Okinawa Institute of Science and Technology School Corporation

Fiscal Year 2020 Business Plan

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Okinawa Institute of Science and Technology School Corporation FY2020 Business Plan

Introduction

This Business Plan (BP) has been developed by the Okinawa Institute of Science and Technology School Corporation (OIST SC), 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) 2020, from April 2020 to March 2021.

Planning framework and evaluation approach

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 - External Funding, 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 School Corporation 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.

1. Education & Research

Education

OIST will continue to develop its strong and innovative PhD program. The addition of new faculty members in FY2019-20 significantly increases the research opportunities for students and will allow a yet further strengthening of the curriculum.

Research

OIST will continue publishing world-leading research in high-impact journals. OIST will continue hiring of outstanding faculty members and also support newly hired faculty members for their swift lab start-up and commencement of research at OIST. OIST will continue international review of the research support facilities which constitute a key to the research strength of OIST. OIST will also review appropriate number of research support staff linked with increment of OIST faculty members and expansion of research area at OIST and make efforts to secure excellent resources. OIST will engage in enhancement of networks with Universities and Research institutions in Japan.

Expansion of the university

The number of faculty units will be increased to 82 in FY2020, further strengthening the University's areas of research competence while maintaining the highest quality standards in the selection. In FY2019, the intake of new Graduate students reached 52. OIST will maintain the highest quality standards in the selection and elevate qualities of applicants to acquire the best students.

1.1 Ph.D. Program

Goal (1):

Taking full advantage of world-class science faculty and facilities, OIST will provide exceptional academic program and research training for PhD Students, Research Interns, and other Special Students.

Actions (1):

(Research Training)

- OIST will facilitate students to receive academic and research training in front-line sciences for their PhD by providing operational support for academic success including courses, mentoring, research supervision and examinations.
- OIST will make available to its students external, world-leading researchers and examiners to improve research opportunities and outcomes from our PhD program.
- OIST will ensure students are given adequate and appropriate research and IT facilities and equipment.

(Curriculum)

- OIST aims to increase the selection of courses available to students, including on- and offcurriculum instruction, in order to broaden the depth and breadth of the OIST curriculum.
- OIST aims to develop and support diversity of course delivery, including online.
- OIST aims to continue the process of curriculum review to provide the most appropriate courses at the most appropriate time to students and improve efficiency of education.

(Research Internship)

• OIST will provide a Research Internship program available to talented students with excellent research potential.

Metrics:

- Number of publications by students
- Number of external scholarships, etc. our students receive
- Number of examinations for proposal and thesis
- Number of graduates
- Average number of students per faculty member
- Number of on-curriculum courses offered
- Number of off-curriculum courses
- Number of credits given to external courses
- Number of Research Interns

Goal (2):

Understanding the unique needs of each student, OIST will provide them comprehensive support toward academic success and professional and personal development to impact their life broadly.

Actions (2):

(Student Support)

- OIST will provide a full range of student-centered and flexible support to students in the areas of relocation, travel, housing, language assistance, emergency care, and financial assistance so that they can concentrate on their study.
- OIST will provide comprehensive support to provide a safe and healthy environment for students, including proactively reaching out to students for early problem detection, increasing communication with students, and seamless coordination of support across campus.

(Professional and Career Development)

- OIST will provide a Professional and Career Development Program to prepare students for a wide range of career opportunities.
- The Professional and Career Development Program of Graduate School will collaborate to be part of a broader network of professional development OIST-wide for the betterment of its staff, students, and ultimately Okinawa and Japan.

- To empower students' effectiveness as early-career scientists, OIST will support diverse
 networking opportunities such as conferences, workshops, visits to other institutions, career
 events, and inviting external speakers to OIST.
- OIST will seek available funding opportunities for students and support the entire application process by holding information, grant writing and interview practice sessions, and providing clear guidance on the applications.
- OIST will provide opportunities for students to learn skills to translate discovery into impact on society.
- OIST will provide opportunities for students to interact with other universities in Okinawa and Japan including student exchange, social networking and teaching.
- OIST will develop human resources through the provision of relevant skills training to all students to contribute to Japan from inside and overseas.

Metrics:

- Number and nature of professional and career development activities
- PhD student retention rate
- Number of grant applications supported and success ratio

Goal (3):

To enrich the mutual benefits between OIST and Okinawa, Japan, and the World, OIST will further develop communication and collaborations with other educational institutions and communities.

Actions (3):

(Student Collaborations)

- OIST will maintain and enhance collaborative relationships with other universities by developing agreements concerning Research Interns, Special Research Students, co-supervision, study-leave, and other exchange opportunities.
- OIST will hold events and workshops to provide students in Okinawa and those of Okinawa ancestry opportunities to get to know OIST and/or apply to the PhD and Research Internship Programs.
- OIST will improve integration of its student activities into the Okinawan environment and community to strengthen each student's ties with Okinawa and to enrich benefit sharing with Okinawa.

(Student Recruitment and Alumni Relations)

- OIST will continue to diversify student recruitment activities to attract a diverse group of worldclass students for PhD program and Research Intern program.
- OIST will keep track of graduates and participants of GS events and programs.
- OIST will sharpen its branding and adjust our external communications to better appeal to target populations for student recruitment.
- OIST will establish a networking platform for alumni to engage them as ambassadors of our

programs.

Metrics:

- Number of applications for the PhD program (Japanese and International)
- Number of admitted PhD students (Japanese and International)
- Number of applications for the RI program
- Number and nature of interactions between OIST students and other students
- Number and list of agreements with other universities (SRS, RI MOU, study-leave, co-supervision)

Goal (4):

To address the challenges of supporting its rapid growth with existing resources, OIST will continue business re-engineering of the Graduate School toward robust curation of records and data, clear policies, and effective communication.

Actions (4):

(Policy and Process Management)

- OIST will continue to revise, in collaboration with the Faculty Assembly and the student body, relevant policy, rules and procedures to improve the effectiveness and efficiency of the administration of the OIST academic program.
- OIST will improve the curation and dissemination of policy changes to other stakeholders internal and external.
- OIST will improve student record management system and curation and visualization of longitudinal data.

(Business Efficiency Re-engineering)

- OIST will re-engineer workflow and processes of the Graduate School and employ relevant software to improve our business effectiveness and efficiency. OIST will continuously review and optimize our business operations and staffing arrangements to maintain quality to serve the growing university.
- OIST will support the Graduate School staff by creating individual development plans and providing training opportunities to staff to improve the talent and knowledge base available to GS, and to improve retention of staff.
- OIST will support the Graduate School staff to enhance individual professional skills to achieve their full potential through opportunities for personal and professional growth to accommodate expanding needs of the growing university.

(Communications)

- To enhance mutual understanding and improve our quality of service, OIST will continuously adapt our communications with students, faculty, and relevant administrative divisions.
- OIST will improve the Graduate School website to enhance online communication to the public including prospective students.

(Program Extension)

 OIST will identify funding opportunities, such as Japan Student Services Organization (JASSO)'s funding programs, to support programs for students.

Metrics:

Number and nature of GS meetings with students and faculty

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)

- In FY2019, we hired a large number of new faculty in 9 research fields. During the candidate interview, faculty, researchers and students were invited to their seminar regardless of the research fields, promoting potential future collaborations. For faculty recruiting in FY2020, we continue to hire in a multitude of fields while encouraging incoming faculty to collaborate broadly. In FY2020, we plan to hire 3 female faculty to improve the gender balance in the faculty.
- Our Faculty Lunch Talks will be continued to promote inter-unit conversations and trust that this
 will result in interdisciplinary research. We utilize the existing shared facilities such as fish tanks,
 Marine Science Station, microscopes and DNA sequencers etc. and will continue to enhance
 sharing of the research facilities which are available to all units.
- The Library actively collects electronic resources so that necessary content can be accessed via remote access and provides infrastructure to retrieve academic information efficiently. It is important to maintain and develop exhaustive collections to promote interdisciplinary research and support excellent faculty and researchers.

(Research Support)

• In order to provide necessary research support for all researchers and students in all lab buildings including Laboratory 4, Research Support Division will enhance support on common basic laboratory equipment and facilities like service alcove and the small equipment in those areas by

- revising those management.
- Animal Resources Section (ARS) will commence the OIST animal care and use program at animal facilities in Laboratory 4 in addition to animal facilities in Laboratory 1, 2 and 3. Furthermore, ARS will develop the OIST animal care and use program to marine fishes and cephalopods fed in Okinawa Marine Science Station in Seragaki. ARS will make detailed plan (final plan) of mouse facilities in Laboratory 5, which pays attention on animal welfare and human engineering based on cutting-edge technology. ARS will hold the 33rd of annual meeting for the Japanese Society for Alternatives to Animal Experiments on November 12, 13 and 14 at OIST.
- DNA Sequencing Section (SQC) will continue to support research activities using the latest multiparalleled DNA sequencers and high throughput single-molecule real-time sequencer. Additionally, SQC will proactively work on to expand our services such as streamline of library prep workflow of the applications which have high demand, nucleic acid extraction services from a wide variety of species, and development of protocols for new applications.
- Engineering Support Section (ESS) will continue to promote and provide mechanical/material/electronic engineering services to the growing number of OIST researchers. ESS will continuously improve its standard operating procedures to simplify requests from all OIST researchers. ESS will offer more comprehensive and ordered training courses for new users to the engineering facilities to facilitate higher quality fabrication of experiments and samples, and to achieve high quality sample data. Additionally, ESS will improve the skills of staff to support advanced research projects.
- Scientific computing and Data Analysis Section (SCDA) will deploy a new high-performance computing system to replace the existing Sango system. The new computing system will address the urgent need for more computing resulting of the twofold increase of number of users at OIST in less than a year. The new system will also address the computing needs from the new research units in Lab4. In addition, the expansion of the AI and big data analysis system is also scheduled.
- SCDA will work toward the consolidation and expansion of the archiving system and procedures to improve OIST research data management.
- We will continue to promote research support services by improving policy, rules and management system of common research resource for fair and effective use.
- We will continue to promote research ethics, by organizing research ethics training and seminars.
- 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. They will run our KICKS and JUMPS funding programs to promote collaboration.
- Imaging Section (IMG) will continue special training courses which are now receiving a lot of
 recognition; advanced light microscopy, Tokuyasu cryo-sectioning and cryo-electron microscopy.
 Further, IMG will extend national and international collaboration projects. IMG will take a peer
 review by experts from international and domestic universities and/or institutes to promote

- quality of research support.
- Instrumental Analysis Section (IAS) will continue to organize the service contents, instrument and staff activities so that IAS support reaches across the university. In particular, IAS will expand the effective use of human resources and instrument to support for advanced research. IAS will also advance the technical skills of section staff with the help of top international research institutions such as Max Plank Institutes. In addition, IAS will develop new protocols that can be used by OIST researchers with external research institutes and enhance the training courses that OIST researchers can use. In addition, IAS will aim for further external collaboration and effective use of instrument.
- Okinawa Marine Science Support Section (OMSSS) will apply international standard in its management of marine life at the OIST Marine Science Station to enable accreditation by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC International) and promotes the ethical and humane treatment of marine life in science. OMSSS will promote the use of station facility by external visitors. OMSSS will also organize the 5th Okinawa Marine Science Workshop and further enhance our local marine science network.
- The Okinawa Environmental Research Support Section (OERSS) maintains and utilizes the field sampling networks and social networks of the community-collaborative environmental monitoring project "OKEON Churamori Project" developed in Okinawa. OERSS provides to OIST researchers the comprehensive support from obtaining survey permissions to providing research personnel and will contribute to the sustainable development of Okinawa through natural environmental science. In particular, OERSS coordinates and promotes collaborations with administrative agencies for countermeasures against alien species such as fire ants in Okinawa Prefecture, with Okinawan schools and social education facilities for environmental education, and with domestic and foreign researchers for joint researches in the field of conservation biology.

(Publication and communication)

- Whenever we hear of an important new result from a faculty member, we encourage them to communicate this to our Communications and Public Relations Division. Queries from government sources such as MEXT have led us to compile lists of our top publications. These are also used by Nature Communications Index and other such comparative studies. We publicize journal publication results in our website and make sure that these are available in the OIST Institutional Repository. We continue to encourage the Faculty to sign the Deposit License forms necessary for items in this repository.
- Continue to provide accessible information about OIST to the scientific community and general
 public in Japan and overseas, through OIST web articles, press releases, press conferences,
 publications and social media, leadership communication and high-profile speaking
 opportunities.
 - OIST will develop and implement effective media strategies to generate coverage by major media outlets in Japan and overseas. This will include press releases and articles about new

scientific directions and outcomes, and other activities of interest to diverse audiences (spanning the breadth of institutional work in research, education, innovation, and the sustainable development of Okinawa). These will be disseminated to local, national, and international media through established networks, Japan's press clubs, and by subscriptions to leading electronic press distribution companies.

- OIST will continue working with other Japanese universities and research institutions and will maintain a global network of science communicators, to enhance the institution's contribution and contribute to innovation and capacity-building in Japanese and international science communication.
- OIST will further strengthen social media channels and develop additional expertise and resource in multimedia production.
- OIST will develop new internal communication channels and professional capacity to help ensure that all faculty, staff and students within the institution can contribute to OIST's successful promotion and engagement, and are well-briefed on progress, challenges and achievement. Branding materials and toolkits for all staff in support of this will also be developed and provided. Develop new branding and awareness-raising opportunities in Okinawa and Japan in collaboration with government, media and partners including the OIST Foundation.
- News releases and press announcements about the latest scientific outcomes of OIST's
 research and other activities. Press conferences, regular meetings with local reporters, press
 briefing sessions with Tokyo-based journalists throughout the year, web and social media
 analytics.
- To sustain academic quality and collaboration, OIST will provide technical support, relevant documentation and training to OIST staff, researchers and students to support smooth delivery of remote meetings and seminars.

Metrics:

- Number of researchers (faculty, postdocs, technicians, and students)
- Evaluation of research results by internal quality control standards in accordance with DORA.
- Number of joint publications between different faculty members
- Number of research honors
- Number of awarded research grants (number and amount)
- Number of fee for use of core facilities by external users (number and amount)
- Number of scientific meetings hosted by Research Support Division, Office of the Provost and Office of the Dean of Research (number and number of participants)
- Number of joint researches hosted at Core Facilities of Research Support Division (number and number of visitors)
- Number of training courses hosted at Core Facilities of Research Support Division for external researchers and students (number and number of participants)

1.3 Faculty Affairs

Goal:

We aim to recruit top talented professors at all levels who demonstrate excellent scholarship and creativity in research and an interest in interdisciplinary research. The office also facilitates faculty evaluations, faculty meetings, space allocation for units, researcher hiring and retention, faculty and postdoctoral career development, the university library, and other miscellaneous faculty and researcher matters.

Actions:

(Appointment)

• In FY2019, we focused on recruiting female faculty in addition to hiring some Adjunct Professors to fill the special needs that cannot be filled with a full-time appointment. In FY2020, we will recruit a mixture of international and Japanese scientists as well as senior and junior researchers.

(Faculty/Research Evaluation)

- We will continue to conduct tenure reviews under our pre-2017 system as well as the new system applicable to faculty who negotiated their contracts or appointed after January, 2017. We will of course continue to adhere to the internationally highest standards. We will make modifications to the new tenure review system which includes on-site review by external reviewers who are world-class prominent scholars, in order to enhance further involvement of OIST faculty and a more time efficient process. In FY2020, we will conduct tenure reviews of two faculty.
- We 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. In FY2020 we plan to review around 5 faculty.
- FY2020 will be the first year in which the appraisals started last year will be official, as opposed to a trial run. The appraisal will continue to be conducted by the Dean of Faculty Affairs (and if necessary, the Provost) based on individual faculty research, teaching, university service, and external grants received. The appraisal will be reflected in the salary and other resources granted. Faculty will be assured that individual (as opposed to aggregated) information will not be made available outside of OIST. In addition, we will check whether faculty members have published on their websites their Annual Reports describing their research publications and other research and teaching activities, and if they have not, we will encourage them to do so. These meetings also provide a mentoring opportunity.

(Research Productivity Report)

• In order to implement more efficient implementation of the OIST Institutional Repository which started in FY2017, we will continue to enrich contents (increase the number of research items registered) and enhance the support system for Open Access university wide.

(Senior Appointment & Post retirees)

 A faculty member who has reached the retirement age but his/her research is deemed to be suitable for extension, and is invited by the President will be considered for continuation of research after conducting a rigorous review.

(Faculty Development)

• We plan to have an annual Faculty Retreat in FY2020 just like the one planned for February 2017 and 2018. In these retreats, we will invite speakers with established credentials in delivering soft skills to faculty and other researchers. During this event, we will also present faculty with the Faculty Mentor Award that was established by FAO in 2019. In addition, we will schedule leadership & management training courses for faculty members and will aspire to create opportunities to form peer-support groups and mentoring pairs. Furthermore, we will continue to attract inspiring distinguished scientists to the Presidential Lectures at OIST. In FY2020, we will in collaboration with the Graduate School, provide an environment where faculty members share teaching methods and exchange teaching materials with their peer.

(Postdoctoral Career Development)

• We continue to focus most of our attention on postdoc professional development and career support. We have conducted surveys for exiting OIST postdocs and counsel both incoming postdocs as well as postdocs at any time during their stay here. We are also working on integrating Research Environment Guidelines based on OIST Values into New Faculty and Postdoc orientations which will help create a better atmosphere in our research units. In addition, we also provide postdocs with learning opportunities to enhance their leadership & management, communication, collaboration and grant writing skills.

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 joint symposium with universities and institutions, by hosting academic workshop and by receiving interns. 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:

(Global Networking)

• OIST will provide opportunities for students to interact with other universities in Okinawa and Japan including student exchange, social networking and teaching. OIST will focus on activities

towards enhancing networking.

- Continue to host international courses and workshops of world-leading quality, providing students and young researchers with the opportunity of learning forefront science and interacting with outstanding peers. In addition, invite world-class international conferences to OIST to increase opportunities for researchers and students to establish networks through face-to-face academic and social interaction. Sustain flexible and efficient operation of workshops by encouraging co-hosting and cost-sharing with partners to maximize efficiency. The travel and accommodation support model for participants and lecturers will be improved to deliver greater efficiency while ensuring stable and appropriate quality provision as the number of research units increases.
- OIST will provide a Research Internship program available to talented students with excellent research potential.
- OIST will provide a full range of student-centered and flexible support to students in the areas of relocation, travel, housing, language assistance, emergency care, and financial assistance so that they can concentrate on their study.

Metrics:

- Number of international courses and workshops organized by OIST (14)
- Impressions and feedbacks from the participants of international courses and workshops
- Number of new partnership programs with leading universities and institutions

2. Governance & Administrative Transparency and Efficiency

Budget related issues

The total subsidy budget for FY2020 is 20.3 billion yen. This subsidy budget contains 3.4 billion yen for facilities, including construction of Laboratory 5 and infrastructure work for PFI Housing Construction Project, and 16.9 billion yen for operations.

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. In order to establish the system to promote effectiveness and efficiency of administration, Administration Review Committee (ARC) will be established. And concrete measures will be introduced to strengthen the engagement of the faculty and staff. 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.

2.1 Basic Structure for Governance and Business Operations

Goal (1):

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. OIST bylaws and PRP will be revised to reflect the recent amendments to the Private School Act and other related laws. Through this, OIST will ensure the enhanced accountability. Auditors of the corporation will conduct rigorous audits to ensure appropriateness and efficiency of the operations of the corporation.

Actions (1):

(Basic Management)

- Regular BOG meetings will be held in May, September/October and February, and regular BOC
 meetings will be held in May and February 2020. In the BOG meeting in May, the performance
 and achievements of FY2019 will be reported and evaluated. The results of this assessment are
 made available to the CAO for public sharing.
- BOG and BOC meetings in May and October will have about one extra day meeting each, in
 addition to the two-days main meetings, in order to accommodate more discussions focused on
 the relevant role of each BOG and BOC. BOG and BOC sub-committees will have 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
- The CEO/President convenes the Risk Management Committee (twice per year) to identify serious risks and prepare mitigation/control measures and report to the BOG.
- 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)

• Recruitment of new faculty will continue, under the guidance of the Faculty Development Working Group enriched by the recommendations delivered from the Perspective Council. Lab 4 was completed in FY2019 and Lab 5 construction will continue. In regard to the Incubator Facility, based on the operational status of the Facility, future development, etc. will be considered. Regarding accommodation, construction of the new on-campus housing will continue, while discussion will be made for future development of off-campus housing. In order to strengthen the capability of information dissemination, outreach, collaborations with universities and research institutes as well as industry, a liaison office will be established in Tokyo.

Goal (2):

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 CAO to be accountable for its budget execution and business operations to the Japanese Government.

Actions (2):

(Development of Administrative Organizations)

- 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 and 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 FY2021 well in advance through close discussion with CAO.
- Provision state-of-the-art IT tools, services and support, enabling the University in its mission to become a world leading university.
- Continue to ensure that clear, concise and up to date knowledge bases and user education programs exist to allow users to capitalize on IT tools, resources and services in an appropriately and timely manner.
- Identify, evaluate, design, deploy and maintain infrastructures to support the business of the
 University. Ensure that infrastructures deployed can scale toward the expansion of the university.
 Ensure that infrastructures for research and education are as automated and efficient as possible.
 Work to ensure the continuation of a flexible and secure network environment, meeting the
 requirements of the research.
- Ensure alignment of IT with the business through the development, endorsement and communication of an IT strategic plan. Ensure the alignment of the plan with the business

- through continuous interaction and feedback. Track alignment with best practice through external peer review.
- Drive digital transformation by engaging with business owners to identify, develop and support enterprise systems and services that will more efficiently support the business of the University.
- 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.
- While reducing operational costs and increasing safety, digitally transform, simplify and automate office work and promote standardization and efficiency.
- Reinforce information security governance, and enhance information security control through
 information security education, multi-factor authentication, and device-based access control.
 Further enhance existing security threat monitoring, enabling real-time threats detection such
 as malicious software or hacking that may compromise 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:

(Budget Allocation and Execution)

The newly established Strategic Resource Allocation Committee, formulates high-level budget allocation and reallocations proposals of the university resources, such as Personnel budget, Operational budget, Equipment budget, and Space. The proposals will be 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.

- 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.
 This monitoring process shall be strengthened.
- 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 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.

2.3 Efficiency of Business Operations

Goal (1):

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

Actions (1):

- Administration Review Committee will be established as a mechanism to ensure more effective and efficient business operation.
- Support research activities, such as utilizing the methods of unit price contracts, bulk purchase for research materials and reagents, and multi-year contracts.
- Reduce costs of system and research equipment maintenance by reviewing the methods of maintenance etc.
- 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. The criteria and procedure of negotiated
 contract shall be reviewed by a Working Group. At the same time, review procurement policy,

rules and procedures continuously from the perspectives of efficiency and simplicity. Continue improving 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, continue to take actions to decrease the said differences and to promote cost-saving.
- Based on the collected reference data comparing prices of supplies and equipment etc. in Japan and abroad, provide information for internal users on how to negotiate prices effectively with manufactures/agents/vendors to improve cost efficiency of purchasing.
- 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, bulk purchase
- Ratio of purchase contracts concluded through tendering or other competitive processes (number of contracts and amount). Successful bit rate for those excluding research related purchases

Goal (2):

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

Actions (2):

(Effective Use of Facilities)

- 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 among Facility Management Division, Space Allocation Committee and Research Support Division, and meeting and interviews with the research units to understand their needs.
- Continue studies for optimization of use of Seaside Campus and Seaside House Building in relation with future expansion of OIST based on OIST strategic plans.

2.4 Personnel Management

Goal:

To attract, retain and develop talent, analyze OIST engagement survey and take actions to improve engagement and enablement of employees. At the same time, as a corporation with large financial support from the Japanese government, OIST will continue to make efforts to contain overall personnel costs and to set the proper range of compensation as well as making effort to realize even more diverse and inclusive workplace by reinventing and reimagining its HR policies and programs to support OIST's growth in a sustainable and effective manner.

Actions:

(Recruitment)

- We will stablish a strategic resource plan in order to compete in the global talent acquisition market while ensuring a sustainable talent cost model for OIST. Base on the approved resource allocation plan and position requisitions, we will implement a fair and timely talent acquisition process, proactively searching qualified, competitive pool of candidates. HR and CPR will collaborate to leverage social media for proactive communication to the external market, reaching out to potential candidates who are not yet actively looking for jobs. We will improve interview processes to hire strong talent much faster and more effectively, thereby increasing new hire experience and ultimately OIST's employer branding. We will strive to recruit excellent Okinawans.
- We will plan a talent acquisition mechanism, both external and internal, that is fair, open and the
 one that will help bring the best out of the individual through standardized job description and a
 career framework with clarified competencies, skills/expertise and experiences in a
 transparent/visible manner.
- We will inform and train OIST staff on various mediums for harassment incident reporting and resolutions such as external hotlines and others. We will provide trainings on harassment prevention and handling sensitive cases to managers and professionals who need to deal with the cases on a regular basis.
- Continue to consolidate available data and perform gap analysis on necessary data required for developing and implementing evidence-based strategies to accomplish the Taskforce Goals.
 - Create unconscious bias training modules for delivery to all members of the university.
 - University Community Services and Buildings and Facilities Management Division will collaborate to plan, design and outfit appropriate facilities for pregnant women and working parents at OIST.
 - Continue to offer networking opportunities for female OIST employees.
 - Promote diversity, equity and inclusiveness through presentations and networking opportunities for OIST and the Okinawan community.
- 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.
- The health center will continue to provide reliable medical checkups for staff/ students. The OIST clinic will continue to provide first aid, internal medicine and other services such as second opinion, and hospital referral to OIST community.

Action:

(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).
- We will revise the Rules of Employment to align with the new labor law requirement of "Same Work, Same Pay".

(Career development, training and evaluation)

- Deliver a talent review program focusing on the succession planning for managers and longerterm talent development needs for top talent.
- Introduce an integrated/comprehensive learning platform or portal to register and track the training programs, lectures, workshops, etc. to serve as the one stop repository for analysis and insight for all OIST staff.
- In addition to the standard new-hire orientation on the university organization structure, administrative procedures, Japanese laws, etc., we will deliver useful trainings to help them with the tools and OIST rules. Furthermore, we will conduct follow up with interviews to understand their level of assimilation and any support required.
- 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:

(Compliance)

- 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 viewpoint 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 review boards and professional staff will continue to ensure that our research activities are compliant with pertinent regulations and laws.
- For 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. In addition, 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. We conducted a very successful leadership and

- management course in November, 2019 for 14 faculty. Our plan is to extend this to all faculty, especially targeting junior incoming faculty in the Fall of 2020.
- The Field Work Safety Committee will continue to conduct strict review of field work plans and the Safety and Health Committee will ensure safety and health at labs through workplace inspections. In addition, the Safety Management System on research and educational activities at sea and the labs will be established.

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:

(Information Disclosure and Public Relations)

- 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).
- OIST will deliver continuous improvement of its websites, to ensure that design, layout and user
 experience are consistent with the sites of peer institutions in Japan and around the world.
 Further enhancements will be made to online search and other functions.
- Continue organizing press briefing sessions and press events in Okinawa and on the mainland and generate press visits to OIST in order to maintain consistently positive press coverage.
 Continue working with other Japanese universities and research institutions through initiatives of the Japanese Association for Communication in Science and Technology (JACST) and organizers of Japan SciCom Forum.
- 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 strengthen content provision on Flickr, Vimeo, and similar multimedia channels.
- Continue to seek increases in the effective use of social media (including Facebook, Twitter, Instagram and LinkedIn), generating increased numbers of followers and supporters of OIST (including potential Ph.D. students, scientists, faculty, industry collaborators and donors.)
- Continue to maintain and improve the library of OIST Policies, Rules and Procedures on the website.
- In case of any incident, Communication and Public Relations will consult the General Counsel Office and the Chief Operating Officer to release duly and timely information in consideration of reputation risk.

3. Finance - External Funding

Budget related issues

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, including grant facilitators program to support young researchers. 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 are 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.

Goal:

Based on the OIST Mid-Term Strategy for External Funding revised in FY2018, OIST Graduate University will continue to broaden its financial basis strategically by proactively increasing the amount of research grants, donations, and other income sources for more independent operation in the future.

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) Under the leadership of Dean of Research, we strive to strategically prepare applications for the large-scale program with inter-institutional collaboration aided by a domestic and international network.
- 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 and incentivize researchers to collaborate with industry and apply for public and private-sector innovation grants and contracts.
- We anticipate healthy proportional increase of third-party income hoping for added income encouraged through incentive systems.

(Donations)

• OIST continues to manage gift and donation solicitation including representation in the USA. This activity will be strengthened also in Japan by adding a capable personnel.

Metrics:

- Increase of the number of applications for external research grants
- Increase of the number of awarded research grants (number and amount)
- Increase in third party income (total amount): based on the OIST Medium-Term Strategy for External Funding, the ratio of third party income to the baseline budget of the total subsidy budget is 6.38% or more (982m yen)

4. Contribution to Self-Sustainable Development of Okinawa

Okinawa Development

In establishing OIST, the Japanese government emphasized the sustainable development of Okinawa and the benefits to the local and national economies. To meet this vision, OIST promotes innovation by commercializing breakthrough technologies developed in the research labs through patenting, conducting proof-of-concept research, and working collaboratively with industry. OIST also encourages entrepreneurship, not only by supporting current faculty, researchers and students, but by welcoming external entrepreneurs to campus to access and use OIST technology.

Okinawa development 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 outreach. The University also strives to develop its campus as a center for cultural and community activities. From our beautiful location overlooking Tancha Bay in Onna Village, we will continue to work with local communities to protect and promote the heritage of Okinawa, enhance the health and well-being of the local community, and use our own diversity to contribute to the rich local culture.

In FY 2019, OPG (Okinawa Prefecture Government)/OIST Working Group was established as a regular forum for information/opinion exchanges and coordination. Through this forum, stronger collaborative relationship e.g. in OIST's contribution to the new Okinawa Development Plan and many other specific joint activities will be further strengthened.

Activities to promote Okinawa development are centered in the Technology Development & Innovation Center (TDIC) and the Communications and Public Relations Division (CPR).

Goal:

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.

In FY2020, 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) Manage 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 their socio-economic impact on Okinawa

Actions:

(Technology Transfer and Innovation)

- (a) Identify, protect, and market research discoveries with the aim of promoting innovation and technology transfer
- Ensure that invention disclosure procedures that aim to identify inventions before research
 outcomes become public through publication capture and protect the intellectual assets of OIST
 by proactively engaging with faculty and researchers through lab visits and one-on-one guidance.
- Expand marketing activities in the early stages of invention evaluation, including the period before the Invention Evaluation Committee, by using multiple channels to connect to industry to capture market needs. Enhance the Invention Evaluation Committee process and quality of patent filing with industry and market feedback.
- Utilize an intellectual property assets evaluation platform on which industrial partners, competing technologies and infringement risks are reviewed to effectively protect intellectual property assets and accelerate technology transfer activities.
- Expand awareness of inventions and protection of intellectual property throughout the university by organizing training courses, seminars, and workshops for students and researchers.
- (b) Manage the Proof-of-Concept Program to support innovative technology research and to drive inventions towards commercialization.
- Support ongoing POC projects by continuing to provide funding, market analysis, hands-on project management, educational courses and events, and access to industry mentors. Maintain connections to completed POC projects to ensure continued commercialization efforts. Enhance the POC Program by implementing a new fellowship program, the Technology Pioneers Fellowship, aimed at supporting postdoctoral fellows and graduate students to commercialize their technologies.

- 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.
- Support entrepreneurs and startups in the Startup Accelerator Program, including providing
 access to facilities and equipment, assisting fundraising, and making connections to
 commercialization experts. Form partnerships with business, legal (through coordination with
 the General Counsel Office), and financial organizations in support of startups.
- Expand educational opportunities in entrepreneurship to meet the diverse interest levels of students and researchers, from those merely curious about entrepreneurship to active entrepreneurs with an idea, a technology and a team. Deliver a range of educational offerings, including extracurricular seminars (such as the Innovation Seminar Series), workshops (such as the Lean Startup Workshop), entrepreneurship clubs, boot-camps, and curricular courses on innovation and entrepreneurship offered for credit.
- Continue to operate and utilize the Innovation Square incubator facility (opened in May 2019) to serve as a launchpad for startups and a collaboration space for OIST researchers and industry partners to foster collaboration and seed an innovation ecosystem centered around OIST.
 Develop plans for new spaces for innovation by working with designers on the concept and master plans.
- (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 corporate partners, building long-term relationships, and hosting company visits and exchanges.
- Pursue grant funding from the Okinawa Prefectural Government (OPG) for research and innovation projects that align with the Okinawa Science and Technology Roadmap and the 10year Okinawa promotion plan. Monitor and support existing OPG-funded projects by contributing to meetings and symposia to enhance knowledge exchange.
- Promote OIST technologies and strengthen relationships with industry by participating in industrial exhibitions, workshops, and conferences nationally and internationally.
- Expand external funding by encouraging and incentivizing researchers to collaborate with industry and by identifying relevant sources of public and private-sector grants and contracts for innovation and supporting the application process.
- Strengthen internal expertise in business and marketing to enhance technology transfer activities 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. Clarify rules for licensing and royalty distribution.

- (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 external organizations that encourage innovation and technology transfer such as the Keidanren, Keizai Doyukai, and other local, national, and international promotion organizations.
- Develop a plan strategically for how the incubator facility, Startup Accelerator Program, and other entrepreneurship activities 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 CAO, OPG, 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 OIST and Okinawa and to strengthen connections to global expertise.
- (f) Understand the components and indicators of successful innovation in science and technology and 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.
- Hold OPG/OIST Working Group for information/opinion exchanges and coordination quarterly to enhance collaborative relationship.

Actions:

(Networking with local institutions and communities)

- Organize joint science and technology research seminars and meetings for information exchange
 with other organizations and universities in Okinawa. Provide an extensive annual program of
 campus visits, school and community engagement, community-focused science promotion,
 events and public lectures, open talks, and education-led outreach. Support Okinawan talent
 development both scientific and professional. Provide events which highlight Okinawan and
 other cultures and which help promote community cohesion through cultural events and other
 social activities. Ensure an appropriate breadth of community engagement across the Okinawan
 Prefecture, including remote islands.
- OIST will continue to:
 - Assist local schools to enhance their English language initiatives and cross-cultural understanding by participating in meetings on English education hosted by local Education Boards.
 - Work with the Onna elementary school to provide an international classroom environment

- for non-native Japanese speakers.
- Collaborate with Unna Junior High School leadership to identify opportunities to for OIST supported STEM programming.
- Continue to collaborate with the local educational institutions on the design and deliver of science programming for girls.

Actions:

(Other matters concerning Okinawa development)

• Increase the number of externally organized international conferences and workshops at the OIST venue, in collaboration with OPG and the Okinawa Convention and Visitors Bureau, in addition to the support programs for MICE Ambassador program sponsored by JNTO. This will help strengthen the academic reputation and networking of OIST researchers and students, thus contributing to the recruiting of new faculty and scientific talent. These MICE events will bring in direct impact to Okinawan economy as well as increased opportunity of STEM outreach activities by visiting researchers.

Metrics:

- Number of official contacts with companies, with the view of future collaborations and licensing
 (65)
- Number of collaborative projects with companies (collaboration/sponsored research agreements, MOUs, etc.) (20)
- Intellectual property indicators (number of invention disclosures (10), patents filed (55) and awarded (30), commercialization of intellectual property (2), etc.)
- Number of symposia, meetings, workshops, and seminars organized or hosted by OIST on topics related to innovation, entrepreneurship, and R&D Cluster development
- Number of participants in events, courses, symposia, meetings, workshops, and seminars organized or hosted by OIST on topics related to innovation, entrepreneurship, and R&D Cluster development
- Number of POC projects and Technology Pioneer fellowships
- Number of OIST and external startups and entrepreneurial projects in the Startup Accelerator Program, incubator facility, and other entrepreneurship programs (10)
- Number of visits and visitors (including visitors on the day of the Science Festival)
- 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 participants at the OIST venue

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:

(Campus Development)

- Plan future facilities at Main Campus and re-study master plan for other sites, including North Campus for future expansion.
- Closely monitor construction schedule of infrastructure and building works for Lab 5 with tight management and continuous effort to reduce construction costs.
- Study master plan for R & D Zone in relation with the master plan for overall campus.
- Study concept design for building and infrastructure of the main incubator building at R & D Zone.
- 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 including staff, students and their families, which is important to the overall success of the University operation. The OIST Graduate University will continue to develop and extend services to address the emotional, physical, educational, social and recreational needs of its diverse community. This includes enhancing the educational and childcare environments available to OIST employees, the availability of recreation and sporting facilities, and the availability of appropriate housing.

- To achieve successful recruitment and retention of faculty, OIST needs to pay attention to the provision of international recognized schooling.
- The University will investigate the development of recreation and sporting facilities on and off campus.
- The University will discuss and plan new housing on/off campus for increasing number of staff, students and their families.

Actions:

(Developing the University Community)

• Enhance the quality of programs conducted onsite by the Resource Center to support the daily living needs of stakeholders (OIST employees, students and their families).

- Develop processes to assess satisfaction with Resource Center services.
- Conduct a survey of family support needs through the Resource Center.
- Develop an onboarding process for family members.
- Collaborate with HR to introduce an early-inclusion program for individuals accepting positions at OIST and their families prior to relocation (through the Resource Center).
- Establish a network of family ambassadors to support new families with the support of the Resource Center.
- Review Child Development Center (CDC) staffing models to ensure continuous high-quality childcare services.
- Review CDC revenue and expenses to establish a sustainable funding model through appropriate budgeting and fees.
- Continue to provide high-quality school age (Afterschool/Holiday) programming for the children of OIST employees.
- Review medical clinic and Ganjuu services and service demand to identify needs ahead of service expansion.
- Continue collaboration between the Resource Center and HR to ensure the smooth and effective on-boarding of OIST employees and their families through the provision of accurate information regarding accommodation, child-care services, family support, medical services and daily living needs
- Continue efforts to provide appropriate food services to meet the need of diverse OIST community.
- Oversees OIST community engagement activities including support and oversight of club activities.
- The Resource Center will continue to provide support for staff who provide services to visiting researchers and invited guests. They will ensure that visiting researchers and invited guests are registered, and they will continue to maintain this registration data in the database.
- Complete construction of site work and infrastructure for the additional on-campus housing at the existing PPP residential area and oversee construction of the new PFI housing on campus. Continue discussions with Onna-son on planning of off-campus housing at the old military site at Onna-son.

(Education and Childcare Services for OIST Family)

- Continue efforts to improve the educational environment of children of OIST employees and students by increasing opportunities for children taking classes in English, in collaboration with local schools and local governments.
- Continue to provide a high quality, fully bilingual (English and Japanese) Pre-school and Schoolaged (Afterschool/Holiday) programs through the CDC and the development of the School-aged program/classrooms. Enrollment in these programs is expected to continue grow.
- Review space and staffing needs for the CDC preschool program and the school aged program

- The CDC Governing Board will continue to meet regularly.
- University Community Services (UCS) management will collaborate with the CDC Finance Sub-Committee.
- Orient new staff and continue to improve the administrative processes in the School Age Programs.
- Continue to provide appropriate educational opportunities for the children of OIST staff and students including the International classroom at Onna Elementary school.
- In collaboration with the Resource Center provide OIST parents of school age children with accurate information regarding school options/choices in Okinawa.
- Review the existing educational opportunities for international and Japanese families in Okinawa
- Continue to evaluate the feasibility of an international IB K-12 school.
- OIST will:
- Continue to improve the quality of language education services provided to staff and family members.
- Conduct a survey of existing and future Japanese and English language training needs.
- Explore more flexible teaching schedules and enhanced program offerings.

(Student Support)

- OIST will provide comprehensive support to provide a safe and healthy environment for students, including proactively reaching out to students for early problem detection, increasing communication with students, and seamless coordination of support across campus.
- Continue to schedule and support recreational activities, events, classes and seminars for the whole OIST community that encourage physical, social and emotional wellbeing.
- Oversee the use of shared community space in the OIST Village zone.
- Identify opportunities to partner with the local community to host events and shared facilities.

5.3 Safety

Goal:

The Emergency Response and Business Continuity Plans will be rehearsed with training exercises, and safety and emergency response at each department will be ensured through workplace inspections.

Actions:

(Safety)

- The Emergency Response and Business Continuity Plans will be further rehearsed with training exercises.
- Ensure safety and emergency response at each department through workplace inspections.
- 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.

5.4 Environment Protection

Goal:

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

Actions:

(Environment Protection)

- 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.

Research Units (as of February 1, 2020)

	Unit Name	Faculty
1	Analysis on metric spaces Unit	Dr. Xiaodan Zhou
2	Applied Topology Unit	Dr. Dmitry Feichtner-Kozlov
3	Atomic Scale Correlations and Dynamics Unit	Dr. Freek Massee
4	Biodiversity and Biocomplexity Unit	Dr. Evan P. Economo
5	Bioinspired Soft Matter Unit	Dr. Ye Zhang
6	Biological Complexity Unit	Dr. Simone Pigolotti
7	Biological Physics Theory Unit	Dr. Greg Stephens
8	Biological Systems Unit	Dr. Igor Goryanin
9	Brain Mechanism for Behavior Unit	Dr. Gordon W. Arbuthnott
10	Cell Division Dynamics Unit	Dr. Kiyomitsu Tomomi
11	Cell Signal Unit	Dr. Tadashi Yamamoto
12	Cellular and Molecular Synaptic Function Unit	Dr. Tomoyuki Takahashi
13	Chemistry and Chemical Bioengineering Unit	Dr. Fujie Tanaka
14	Cognitive Neurorobotics Research Unit	Dr. Jun Tani
15	Complex fluids and flows Unit	Dr. Marco Rosti
16	Computational Neuroethology Unit	Dr. Sam Reiter
17	Computational Neuroscience Unit	Dr. Erik De Schutter
18	Continuum Physics Unit	Dr. Gustavo Gioia
19	Coordination Chemistry and Catalysis Unit	Dr. Julia Khusnutdinova
20	Developmental Neurobiology Unit	Dr. Ichiro Masai
21	Ecology and Evolution Unit	Dr. Alexander Sergeyevich Mikheyev
22	Electronic and Quantum Magnetism Unit	Dr. Yejun Feng
23	Embodied Cognitive Science Unit	Dr. Tom Froese
24	Energy Materials and Surface Sciences Unit	Dr. Yabing Qi
25	Evolution, Cell Biology, and Symbiosis Unit	Dr. Filip Husnik
26	Evolutionary Genomics Unit	Dr. Thomas Bourguignon
27	Evolutionary Neurobiology Unit	Dr. Hiroshi Watanabe
28	Experimental Quantum Information Physics Unit	Dr. Hiroki Takahashi
29	Femtosecond Spectroscopy Unit	Dr. Keshav Dani
30	Fluid Mechanics Unit	Dr. Pinaki Chakraborty
31	Formation and Regulation of Neuronal Connectivity Unit	Dr. David Van Vactor
32	G0 Cell Unit	Dr. Mitsuhiro Yanagida
33	Genomics and Regulatory Systems Unit	Dr. Nicholas M. Luscombe
34	Gravity, Quantum Geometry and Field Theory Unit	Dr. Reiko Toriumi
35	Human Developmental Neurobiology Unit	Dr. Gail Tripp
36	Immune Signal Unit	Dr. Hiroki Ishikawa
37	Information Processing Biology Unit	Dr. Ichiro Maruyama
38	Integrated Open Systems Unit	Dr. Hiroaki Kitano
39	Light-Matter Interactions Unit	Dr. Sile Nic Chormaic
40	Marine Biophysics Unit	Dr. Satoshi Mitarai

	Unit Name	Faculty	
41	Marine Climate Change Unit	Dr. Timothy Ravasi	
42	Marine Eco-Evo-Devo Unit	Dr. Vincent Laudet	
43	Marine Genomics Unit	Dr. Noriyuki Satoh	
44	Mathematical and Theoretical Physics Unit	Dr. Shinobu Hikami	
45	Mathematics, Mechanics, and Materials Unit	Dr. Eliot Fried	
46	Membrane Cooperativity Unit	Dr. Akihiro Kusumi	
47	Membranology Unit	Dr. Keiko Kono	
48	Memory Research Unit	Dr. Kazumasa Tanaka	
49	Micro/Bio/Nanofluidics Unit	Dr. Amy Shen	
50	Molecular Cryo-Electron Microscopy Unit	Dr. Matthias Wolf	
51	Molecular Genetics Unit	Dr. Daniel Rokhsar	
52	Molecular Neuroscience Unit	Dr. Marco Terenzio	
53	Neural Circuit Unit	Dr. Yutaka Yoshida	
54	Neural Coding and Brain Computing Unit	Dr. Tomoki Fukai	
55	Neural Computation Unit	Dr. Kenji Doya	
56	Neurobiology Research Unit	Dr. Jeff Wickens	
57	Neuronal Mechanism for Critical Period Unit	Dr. Yoko Yazaki-Sugiyama	
58	Neuronal Rhythms in Movement Unit	Dr. Marylka Yoe Uusisaari	
59	Nonlinear Analysis Unit	Dr. Daniel Spector	
60	Nonlinear and Non-equilibrium Physics Unit	Dr. Mahesh Bandi	
61	Nucleic Acid Chemistry and Engineering Unit	Dr. Yohei Yokobayashi	
62	Optical Neuroimaging Unit	Dr. Bernd Kuhn	
63	Organic and Carbon Nanomaterials Unit	Dr. Akimitsu Narita	
64	Organic Optoelectronics Unit	Dr. Ryota Kabe	
65	Physics and Biology Unit	Dr. Jonathan Miller	
66	Plant Epigenetics Unit	Dr. Hidetoshi Saze	
67	Protein Engineering and Evolution Unit	Dr. Paola Laurino	
68	Quantum Dynamics Unit	Dr. Denis Konstantinov	
69	Quantum Gravity Unit	Dr. Yasha Neiman	
70	Quantum Materials Science Unit	Dr. Yoshinori Okada	
71	Quantum Systems Unit	Dr. Thomas Busch	
72	Quantum Transport and Electronic Structure Theory Unit	Dr. Fabian Pauly	
73	Quantum Wave Microscopy Unit	Dr. Tsumoru Shintake	
74	Qubits and Spacetime Unit	Dr. Philipp Hoehn	
75	Representation Theory and Algebraic Combinatorics Unit	Dr. Liron Speyer	
76	Sensory and Behavioural Neuroscience Unit	Dr. Izumi Fukunaga	
77	Shocks, Solitons and Turbulence Unit	Dr. Emile Touber	
78	Structural Cellular Biology Unit	Dr. Ulf Skoglund	
79	Theory of Quantum Matter Unit	Dr. Nic Shannon	
80	Topology and Geometry of Manifolds Unit	Dr. Anastasiia Tsvietkova	

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. 80 Research Units (as of February 2020) have been launched so far, with research in the following 9 major areas:

Computer Science
Ecology, Evolution and Environmental Sciences
Marine Science
Physics and Materials Science
Neuroscience
Chemistry
Life Sciences
Engineering and Applied Science
Mathematics

FY2020 Income and expenditure budget statement

(Unit:K yen)

Revenues		Expenses		
Items	Budget Amounts	Items	Budget Amounts	
Subsidy for Operations	16, 916, 798	Personnel Expense	7, 502, 407	
Subsidy for Facilities	3, 432, 202	Academic related Expense	1, 358, 686	
Other Revenues	1, 193, 475	Education & Research related Expense	4, 651, 484	
		Common Resource Expense	3, 746, 642	
		Administrative Expense	851, 054	
		Construction Expense	3, 432, 202	
Total	21, 542, 475	Total	21, 542, 475	

Note: Subsidy amounts in Revenues might have to be modified later when a request for budget carry-over from FY19 to FY20 is made.

(Unit: K Yen)

(1) Assets				(Unit: K Yen)
(1) Assets (2) I Noncurrent assets				
(3) 1 Properties, plants, and equipme	ent			
(4) Land		1,659,667		
(5) Buildings	40,584,056	07.445.404		
(6) Accumulated depreciation (7) Structures	n <u>-13,438,892</u> 7,306,465	27,145,164		
(8) Accumulated depreciation	· · · · · · · · · · · · · · · · · · ·	5,148,797		
(9) Machineries	236,395	5, 5, . 5 .		
(10) Accumulated depreciation	n <u>-198,612</u>	37,783		
(11) Equipment	27,660,188			
(12) Accumulated depreciation (13) Books	n <u>-19,882,842</u>	7,777,346		
(13) Books (14) Ships and vessels	2,004	8,234		
(15) Accumulated depreciation		9		
(16) Vehicles and transportation				
(17) Accumulated depreciation		1,846		
(18) Lease assets	1,718,419	4 400		
(19) Accumulated depreciation (20) Construction in progress	n <u>-1,716,950</u>	1,469 15,540,019		
(21) Total properties, plants, and	equipment	57,320,334		
(22)	oqu.po	0.,020,00.		
(23) 2 Intangible assets net of amortiz	ation			
(24) Patents		57,008		
(25) Trademark rights (26) Softwares		372 317,033		
(27) Patents (in the process of fili	ina)	191,737		
(28) Others	9)	19,238		
(29) Total intangible assets, net		585,388		
(30)				
(31) 3 Investments and other assets		-		
(32) Investments in securities (33) Security deposits		5 1,758		
(34) Long-term prepaid expenses	S	716		
(35) Lease investment assets (Lo		4,073,288		
(36) Total investments and other	assets	4,075,766		
(37) Total noncurrent assets			61,981,488	
(38) (39) II Current assets				
(40) Cash and cash equivalents		3,808,082		
(41) Accounts receivable		251,221		
(42) Supplies		48,465		
(43) Prepaid expenses		23,144		
(44) Lease investment assets (Short (45) Total current assets	t-term)	122,846	1 252 750	
(45) Total current assets (46) Total assets		_	4,253,758	66,235,246
(47)			•	00,200,210
(48) Liabilities				
(49) I Noncurrent liabilities				
(49) I Noncurrent liabilities(50) Encumbrance for assets - subs		13,683,218		
 (49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona 	ition	97,124		
 (49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona 	ition	97,124 678		
 (49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona 	ution uted by Japan government	97,124		
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations	ution uted by Japan government	97,124 678 143,896		
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (56) Total noncurrent liabilities	ution Ited by Japan government Iyable	97,124 678 143,896 4,095,352	18,021,058	
(49)INoncurrent liabilities(50)Encumbrance for assets - subs(51)Encumbrance for assets - dona(52)Encumbrance for assets - dona(53)Allowance-retirement benefits(54)Long-term accrued amounts pa(55)Long-term lease obligations(56)Total noncurrent liabilities	ution Ited by Japan government Iyable	97,124 678 143,896 4,095,352	18,021,058	
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (56) Total noncurrent liabilities (57) Current liabilities	ution Ited by Japan government Iyable	97,124 678 143,896 4,095,352 791	18,021,058	
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (56) Total noncurrent liabilities (57) Advance received	ution Ited by Japan government Iyable	97,124 678 143,896 4,095,352	18,021,058	
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (56) Total noncurrent liabilities (57) Current liabilities	ution uted by Japan government uyable s operation	97,124 678 143,896 4,095,352 791	18,021,058	
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (57) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy (62) Deposits received-subsidy for	operation of or operation 1,016,144	97,124 678 143,896 4,095,352 791 945	18,021,058	
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy (62) Deposits received - donation	operation of or operation 1,016,144	97,124 678 143,896 4,095,352 791 945	18,021,058	
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - donation (63) Deposits received - donation (64) Deposits received - Kakenhi	operation of or operation 1,016,144	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571	18,021,058	
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (58) II Current liabilities Advance received (59) Advance received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - donation (63) Deposits received - Kakenhi (64) Deposits received - Kakenhi (65) Deposits received - others	operation of or operation 1,016,144	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938	18,021,058	
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - donation (63) Deposits received - donation (64) Deposits received - Kakenhi	operation of or operation 1,016,144	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571	18,021,058	
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - donation (63) Deposits received - donation (64) Deposits received - Kakenhi (65) Deposits received - others (66) Accounts payable (67) Short-term lease obligations (68) Accrued expenses	operation of or operation 1,016,144	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484		
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - subsidy for (63) Deposits received - subsidy for (64) Deposits received - donation (64) Deposits received - donation (65) Deposits received - others (66) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities	operation of or operation 1,016,144	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678	18,021,058 18,565,141	20.506.153
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - subsidy for (63) Deposits received - subsidy for (64) Deposits received - donation (65) Deposits received - Kakenhi (65) Deposits received - others (66) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities	operation of or operation 1,016,144	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678		36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - donation (63) Deposits received - donation (64) Deposits received - others (65) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities (70) Total liabilities	operation of or operation 1,016,144	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678		36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (56) Total noncurrent liabilities (57) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - subsidy for (63) Deposits received - subsidy for (64) Deposits received - donation (64) Deposits received - donation (65) Deposits received - others (66) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities	operation of or operation 1,016,144	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678		36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - subsidy for (63) Deposits received - subsidy for (64) Deposits received - donation (64) Deposits received - donation (65) Deposits received - others (66) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities (70) Total liabilities (71) Total current liabilities (72) Equities (73) I Contributions (74) Contributions from government	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678	18,565,141 -	36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (56) Total noncurrent liabilities (57) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - subsidy for (63) Deposits received - donation (64) Deposits received - Kakenhi (65) Deposits received - others (66) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities (70) Total liabilities (71) Total liabilities (72) Equities (73) I Contributions (74) Contributions from government (75) Total contributions	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087		36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - donation (63) Deposits received - donation (64) Deposits received - others (65) Deposits received - others (66) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities (70) Total liabilities (71) Total current liabilities (72) Equities (73) I Contributions (74) Contributions from government (75) Total contributions	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087	18,565,141 -	36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - donation (63) Deposits received - donation (64) Deposits received - others (65) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities (71) Total liabilities (72) Equities (73) I Contributions (74) Contributions from government (75) Total contributions	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087	18,565,141 -	36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - subsidy for (63) Deposits received - donation (64) Deposits received - others (65) Deposits received - others (66) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities (71) Total liabilities (72) Equities (73) I Contributions (74) Contributions from government (75) Total contributions (76) Additional paid-in contributions	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087	18,565,141 -	36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (56) Total noncurrent liabilities (57) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - donation (63) Deposits received - Kakenhi (64) Deposits received - Kakenhi (65) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities (70) Total liabilities (71) Contributions (74) Contributions from government (75) Total contributions (76) Additional paid-in contributions (78) Additional paid-in contributions - directions	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087	18,565,141 - 24,317,681	36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - subsidy for (63) Deposits received - donation (64) Deposits received - donation (65) Deposits received - others (66) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities (71) Total liabilities (72) Equities (73) I Contributions (74) Contributions from government (75) Total contributions (76) Additional paid-in contributions	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087	18,565,141 -	36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - subsidy for (63) Deposits received - donation (64) Deposits received - others (65) Deposits received - others (66) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities (71) Total liabilities (71) Contributions (72) Equities (73) I Contributions (76) Total contributions (76) Total contributions (77) II Additional paid-in contributi	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087	18,565,141 - 24,317,681	36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (56) Total noncurrent liabilities (57) Advance received (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - donation (63) Deposits received - Kakenhi (64) Deposits received - Kakenhi (65) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities (70) Total liabilities (71) Contributions (74) Contributions (75) Total contributions (76) Total contributions (77) II Additional paid-in contributions (78) Accum	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087	18,565,141 - 24,317,681	36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (56) Total noncurrent liabilities (57) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - subsidy for (63) Deposits received - donation (64) Deposits received - Kakenhi (65) Deposits received - others (66) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities (70) Total liabilities (71) Contributions (72) Equities (73) I Contributions from government (75) Total contributions (76) Additional paid-in contributions (78) Ad	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087 24,317,681	18,565,141 - 24,317,681	36,586,199
(49) I Noncurrent liabilities (50) Encumbrance for assets - subs (51) Encumbrance for assets - dona (52) Encumbrance for assets - dona (53) Allowance-retirement benefits (54) Long-term accrued amounts pa (55) Long-term lease obligations (57) Total noncurrent liabilities (59) Advance received (60) Deposits received - subsidy for (61) Deposits received - subsidy for (62) Deposits received - donation (63) Deposits received - donation (64) Deposits received - donation (65) Deposits received - others (66) Accounts payable (67) Short-term lease obligations (68) Accrued expenses (69) Total current liabilities (70) Total liabilities (71) Total current liabilities (72) Equities (73) I Contributions (74) Contributions from government (75) Total contributions (76) Additional	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087 24,317,681 18,363,213 -13,747,704	18,565,141 - 24,317,681	36,586,199
(49) I Noncurrent liabilities (50)	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087 24,317,681	18,565,141 - 24,317,681	36,586,199
(49) I Noncurrent liabilities (50)	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087 24,317,681 18,363,213 -13,747,704	18,565,141 24,317,681 4,615,509	29,649,046
(49) I Noncurrent liabilities (50)	ation Ited by Japan government Ited by Japan g	97,124 678 143,896 4,095,352 791 945 15,719,267 58,172 53,571 116,938 2,539,484 678 76,087 24,317,681 18,363,213 -13,747,704	18,565,141 24,317,681 4,615,509	

Projected income statement FY2019

(Unit : K Yen)

(A)	(B)
Items	Amount
Ordinary Revenues	19,378,808
Revenue from Tuition etc.	90,675
Revenue from Subsidy for Operations etc.	14,877,978
Revenue from Subsidy for facility	1,494
Revenue from Sponsored Research	374,854
Revenue from Joint Research	84,147
Revenue from Donation etc.	5,597
Revenue from Subsidy for other	35,320
Revenue from Property Rent for Dormitory etc.	10,318
Land and Building Rent Revenue	14,095
Reversal of Assets Offsetting Subsidy for Operations etc.	3,498,186
Reversals of Assets Offsetting Donated Assets	50,851
Financial Income	101,452
Miscellaneous gains	233,841
Ordinary Expenses	19,395,054
Personnel Expenses	7,723,999
Operating Expenses	7,092,135
General Administrative Expenses	889,980
Depreciation	3,582,238
Financial Charges	106,703
Miscellaneous loss	0
Ordinary Loss	-16,246
Extraordinary Loss	26
Net Loss for the year	-16,272

(A)

(Unit: K Yen)

				(Unit:K Yen)
(1) (2)	Assets L. Noncurrent assets			
(2) (3)	I Noncurrent assets 1 Properties, plants, and equipment			
(4)	Land	1,659,667		
(5)	Buildings 53,979,334			
(6)	Accumulated depreciation -15,501,001			
(7)	Structures 7,585,627			
(8) (9)	Accumulated depreciation -2,453,521 Machineries 236,395			
(10)	Accumulated depreciation -208,913			
(11)	Equipment 28,635,967			
(12)	Accumulated depreciation -23,314,408			
(13)	Books	9,774		
(14) (15)	Ships and vessels 2,004 Accumulated depreciation -2,004			
(16)	Vehicles and transportation equipment 27,426			
(17)	Accumulated depreciation -27,205			
(18)	Lease assets 1,718,419			
(19)	Accumulated depreciation -1,717,628			
(20)	Construction in progress	5,297,781		
(21)	Total properties, plants, and equipment	55,927,715		
(22) (23)	2 Intangible assets net of amortization			
(24)	Patents	46,739		
(25)	Trademark rights	250		
(26)	Softwares	122,288		
(27)	Patents (in the process of filing)	199,686		
(28) (29)	Others Total intangible assets, net	<u>15,241</u> 384,204		
(30)	i otai iritarigibie assets, fiet	JU4,ZU4		
(31)	3 Investments and other assets			
(32)	Investments in securities	5		
(33)	Security deposits	1,758		
(34)	Long-term prepaid expenses	748		
(35) (36)	Lease investment assets (Long-term) Total investments and other assets	3,947,371 3,949,881		
(37)	Total noncurrent assets	3,949,661	60,261,800	
(38)	Total Honourion about		00,201,000	
(39)	II Current assets			
(40)	Cash and cash equivalents	3,235,202		
(41)	Accounts receivable	1,125,509		
(42) (43)	Supplies Prepaid expenses	36,830 24,155		
(44)	Lease investment assets (Short-term)	125,917		
(45)	Total current assets	120,011	4,547,612	
(46)	Total assets			64,809,412
(47)				
(48)	Liabilities			
(49) (50)	Noncurrent liabilities Encumbrance for assets - subsidy for operation	11,640,167		
(51)	Encumbrance for assets - donation	52,281		
(52)	Encumbrance for assets - donated by Japan government	678		
(53)	Allowance-retirement benefits	165,963		
(54)	Long-term accrued amounts payable	3,974,656		
(55)	Long-term lease obligations	113_	45 000 057	
(56) (57)	Total noncurrent liabilities		15,833,857	
(58)	II Current liabilities			
(59)	Advance received	502		
(60)	Deposits received - subsidy for operation			
(61)	Deposits received - subsidy for operation 239,088			
(62)	Deposits received-subsidy for facility 5,245,889			
(63) (64)	Deposits received - donation Deposits received - Kakenhi	58,172 68,432		
(65)	Deposits received - Nakerini Deposits received - others	122,050		
(66)	Accounts payable	2,650,509		
(67)	Short-term lease obligations	678		
(68)	Accrued expenses	79,414		
(69)	Total current liabilities	_	8,464,734	04 000 500
(70) (71)	Total liabilities		=	24,298,592
(71) (72)	Equities			
(73)	I Contributions			
(74)	Contributions from government	24,317,681		
(75)	Total contributions		24,317,681	
(76)				
(77)	II Additional paid in contributions	24 050 040		
(78) (79)	Additional paid-in contributions Accumulated depreciation - directly deducted from equity	31,252,648 -15,760,442		
(80)	Accumulated depreciation - directly deducted from equity Total additional paid-in contributions	-15,760,442	15,492,206	
(81)	i otal additional palu-ili contributions		10,702,200	
(82)	III Retained earnings			
(83)	Voluntary reserve funds			
(84)	Special reserve funds	80,533		
(85)	Accumulated net income	620,400		
(86) (87)	(Net income/∆loss for FY20) Total retained earnings	(-14,923)	700,933	
(88)	Total equities	_	7 30,000	40,510,820
(89)	Total liabilities and equities		- -	64,809,412
(00)			_	

Projected income statement FY2020

(Unit : K Yen)

mount
20,694,062
111,555
15,931,509
199,256
44,729
35,440
61,249
8,594
12,742
3,921,150
44,843
98,633
224,362
20,708,985
8,273,679
7,407,346
923,743
3,998,556
105,660
-14,923
-14,923

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