Okinawa Institute of Science and Technology School Corporation

Fiscal Year 2018 Business Plan

OIST OKINAWA INSTITUTE OF SCIENCE AND TECHNOLOGY GRADUATE UNIVERSITY
沖縄科学技術大学院大学

Okinawa Institute of Science and Technology School Corporation
FY2018 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) 2018, from April 2018 to March 2019.

Status of OIST at the end of FY2017

In FY2014 OIST published the "Okinawa Institute of Science & Technology Graduate University Framework Document II." This report reviewed the progress OIST had made until that time and outlined the future development toward 300 faculty units with a detailed plan of expanding its size up to 100 faculty units in the 10 years that followed. 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 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, by the mid 2020's, of a) approximately 100 outstanding research groups, with a proper balance among different fields of research, and b) a graduate school of a few hundred students. Further growth of OIST would be deliberated and planned towards the end of the decade of development. The Perspective Council consisting of 6 internationally renowned scientists complemented by 6 leading faculty

members met in October 2017 and provided a set of recommendations regarding the future research directions and faculty hiring strategies of the university.

Key Elements for the Business Plan FY2018

The key elements of the Business Plan for FY2018 follow directly from the recommendations of the Framework II document, the Peer Review and the resulting decision of the Japanese Government on the funding of the expansion of OIST, and the recommendation of the Perspective Council. These key elements are directly related to the three core missions of OIST: i) International leadership in basic research, with special emphasis on interdisciplinary opportunities 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 linked to highly proactive internal programs in patenting and licensing, proof-of-concept research, collaborations with industry, and entrepreneurship and startup support. In addition, OIST is becoming a role model for the development of world leading research centers 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 support and achieve the increase of the faculty units to 100 by the mid-2020s and an expansion of the number of students.

The Japanese Government established 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 units will be increased to 70 in FY2018, further strengthening the University's areas of research competence while maintaining the highest quality standards in the selection. In FY2018, the Government will provide the budget for Laboratory 5 infrastructure work, paving a way to the future expansion of OIST. In FY2017 the intake of new Graduate students increased to 37, while, yet again, maintaining the highest quality standards in the selection. The number of students that enroll in FY2018 is expected to be 50. In both areas, the standards will be maintained as world-leading.

Research

OIST will continue publishing world-leading research in high-impact journals. The expansion into marine and environmental sciences, in particular with strong guidance from the now well-established International Advisory Board, will continue. The Dean of Research will continue international review of the research support facilities which constitute a key to the research strength of OIST. The Perspective Council consisting 6 internationally renowned scientists

complemented by 6 leading faculty members has provided a set of recommendations regarding the future research directions and hiring strategies of the university. Accordingly, Faculty Development Working Group will, based on these recommendations, come up with a set of concrete measures to expand the university portfolio.

Education

The year of 2018 achieves a major milestone with the graduation ceremony for the first students to graduate from PhD program. OIST will continue to develop its strong and innovative PhD program. 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 addition of new faculty members in FY2017 significantly increases the research opportunities for students and will allow a yet further strengthening of the curriculum.

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: patenting and licensing; collaborations with industry; the "Proof of Concept" (POC) approach to bridge the gap between academic discoveries and commercialization; entrepreneurship education and startup support; and promoting the development of an innovation ecosystem (R&D cluster) centered around OIST. The early success of the POC program is reflected in an expansion in FY2018, and the formalization of three distinct phases: innovative technology research (ITR), Phase I commercialization, and Phase II commercialization. In addition, OIST is expanding its support for entrepreneurship by implementing a startup accelerator program and incubator facility on its campus. OIST will continue to invite world-leading experts to the campus to share their expertise with the research community and to expand and strengthen the strategy for developing an innovation ecosystem in Okinawa. 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 FY2018 increased to 20.3 billion yen. This budget contains 4.7 billion yen for facilities, including construction of Laboratory 4 and incubator and infrastructure work for Laboratory 5, and 15.6 billion yen for operations. It was expected that OIST would maintain efforts to increase external funds, including incentive measures to apply for and acquire grants. OIST has already 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, activities of acquiring donations is to be promoted under the Fund Raising 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 fifth Science and Technology Basic Plan.

Planning framework and evaluation approach

This Business Plan states the goals of FY2018 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 Councilors (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 OIST's objectives. To ensure transparency, the annual report together with the evaluation results will be posted on the OIST web site 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 benchmarked 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 2017, 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. Refine curriculum development process and approvals for new and changed courses.
- Continue to provide the customized Ph. D. program, including pre-thesis research training and laboratory rotations and assignment of 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.
- Conduct the final thesis examination based on oral examination by prominent external examiners, and confer degrees on completing students, using procedures refined from

previous year's experience.

- 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, laws and rules, 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. Commission a survey of comparative levels of support internationally at benchmark universities as a basis for future adjustment to financial support.
- Continue to track the occurrence, response and outcome of incidents involving students, and if such incidents require involvement of OIST, to deal with the incidents in cooperation with the General Counsel Office and the Chief Operating Officer in charge of compliance.
- 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 OIST (short courses and OIST undergraduate workshops), appointment of senior research assistants, 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 and individual career advice. Provide guidance and financial support for company visits to assist job hunting in Japan. Graduate School plans to conduct a survey on an annual basis to keep track of our graduates. In addition, the Graduate School will establish a networking platform, using LinkedIn, dedicated to the OIST PhD Program alumni, separately from the OIST Alumni Network that is to be established for a much broader population.

・ Enhance Student Support website to provide clear information and instructions on student financial support, travel support, and welfare support to students and their family members for better understanding on life at OIST and Okinawa.

・ Continue to support student travel arrangements such as conference/workshop travel, Educational Institutional visit and career development travel for students to enhance their specialty in scientific fields, career development and networking.

・ Continue to provide services to special students such as Special Research Students, Visiting Research Students and Research Interns to quickly adjust to new environment without complications and worries.

・ To emphasize dialogue with students by having regular meeting with Student Council and reflect feedback to enhance the Graduate School services.

Goal:

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. Also, effectively convey the appeal of OIST's unique educational program both in and out of Japan.

・ 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 2018 as follows:

- The number recruited: About 50 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.
    − Continue to hold OIST Skill Pills Plus on campus for the undergraduate- and

graduate-level students who are currently studying at Japanese higher education institutions.
- Hold the Science Challenge Workshop for undergraduate Japanese students, and the Collaborative Experimental Design and Analytics for undergraduate- and masters-level Japanese and foreign 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 FY2017.

Metrics:
- Number of 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.
- Career destination of the students after graduation.

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, equipment and research support, 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.

  In October 2017, OIST organized a "Perspective Council" meeting with a number of external world-renowned scientists and OIST Faculty member representatives. They suggested a combination of targeted hiring in some areas, combined with continuing open recruitment.

- 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 2018. Attachment #1-2 lists the major scientific areas of research.

(Research Support)

- In Research Support Division (RSD), the Section Leader of Mechanical Engineering and Microfabrication Support Section (MEMS) left in March 2018 and we will recruit a new leader. There is a need to recruit further machinists, to deliver a timely and high-quality service. We also need to set up electronics support.

  In addition, we will conduct international peer reviews of Instrumental Analysis Section (IAS) and one other section.

  We will discuss all CAPEX requests (common, shared and dedicated) at Users groups, coordinated by Research Support Sections, to avoid duplication. We will also advise OIST researchers of common equipment available at national facilities, such as NIMS.

- Animal Resources Section will start new research support service, the production of genetically modified animals using genetical engineering technique. We will consider basic concepts for animal facilities in the future laboratory buildings.

- DNA sequencing section will continue to support research activities by (1) providing library preparation and sequencing supports using high throughput sequencers, (2) modifying the existing experimental protocols and developing new protocols for library preparation. In addition, the section will newly develop a management system to store and disclose research materials and data according to the "Okinawa Institute of Science and Technology Graduate University Guidelines on Archival and Disclosure of Research Data, Laboratory Notebooks, Research Specimens and Chemicals".

- Mechanical Engineering and Microfabrication Support Section (MEMS) will improve skills of using CNC machining tools to prompt high level machining quickly. Also, MEMS will enforce the safe use of machine tools by staff members, researchers and students.

- Scientific Computing and Data Analysis Section (SCDA) will continue working on the

promotion and research support of the GPU computing system utilization in data analysis and AI computing. Propose integrated support solution to top up the use of the GPU computing system. More generally, SCDA will continue to promote the effective use of High Performance Computing (HPC) in the research environment, and the integration of computing and data analysis research projects with the university centralized IT infrastructure.

- To respond expanding research fields/activities and research specimen/materials, the number of the personnel involved in health and safety will be increased. Recruitment activity on diving safety officer continues until full-time diving safety officer is hired. The system which promotes and enriches communication on safety, such as assignment of safety contact person in each workplace, will be developed. Emergency training exercises will be planned and executed under newly hired Emergency Response Coordinator.

- Continue to develop the next generation Research Equipment Database. Continue to improve systematically the websites of Research Support Division/Sections for effective communication.

- The time when the research unit is closed or the researcher/student left OIST is the critical point for research references storage. Then, the checklist on storage of research references and samples when the research unit closes, or the researcher/student is leaving OIST will be created. We will continue to promote research ethics, such as organizing Research ethics seminar inviting an external specialist.

- Grants and Research Collaborations Section will encourage further collaborations with other sections, such as Faculty Affairs Office, to provide better support on application and management of external research funding for faculties, researchers and student and continue proactive actions to collect grants information and delivery of the information.

- Based on the RSD administrator survey, we will develop a training and other package to enhance skills of all administrators and progress their careers. We will benchmark the research facility services, costs and staffing levels with those at IST and Weizmann. To support the new head of MEMS, we will develop a service standard for the machine shop. Imaging Section (IMG) will continue to improve the support structure under leadership of the new section leader, initiate to conduct the support activity on cryo-EM for BINDS program. IMG will hold training workshops on light microscopy and image analysis with Advanced Bioimaging Support Platform (ABiS). Instrumental Analysis Section (IAS) continue the analytical instruments support. To answer the complex needs of many users, IAS review and set the user guidelines for instruments and standard operating procedures to create the lab where advanced analytical instruments can be used more efficiently. Continue to improve the training courses for users to provide the lab that can be used by many researchers. Addition to this, improve the level of staff so that they can provide sufficient support for advanced research. By inviting the International Advisory Board on Marine Science for our review, Okinawa Marine Science Support Section will enhance the

research support service provided at the OIST Marine Science Station. We will hold an open day for local residents for communication and PR of our research. We will also attend the Okinawa Marine Science Workshop and further enhance our local marine science network.

(Publication and communication)
- Continue to promote publication of research results in best quality international journals and participation in national and 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.
    - In FY2017, the main OIST websites were updated, streamlined, and moved to cloud hosting to improve site reliability and access speed worldwide. The internal communications website and the Directory were also rebuilt to accommodate the growing needs of the university. Continue updating and moving older OIST systems to the cloud, improve the quality of the public websites, make websites easier to index by search engines, and continue to respond to the university's needs by maintaining existing systems, building new ones, and giving excellent support and training to the users responsible of creating and managing scientific content.
    - In FY2017, OIST continued to receive significant press coverage resulting from proactive media outreach strategies targeting print, broadcast, and Web-based. This will continue in FY2018 to put in place effective media strategies to generate further press coverage, including those by major media outlets in Japan and overseas. As part of this effort, OIST will continue to produce press releases and articles about scientific outcomes, and other research and education activities at the university, which will then be disseminated to local, national, and international media through Japan's press clubs, and electronic clearing houses such as AlphaGalileo and EurekAlert!.
    - Continue utilizing ever expanding social media to disseminate OIST research and education activities.

- To establish a firm academic recognition, OIST will provide technical support to OIST staff, researchers and students for them to perform remote meetings smoothly.

Metrics:
- Number of researchers (faculty, postdocs, technicians, and students)
- Number of research publications (by impact factor)
- Number of joint publications between different faculty members.
- OIST will continue to disseminate news releases and press announcements about scientific outcomes of OIST's research on a weekly basis and engage in occasional press meetings

with journalists throughout 2018.
- Number of research honors.
- Number of awarded research grants (number and amount)
- The number of use of our research facilities by external organizations, etc.

1.3 Faculty Affairs

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 excellent scholarship and creativity in research, to strengthen leadership in interdisciplinary research and its global presence.

Actions:

(Faculty Appointment)
- Using the recent Development Plan created by the Faculty, The University will continue to recruit new faculty consistent with the annual projections summarized in the Framework Document II, towards the goal of reaching 100 Faculty Units by 2023. Specifically in FY2018, OIST will seek to appoint outstanding faculty members in Chemistry, Cell Biology, Computer Science and Marine Science to increase the number of Faculty Units to 70.
Publicize OIST and solicit faculty recruiting to the conference participants by inviting and hosting prestigious international conferences to OIST. A 'Perspective Council' meeting held in October 2017 encouraged the continuing of our present policy of expanding in our areas of strength but encouraging more targeted hires in growth areas. In FY2018, OIST will further discuss recommendations internally and develop a strategy for faculty recruiting.

(Faculty/Research Evaluation)
- A new approach to Tenure Evaluation will be introduced to provide a flexible timetable for the tenure review and guidance to Assistant Professors. Changes to the tenure policy have been drafted and agreed by General Counsel Office and Administrative Compliance Divisions in FY2017, and we will implement the new tenure policy in FY2018.
- 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 continuation of the research units. Unit evaluation of up to 4 units is planned in FY2018.
- In addition to the existing Tenure Review Evaluation Committee (TREC, composed of OIST faculty members and an external member), we will implement a new tenure review

system to be assessed by TREC (composed of external members) who are world-class prominent scholars and will conduct the review using internationally highest standard. The evaluation results will be used in judgments of promotion of the faculty members. Currently, three tenure reviews are ongoing, and another three tenure reviews will be completed during FY2018.

- Continue to publish the summary of research evaluation expeditiously to fulfill the accountability to the public in using public expenses for the research projects.

(Research Productivity Report)

- Continue to publish the summary of research productivity expeditiously to fulfill the accountability to the public in using public expenses for the research projects. OIST Institutional Repository will be operated during FY2018 to allow open access to the publications from our Faculty. In FY2018, we will continue to improve efficiency to increase the number of publication in Institutional Repository.

(Senior Appointment & Post retirees)

- New policies with respect to hiring senior faculty and extending faculty's contract beyond retirement was introduced at the end of FY2017 with a view to continuing to expand the University in new directions and towards our goal of maintaining innovative and productive faculty on campus. From FY2018, under the new policy, review shall be made on faculty member at age 70 or older, and the title of Professor Emeritus shall be provided. The first of our faculty who will reach retirement age has agreed to run his Unit down over the next two years. Over the next few years from FY2018, we will review the situation of all faculty over the age of 70, and most of them will be given 'Emeritus' status.

(Faculty Development)

- In FY2018, as part of the faculty development plan, we will continue to enhance "Mentor System" for each of the new hires at Assistant Professor level to help with development of the research units. We will also implement "Appointment & Promotion Committee" to give more efficient support for untenured faculty members. A post in the Faculty Affairs Office is advertised to take the lead in providing opportunities for development of Faculty members in OIST.

(Postdoctoral Career Development)

- Our first development officer for postgraduate career development initiated a wide-ranging program for 2016. Continuing the work, we will initiate an OIST wide development program to increase postdoctoral awareness of opportunities for development in their time here and for the future.

Metrics:

· Number of research units evaluated

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:

· Continue to foster collaboration with other universities involving students; Develop exchange agreements concerning reciprocal student visits. Continue to expand collaborative relationships with other universities and institutes domestically and internationally for improving quality of research support sections. We will develop further partnership with University of the Ryukyus and the University of Tokyo.

· 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 and lecturers, 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.   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 seventh 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 2019. In the BOG meeting in May, the performance and achievements of FY2017 will be reported and evaluated. The results of this assessment are made available to the CAO for public sharing.
- BOG and BOC meetings will be augmented by two-three days of meetings that immediately precede the May and October meetings, to allow the BOG Steering Committee and the BOG and BOC sub-committees the opportunity to pre-discuss important issues. The BOG Steering Committee will continue its practice of meeting with the Faculty Council during the pre-meetings.
- 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 and will be provided sufficient information and staffing necessary for conducting their duties. Plan and result of Auditors' audit will be presented at BOG meetings, etc. for recommendations to reflect

on business operations.

(Expansion of the University)

- 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 in one decade by the mid 2020's. Toward the end of this decade of development, further growth of OIST should be deliberated and planned.
Recruitment of new faculty will continue, under the guidance of the Faculty Development Working Group enriched by the recommendations delivered from the Perspective Council. Construction of Lab 4 will continue, design of Lab 5 will start and its construction plan will be prepared. In regards to the Incubator Facility, based on the operational status of the Facility to be developed in 2018, future development, etc. will be considered. Regarding accommodation, preparation will start for planning of new on-campus housing, and discussion will be made for future development of off-campus housing.

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 regular meetings with the President/CEO, Vice CEO, and other executives to prepare major decisions, to share information and review the status of business operations. 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. Continue to hold meetings of the Salary Review Committee as needed.
Weekly meetings of the President, Executive Vice President, COO and Provost should

facilitate a smooth coordination between the individual executives.

- Maintain close communication with CAO under the supervision of newly appointed Chief Operating Officer (COO). Specifically, continue the periodical meeting to share information such as the implementation status of the Business Plan. In addition, prepare business sketch and budget requests for FY2019 well in advance through close discussion with CAO.
- Submit the self-inspection and evaluation report to Japan Institution for Higher Education and Evaluation(JIHEE), which has been authorized by MEXT as an independent accreditation organization before the end of June. And after the visit survey conducted by JIHEE in October, the evaluation result notified by JIHEE is publicized within FY 2018.
- Provide a high quality of IT service, in alignment with the missions of the University.
- Continue to ensure that clear and concise documentation and education programs exist to allow users to capitalize on IT resources and services. Overhaul the IT website and request management platform making them easier to use.
- Continue to 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. Ensure that support infrastructures for research and education are as automated and efficient as possible. Work to create a more flexible and secure network environment, in response to growing demand for isolated research networks.
- Ensure the alignment of IT with the business through the development of an IT strategic plan. Ensure the alignment of the plan with the business and best practice through an external review of IT.
- Continue to develop, or assist in the specification of enterprise systems and services that support the research and administrative activities of the University. Work to develop systems that will increase the quality of the student experience, and lead to increased student retention and success. Assist the facilities division to develop accommodation and parking management solutions that ease management of these resources.
- 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.
- Further standardize the operating environment provided to the administration, simplifying operation while reducing operating costs and increasing security.
- Continue to increase information security through increased information security education, multiple factor authentication and device based access control. Further enhance existing monitoring capabilities, allowing for the detection of malicious software or activity which may reduce the integrity of OIST networks or systems.
- 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.

- Defend OIST SC from claims in and out of court and avoid financial damage and reputational risk.
- In order to prevent any misconduct in and out of OIST, all employees, faculties and students will be required to take a program on Japanese laws and rules annually (especially on drug restrictions, drinking and driving, carrying weapons, criminal procedure/deportation, OIST discipline).

2.2 Budget allocation and execution

Goal:

On executing the budget including government subsidies, OIST Graduate University will make appropriate and effective allocation and execution of budget, by reviewing the cost performance, to fulfill its accountability to the government, sponsors, and general public. In particular, under the prevailing severe fiscal circumstances, the university will make efforts to improve cost efficiency to maintain and develop research and education.

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.
- We will allocate Research Budget based on the rules of new start-up units and base budget allocation, which have been created in FY17. Also, we will implement new review sheet for external review of research units, which has been created in FY17.
- Mid-year review in September and another review in January, at the beginning of the fourth quarter will be conducted. These are the time when all the research-related budgets are reviewed and adjusted when needed. This fine-tunes the expenditures to optimize spending. The reviews provide opportunities to check and to ensure capital purchases are in line for delivery and acceptance by the end of the Fiscal Year. As for the proper management of competitive research funds including KAKENHI (Grants‐in‐Aid

for Scientific Research), we will continuously and thoroughly implement proper management to the researchers through posting Misconduct prevention plan.

- Continue to implement the procedures to comply with laws and University policy and rules – the procedure in budget execution includes reviews by the person in charge of compliance when individual budget expenditures exceed a predetermined threshold.
- Conduct internal audit, 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.
- In order to ensure proper implementation, a committee consisting of external experts will review contracts concluded by the University, taking into consideration whether appropriate procedures have been applied to for the General Competitive Bidding, public recruiting and proposal competition, and whether competitiveness and transparency have been ensured. At the same time, the University will seek comments from the committee concerning measures for improvement of procurement procedures. 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 will organize users group meeting to discuss with users to consider proposals of common research resources including Research CAPEX as well as shared and dedicated CAPEX.

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.
- Streamline the tender procedure by introducing new electronic bidding system.
- Reduce costs of research equipment maintenance by reviewing the methods of maintenance etc.
- Increase the number of the available items at the Internal Supply Store 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. Continue streamlining the segregation and procedures related to procurement for the future expansion of the University.

- Based on the fruit of the previous investigations on price differences between Japanese and international markets, take actions to decrease the said differences and to promote cost-saving.
- Collect reference data comparing prices of supplies and equipment etc. in Japan and abroad, and use such data in direct negotiation with manufacturers/agents/vendors, and provide information for internal users to improve cost efficiency of purchasing. And mitigate price increases caused by exchange fluctuations.
- Take necessary actions, including revision of HEART system, in preparation for the change of consumption tax.
- 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 continue to make the best use of its facilities and equipment.

Actions:
- Continue efforts for optimization of use of academic and administration spaces, and research equipment through regular survey of current spaces in the existing buildings, close coordination with Research Support Division, and meeting and interviews with the research units to understand their needs.
- Proceed with scheduling of repairs and maintenance of the Seaside House facilities and continue investigation in optimization of the use of the available space.

2.4 Personnel management

Goal:

OIST Graduate University will continue to improve the HR system toward a more effective organizational structure to provide better competitive compensation and benefits. It aims at hiring qualified employees, who have internationalized mind-sets and capabilities for the university operation. At the same time, as a corporation operated with the largely financial support from the Japanese Government, OIST Graduate University will continue to make efforts to contain overall personnel costs and to set the proper range of compensation. Moreover, the standard of employees' salary will follow the statement established by "Review of Salary Level of Independent Administrative Institutions, Special Public Corporations, etc. (distributed in Related Ministers' Meeting in December 2012)". The University will use the standard along with the Government's goal for the University in ensuring accountability by embodying 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 November 17, 2017)."

Actions:

(Recruitment)
- Establish the HR plan considering the prospective view. We also continue to maintain a timely and fair recruiting process in accordance with the Personnel Budget Sub Committee's decisions. In addition, we continue to operate the HEART system as an alternative to the ERP system for the productive HR operation.
- As the university expands, administration growth is expected.   We will continue to make efforts to simplify and streamline administrative functions and operational processes, including utilization of job rotations, etc.   It may include reassignment of employees among divisions, particularly for those who are categorized to the revision of the employee contract, converting fixed-term employees to a new category of non-fixed term employment ensured by the Japanese employment contract laws.
- Review available information on applicants, interviewees and offers for candidates to ensure equal access for all persons in accordance with OIST policies. Analyze the current ratio of gender balance among all job levels and categories. Identify strategies to improve the balance.
- Consolidate available data and perform gap analysis on necessary data required for developing and implementing evidence-based strategies to accomplish the Taskforce Goals. Promote gender equality in all aspects of university management through diverse methods. Review best practices in developing a Gender Policy Code of Conduct in order to design one for OIST employees. Ensure the OIST Gender Policy Code of Conduct and other gender policies, rules and procedures are properly incorporated into the PRP

document. Deliver unconscious bias and gender equality training for all managers who assess employees. Provide high quality sensitivity training for harassment and discrimination and educate all OIST staff on the process for reporting incidents through the OIST hotline and other communication mediums. Collaborate with Buildings and Facilities Management Division to plan, design and outfit appropriate, world-class facilities for pregnant women and working parents in each OIST building. Continue to offer networking opportunities for female OIST employees. Determine an appropriate assessment methodology of all prior collaborative programs/projects with Okinawa Prefecture and universities in promoting science to middle/high school girls; build on previous successes by further developing relationships and implementing more high-quality programs/projects.

- Collaborate with appropriate stakeholders (e.g., Occupational Health Section) to develop and implement policies to promote the health and safety of persons with disabilities at OIST by the revision of Act on Employment Promotion etc. of Persons with Disabilities scheduled for 2018. Provide counsel and input on removing barriers for providing equal working opportunities, as appropriate.

- Improve data collection process in the Resource Center to identify opportunities to improve service to OIST stakeholders. The new staff will be embedded and trained. They will consider the feasibility of re-starting the OIST Clinic. Collaborate with staff at the Medical Center and Ganjuu to further improve service-related functions for OIST employees. Develop and implement an effective Children's Development Center staffing model to ensure continuous high-quality child care services. Evaluate CDC budget and spending history to streamline processes and reduce expenses. Identify, plan and deliver more robust after-school STEM programming to increase opportunities for K-12 children of OIST employees. Continue to provide with the service-related function, information, and facilities possessed under OIST to the faculty, employee, student, their family members, and external employees for the short term accommodation. To achieve the goal, the HR service-related function will be reinforced through child-care services, family support, food services, health/medical services, and living needs.

(Compensation)
- Referring to salary levels of national government employees and those of academic institutions in and outside of Japan, embody and implement 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 November 17, 2017)."

(Career development, training and evaluation)
- Deliver competency-based learning programs and management planning tools to support

management succession planning and professional development

- Establish a menu of online and in-person learning modules and provide learning guidelines to strengthen selected workforce group competencies. Evaluate each learning program effectiveness.
- 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 FY2018 OIST will maintain 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 based on the set objectives/metrics of each fiscal year. In addition, implement the Competency-based goal setting and performance evaluation defined to match its desired behaviors for each job grade and enhance Annual Performance Evaluation for its future improvement activities. Furthermore, through quarterly review, self-assessment and review by the reviewer, ensure to reflect the evaluation results in employee salaries, through fair and transparent evaluation and a reliable process with the 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)
- 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:
- 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 in cooperation with the General Counsel Office 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. In addition, awareness on personal information is to be improved through obligation for faculty and employees to observe the University policy and rules including maintenance of a ledger or etc. that manages retained personal information.

- Through Auditors' audit and internal audit, 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".

- Review of research protocols by internal review boards and professional staff will continue to ensure that our research activities are compliant with pertinent regulations and laws. Professional staff will be sent the briefing session on pertinent regulations and laws to keep legal information updated and develop the professional staff.

- 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, and increasing the awareness of thereof from the time they decided to join OIST. We will explain about our rules of use of research funds to new faculty members at the preliminary meeting before their start. Also after their arrival, we will explain the rules in more details.

- All OIST researchers and students will be required to take research ethics education in order to promote responsible conduct of research. (See1.2). All OIST researchers and students who are awarded the external research funds will be required to take additional necessary research ethics education. Seminar on responsible conduct of research will be organized inviting the external specialist.

- The time when the research unit is closed or the researcher/student left OIST is the critical point for research references storage. Then, the checklist on storage of research references and samples when the research unit closes, or the researcher/student is

leaving OIST will be created.

- Through the Shohei Suzuki Research Safety Fund which was established in November 2017, we will promote research safety awareness and training at OIST and enable students and junior researchers or technicians from OIST to undertake fieldwork while developing the necessary skills including research safety training. We will also continue the Safety Enhancement Month in November and make enforcement of measurement for health and safety at OIST. Also, strict review of field work plan by the Field Work Safety Committee continues in FY2018. Field Work Manual is completely revised toward safer field work, and on-site inspection of field work by professional staff will be enforced.

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 IAIs (Act No. 140 of 2001).
- Digital Services with 3 staff members in the CPR division maintains OIST's internal and external web functions at the highest level.
- Continue organizing press briefing sessions and press conferences in Okinawa and on the mainland, and generate press visits to OIST, in order to maintain consistently positive press coverage of the Graduate University. Continue working with other Japanese universities and research institutions through initiatives of the Japanese Association for Communication in Science and Technology (JACST). In so doing, continue enhancing OIST's presence in the academia and among journalists in Japan and overseas.
- 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.
- Continue increasing effective use of social media such as Facebook, Twitter, Flickr, YouTube, Vimeo, and Instagram to propagate excitement about the OIST Graduate University and to generate followers and fans of OIST, which include potential Ph.D. students, scientists, and faculty.
- Continue to maintain and improve the library of OIST Policies, Rules and Procedures on the website.

- In case of any incident, consult the General Counsel Office and the Chief Operating Officer to release duly and timely information in consideration of reputation risk.

Chapter 3 Finance

Goal:

OIST Graduate University will continue to broaden its financial basis strategically by proactively increasing the amount of research grants, donations, and other income sources. Towards this end, the university will establish a set of incentive measures to encourage faculty and staff to be more active in applying to the third party income. OIST will also prepare a newly revised Medium-Term Strategy for External Funding.

Actions:

(Grants)

a) Increase opportunities to deliver grant information, available application support, importance of networking etc. to OIST researchers through Grants and Research Collaborations Section's website and visit to their offices.

b) Make effort to recruit more external grant facilitators according to the research field where more OIST scientists wish to receive advice from the facilitators.

c) Further discuss design of incentive programs with Dean of Research and other executives.

- The Grants and Research Collaborations Section 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, the section will actively visit major funding agencies to collect information about any precursory activities leading to announcements of new grants.
- Encourage researchers to apply for private sector and industry-related grants and provide proactive application support such as translation, editing, and budgeting.
- We anticipate healthy proportional increase of third party income hoping for added income encouraged through incentive systems.

(Donations)

- OIST has started to establish a Development Office to manage gift and donation solicitation including representation in the USA.

Metrics:

- Increase of the number of application for external research grants
- Increase of the number of awarded research grants (number and amount)

- Increase in third party income

Chapter 4 Contribution to Self-Sustainable Development of Okinawa

Goal:

The Cabinet Office "Basic Policy on Economic and Fiscal Management and Reform 2017" includes measures to develop Okinawa as a driving force in stimulating the Japanese economy and advocates support for the formation of a global intellectual and industrial cluster in Okinawa. The Technology Development & Innovation Center (TDIC) reflects the university's commitment to national policy and to its founding objective to contribute to the self-sustaining development of Okinawa, as stipulated in the OIST School Corporation Act of 2010. The mission of the Technology Development & Innovation Center is to foster innovation at OIST and in Okinawa by promoting the transfer of discoveries made in the research laboratories to industry for societal and economic benefit. TDIC proactively supports proof-of-concept research, inventions and patents, collaborations with industry, entrepreneurship and start-ups, and partnerships with other public and private organizations that promote innovation in Okinawa.

In FY2018, TDIC will continue to implement the following broad measures:

(a) Identify, protect, and market research discoveries with the aim of promoting innovation and technology transfer

(b) Enhance the proof-of-concept program to support innovative technology research and drive inventions towards commercialization

(c) Foster entrepreneurship and the creation and incubation of startup companies with the aim of developing an innovation ecosystem (R&D cluster) in Okinawa

(d) Expand collaborations with industry as a mechanism to develop new technologies and promote technology transfer

(e) Strengthen regional, national, and international partnerships with innovative public and private organizations with the aim of developing an innovation ecosystem (R&D cluster) in Okinawa

(f) Understand the components and indicators of successful innovation in science and technology and measure their socio-economic impact on Okinawa

Self-sustaining development of Okinawa also depends on the dynamic, inclusive, and diverse engagement and participation of local citizens. To this end, OIST cares deeply about its social impact on Okinawa and engages with the local community through campus tours, science festivals, and educational events. The university also strives to develop its campus as a center for cultural and community activities.

Actions:

a) Identify, protect, and market research discoveries with the aim of promoting innovation and technology transfer

- Ensure that invention disclosure procedures capture the intellectual assets of OIST while complementing its basic research mission by proactively engaging with faculty and researchers.

- Expand the panel of international external experts for efficient and strategic management of the university's intellectual property. Enhance quality of the Invention Evaluation Committee and patent filing with the expanded panel of external experts.

- Introduce an intellectual property assets evaluation platform on which industrial partners, competing technologies and potential for infringement are periodically reviewed to effectively protect the intellectual property assets and accelerate technology transfer activities.

- Continue to expand awareness of inventions and protection of intellectual property throughout the university by organizing training courses, seminars, and workshops for students and researchers. Hold an international conference to increase visibility of the university as technology development and innovation center in Asia.

b) Enhance the Proof-of-Concept Program to support innovative technology research and to drive inventions towards commercialization

- Upon the successful completion of the R&D Cluster Research Program in FY2017, the Proof-of-Concept Program will be enhanced to include support for innovative technology research in areas that offer technological breakthroughs based on advances in basic research. The new initiative, Innovative Technology Research (ITR), will complement the existing Phase I and Phase II Commercialization Research phases of the POC Program. Results from ITR are expected to promote collaborations with industry, provide a base on which to build external funding, and lead to new inventions that feed into Phase I and Phase II commercialization phases.

- Ensure the advancement of ongoing Phase I and Phase II POC projects by continuing to provide funding, market reports and analysis, hands-on project management, educational courses and events, and access to industry experts. Maintain connections to completed POC projects to ensure continued commercialization efforts.

- Expand and strengthen the panel of industry reviewers, experts, and mentors for the POC Program by attending industry conferences to identify experts, coordinating meetings with POC project teams, and organizing networking events.

c) Foster entrepreneurship and the creation and incubation of startup companies with the aim of developing an innovation ecosystem (R&D cluster) in Okinawa)

- Develop and implement a Startup Accelerator Program to support entrepreneurs and

startups, including access to facilities and equipment, assistance with fundraising, and connections to commercialization experts. Develop and implement rules for eligibility, selection, benefits, and review of potential startups.

- Continue the entrepreneurship education workshop, with a focus on supporting the commercialization of technologies in the Proof-of-Concept (POC) Program and other technologies at OIST. Open the workshop to students and researchers from other universities in Okinawa to promote entrepreneurship in the prefecture. Explore ways to expand the workshop by training instructors to provide the courses in Japanese.
- Identify industrial areas in which OIST is developing expertise through analysis of OIST intellectual property.
- Operate space in the Technology Development Labs (Lab 3 Level A) to nurture new technologies and proof-of-concept research towards commercialization.
- Implement an incubator facility proximal to the campus to serve as a launchpad for startups and a collaboration space for OIST researchers and industry partners. In order to achieve its function, ensure development of the facility and its operations. Design, equip, and market the facility to foster collaboration and seed an innovation ecosystem centered around OIST.

d) Expand collaborations with industry to facilitate development of new technologies and promotion of technology transfer)
- Promote collaborative research with industry by proactively identifying potential partners, building long-term relationships, and hosting company visits and exchanges.
- Ensure success of existing industry-related research projects funded by the Okinawa Prefectural Government (OPG). Proactively pursue new projects that align with the Okinawa Science and Technology Roadmap to support research at OIST and diversify funding. In addition, contribute to meetings and symposia related to the projects to enhance knowledge and technology transfer.
- Promote OIST technologies and strengthen relationships with industry by participating in industrial exhibitions, workshops, and conferences nationally and internationally.
- Expand external funding by identifying relevant sources of public and private-sector funding, encouraging researchers to apply, and supporting the application process.
- Enhance business development activities by strengthening internal expertise in business and marketing of science and technology by encouraging staff participation in professional development courses.
- Work closely with the Office of the General Counsel to build university expertise in negotiating and administering complex agreements with industry, including non-disclosure agreements, materials transfer agreements, collaborative/sponsored research agreements, licenses, consulting agreements, and MOUs.

e) Strengthen regional, national, and international partnerships with innovative public and private organizations with the aim of developing an innovation ecosystem (R&D cluster) in Okinawa

- Proactively coordinate interactions with local and national organizations that encourage innovation and technology transfer.
- Develop a long-term strategic plan for how the incubator facility, Startup Accelerator Program, and other entrepreneurial programs will contribute to the development of an innovation ecosystem centered around OIST. Host global experts in entrepreneurship to advise on strategy to accelerate startup activity in Okinawa.
- Work closely with the Cabinet Office, Okinawa Prefectural Government, and other key entities on actions to establish an innovation ecosystem in Okinawa.
- Organize international seminars, workshops, and symposia on the theme of innovation, entrepreneurship, and R&D cluster development to increase global awareness of Okinawa and to strengthen local expertise in international relationships.

f) Understand the components and indicators of successful innovation in science and technology and measure their socio-economic impact on Okinawa)

- Establish partnerships necessary to advance analysis of innovation indicators at OIST and in Okinawa.
- Establish methods that produce and aggregate statistical data to develop indicators of technological innovation in Okinawa and analyze their impact.

(Networking with local institutions and communities)
- Continue exchange programs by holding science lectures with 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 etc.) to the campus.
- Hold the 9th OIST Science Festival (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.   Also invite the elementary and junior high school students.
- 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 9th 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 by holding community-based job fairs and participating in an information session regarding job opportunities for the students of the National Institute of Technology, Okinawa College.
- As we participated in events such as Okinawa Sangyo Matsuri 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.
- Establish OIST FAN Club and provide to the club members information of OIST, chance to join the events, and help OIST staff.
- Continue internship program with University of the Ryukyus and other universities in Okinawa, and provide the chance to work at CPR, OIST and promote the exchange with OIST students.
- Continue the science classes in remote islands of Okinawa with the help of OIST young researchers and students.
- Increase the number of externally organized international conferences and workshops at the OIST venue to strengthen the academic networks and the recognition of OIST researchers and students. This will be achieved in collaboration with OPG and the Okinawa Convention and Visitors Bureau, in addition to the support programs for MICE Ambassador program sponsored by JNTO.

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.)
- OIST intellectual property (number of invention disclosures, patents filed and awarded, etc.)
- Number of symposiums, meetings, workshops hosted by OIST on industrial development

and the formation of intellectual/industrial clusters
- Number of symposiums, meetings, workshops organized or hosted by OIST around topics related to innovation, technology development, and R&D cluster development
- Number of participants in events, courses, symposia, meetings, workshops, and seminars on topics related to innovation, technology development, and R&D cluster development
- Number of technology development research projects supported, (Proof-of-Concept, R&D Cluster Research, etc.)
- 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:
- Continue study and updating of 2014 Master Plan based on phased expansion of OIST.
- Along with starting Lab 5 basic design, consideration will be made regarding implementation of the future Lab 5 execution design.
- Plan and complete infrastructure and civil work related to Lab 4, including roads and bridges connecting to the building.
- Continue feasibility study and cost analysis of infrastructure and civil work for the future R&D Zone and on-campus housing.
- We will develop necessary infrastructure at an early stage to start its utilization. In addition, we will consider future development of Incubation Facility considering the result of investigation on FY18 operation status of the Incubation Facility.
- 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 continue to enhance the education and childcare environment available to OIST employees through the Resource Center and the Child Development Center (CDC). To achieve successful recruitment and retention of faculty, OIST needs to pay attention to provide international recognized schooling. The University will also discuss and plan new housing on/off campus for increasing number of staff, students and their families.

Actions:

(Developing the University Community)

- Improve data collection process in the Resource Center to identify opportunities to improve service to OIST stakeholders. The new staff will be embedded and trained. They will consider the feasibility of re-starting the OIST Clinic. Collaborate with staff at the Medical Center and Ganjuu to further improve service-related functions for OIST employees. Develop and implement an effective Children's Development Center staffing model to ensure continuous high-quality child care services. Evaluate CDC budget and spending history to streamline processes and reduce expenses. Identify, plan and deliver more robust after-school STEM programming to increase opportunities for K-12 children of OIST employees. Continue to provide with the service-related function, information, and facilities possessed under OIST to the faculty, employee, student, their family members, and external employees for the short-term accommodation. To achieve the goal, the HR service-related function will be reinforced through child-care services, family support, food services, health/medical services, and living needs.
- As the university grows the number of clubs and activities grow. Stronger oversight is needed to ensure that there are no contraventions of university rules and regulations. Resource Center oversees club activities.
- The Registration Desk will continue to provide coming in-boarding services for visiting researchers and invited guests by registering and integrating them into the database. This function is now run by the Resource Center, which brings additional administrative and web-based strength.
- Along with the expansion of OIST, start civil and infrastructure works for the additional on-campus housing at the existing PPP residential area, and work on development of additional on-campus housing through PPP scheme at that area. Start planning additional on-campus housing project with new PFI scheme, including design of civil and

infrastructure for the project. Continue discussions with the business operators of the old military site at Onna-son for development of off-campus housing for OIST.

(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 and Afterschool classroom. 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. Enrollment in these programs is anticipated to continue its steady growth. Complete the construction project that is expanding the size of the CDC and incorporating the Afterschool program into the same physical complex.
- 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.
- Offers a very valid educational opportunity to OIST staff members' children such as the international program at the Onna Elementary School and conduct a study about international education environment to them.
- In FY2018 OIST will maintain 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.

(Student Support)
- Enhance student support services and general welfare activities to promote a positive social and psychological environment for students. (See 1.1).
- Continue efforts in improvement of opportunities for sport, recreation, and social activities for the students and other members of OIST community.

5.3 Safety and Environment Protection

Goal:
OIST Graduate University will develop an all-campus-wide Business Continuity Plan and take necessary measures to control risks, prevent disasters and protect the safety of all members of OIST and visitors.

Actions:
- Having the newly hired Emergency response coordinator as a core member, OIST will develop an all-campus-wide business continuity plan and take necessary preparation for risks.

- Continue safety training for OIST 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:

- Continue promoting use of recycled 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.

	Unit Name	Faculty
1	Biodiversity and Biocomplexity Unit	Dr. Evan P. Economo
2	Brain Mechanism for Behavior Unit	Dr. Gordon W. 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 Sergeyevich 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	Light-Matter Interactions Unit	Dr. Sile Nic Chormaic
23	Marine Biophysics Unit	Dr. Satoshi Mitarai
24	Mathematical Biology Unit	Dr. Robert Sinclair
25	Molecular Cryo-Electron Microscopy Unit	Dr. Matthias Wolf
26	Marine Genomics Unit	Dr. Noriyuki Satoh
27	Mathematical and Theoretical Physics Unit	Dr. Shinobu Hikami
28	Mathematics, Mechanics, and Materials Unit	Dr. Eliot Fried
29	Micro/Bio/Nanofluidics Unit	Dr. Amy Shen
30	Neural Computation Unit	Dr. Kenji Doya
31	Nanoparticles by Design for Nanotechnology and Biomedical Applications Unit	Dr. Mukhles Ibrahim Sowwan

	Unit Name	Faculty
32	Neuronal Mechanism for Critical Period Unit	Dr. Yoko Yazaki-Sugiyama
33	Neurobiology Research Unit	Dr. Jeff Wickens
34	Integrated Open Systems Unit	Dr. Hiroaki Kitano
35	Optical Neuroimaging Unit	Dr. Bernd Kuhn
36	Physics and Biology Unit	Dr. Jonathan Miller
37	Plant Epigenetics Unit	Dr. Hidetoshi Saze
38	Quantum Dynamics Unit	Dr. Denis Konstantinov
39	Quantum Systems Unit	Dr. Thomas Busch
40	Quantum Wave Microscopy Unit	Dr. Tsumoru Shintake
41	Structural Cellular Biology Unit	Dr. Ulf Skoglund
42	Theory of Quantum Matter Unit	Dr. Nic Shannon
43	Coordination Chemistry and Catalysis Unit	Dr. Julia Khusnutdinova
44	Molecular Genetics Unit	Dr. Daniel Rokhsar
45	Nucleic Acid Chemistry and Engineering Unit	Dr. Yohei Yokobayashi
46	Advanced Medical Instrumentation Unit	Dr. Hirotaka Sugawara
47	Bioinspired Soft Matter Unit	Dr. Ye Zhang
48	Membrane Cooperativity Unit	Dr. Akihiro Kusumi
49	Evolutionary Neurobiology Unit	Dr. Hiroshi Watanabe
50	Sensory and Behavioural Neuroscience Unit	Dr. Izumi Fukunaga
51	Quantum Gravity Unit	Dr. Yasha Neiman
52	Neuronal Rhythms in Movement Unit	Dr. Marylka Yoe Uusisaari
53	Evolutionary Genomics Unit	Dr. Thomas Bourguignon
54	Electronic and Quantum Magnetism Unit	Dr. Yejun Feng
55	Topology and Geometry of Manifolds Unit	Dr. Anastasiia Tsvietkova
56	Protein Engineering and Evolution Unit	Dr. Paola Laurino
57	Cognitive Neurorobotics Research Unit	Dr. Jun Tani
58	Biological Complexity Unit	Dr. Simone Pigolotti
59	Quantum Transport and Electronic Structure Theory Unit	Dr. Fabian Pauly
60	Quantum Materials Science Unit	Dr. Yoshinori Okada
61	Membranology Unit	Dr. Keiko Kono

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. 59 Research Units (as of August 2017) have been launched so far, with research in the following 7 major areas:

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

Research Collaboration Across Traditional Disciplinary Boundaries

The illustration below represents the same information using the width of the arrows to indicate the relative number of collaborations across disciplinary boundaries.
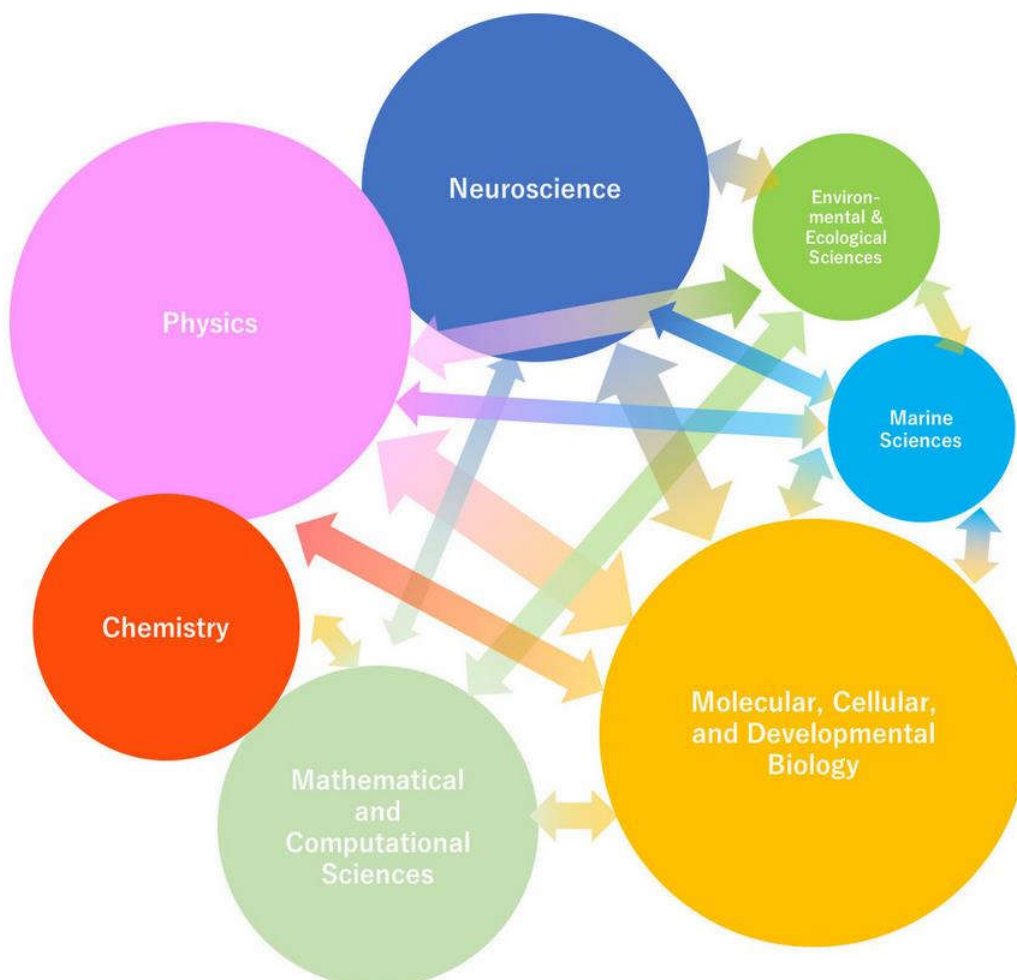
FY2018 Income and expenditure budget statement

(Unit : K yen)

Revenues		Expenses	
Items	Budget Amounts	Items	Budget Amounts
Subsidy for Operations	15,637,731	Personnel Expense	6,454,422
Subsidy for Facilities	4,669,473	Academic related Expense	1,331,449
Other Revenues	1,412,122	Education & Research related Expense	3,795,335
		Common Resource Expense	4,509,071
		Administrative Expense	959,576
		Construction Expense	4,669,473
Total	21,719,326	Total	21,719,326

Note: Subsidy amounts in Revenues might have to be modified later when a request for budget carry-over from FY17 to FY18 is made.

Balance Sheets

As of March 31, 2018

(Unit：K Yen)

(1)	Assets			
(2)	I Noncurrent assets			
(3)	1 Properties, plants, and equipment			
(4)	Land		1,659,667	
(5)	Buildings	40,220,866		
(6)	Accumulated depreciation	-9,841,174	30,379,692	
(7)	Structures	6,808,858		
(8)	Accumulated depreciation	-1,572,082	5,236,776	
(9)	Machineries	232,094		
(10)	Accumulated depreciation	-182,155	49,940	
(11)	Equipment	21,898,930		
(12)	Accumulated depreciation	-13,949,553	7,949,377	
(13)	Books		6,162	
(14)	Ships and vessels	2,004		
(15)	Accumulated depreciation	-1,280	724	
(16)	Vehicles and transportation equipment	26,876		
(17)	Accumulated depreciation	-20,843	6,033	
(18)	Lease assets	1,780,206		
(19)	Accumulated depreciation	-1,756,029	24,178	
(20)	Construction in progress		7,853,118	
(21)	Total properties, plants, and equipment		53,165,667	
(22)				
(23)	2 Intangible assets net of amortization			
(24)	Patents		16,162	
(25)	Trademark rights		522	
(26)	Softwares		683,955	
(27)	Patents (in the process of filing)		153,932	
(28)	Others		27,232	
(29)	Total intangible assets, net		881,803	
(30)				
(31)	3 Investments and other assets			
(32)	Investments in securities		5	
(33)	Security deposits		2,356	
(34)	Long-term prepaid expenses		147	
(35)	Lease investment assets (Long-term)		4,315,983	
(36)	Total investments and other assets		4,318,490	
(37)	Total noncurrent assets			58,365,960
(38)				
(39)	II Current assets			
(40)	Cash and cash equivalents		4,877,405	
(41)	Accounts receivable		458,985	
(42)	Supplies		71,384	
(43)	Prepaid expenses		10,029	
(45)	Lease investment assets (Short-term)		116,724	
(46)	Total current assets			5,534,527
(47)	Total assets				63,900,487
(48)				
(49)	Liabilities			
(50)	I Noncurrent liabilities			
(51)	Encumbrance for assets - subsidy for operation		14,330,144	
(52)	Encumbrance for assets - donation		51,155	
(53)	Encumbrance for assets - donated by Japan government		150	
(54)	Allowance-retirement benefits		116,943	
(55)	Long-term accrued amounts payable		4,333,447	
(56)	Long-term lease obligations		2,146	
(57)	Total noncurrent liabilities			18,833,986
(58)				
(59)	II Current liabilities			
(60)	Advance received		83,401	
(61)	Deposits received - subsidy for operation			
(62)	Deposits received - subsidy for operation	202,094		
(63)	Deposits received-subsidy for facility	7,797,212	7,999,307	
(64)	Deposits received - donation		42,860	
(65)	Deposits received - Kakenhi		33,693	
(66)	Deposits received - others		105,780	
(67)	Accounts payable		4,490,190	
(68)	Short-term lease obligations		27,317	
(69)	Accrued expenses		93,694	
(70)	Total current liabilities			12,876,241
(71)	Total liabilities				31,710,227
(72)				
(73)	Equities			
(74)	I Contributions			
(75)	Contributions from government		24,317,681	
(76)	Total contributions			24,317,681
(77)				
(78)	II Additional paid-in contributions			
(79)	Additional paid-in contributions		17,641,300	
(80)	Accumulated depreciation - directly deducted from equity		-10,217,225	
(81)	Total additional paid-in contributions			7,424,075
(82)				
(83)	III Retained earnings			
(84)	Voluntary reserve funds			
(85)	Special reserve funds		80,533	
(86)	Accumulated net income		367,971	
(87)	(Net income/(△loss) for FY17)	(	-20,710)	
(88)	Total retained earnings			448,504
(89)	Total equities				32,190,260
(90)	Total liabilities and equities				63,900,487

Projected income statement
FY2017

<div align="right">（Unit：K Yen）</div>

Items	Amount
Ordinary Revenues	18,434,478
Revenue from Tuition etc.	69,075
Revenue from Subsidy for Operations etc.	13,922,538
Revenue from Subsidy for facility	7,070
Revenue from Sponsored Research	305,034
Revenue from Joint Research	104,914
Revenue from Donation etc.	17,992
Revenue from Subsidy for other	46,290
Revenue from Property Rent for Dormitory etc.	10,918
Land and Building Rent Revenue	16,275
Reversal of Assets Offsetting Subsidy for Operations etc.	3,658,470
Reversals of Assets Offsetting Donated Assets	26,946
Reversal of encumbrance for assets - donated by Japan government	29
Financial Income	106,882
Miscellaneous gains	142,045
Ordinary Expenses	18,456,201
Personnel Expenses	6,540,048
Operating Expenses	7,237,011
General Administrative Expenses	722,792
Depreciation	3,841,123
Financial Charges	114,968
Miscellaneous loss	259
Ordinary Loss	-21,723
Extraordinary Profit	2,607
Extraordinary Loss	1,594
Net Loss for the year	-20,710

Balance Sheets

As of March 31, 2019

(Unit：K Yen)

(1)	Assets				
(2)	I	Noncurrent assets			
(3)		1 Properties, plants, and equipment			
(4)		Land		1,659,667	
(5)		Buildings	51,976,897		
(6)		Accumulated depreciation	-11,631,423	40,345,474	
(7)		Structures	7,024,373		
(8)		Accumulated depreciation	-1,875,686	5,148,687	
(9)		Machineries	236,177		
(10)		Accumulated depreciation	-191,509	44,668	
(11)		Equipment	23,289,387		
(12)		Accumulated depreciation	-17,477,927	5,811,460	
(13)		Books		7,733	
(14)		Ships and vessels	2,004		
(15)		Accumulated depreciation	-1,681	323	
(16)		Vehicles and transportation equipment	26,876		
(17)		Accumulated depreciation	-23,293	3,583	
(18)		Lease assets	1,780,206		
(19)		Accumulated depreciation	-1,778,060	2,146	
(20)		Construction in progress		546,963	
(21)		Total properties, plants, and equipment		53,570,705	
(22)					
(23)		2 Intangible assets net of amortization			
(24)		Patents		15,040	
(25)		Trademark rights		411	
(26)		Softwares		476,668	
(27)		Patents (in the process of filing)		160,102	
(28)		Others		23,235	
(29)		Total intangible assets, net		675,456	
(30)					
(31)		3 Investments and other assets			
(32)		Investments in securities		5	
(33)		Security deposits		2,356	
(34)		Long-term prepaid expenses		148	
(35)		Lease investment assets (Long-term)		4,196,133	
(36)		Total investments and other assets		4,198,642	
(37)		Total noncurrent assets			58,444,804
(38)					
(39)	II	Current assets			
(40)		Cash and cash equivalents		4,717,554	
(41)		Accounts receivable		939,911	
(42)		Supplies		61,690	
(43)		Prepaid expenses		10,149	
(45)		Lease investment assets (Short-term)		119,647	
(46)		Total current assets			5,848,952
(47)		Total assets			64,293,756
(48)					
(49)	Liabilities				
(50)	I	Noncurrent liabilities			
(51)		Encumbrance for assets - subsidy for operation		11,828,995	
(52)		Encumbrance for assets - donation		29,229	
(53)		Encumbrance for assets - donated by Japan government		150	
(54)		Allowance-retirement benefits		139,266	
(55)		Long-term accrued amounts payable		4,218,940	
(56)		Long-term lease obligations		1,469	
(57)		Total noncurrent liabilities			16,218,048
(58)					
(59)	II	Current liabilities			
(60)		Advance received		128,170	
(61)		Deposits received - subsidy for operation			
(62)		Deposits received - subsidy for operation	182,515		
(63)		Deposits received-subsidy for facility	516,806	699,322	
(64)		Deposits received - donation		42,860	
(65)		Deposits received - Kakenhi		88,027	
(66)		Deposits received - others		107,053	
(67)		Accounts payable		4,544,262	
(68)		Short-term lease obligations		678	
(69)		Accrued expenses		94,822	
(70)		Total current liabilities			5,705,193
(71)		Total liabilities			21,923,242
(72)					
(73)	Equities				
(74)	I	Contributions			
(75)		Contributions from government		24,317,681	
(76)		Total contributions			24,317,681
(77)					
(78)	II	Additional paid-in contributions			
(79)		Additional paid-in contributions		29,591,179	
(80)		Accumulated depreciation - directly deducted from equity		-11,989,217	
(81)		Total additional paid-in contributions			17,601,962
(82)					
(83)	III	Retained earnings			
(84)		Voluntary reserve funds			
(85)		Special reserve funds		80,533	
(86)		Accumulated net income		370,339	
(87)		(Net income/(△loss) for FY18)		(2,367)	
(88)		Total retained earnings			450,871
(89)		Total equities			42,370,514
(90)		Total liabilities and equities			64,293,756

Projected income statement
FY2018

(A)	(B)
Items	Amount
Ordinary Revenues	19,570,100
Revenue from Tuition etc.	84,600
Revenue from Subsidy for Operations etc.	14,232,447
Revenue from Sponsored Research	462,063
Revenue from Joint Research	167,937
Revenue from Donation etc.	86,000
Revenue from Subsidy for other	204,151
Revenue from Proeprty Rent for Dormitory etc.	7,378
Land and Building Rent Revenue	12,361
Reversal of Assets Offsetting Subsidy for Operations etc.	4,046,255
Reversals of Assets Offsetting Donated Assets	21,926
Financial Income	104,199
Miscellaneous gains	140,783
Ordinary Expenses	19,567,732
Personnel Expenses	7,301,808
Operating Expenses	7,282,033
General Administrative Expenses	773,624
Depreciation	4,098,788
Financial Charges	111,480
Ordinary Profit	2,367
Net profit for the year	2,367