Plan.
- Auditors will continue to conduct rigorous regular audits of all aspects of business operations, including budget execution, tendering and contracts, and the status of compliance, based on the Auditing Plan developed in advance while coordinating with internal audits and accounting audits, and conduct special audits in addition when deemed necessary. While keeping appropriate independence, Auditors will continue to maintain effective communications with the university management through the Vice President in charge and will be provided sufficient information and staffing necessary for conducting their duties. Result of Auditors' audit will be reflected in future operations through their reporting at BOG meetings, etc.

(Commence Expansion)

- In July 2015 an external “Peer Review” was conducted to evaluate OIST’s progress and expansion plan. The focus of the evaluation was to assess whether OIST Graduate University is on track to become a world-class education and research university capable of generating sustainable development for Okinawa.

The Peer Review Panel unambiguously confirmed that progress across all key measures of excellence has been outstanding. In these measures, OIST was judged to be on a par with the 25 universities ranked highest by World University Rankings 2014/2015.

As a central recommendation the Panel endorsed the general plan of growth suggested in the Framework Document II, aiming at a goal of approximately 100 outstanding research groups, with a proper balance among different fields of research, and a graduate school of a few hundred students, one decade from now, by the mid 2020’s. Toward the end of this decade of development, further growth of OIST should be deliberated and planned.

Goal:

OIST Graduate University will continue to build and maintain the administrative organizations by which a world-class international graduate university will be effectively administered. While being autonomous, OIST Graduate University will keep close contact with the Cabinet Office (CAO) to be accountable for its budget execution and business operations to the Japanese Government.

Actions:

- Continue to hold weekly meetings with the President/CEO, Vice CEO, and other executives to prepare major decisions, to share information and review the status of business operations. In addition, hold all-hands meetings as necessary. Continue to hold the bi-monthly information sharing meeting between the Executive and the Faculty Assembly to improve the flow of information between senior management and the Faculty.
- Maintain close communication with CAO through the Vice President in charge of governmental relations. Specifically, continue the Quarterly Meeting to share information such as the status of implementation of the Business Plan. In addition, prepare business sketch and budget requests for FY2017 well in advance through close discussion with CAO.
- Continue necessary preparation for university accreditation conducted in 2018 by a MEXT-certified independent accreditation organization.
- A new ERP system will be implemented as a central tool for managing the HR and Finance systems at OIST Graduate University. This will be the most significant administrative change since OIST began as a university. The Information Technology, or IT, at OIST serves both the University as well as the academic core, through the Scientific

Computing and Data Analysis Section of the RSD. Continuous improvements in a wide range of services are being implemented. These include processes as well as new infrastructure.

- Ensure IT provides an excellent quality of support service, in alignment with the goals of the University and the business plan. Specifically, ensure that support processes critical to research and educational productivity such as on-boarding, account creation and authorization changes are as automated and efficient as possible.
- Ensure that clear and concise documentation and education programs exist to allow users to capitalize on IT resources and services.
- Identify, evaluate, design, deploy and maintain infrastructure to support the business of the University, ensuring that infrastructure deployed can scale with the growth of OIST.
- Best position the University within relevant local and global IT initiatives to enhance and support the research and administrative activities of the University, and best promote Okinawa.
- Provide legal advice in connection with legal issues arising at the relevant divisions at OIST, and ensure legally appropriate operation of the OIST SC by providing overall legal support in drafting, negotiation and execution of the agreements handled by relevant divisions at OIST.

2.2 Budget allocation and execution

Goal:

On executing the budget including government subsidies, OIST Graduate University will continue efforts for improving cost efficiency and level, especially for general administrative expenses, by engaging in the improvements of procedures and systems to enable appropriate and effective allocation and execution of budget to fulfill its accountability to the government, sponsors, and general public.

Actions:

- By holding Resource Allocation Committee, formulate high-level budget allocation and reallocations proposals of the university resources, such as Personnel budget, Operational budget, Equipment budget, and Space. For the purpose of appropriate allocation of the university resources, the proposals will be reviewed by the Executive Committee and then approved by the President/CEO.
Continue to have budgetary units, which are the allocation/execution unit, consistent with the organizational structure of the university and allocate the necessary budget to implement the Business Plan to each budgetary unit.
- Continue to reinforce the budget allocation and reporting process by collaboration with the budget analyst assigned in each division. The status of budget execution will be reported monthly to the President/CEO at the monthly Budget Review Meeting in order

to ensure appropriate and integrated budget management of all funds including the Subsidy for Facilities. In addition, report the budget execution status to CAO on monthly basis.

- The system of Research Plans has been implemented. All faculty members have been asked to fill out the Research Plans that contain plans for the science, with appropriate summaries as well as requests for resources. Resource requests will cover human, operational expense and instruments and other capital needs. The Research Plan covers five years. Together with the peer reviews, as appropriate, decisions about budget allocations will be made. Mid-year review in September and another review in January, at the beginning of the fourth quarter will be conducted. These are points where all the research-related budgets are balanced between surpluses and over-expenditures. This fine-tunes the expenditures to optimize spending. The mid-year review is also when checks are made to ensure capital purchases are in line for delivery and acceptance by the end of the Fiscal Year.

Continue to properly manage competitive research funds including KAKENHI (Grants-in-Aid for Scientific Research) in accordance with the rules provided to each grant under the Dean of Research while coordinating with the Budget and Accounting Sections.

- Continue to implement the procedures to comply with laws and University policy and rules – the procedure in budget execution includes reviews by the Vice President in charge of compliance when individual budget expenditures exceed a predetermined threshold.
- Conduct internal audit under the Vice President in charge of compliance, as well as develop human resources through sending our staff to training courses provided by government agencies, etc. on regular basis, to ensure proper contract, procurement and accounting procedures.
- A committee consisting of external experts will review of contracts concluded by the University in order to ensure proper implementation of tendering. In addition, exert efforts in ensuring fair and transparent procurement through measures such as establishing a committee including external experts and having their review on specifications of large research tools/equipment for each purchase based on the University's policy and rules.
- The RSD Section Leaders and the faculty managers will consider proposals of common and shared research resources.

2.3 Efficiency of business operations

Goal:

OIST Graduate University will continue its efforts to improve efficiency in its business operations.

Actions:

- Support research activities, such as promoting common/shared use of research equipment and tools (See 1.2) and utilizing the methods of unit price contracts, bulk purchase for research materials and reagents, and multi-year contracts.
- Reduce costs of research supplies and reagents which are usually used by price negotiation as well as general purchases.
- Reduce costs of research equipment maintenance by reviewing the methods of maintenance etc.,
- Improve the Internal supply store operation for supporting research activities efficiently and effectively.
- Contracts of the University shall be based on the principle of ensuring sufficient transparency and competitiveness, and in case of making a negotiated contract, thorough information disclosure will be ensured, such as by disclosing the reason for the negotiated contract. Monitor procedure for negotiated contract continuously. At the same time, review procurement policy, rules and procedures regularly from the perspectives of efficiency and simplicity. Start streamlining the segregation and procedures related to procurement for the future expansion of the University.
- Study continuously for the direct purchasing from abroad, considering the price correction of Japanese market.
- Collect reference data comparing prices of supplies and equipment etc. in Japan and abroad and use such data in direct negotiation with manufacturers/agents/forwarders to improve cost efficiency of purchasing. And mitigate price increases caused by recent devaluation of JPY.
- Conduct appropriate actions for adapting sufficient procedures of OIST staff to the change of consumption tax, etc.
- Support those efforts for administrative internationalization made by national universities and other institutions through conducting a training program at OIST to their staff members and enhance administrative efficiency by absorbing their knowledge and experience on university operation and management.

Metrics:

- Reduction of costs by unit-price contracts and bulk purchase
- Increase of use of the internal supply store
- Ratio of purchase contracts concluded through tendering or other competitive processes (number of contracts and amount)

Goal:

OIST Graduate University will make the best use of its facilities and equipment.

Actions:

- A thorough survey of use of research and work spaces in all three existing laboratory buildings has begun since beginning of 3rd quarter of FY2015, and will continue more actively throughout FY2016 in order to optimize efficient use of available space in entire facility by the followings means and methods:
 - Creation of updated data including CAD drawings with furniture and equipment layout for continuous monitoring of efficient use of space.
 - Creation of more common use of space for research activities
 Relocation of uses that are not required to be in the valuable spaces allocated for research, such as storage rooms for unused equipment and furniture.
- Continue to promote external use of Auditorium and other facilities.

2.4 Personnel management

Goal:

OIST Graduate University will continue to attract, hire and retain qualified employees, who are essential for the university to achieve its goals sustainably, by providing globally competitive compensation and benefits as well as training opportunities. At the same time, as a corporation operated largely with a subsidy from the Japanese Government, OIST Graduate University will continue to make further efforts to contain overall personnel costs, with strong efforts to keep the employees' salary at a reasonable level consistent with expectations of tax-payers, as well as ensuring accountability in such aspects, by implementing continuous actions following "On the Salary of Officers and Employees of Special Public Corporations, etc. (by Administrative Management Bureau, Ministry of Internal Affairs and Communications on December 24, 2015)" and embodying actions following "On the Salary of Officers and Employees of Special Public Corporations, etc. (by Administrative Reform Promotion Taskforce Secretariats in Cabinet Secretariat on October 7, 2014)."

Actions:

(Recruitment)

- Continue to consider the recruiting and hiring of qualified persons for those important positions to administer an international university.
- Continue to recruit qualified staff necessary to support new or expanded functions as well as research support positions while recognizing and utilizing internal human resources.
- At the same time, manage the headcount within ranges decided in budget and with the use of external funds to prevent the organization from expanding excessively the use of subsidy funds. Take account of the trend among universities and similar institutions in Japan and abroad in order to achieve an efficient and streamlined administrative sector.

Prepare rules to on converting fixed-term employees to a new category of permanent employment based on revised labor contract laws.

- Continue to enforce the equal opportunity policy to promote diversity at the workplace and to improve the gender balance among all job levels and categories.
- Continue to promote gender equality in all aspects of university management, especially to identify professional development opportunities for female researchers and to support career advancement opportunities for female administrative staff. Start collecting data in order to develop evidence-based strategies to accomplish the goal of the Taskforce. Continue working with Okinawa Prefecture and universities in Okinawa on projects designed to inspire middle/high school girls to study science and consider science-based careers.
- Promote hiring people with disabilities by removing barriers for providing equal working opportunities.
- Continue to strengthen the employee service related function, both for new and current employees as well as students, such as child-care services, family support, food services, health/medical services and living needs support on basis of feedback from users and changing needs as the campus population grows. Continue to network with schools to increase the opportunities for children education. Network with OPG, Employment Service Centers (Hello-Work), and potential employers to identify more options for spouse work.

(Compensation)

- Continue to manage the annual performance evaluation and job grade systems, referring to competitiveness factors such as salary levels of national government employees and those of academic institutions in and outside of Japan. In addition, embodying and implementing actions following “On the Salary of Officers and Employees of Special Public Corporations, etc. (by Administrative Management Bureau, Ministry of Internal Affairs and Communications on December 24, 2015).”
- The Registration Desk will continue to support visiting researchers and invited guests.
- With completion of Village Housing facilities on main campus in 2015, work on planning for additional on-campus and off-campus housing will start in 2016. Assisting members of OIST in search of off-campus housing and managing their lease agreements.

(Career development, training and evaluation)

- Continue to develop a career development plan for administrative staff, including provisions for training opportunities, securing replacements, and succession planning.
- Based on the needs of OIST staff and requests from managers and staff members, continue to provide skill-based training for staff and managers focusing on the requirements of all staff levels. As appropriate, surveys and interviews will be used to determine training needs.
- Continue to provide online sexual harassment prevention training. Other stress related

matters will also be addressed by implementing “stress check”. HR Training will support OIST’s focus on wellness and other work-related issues with external and internal offerings.

- In line with OIST’s PRP directive, continue to provide a monthly orientation to new incoming staff. Orientation will consist of general orientation about the university, its procedures and Japanese laws along with practical orientation on OIST administrative systems/rules for administrative staff.
- In FY2016 OIST will increase the number of language courses given to staff and family members. There is a very strong demand for language training and the ability to communicate in English and Japanese is a foundation of the success of the University.
- Continue to manage the annual performance evaluation system with job grade and salary ranges. Annual performance evaluation is based on goals/expectations proposed in the beginning of the term, appropriate to the characters of each job category ensuring fairness and transparency via self-assessment and reviewers’ evaluations. Also, reflect the evaluation results in employee salaries, while continuing to ensure quality in evaluation and a reliable process with advice- from the Salary Review Committee. In addition, implement training on a regular basis to provide newly promoted managers as well as newly hired employees, with necessary updates to the process.

Metrics:

- Number of employees (by job categories, nationalities, and gender), by seniority
- Ratio of staff in administrative divisions to the total headcounts
- Ratio of labor costs to the total operational budget
- Salary Level of employees (average salary by job category)
- Number of employees taking training programs

2.5 Compliance

Goal:

OIST Graduate University will ensure compliance in all aspects of the university operations.

Actions:

- The Vice President for Administrative Compliance will continue to review the budget execution status and contracts exceeding a predetermined threshold as well as new and revised policies, rules and procedures from a view point of compliance.
- Continue to establish and revise policies, rules and procedures appropriately at the right time in response to revision of relevant laws and regulations or changing situation, and hold the PRP review committee periodically to maintain consistency in policies, rules and procedures as a whole. Provide legal advice to each policy owner division in drafting and revising the policies, rules and procedures.
- Continue to ensure appropriate creation, management and retention of documents

concerning decision making and its processes in the operation, based on the Act concerning the Management of Public Documents (Act No. 66 of 2009) and University Policy and rules that are developed accordingly.

- Handle personal information properly based on the Act on the Protection of Personal Information held by Incorporated Administrative Agencies etc. (Act No. 59 of 2003), the Act on the Use of Numbers to Identify a Specific Individual in the Administrative Procedure (Act No. 27 of 2013) and the University policy and rules that are developed accordingly.
- Through audits by Auditors and internal audits carried out under the Vice President for Administrative Compliance, provide rigorous review of the status of compliance including the implementation of the policies and rules, and reflect the result as necessary.
- To facilitate evaluation of situations that may give rise to conflicts of interest, formal written disclosure of external activities and commitments is required of all University officers and employees each year, based on the PRP Section 22.3.1 in “Avoiding Conflicts of Interest & Commitment”.
- Continue to ensure that our research activities are compliant with pertinent regulations and laws.
- To prevent misconduct of research funds, various measures will be taken, including initiatives for ensuring through familiarization of all faculty members and researchers with rules of use of research funds, increasing the awareness of thereof, and strengthening the administrative structure for the conditions of acceptance-inspection process of purchases.
- Committee for the Promotion of Proper Research Conduct will encourage all OIST researchers and students to take research ethics education in order to promote responsible conduct of research. The committee also take initiative to establish necessary manuals or procedures so that all researchers and students perform appropriate and effective operations over storage and disclosure of research data in compliance with relevant administrative guidelines. (See1.2)
- Reorganize sections and offices related to health and safety, and then establish the Environmental health and safety Division to support and advance the teaching, learning and research activities of the University through promotion of a safe and healthy campus environment by providing and coordinating programs and services that minimize safety, health, and environmental and regulatory risks to OIST community in a manner consistent with responsible fiscal and environmental stewardship. (See1.2)

2.6 Information Disclosure and Public Relations

Goal:

The fast growth of the Graduate University requires OIST to guarantee transparency of academic and administrative operations, and accountability to the general public. In order to obtain broad support for OIST both from Japan and overseas, and to enhance worldwide recognition of the Graduate University, we will communicate actively with various stakeholders and promote OIST.

Actions:

- Continue to disclose the information appropriately on the OIST website etc. to comply with the School Education Act (Act No. 26 of 1947) and the Act on Access to Information held by IAs (Act No. 140 of 2001).
- Continue development and expansion of the OIST Website to maintain its position as one of the leading and truly bilingual Japanese /English academic websites in Japan.
- Continue organizing press briefing sessions and press conferences in Okinawa and on the mainland, and also generate press visits to OIST, in order to maintain consistently positive press coverage of the Graduate University.
- Continue improving the OIST Graduate School Website, publication database, and News Center to facilitate retrieval of information about the OIST Ph.D. program and publications by OIST researchers, and to encourage use of OIST photos, videos and other multimedia.
- Increase effective use of social media such as Facebook, Twitter and YouTube to propagate excitement about the OIST Graduate University.
- Continue to maintain and improve the library of OIST Policies, Rules and Procedures on the website.

Chapter 3 Finance

Goal:

Following Mid-term Strategy for External Funding, OIST Graduate University will continue to broaden its financial basis strategically by increasing amount of research grants, donations, and other sources aim of becoming more financially independent in the future. This will be from two main sources, namely external competitive grants and from fundraising. OIST will strengthen our organization for external funds and consider effective measures such as incentives for researchers.

Actions:

(Grants)

- The number of awarded grants has increasing. These include: KAKENHI, JST Strategic Basic Research Programs (CREST, PRESTO), and the Human Frontier Science Program. In order to increase external funds, OIST will implement the action plan made in November 2015 towards the target that OIST set and will update. For example, as new junior faculty

join OIST Graduate University, we will hire a grant facilitator, and continue our grant-writing workshops to help them succeed in Japanese competitive grant opportunities along with the action plan made in November 2015. These workshops will be given in both languages and there will be language support for grant preparation. The Grants and Collaborative Research Section of the RSD will continue to collect information about grant opportunities in Japan and abroad and communicate these on a regular basis to members of our research community.

- In addition to regularly checking sources of funding agencies in Japan and abroad, we will collect information about any precursory activities leading to announcements of new grants, such as from advisory boards of MEXT.
- Encourage researchers to apply for private sector and industry-related grants and provide proactive application support such as translation, editing, and budgeting.

(Donations)

- We will recruit a Director of Fundraising and initiate an Office of Fundraising.
- We will work with two established fundraisers, one in North America and one in Japan. The combined efforts will start our fundraising at OIST Graduate University.

Metrics:

- Increase of the number of application for external research grants
- Increase of the number of awarded research grants (number and amount)
- Increase of the number of the external funding to OIST (total amount and breakdown)

Chapter 4 Contribution to Self-sustainable Development of Okinawa

Goal:

Japan's "Basic Policies for Fiscal Management and Reform 2014" aims to foster sustainable economic development in Okinawa and includes measures to promote the creation of an international "intellectual and industrial" cluster (R&D cluster) centered upon OIST and other institutions.

OIST established the Office of the Executive Vice President for Sustainable Development of Okinawa in FY2014 to reflect the university's commitment to its founding objective to contribute to the sustainable development of Okinawa, as stipulated in the OIST SC Act, and to promote the development a R&D cluster. The Office will continue to identify, patent, and promote discoveries in the OIST research laboratories and to build a R&D Cluster in Okinawa. We will continue to expand collaborative R&D projects with established industry partners and to foster the development of entrepreneurial spin off companies based on OIST intellectual property. We will aim to expand the Proof-of-Concept Program, to support the development of OIST inventions towards commercialization. In addition to the existing foundation of Japanese partners, international relationships will be expanded. Also, OIST will

continue to enhance collaboration and communication with the local community and local schools and develop the campus as a center for cultural and community activities.

Actions:

(Research Exchange and Collaboration)

- Continue to promote research exchanges and joint research with industry, including major corporations and venture firms, by proactively identifying potential companies, building long-term relationships, and scheduling company visits and exchanges. Prepare formats for and provide legal support in negotiation and execution of agreements necessary for collaborative research with industries.
- Continue the entrepreneurship education workshop, with a focus on supporting the commercialization of technologies in the Proof-of-Concept (POC) Program and other related technology development programs. Continue to invite students and researchers from other universities in Okinawa to promote entrepreneurship in the prefecture.
- Enhance OIST access to industry expertise by expanding Industry Mentors for the POC Program and related technology development programs. Explore the feasibility of other programs such as Industry Fellowships, Entrepreneur-In-Residence, Industry Internships, etc., as a way to establish long-term links to industry and accelerate technology transfer.
- Continue existing five industry-related research projects funded through OPG in areas of energy, plant, medical, and environmental biology. In addition, contribute to academic meetings and symposia related to the projects to enhance knowledge and technology transfer.
- Diversify funding source by encouraging researchers to apply for private sector and industry-related grants and provide proactive application support such as translation, editing, and budgeting. Explore new funding sources and maintain a database of opportunities.

(Intellectual Property Management)

- Continue to foster invention disclosure procedures that complement and protect the basic research mission of OIST.
- Expand international external expert advisors for efficient and strategic management of intellectual property and recommendations on patent filing. Enhance quality of the Invention Evaluation Committee with the expanded pool of external experts.
- Develop standard operating procedures for the implementation and use, including by third parties, of a new IP management software system to manage invention disclosures, patent communications, deadlines, customer relationships, and license negotiations.
- Continue to expand awareness of inventions and protection of intellectual property throughout the university by organizing training, seminars, and workshops, including the Innovation Seminar Series.

(Technology Transfer and Development)

- To encourage entrepreneurship, develop a package of services to support OIST spinouts and OIST-related ventures, including access to facilities and equipment. Develop and implement rules for eligibility, selection, benefits, and review of potential startups.
- Strengthen business knowledge of priority industrial sectors and build plan to target these sectors, taking into account findings from high-level meetings related to R&D cluster development and technology areas where OIST is developing expertise, such as energy, materials science, health, and computational science.
- Support communications and relationships with industry by participating in well-recognized industrial workshops and conferences nationally and internationally, such as BIO International Convention, BioJapan, Nanotech Japan, and others.
- Continue enhance business development activities by strengthening internal expertise in global business and marketing of science & technology.
- Ensure the successful pilot of the Proof of Concept (POC) program by providing competitive internal funding and project management services for specific projects that will enhance the commercialization of OIST IP. Explore the feasibility of expanding the POC Program to include a Phase II for more advanced commercialization projects.
- Devote space in Lab 3 to house the OIST Technology Transfer Center as a co-laboratory where OIST researchers and their external academic and industrial collaborators can conduct feasibility studies to transform OIST technologies into practical applications.
- Enable the use of OIST research facilities by external academic and industrial users, while ensuring prioritized access by internal users. (See 1.2)
- Outline the need and develop standard operating procedures for an incubator facility proximal to the campus to house startup ventures based on OIST IP, including eligibility, terms of use, services provided, funding, and management.
- General Counsel Office will provide overall legal support to the Business Development Section and the Technology Licensing Section in drafting, negotiation and execution of agreements in relation to collaborative research, sponsored research and patent administrative research for the POC program.

(R&D Cluster Development)

- Incorporate the R&D Cluster Hall into seminar, workshop, symposium, and related activities in conjunction with the OIST Auditorium to foster R&D opportunities and exchange.
- Incorporate startup incubator facility into strategy for R&D cluster development.
- Towards implementing the recommendations made at the international workshops on R&D cluster development in Okinawa, OIST will continue to work closely with the Cabinet Office, Okinawa Prefectural Government, and local universities and industry on specific actions to establish an R&D cluster in Okinawa, including supporting the Task Force for the Establishment of an R&D Cluster Promotion Organization for

Okinawa, participating in prefectural strategic planning committees, and building relationships with the international community to share best practices in promoting innovation.

- Organize international symposia/workshops/seminars on the theme of accelerating innovation at universities, such as the Innovation Seminar Series, and on the theme of developing R&D clusters based on science and technology. Prioritize use of R&D Cluster Hall for such events.
- Forge the government and academic partnerships necessary to advance an analysis of the science and technology capabilities at OIST and in Okinawa, along with an analysis of global market needs. Leverage this analysis to inform OIST strategy for R&D cluster development. Work to develop measurement tools to analyze the impact of innovation in science and technology.

(Promotion of R&D Cluster related research)

- R&D Cluster-related basic research involves a number of different groups at OIST. Especially, the Executive Vice President for Sustainable Development of Okinawa interacts with our partners outside of OIST and facilitates communication and economic development that may occur as a result of these activities. The Business Development Section and the Technology Licensing Section are under that Office. Below are summaries of the Research of R&D Cluster Promotion (listed below).

- Marine Science

Given the natural resources of Okinawa, given the geographical positioning of Okinawa close to East and Southeast Asia, given the fact that marine science is one of the five major research areas at OIST, and to make best use of academic and research resources of OIST, the foundation of the Okinawa Marine Science Center (OMSC) at OIST is being established. The primary focus of OMSC is “Understanding Evolution in The Marine Environment”. The proposed research areas include: i) evolution of coral species in East and Southeast Asia, ii) co-evolution of organisms associated with corals, including microorganisms, algae, fish and other marine animals, iii) spatial and temporal dynamics of marine microorganisms in Okinawan reefs, and iv) origin of living systems at hydrothermal vents. OIST has made the decision to establish an Okinawa Center of Excellence in Marine Science. To accomplish this important objective, the following actions will be taken. 1) A core group of marine scientists is being recruited to establish a team to carry out research and education in the richness of Okinawa’s marine environment. 2) External collaborators will be invited to join the center, with 5 to 10 founding members to be selected to assist in the development of the scientific strategy for the OIST marine science. 3) A laboratory facility will be constructed to accommodate resident scientists and collaborators and includes designated space in Laboratory 3 and an onshore facility with a raw-seawater supply (Seragaki Marine Lab). 4)

Interaction with local researchers will be established. Current collaboration with the University of the Ryukyus will be expanded. The International Advisory Board is being established. The research topics proposed above and the concept of OMSC respond directly to mission statements of the Basin Plan on Ocean Policy, *Chapter 2-7 (2)*.

- Energy

Self-sustainability in energy is of utmost importance to island communities like Okinawa and Japan. Through R&D cluster related basic research OIST Graduate University is developing power-generating technology based on wave and current energy, this is potentially more stable than wind power and solar power. This program is also improving the next generation of solar energy technology, which is more cost-efficient. We are also developing more intelligent systems for small communities through an experimental micro-grid system utilizing our faculty and staff housing units. This intelligently manages the distribution of energy among housing units according to need and supply. We are developing more efficient and innovative photovoltaic cells for the future.

- Advanced Medical Devices

OIST Graduate University is contributing to National health efforts in particle therapy technology, e.g. through imaging technologies. Improving instrument effectiveness and efficiency are important. OIST specialists in accelerator and imaging technology are establishing collaborative research in this project with the University of the Ryukyus, National Institute of Radiological Science, University of Tsukuba, KEK and Stanford University.

(Networking with local institutions and communities)

- Coordinate interactions with other institutions in Okinawa that encourage the development of an R&D cluster community for the Prefecture. This includes the Okinawa University Consortium, science, technology and industry promotion programs of the OPG, related roundtables, and other organizations.
- Continue exchange programs by holding science lectures with local core medical institutions such as Chubu Hospital and Nanbu Medical Center and Medical Department of the University of the Ryukyus.
- Support large number of visitors (including companies and associations etc.) to the campus whilst making sure that the volume of visitors does not disturb the academic and research goals of the University.
- Hold the 7th OIST Open Campus Day at the OIST Campus. Promote the involvement by school students and local residents.
- Continue to invite school children in Okinawa to the OIST campus to give them the opportunities to see and learn about cutting-edge research facilities, with the aim of

increasing their interests in academic and professional careers in science and technology. Continue the campus visit program for all senior high-schools in Okinawa in close collaboration with the Okinawa Board of Education and individual schools and host 20 local senior high schools within FY2015.

- Continue and strengthen visits program for mainland Super Science High Schools, which provide advanced science and technology education programs, in collaboration with OPG and tourism organizations.
- OIST will maintain as series of talks to all levels of school children given by faculty and other well-known scientific figures.
- Organize the 6th Onna/OIST Children's School of Science in collaboration with Onna Village.
- Organize a series of cultural events such as concerts and exhibitions both in the Auditorium and other facilities, to attract the local population to the University.
- Assist local schools to enhance children's English ability and cross-cultural understanding by participating in meetings on English education hosted by local boards of education and facilitating OIST community's contribution to English programs at local schools.

(Other matters concerning Okinawa development)

- Continue to employ talented people from Okinawa wherever possible.
- As we participated such as Okinawa Sangyo Matsuri, Okinawa MICE Contents Trade Show and others, we will continue to have OIST representation at major cultural, industrial or academic events in Okinawa. OIST will continue to work with the U.S. Consulate and the OPG to organize the science event for the high school students' research for enterprise, "SCORE," which is becoming one of the major science education competitions on the island.
- Increase the number of externally organized international conferences and workshops at the OIST venue in collaboration with OPG and the Okinawa Convention and Visitors Bureau.

Metrics:

- Number of official contacts with companies, with the view of future collaborations.
- Number of collaborative projects with companies (collaboration agreements, joint research projects, commercialization of intellectual property, etc.).
- The number of use of our research facilities by external organizations, etc.
- OIST intellectual property (number of invention disclosures, patents filed and awarded, etc.).
- Number of symposiums, meetings, workshops organized or hosted by OIST around topics related to industry development and R&D cluster development.

- Number of participants in entrepreneurial education workshops and seminars.
- Number of applied research projects (proof of concept, feasibility, etc.) supported by OIST POC program and other related programs.
- Number of visits and visitors (including visitors on the Open Campus Day)
- Number of local students who visited the campus
- Number of lectures and talks for local students
- Number of employees from Okinawa (researchers and staff)
- Number of externally organized international conferences and workshops and number of the participants at the OIST venue.

Chapter 5 University Campus and Community Development; Safety and Environment Protection

5.1 Campus Development

Goal:

OIST Graduate University will continue to develop the campus as planned.

Actions:

- Study location of facilities and infrastructure on the Main Campus based on 2014 Master Plan
- Study feasibility of development of housing on the Seaside Campus.
- Commence the construction of Lab 4 within FY2016.
- Commence the site utilities and infrastructure, including roads and bridges leading to Lab 4 for commencement of construction within FY2016.
- Operate and maintain the completed campus buildings, facilities.
- Based on the Act for Promoting Proper Tendering and Contracting for Public Works (Act No. 127 of 2000), continue to promote disclose of pre- and post- tendering and contract information such as tendering schedule and result, etc. to ensure transparency.

5.2 University Community and Education/Childcare Services

Goal:

Continue to facilitate the development of the University community that includes staff, students, and their families, which is an important factor for the success of the University operation. OIST Graduate University will improve the education and childcare environment available to OIST employees by enhanced people and services with the Resource Center and the Child Development Center (CDC).

Actions:

(Developing the University Community)

- Continue to take measures to enhance wellbeing of the OIST community including staff and their families, such as by implementing welfare programs at HR/RC and Ganjuu Wellbeing Service, enhancing the internal communication site, providing the information regarding the life in Okinawa and supporting initiatives (OIST Welcome Club etc.) and events organized by HR/RC/GWS.
- The OIST Clubs Steering Group, manages the applications for club status. The Steering Group examines each application and either accepts, denies, or more usually asks for changes before accepting. There are now 20 clubs, which The clubs play an essential role in the social cohesion of the university.
- The Registration Desk will continue to provide coming in services for visiting researchers and invited guests by registering and integrating them into the database.

(Education and Childcare Services for OIST Family)

- Continue to provide high quality and fully bilingual Preschool and Afterschool/Holiday program for OIST families with appropriate user fees through the CDC with a new larger and modern facility for the preschool. The CDC Governing Board will continue to meet quarterly with separate meetings of the CDC Finance Committee, which will keep a strict eye on the budget of the school.
- Continue the efforts to improve the educational environment for children of employees and students by increasing the opportunities of taking classes in English, in collaboration with OPG, Onna-son and other surrounding communities.
- OIST will continue to run the collaborative program with Onna elementary school, which provides English education for OIST children within the Japanese national system.
- In FY2016 OIST will increase the number of language courses given to staff and family members. There is a very strong demand for language training and the ability to communicate in English and Japanese is a foundation of the success of the University.
(Repeated. See 2.4)

(Student Support)

- Establish student support services and general welfare activities to promote a positive social and psychological environment for students. (See 1.1)
- Improve the environment by increasing opportunities for sport and recreation.

5.3 Safety and Environment Protection

Goal:

OIST Graduate University will take necessary measures to control risks, prevent disasters and protect the safety of employees, students and visitors.

Actions:

- Continue risk management planning.

- Continue safety training for employees and students.
- Enhance the sustainability of the campus under natural disasters in collaboration with Onna-son, and offer the campus to local residents for evacuation under disasters.

Goal:

OIST Graduate University will conduct its business in an environmentally friendly manner.

Actions:

- Promote use of recyclable products.
- Continue to monitor and optimize operations to minimize volume of greenhouse gas emission and energy consumption.
- Minimize environmental impact on surrounding waters through providing measures such as enhancing the proper use and management of the water recycling system. In addition, prevent impact to local aquifers.
- For various construction works associated with facility development, provide sufficient measures such as installation of turbid water treatment plants to prevent red soil run off.
- Manage campus facilities and landscaping to preserve natural balance and protect indigenous species.

Research Units (as of February 1, 2016)

Attachment 1-1

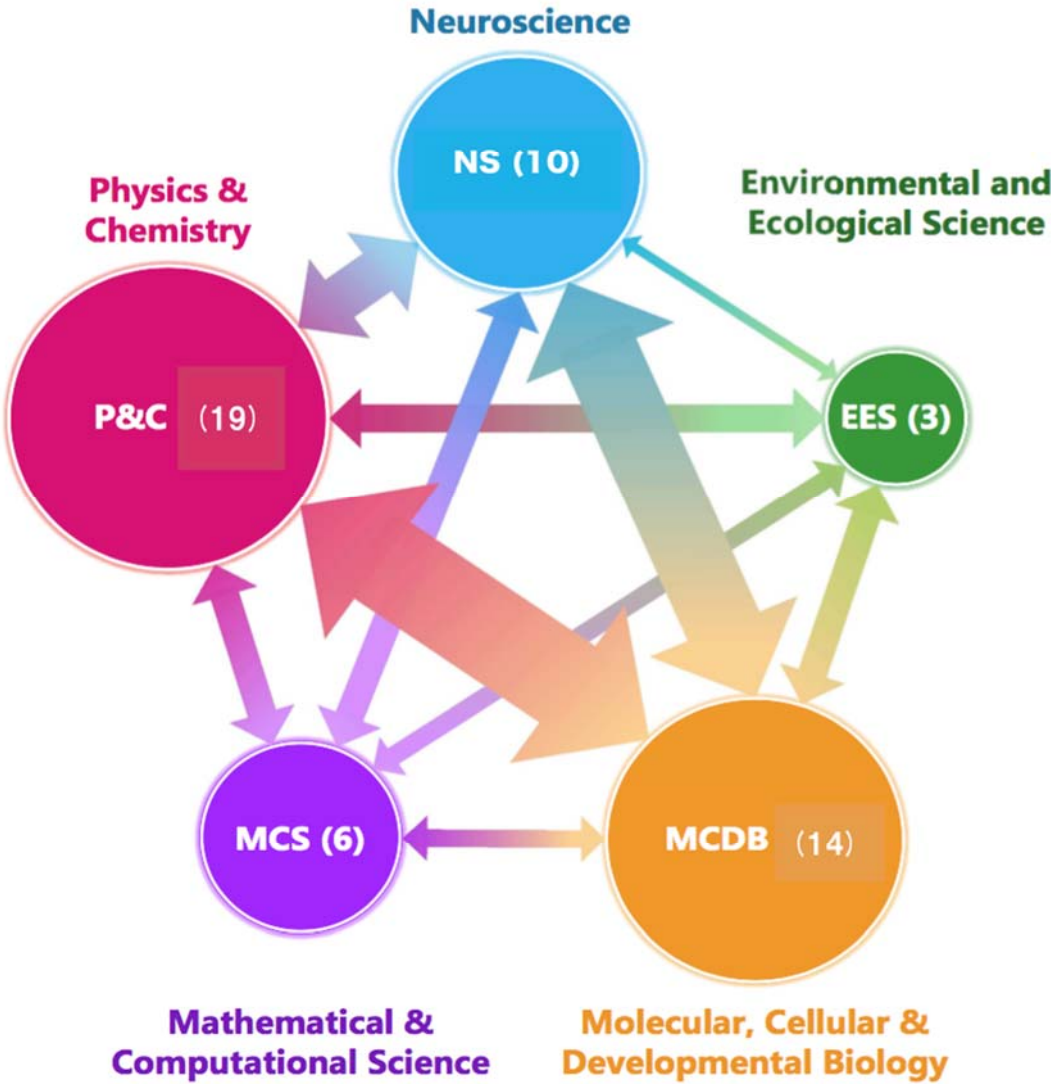
Unit Name		Faculty
1	Biodiversity and Biocomplexity Unit	Dr. Evan P. Economo
2	Brain Mechanism for Behavior Unit	Dr. Gordon Arbuthnott
3	Biological Systems Unit	Dr. Igor Goryanin
4	Biological Physics Theory Unit	Dr. Greg Stephens
5	Cell Signal Unit	Dr. Tadashi Yamamoto
6	Cellular and Molecular Synaptic Function Unit	Dr. Tomoyuki Takahashi
7	Chemistry and Chemical Bioengineering Unit	Dr. Fujie Tanaka
8	Collective Interactions Unit	Dr. Mahesh Bandi
9	Computational Neuroscience Unit	Dr. Erik De Schutter
10	Continuum Physics Unit	Dr. Gustavo Gioia
11	Developmental Neurobiology Unit	Dr. Ichiro Masai
12	Ecology and Evolution Unit	Dr. Alexander Sergeevich Mikheyev
13	Energy Materials and Surface Sciences Unit	Dr. Yabing Qi
14	Fluid Mechanics Unit	Dr. Pinaki Chakraborty
15	Formation and Regulation of Neuronal Connectivity Unit	Dr. David Van Vactor
16	Femtosecond Spectroscopy Unit	Dr. Keshav Dani
17	Genomics and Regulatory Systems Unit	Dr. Nicholas M. Luscombe
18	G0 Cell Unit	Dr. Mitsuhiro Yanagida
19	Human Developmental Neurobiology Unit	Dr. Gail Tripp
20	Immune Signal Unit	Dr. Hiroki Ishikawa
21	Information Processing Biology Unit	Dr. Ichiro Maruyama
22	Integrative Systems Biology Unit	Dr. Tatiana Marquez-Lago
23	Light-Matter Interactions Unit	Dr. Sile Nic Chormaic
24	Marine Biophysics Unit	Dr. Satoshi Mitarai
25	Mathematical Biology Unit	Dr. Robert Sinclair
26	Microbiology and Biochemistry of Secondary Metabolites Unit	Dr. Holger Jenke-Kodama

Unit Name		Faculty
27	Molecular Cryo-Electron Microscopy Unit	Dr. Matthias Wolf
28	Marine Genomics Unit	Dr. Noriyuki Satoh
29	Mathematical and Theoretical Physics Unit	Dr. Shinobu Hikami
30	Mathematical Soft Matter Unit	Dr. Eriot Fried
31	Micro/Bio/Nanofluidics Unit	Dr. Amy Shen
32	Neural Computation Unit	Dr. Kenji Doya
33	Nanoparticles by Design for Nanotechnology and Biomedical Applications Unit	Dr. Mukhles Ibrahim Sowwan
34	Neuronal Mechanism for Critical Period Unit	Dr. Yoko Yazaki-Sugiyama
35	Neurobiology Research Unit	Dr. Jeff Wickens
36	Open Biology Unit	Dr. Hiroaki Kitano
37	Optical Neuroimaging Unit	Dr. Bernd Kuhn
38	Physics and Biology Unit	Dr. Jonathan Miller
39	Plant Epigenetics Unit	Dr. Hidetoshi Saze
40	Quantum Dynamics Unit	Dr. Denis Konstantinov
41	Quantum Systems Unit	Dr. Thomas Busch
42	Quantum Wave Microscopy Unit	Dr. Tsumoru Shintake
43	Structural Cellular Biology Unit	Dr. Ulf Skoglund
44	Trans-Membrane Trafficking Unit	Dr. Fadel Samatey
45	Theory of Quantum Matter Unit	Dr. Nic Shannon
46	Coordination Chemistry and Catalysis Unit	Dr. Julia Khusnutdinova
47	Molecular Genetics Unit	Dr. Daniel Rokhsar
48	Nucleic Acid Chemistry and Engineering Unit	Dr. Yohei Yokobayashi
49	Advanced Medical Instrumentation Unit	Dr. Hirotaka Sugawara
50	Bioinspired Soft Matter Unit	Dr. Ye Zhang
51	Membrane Cooperativity Unit	Dr. Akihiro Kusumi
52	Evolutionary Neurobiology Unit	Dr. Hiroshi Watanabe

Overview of Scientific Research at the OIST Graduate University

The OIST graduate education and research program is cross-disciplinary and aims to be at the leading edge of research in science and technology, including the Life Sciences, the Physical Sciences, and Mathematics. 52 Research Units (as of February 2016) have been launched so far, with research in five major areas of Neuroscience, Molecular, Cell, and Developmental Biology, Mathematical and Computational Sciences, Environmental and Ecological Sciences, as well as Physics and Chemistry.

OIST Research Collaboration Diagram



(The number of units are shown in parentheses)

FY2016 Income and expenditure budget statement

(Unit : K yen)

Revenues		Expenses	
Items	Budget Amounts	Items	Budget Amounts
Subsidy for Operations	14,674,841	Personnel Expense	5,443,545
Subsidy for Facilities	2,051,466	Academic related Expense	1,105,366
Other Revenues	777,185	Education & Research related Expense	3,665,482
		Common Resource Expense	4,414,729
		Administrative Expense	822,904
		Construction Expense	2,051,466
Total	17,503,492	Total	17,503,492

Note1: Subsidy amounts in Revenues might have to be modified later when a request for budget carry-over from FY15 to FY16 is made.

Note2: Personnel Expense does not include Temp staff agency fee and Research Assistantship fee.

Balance Sheets
As of March 31, 2016

(Unit : K Yen)

Assets			
I Noncurrent assets			
1	Properties, plants, and equipment		
	Land	1,659,667	
	Buildings	38,061,106	
	Accumulated depreciation	<u>-6,274,754</u>	31,786,352
	Structures	6,437,352	
	Accumulated depreciation	<u>-1,020,854</u>	5,416,498
	Machineries	196,619	
	Accumulated depreciation	<u>-129,318</u>	67,301
	Equipment	15,324,631	
	Accumulated depreciation	<u>-8,089,703</u>	7,234,928
	Books		3,992
	Ships and vessels	2,004	
	Accumulated depreciation	<u>-479</u>	1,525
	Vehicles and transportation equipment	26,452	
	Accumulated depreciation	<u>-14,467</u>	11,985
	Lease assets	1,794,703	
	Accumulated depreciation	<u>-1,216,141</u>	578,562
	Construction in progress		<u>612,747</u>
	Total properties, plants, and equipment		47,373,557
2	Intangible assets net of amortization		
	Patents		2,960
	Trademark rights		746
	Softwares		357,490
	Patents (in the process of filing)		79,452
	Others		<u>35,225</u>
	Total intangible assets, net		475,873
3	Investments and other assets		
	Investments in securities		5
	Security deposits		4,500
	Long-term prepaid expenses		263
	Lease investment assets (Long-term)		<u>4,546,983</u>
	Total investments and other assets		4,551,751
	Total noncurrent assets		52,401,181
II Current assets			
	Cash and cash equivalents	1,990,403	
	Accounts receivable	218,312	
	Supplies	10,000	
	Prepaid expenses	16,000	
	Lease investment assets (Short-term)	<u>111,292</u>	
	Total current assets		<u>2,346,007</u>
	Total assets		<u>54,747,188</u>
Liabilities			
I Noncurrent liabilities			
	Encumbrance for assets - subsidy for operation	12,995,742	
	Encumbrance for assets - donation	42,364	
	Encumbrance for assets - donated by Japan government	82	
	Allowance-retirement benefits	101,481	
	Long-term accrued amounts payable	4,556,514	
	Long-term lease obligations	<u>128,646</u>	
	Total noncurrent liabilities		17,824,829
II Current liabilities			
	Advance received	38,868	
	Deposits received - subsidy for operation		
	Deposits received - subsidy for operation	353,378	
	Deposits received-subsidy for facility	<u>338,821</u>	692,199
	Deposits received - donation		35,892
	Deposits received - Kakenhi		20,643
	Deposits received - others		78,540
	Accounts payable	1,761,890	
	Short-term lease obligations	449,918	
	Accrued expenses	<u>69,162</u>	
	Total current liabilities		<u>3,147,112</u>
	Total liabilities		<u>20,971,941</u>
Equities			
I Contributions			
	Contributions from government	<u>24,317,682</u>	
	Total contributions		24,317,682
II Additional paid-in contributions			
	Additional paid-in contributions	15,850,900	
	Accumulated depreciation - directly deducted from equity	<u>-6,713,163</u>	
	Total additional paid-in contributions		9,137,737
III Retained earnings			
	Voluntary reserve funds		
	Special reserve funds	80,533	
	Accumulated net income	239,295	
	(Net income/(△loss) for FY2015)	<u>(1,655)</u>	
	Total retained earnings		<u>319,828</u>
	Total equities		<u>33,775,247</u>
	Total liabilities and equities		<u>54,747,188</u>

Projected income statement
FY2015

(Unit : K Yen)

Items	Amount
Ordinary Revenues	16,673,039
Revenue from Tuition etc.	48,240
Revenue from Subsidy for Operations etc.	13,271,213
Revenue from Subsidy for facility	43,236
Revenue from Sponsored Research	183,171
Revenue from Joint Research	59,747
Revenue from Donation etc.	37,131
Revenue from Subsidy for other	2,027
Revenue from Property Rent for Dormitory etc.	7,481
Land and Building Rent Revenue	10,734
Reversal of Assets Offsetting Subsidy for Operations etc.	2,776,580
Reversals of Assets Offsetting Donated Assets	27,129
Reversal of encumbrance for assets - donated by Japan	51
Financial Income	93,947
Miscellaneous gains	112,352
Ordinary Expenses	16,671,384
Personnel Expenses	5,358,749
Operating Expenses	6,844,464
General Administrative Expenses	1,114,080
Depreciation	3,252,628
Financial Charges	98,426
Miscellaneous loss	3,037
Ordinary Profit	1,655
Extraordinary Profit	0
Extraordinary Loss	0
Net profit for the year	1,655

Balance Sheets
As of March 31, 2017

(Unit : K Yen)

Assets				
I Noncurrent assets				
1	Properties, plants, and equipment			
	Land		1,659,667	
	Buildings	39,395,877		
	Accumulated depreciation	<u>-7,953,733</u>	31,442,144	
	Structures	6,608,980		
	Accumulated depreciation	<u>-1,295,017</u>	5,313,963	
	Machineries	196,619		
	Accumulated depreciation	<u>-154,591</u>	42,028	
	Equipment	16,964,217		
	Accumulated depreciation	<u>-10,864,188</u>	6,100,029	
	Books		5,338	
	Ships and vessels	2,004		
	Accumulated depreciation	<u>-880</u>	1,124	
	Vehicles and transportation equipment	26,452		
	Accumulated depreciation	<u>-18,060</u>	8,392	
	Lease assets	1,794,703		
	Accumulated depreciation	<u>-1,633,506</u>	161,197	
	Construction in progress		<u>2,439,714</u>	
	Total properties, plants, and equipment		47,173,596	
2	Intangible assets net of amortization			
	Patents		2,114	
	Trademark rights		634	
	Softwares		262,328	
	Patents (in the process of filing)		116,452	
	Others		<u>31,229</u>	
	Total intangible assets, net		412,757	
3	Investments and other assets			
	Investments in securities		5	
	Security deposits		4,500	
	Lease investment assets (Long-term)		<u>4,432,908</u>	
	Total investments and other assets		4,437,413	
	Total noncurrent assets			52,023,766
II Current assets				
	Cash and cash equivalents		1,272,879	
	Accounts receivable		986,017	
	Supplies		10,000	
	Prepaid expenses		16,000	
	Lease investment assets (Short-term)		<u>114,074</u>	
	Total current assets			<u>2,398,970</u>
	Total assets			<u>54,422,736</u>
Liabilities				
I Noncurrent liabilities				
	Encumbrance for assets - subsidy for operation	12,004,547		
	Encumbrance for assets - donation	22,581		
	Encumbrance for assets - donated by Japan government	30		
	Allowance-retirement benefits	116,874		
	Long-term accrued amounts payable	4,444,981		
	Long-term lease obligations	<u>19,791</u>		
	Total noncurrent liabilities			16,608,804
II Current liabilities				
	Advance received		66,626	
	Deposits received - subsidy for operation			
	Deposits received - subsidy for operation	676,328		
	Deposits received-subsidy for facility	<u>1,879,838</u>	2,556,166	
	Deposits received - donation		25,892	
	Deposits received - Kakenhi		24,043	
	Deposits received - others		78,540	
	Accounts payable		1,775,495	
	Short-term lease obligations		141,407	
	Accrued expenses		<u>69,162</u>	
	Total current liabilities			<u>4,737,331</u>
	Total liabilities			<u>21,346,135</u>
Equities				
I Contributions				
	Contributions from government		<u>24,317,682</u>	
	Total contributions			24,317,682
II Additional paid-in contributions				
	Additional paid-in contributions	16,868,035		
	Accumulated depreciation - directly deducted from equity	<u>-8,428,944</u>		
	Total additional paid-in contributions			8,439,091
III Retained earnings				
	Voluntary reserve funds			
	Special reserve funds		80,533	
	Accumulated net income		<u>239,295</u>	
	(Net income/(△loss) for FY2016)	(0)		
	Total retained earnings			<u>319,828</u>
	Total equities			<u>33,076,601</u>
	Total liabilities and equities			<u>54,422,736</u>

Projected income statement
FY2016

(Unit : K Yen)

Items	Amount
Ordinary Revenues	15,930,608
Revenue from Tuition etc.	67,185
Revenue from Subsidy for Operations etc.	12,258,690
Revenue from Sponsored Research	239,460
Revenue from Joint Research	73,680
Revenue from Donation etc.	94,000
Reversal of Assets Offsetting Subsidy for Operations etc.	3,114,358
Reversals of Assets Offsetting Donated Assets	19,784
Reversal of encumbrance for assets - donated by Japan	51
Miscellaneous gains	63,400
Ordinary Expenses	15,930,608
Personnel Expenses	6,007,340
Operating Expenses	5,344,984
General Administrative Expenses	1,026,726
Depreciation	3,551,558
Ordinary Profit	0
Extraordinary Profit	0
Extraordinary Loss	0
Net profit for the year	0