

Okinawa Institute of Science and Technology School Corporation

# Fiscal Year 2011 Business Plan



OIST

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

# FY2011 Business Plan

## Introduction

In November 1, 2011, the Okinawa Institute of Science and Technology School Corporation Act (OIST SC Act) came into effect, with the objectives of contributing to the promotion and self-sustainable development of Okinawa as well as contributing to the advancement of science and technology in Japan and throughout the world. In connection with the enforcement of this Act, and with the prior authorization by the Minister of Education, Culture, Sports, Science and Technology, the Okinawa Institute of Science and Technology School Corporation (OIST SC) was established as a school corporation to operate the Okinawa Institute of Science and Technology Graduate University (OIST Graduate University) which conducts world-class education and research in science and technology.

This Business Plan is developed, with an approval of the OIST SC Board of Governors, to guide the operations of OIST SC by setting goals and providing action items for the fiscal year (FY) 2011 – 5 months from November 2011 to March 2012 – based on the Article 9 of the OIST SC Act.

## Visions of OIST Graduate University

### *Excellence in research*

Broadening the boundaries of human knowledge is a key role of the academic community. With the successful operations of the OIST Promotion Corporation (OIST PC) since its establishment in September 2005, a highly international and cross-disciplinary research environment has been created in the modern and well-equipped facilities on the OIST campus located in Onna, Okinawa. Nearly 50 faculty members have joined and started world-class research.

Based on this success, we will make every effort to develop the research foundation further to become a leader in scientific research. The best mix of talented scientists in life, physical and environmental sciences, the absence of departmental barriers, and the strong emphasis on creativity and collaboration will promote truly cross-disciplinary research and achieve new scientific discoveries.

### *Best opportunities for students*

Educating outstanding scientists and researchers is another critical function which we are expected to perform. On October 24, 2011, OIST Graduate University has been accredited by the Japanese Government as a fully functioning educational institute. From the commencement of the class in September 2012, we will provide the best graduate students recruited from around the world with the opportunities of working side-by-side with world-class faculty for their Ph.D. degrees. The education and research are conducted entirely in English. Through our internationally unique and flexibly customized 5 year Ph.D. program, OIST Graduate University is positioned to develop the human capital which will play a leading role in the best research institutes throughout the world and contribute to the welfare and prosperity of citizens of Okinawa and the world.

## *Contribution to enhancing the competitiveness of Okinawa and Japan*

Being at the crossroad of Asia and Pacific regions, Okinawa has great geographic potential as well as the historical and cultural backgrounds of transforming itself to be an international hub where diverse people and ideas interact with each other in the fields of science and technology. Okinawa has the potential to become a gateway for Japan open toward the international community. To realize this, OIST Graduate University will work closely with academic and research institutions in Okinawa, including the University of the Ryukyus, as well as the governmental sector such as Okinawa Prefecture Government (OPG) and Onna Village (Onna-son).

Innovation and entrepreneurship are key factors today for regions that would like to be competitive in the global competition. We will share the goal of creating an international R&D cluster in Okinawa, which will contribute to enhancing Japan's competitiveness, with relevant parties and participate in the collective efforts by creating intellectual capital, collaborating with the industry both in and out of the island, and bringing our research results to the market. In addition, we recognize that we can make important contributions to the elementary and secondary education in Okinawa by the scientific activities to inspire young people in collaboration with local schools.

Our success relies on the understanding and continuous support by the tax-payers in Japan, especially the people in Okinawa. We will make every effort to meet the expectations of the Okinawan people and to become an institution they will be proud of.

## *High flexibility, efficiency and transparency*

Successful operations of an international graduate university in science and technology require flexible, efficient, and effective administrative management, which will enable us to adjust to the rapid changes in academic and business environment as well as global competitions. Administrative procedures should not be obstacles to creativity and innovation, but should provide appropriate support for them. Ensuring a high level of transparency is one of the statutory requirements for the OIST SC. We are committed to comply with the pertinent laws and regulations and demonstrate accountability to the general public. In addition, we will globally and locally communicate strategically with our various stakeholders.

Financially, while OIST Graduate University will have to depend largely on the subsidy from the Japanese Government during the initial period, it will steadily broaden and diversify its financial basis. From a long-term perspective, we will endeavor to achieve sufficient financial independence at the earliest possible time in the future. Systematic efforts will be made to encourage and support our researchers to apply for research grants. We will also seek other funding opportunities worldwide.

OIST Graduate University aims to provide a new model for universities in Japan not only in science and education, but also in approaches to internationally administering and financing a university.

## **What FY2011 means for OIST Graduate University**

For the OIST Graduate University, the 5 months of the FY2011 is a period to take the important first steps in all aspects of University operations. It is critical for us, in particular, to confirm whether we can attract and select the graduate students at the highest level in the world for the first class starting in September 2012. In addition, we have to make steady progress in the preparation of the courses and the necessary support for students.

The administrative structure and governance that are required to run an international graduate university is different from those of the OIST PC, which had the mission to prepare for the establishment of the graduate university. OIST Graduate University has launched a new organizational structure and a new set of policies and rules. The first 5 months will be an important period to implement them smoothly and fully complete the transition. During this period, we will put our focus on creating an appropriate and effective administrative structure for the University.

## **Planning framework and evaluation approach**

This Business Plan is to clarify the goals of FY2011 and to identify a list of action items to achieve the visions described above. The plan has the following 4 chapters in accordance with the Cabinet Office Ordinance (Ordinance for enforcement of the OIST School Corporation Act (Cabinet Office Ordinance No. 59 of 2011)); 1) Education and research, 2) Governance and administrative transparency and efficiency, 3) Finance, and 4) Other matters. Each chapter has subchapters consisting of Goals and Actions.

Every fiscal year, the CEO/President works together with the Vice CEO/Provost and the other executive officers of the university to compile and propose the annual Business Plan. 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 its approval based on the OIST SC Act. The government will provide financial support to the OIST SC based on the assumption that the OIST SC will implement the approved Business Plan appropriately.

As a corporation established based on the special legislation and largely funded by the government, we recognize that 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 achieve these 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.

Results will be appropriately utilized in the operations of the future years. 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 in a constructive way as a basis for the next step to achieve our objectives of being an institution

among the best in the world. In addition, the annual report together with the evaluation results will be posted on the OIST web site to ensure transparency.

For effective and transparent monitoring of progress against the plan, metrics will be provided for sub-sections of the Business Plan whenever appropriate. These metrics will also help conduct time series analyses of the growth of OIST Graduate University and international comparison with bench-marked institutions. Most of the metrics should be evaluated in the long run in the spirit of achieving the views described above. We are aware of the importance of quality of our outputs, and these metrics themselves should not be the objectives.

## Chapter 1 Education & Research

### 1.1 Ph.D. Program

#### Goal:

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

#### Actions:

- Conduct the student recruitment activities globally to attract the highest caliber graduate students for the first class students arriving in September 2012 as follows:
  - The number recruited: 20 students
  - Admission period: until the end of March 2012
  - Major recruitment activities: Contact candidates by website, email, domestic and international university visits, hosting booths at academic meetings, etc.
- Organize the Admission Committee in the Graduate School and select the best students with high potential for independent research and creative thinking. The fair and transparent admission procedures administered by the committee will involve strict review of applications and Admission Workshops on campus, including interviews and writing exam.
- Review the results of student recruitment and selection of this fiscal year and appropriately reflect the results of analysis in activities in future years.

#### Goal:

We will make necessary preparations for the Ph.D. program starting from September 2012 and for the educational and support environment for incoming students.

#### Actions:

##### (Courses)

- Develop the curricula including courses taught by newly recruited faculty, taking the matters pointed out in the accreditation assessment into account, and take necessary administrative steps associated with new courses, including the submittal of additional application to MEXT within this year.
- Prepare the programs to learn English and Japanese communication in laboratories and/or other practical skills necessary for the research and training at OIST Graduate University for the prospective students who will complete their undergraduate programs at the end of March 2012.

##### (Infrastructures)

- Build and expand educational and training infrastructures, such as work space, equipment, and IT system to administer academic matters, etc.
- Develop the University Library which meets the needs of faculty, students and researchers conducting cutting-edge research in science and technology by enhancing the collection of books and journals, etc., and start full operation of the Library.

##### (Student Support)

- Make necessary administrative preparations to develop an environment for the students

entering our Ph.D. program in which they will be able to concentrate in their research activities under the living standard comparable to that of the students of the best universities in the world that we are competing with.

- Collect and provide information of external scholarship opportunities to the students.
- Prepare sufficient support functions, such as providing necessary information of life in Okinawa and supporting immigration procedures etc., for students coming from around the world, so that they can lead a comfortable life in Onna area and concentrate in their research and training.

**Metrics:**

- Number of A grade applicants for the Ph.D. program (Japanese and non-Japanese)
- Number of admitted students (Japanese and non-Japanese)
- Caliber of incoming students (list of institutes from which the students received degrees, etc.)
- Increase of students receiving external scholarships, etc.

## 1.2 Scientific Research

**Goal:**

OIST Graduate University will continue to conduct world-class research in cross-disciplinary fields of science. Our interdisciplinary research foundation has been significantly strengthened by recruiting researcher in the physical science field in addition to the existing strength in the biological field through the faculty recruitment since summer 2010. OIST Graduate University will encourage, motivate and support its talented faculty by promoting a collaborative research environment, leveraging cutting-edge facilities and equipment, and through systematic and rigorous research review.

**Actions:**

(Promotion of cross-disciplinary research)

- Support the startup of new research units, predominantly in the field of physics and chemistry, and promote exchange of ideas and collaboration across the broad spectrum of science including those fields. (See Attachment #1-1 for the list of research units at the start of the fiscal year and Attachment #1-2 for the major scientific areas of research.)
- Introduce and utilize the state of the art research tools with use of the national subsidy allocated under the “Special Framework for Revitalizing Japan” to promote cross-disciplinary research including “Okinawa Marine Ecosystem Project.”

(Research Support)

- Enhance collaborative environment by continuous promotion of common/shared use of research equipment and tools within the university based on the recommendations by the Common Resource Advisory Committee consisting of faculty members and relevant staff.
- Build the research support functions such as providing common resources and hiring technical staff for physical science in addition to the existing strong support for life science.
- Launch “Science and Technology Group” under the Vice Provost for Research and support the scientific or technological projects led by research scientists who do not belong to a research unit as faculty or postdocs.

(Publication and communication)

- Promote publication of research results in international science journals with high impact factors and participation in international conferences by encouraging researchers through the research evaluation system described below.
- Provide accessible information about our research and its results to the general public in Japan and around the world through the OIST web site, press releases, and press conferences.

(Research Evaluation)

- Review research projects 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, as was implemented under the operations of OIST PC. The evaluation results will be utilized in judgments of promotion of faculty members and continuation of the research units. (In FY2011, evaluation of 4 units will be completed.)
- Publish the summary of research evaluation expeditiously after the utilization of the results in order to fulfill the accountability to the public in using public expenses for the research projects.

**Metrics:**

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

### **1.3 Faculty Recruitment**

**Goal:**

The results of our recent recruitment demonstrate that OIST Graduate University can compete successfully against the best worldwide institutions for the highest caliber faculty. To keep the momentum for future growth and widen the foundation for cross-disciplinary research, we will make necessary preparations for the next round of faculty search. At least half of the faculty should be non-Japanese.

**Action:**

- Study and identify the scientific areas that will provide the maximum strategic opportunities to OIST Graduate University and determine the feasible number of positions and timing for future recruitment, taking account of the progress of facility construction, etc. – a faculty development plan will be created by the President and Provost in consultation with the current faculty, taking the matters pointed out at the accreditation assessment into account.

## 1.4 Collaboration with Industry

### Goal:

OIST Graduate University will endeavor to advance research results to the market and thus to enrich the society. We will continue to build collaboration with industry and appropriately manage and utilize the intellectual properties produced by our research.

### Actions:

(Research Exchange and Collaboration)

- Through efforts such as exchange visits of researchers, promote research exchanges and joint research with industry, including both major corporations and venture firms.
- Continue the existing three collaborative research projects with venture firms and academic institutions in Okinawa under the “Collaborative Research Project toward Developing Intellectual Cluster” funded by OPG, including research on biological resources of Okinawa. In addition, contribute to academic meetings and symposiums under the project.

(Intellectual Property Management)

- Provide training opportunities to faculty and postdocs to increase awareness of the importance of appropriate acquisition and protection of intellectual property.
- Implement appropriate, efficient and effective procedures of patent application through use of external expertise from patent offices, etc.
- Establish Business Development Section in charge of collaboration with industry in general, and Technology Transfer Section in charge of patent applications/management and administrative procedures for technology transfer to communicate with industry and provide necessary support to faculty and postdocs in making connections with the industry.

(R&D Cluster Workshop)

- Hold the second “R&D Cluster Workshop,” in collaboration with relevant organizations in Okinawa. To identify practical strategies to develop an R&D cluster on the island, the best ways to commercialize research results and other necessary actions to be taken in Okinawa will be discussed.

### Metrics

- Number of collaborative projects with companies (collaboration agreements, joint research projects, commercialization of intellectual property, etc.)

## 1.5 Global Networking

### Goal:

OIST Graduate University will continue to create strong networks with the international science community and increase worldwide reputations by making agreements with universities and research institutions, hosting academic workshops, etc.

### Actions:

- Take over collaboration agreements made by OIST PC with the universities and research

institutions in Japan and around the world and make new agreements to enhance opportunities for OIST faculty and students.

- Host international courses and workshops at the highest level in the world and provide students and young researchers with the opportunities of learning forefront science and interacting with outstanding peers (more than 9 international courses/workshops are to be held by the end of March including 8 that were hosted by OIST PC). In addition, actively support workshops by external institutes held at OIST.
- Continue to implement the long-term and short-term student programs developed by OIST PC, and through those programs, accept students from universities in Japan and around the world for practical trainings in research units.

**Metrics:**

- Number of collaboration agreements with universities and research institutions
- Number of international courses and workshops
- Number of seminars (hosted by research units)
- Number of participants of courses, workshops, and seminars.
- Number of students accepted from domestic and international universities

## 1.6 Local Networking

**Goal:**

OIST Graduate University will work closely with academic institutions in Okinawa, such as the University of the Ryukyus and the Okinawa National College of Technology as well as local industry for promotion and self-sustainable development of Okinawa. Also, OIST Graduate University will enhance collaboration and communication with the local community and local schools and develop the campus as a center for cultural and community activities.

**Actions:**

- Make institutional efforts in promoting scientific collaboration with academic institutions in Okinawa such as interaction between researchers, joint research and co-use of research facilities.
- Accept group or individual visits from the local community (including companies and associations etc.) to the OIST campus.
- Hold the 2nd Open Campus Day at the OIST Campus in March, 2012.
- Invite school children in Okinawa to the OIST campus to give them the opportunities to see and learn about cutting-edge research facilities, with the aim of increasing their interests in academic and professional careers in science and technology. In particular, to arrange visits by all senior high-schools in Okinawa, make necessary planning and coordination with OPG and individual schools.
- Continue to arrange lectures by OIST faculty for all junior high-school students in Onna-son and talks by BOG members including Nobel Prize laureates for senior high-school students in Okinawa.
- Organize cultural events, including those to be held in the Auditorium, which will be completed within this fiscal year, to make the campus open to the local community as well as inspire the creativity of scientists.

**Metrics:**

- Number of collaborative projects with local institutions
- Number of visits and visitors
- Number of visitors on the Open Campus Day
- Number of local students who visited the campus
- Number of lectures and talks for local students

## Chapter 2 Governance & Administrative Transparency and Efficiency

### 2.1 Basic structures for governance and business operations

#### Goal:

The Board of Governors (BOG) 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 will 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. Auditors of the corporation will conduct rigorous audits to ensure appropriateness and efficiency of the operations of the corporation.

#### Actions:

- In February 2012, following the first meetings in November 2011, 2nd BOG and BOC meetings will be convened to discuss the FY2012 Business Plan and Budget Plan which will be the first full-year plans for OIST SC. At that time, a medium-term strategic plan of the University, including financial strategies such as measures to broaden financial sources and strategies to contribute to Okinawa's development will also be discussed in addition to the annual plan.
- BOG and BOC will establish subcommittees to ensure effectiveness of their functions and put them into operation. (Subcommittees of the BOG: Steering, Business and Finance, Research and Academics, Audit and Compliance, and (Ad-hoc) Community Relations. Subcommittees of the BOC: University Management, Budget and Finance, Academics and Research and Sustainable Development for Okinawa.) A web conference system will be utilized for the BOG and BOC meetings to enhance efficiency as well as promote active participation of governors and councilors who are in distant locations.)
- Auditors will 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 maintain effective communications with the university management through the Vice President in charge and will be provided sufficient information and staffing necessary for conducting their duties. Result of Auditors' audit will be reflected in future operations through their reporting at BOG meetings, etc.

#### Goal:

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

#### Actions:

- Strengthen the functions necessary for accepting students and expanding research activities, such as academic service and research support functions, and build appropriate organizational structures to cope with the increasing use of information technology while ensuring information security. On an organizational change or establishing a new position

in the organization, clarify the roles and responsibilities of the new organization or positions. (See Attachment #2 for the organization chart at the start of the fiscal year.)

- Establish the functions to support the President/CEO in the Executive Office in order to monitor the status of implementing the Business Plan and to coordinate and integrate all aspects of the university's business from academic activities to administrative management under its leadership.
- Hold regular (i.e. monthly, weekly and daily) meetings with the President/CEO, Provost/Vice CEO and Vice Presidents etc. to share information and review the status of business operations. In addition, hold all-hands meetings as necessary.
- Maintain close communication with CAO through the Vice President in charge of governmental relations. In addition to making a monthly report of the budget execution status to the CAO, information such as the status of implementation of the Business Plan will be communicated to the CAO in the quarterly liaison meeting.

## **2.2 Budget allocation and execution**

### **Goal:**

On executing the budget including government subsidies, OIST Graduate University will establish a system to enable appropriate and effective allocation and execution of budget to fulfill its accountability to the government, sponsors, and general public.

### **Actions:**

- Establish 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.
- Establish and implement the organizational system in which the division heads and section heads are responsible for their allocated budget and 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 including the Subsidy for Facilities. In addition, report the budget execution status to the CAO on monthly basis.
- Properly manage competitive research funds including KAKENHI (Grants-in-Aid for Scientific Research) in accordance with the rules provided to each grant under the Vice Provost for Research while coordinating with the Budget and Accounting Section.
- Establish procedures to comply with laws and University policy and rules – the procedure in budget execution includes reviews by the Vice President in charge of compliance when individual budget expenditures exceed a predetermined threshold.
- Conduct internal audit under the Vice President in charge of compliance, as well as develop human resources through sending our staff to training courses provided by government agencies, etc. on regular basis, to ensure proper contract, procurement and accounting procedures.
- Continue the functions provided by the Contract Review Committee in OIST PC and establish a similar committee consisting of external experts in order to ensure proper implementation of tendering and contracts, and start review of contracts concluded by the University. 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:

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

### Actions:

- Continue the efforts made by OIST PC to efficiently support research activities, such as promoting common/shared use of research equipment and tools (refer to 1-2) and utilizing the methods of unit price contracts and bulk purchase for research materials and reagents. In addition, enhance efficiency further through providing review for streamlining the administrative operations.
- 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. In addition, in order to allow flexibility and speed in purchasing while ensuring transparency and competitiveness, establish and implement a new tendering and contract procedure, taking the examples of national universities, etc. into consideration.
- Promote the use of information technology in business operations by steady implementation of the ERP (Enterprise Resource Planning) system, including the core (finance and accounting), human resources, and document management systems.
- Ensure effective use and management of fixed assets, including rental facilities, and maintain minimum research facilities in Uruma City, taking the progress of campus development into account.

### Metrics:

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

## 2.4 Personnel management

### Goal:

OIST Graduate University will recruit and retain qualified employees, which are essential for the university to achieve the goals, by providing internationally competitive compensation and benefits as well as training opportunities. At the same time, as a corporation operated largely with the subsidy from the Japanese Government, OIST Graduate University will make efforts in containing overall personnel costs and keeping the employee's salary at a reasonable level consistent with expectations of tax-payers, as well as ensure accountability in such aspects. In addition, proper support will be provided for developing the community of the University that includes staff, students, and their families, which is an important factor for the success of the University operation.

**Actions:****(Recruitment)**

- Endeavor to recruit and hire qualified persons for the important positions to administer an international university – i.e. Legal Counsel, Chief Information Officer, and Fund Raising Officer – without delay.
- Continue to recruit qualified staff necessary to cope with new or expanded functions, such as student affairs and research support. In doing so, properly manage the headcounts and prevent the organization from expanding excessively, taking account of the trend among universities and similar institutions in Japan and abroad, in order to achieve an efficient and streamlined administrative sector.
- Implement the equal opportunity policy to promote diversity at the workplace and to improve the gender balance among all job levels and categories.

**(Compensation)**

- Make necessary preparations to implement the new salary system that will be launched from FY2012. Under the new system, an appropriate salary range will be set for each job category reflecting factors such as salary levels of national government employees and those of academic institutions in and outside of Japan, and the amount of salary will be determined based on individual job performance etc. within the respective range. The new system will properly incorporate the 5 year plan to reduce the salary level, which OIST PC had been implementing.
- Continue to examine appropriate retirement benefits in view of international standards, financial feasibility, and obtaining public understanding, and make preparations to introduce a new program as necessary.
- Limit the eligibility of the rental housing program to Vice Presidents and faculty members etc. and constantly review its fee. In addition, study appropriate level of the Housing Allowance along with the preparation of use of the houses in the Village Zone on the campus.

**(Training and evaluation)**

- In accordance to the needs and job category of the employees, provide necessary training for employees in a planned manner.
- Implement new staff development programs, such as an employee award program, to motivate employees and create a sense of unity.
- Implement a performance evaluation system appropriate to the characters of each job category (faculty and administrative staff) while ensuring fairness and transparency. Also, reflect the evaluation results in employee salaries.

**(Developing the Community of University)**

- Take measures to enhance wellbeing of the OIST community including staff and their families, such as by implementing welfare programs, providing the information regarding the life in Okinawa and supporting events organized by staff and families.

**Metrics:**

- Number of employees (by job categories, nationalities, and gender), by seniority
- Ratio of staff in administrative divisions to the total headcounts
- Ratio of labor costs to the total operational budget

- Salary Level of employees (average salary by job category)
- Number of employees taking training programs

## 2.5 Compliance

### Goal:

OIST Graduate University will establish a system to ensure compliance in all aspects of the university operations.

### Actions:

- Appoint the Vice President in charge of administrative compliance (with laws, regulations and internal policies, rules and procedures) and development, revision, management, etc. of University policy and rules, as well as provide staff to work on compliance matters. The Vice President will systematically review the budget execution status and contracts exceeding a predetermined threshold as well as new and revised policies, rules and procedures from a view point of compliance.
- 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.
- Through audits by Auditors and internal audits carried out under the Vice President in charge of compliance, provide rigorous review of the status of compliance including the implementation of the regulations that were newly established, and reflect the result as necessary
- Establish a set of rules concerning research ethics and compliance and ensure that our research activities are compliant with pertinent laws and regulations by implementing those rules under the Vice Provost for Research.

## 2.6 Information Disclosure and Public Relations

### Goal:

OIST Graduate University will ensure transparency of academic and administrative operations and will be fully accountable to the general public. In addition, to obtain broad support for OIST Graduate University both from Japan and abroad and to increase worldwide recognition, we will communicate actively with various stakeholders and promote branding of the university.

### Actions:

- Disclose the information appropriately on the OIST web site 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).
- Communicate actively with domestic and international communities through effective means such as the new OIST web site, publications, press releases and press conferences.
- Promote branding of OIST Graduate University by using the uniform visual style (the OIST logo etc.) based on the Graphics Standard Manual.

## Chapter 3 Finance

### Goal:

OIST Graduate University will strategically broaden its financial basis by increasing the amount of research grants, donations and other sources in aim of becoming financially independent in the future. In particular, for the expenses such as student support, which require exceptional treatment during the initial years in funding including support from direct government funds, we will increase the ratio of external funding based on the principle that to self-financed funds will be a major financial source for such expenses.

### Actions:

#### (Grants)

- Encourage application for research grants by actively collecting and providing information of research grants in Japan and abroad to researchers. Considering the international nature of the university, enhance the support function for non-Japanese researchers in applying for domestic grants, such as by providing information in English.

#### (Donations)

- Make necessary administrative preparations to be certified as a Specified Public Service Corporation (for tax-deductible contributions. This is the Japanese version of US 501(c) organization) by MEXT and to utilize the designated donation program operated by the Promotion and Mutual Aid Corporation for Private Schools of Japan, so that donors will be eligible for preferential treatments equivalent to that for donations to the national universities.
- Appoint the Fundraising Officer, who will lead strategic approaches targeted at potential donors living abroad, and take measures to utilize a foundation established to receive donation in the United States.

### Metrics:

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

## Chapter 4 Other Matters

### 4.1 Contribution to Okinawa Promotion

#### Goal:

OIST Graduate University will contribute to the promotion and self-sustainable development of Okinawa through various activities to achieve one of its objectives stipulated in the OIST SC Act.

#### Actions:

(Items concerning promotion of research and development of R&D cluster)

- Promote cross-disciplinary research including “Okinawa Marine Ecosystem Project.” (See 1-2)
- Promote collaborative project with local companies. (See 1-4)
- Hold R&D Cluster Workshop. (See 1-4)

(Items concerning collaboration with and contribution to local community)

- Collaborate with local academic and research institutions. (See 1-6)
- Accept visits by local community and hold Open Campus Day. (See 1-6)
- Promote campus visits by high-school students in Okinawa, and arrange events to give talks to students in Okinawa. (See 1-6)
- Contribute to cultural and community activities. (See 1-6)
- Play an active role in surrounding community development led by OPG, in close collaboration with OPG, Onna-son, and other related municipalities.
- Employ talented people from Okinawa wherever possible.
- Endeavor to make clear and understandable explanation about the contribution made by the OIST Graduate University to Okinawa at various occasions.

#### Metrics:

- Number of collaborative projects with local institutions (See 1-6)
- Number of visits and visitors (See 1-6)
- Number of visitors on the Open Campus Day (See 1-6)
- Number of local students who visited the campus (See 1-6)
- Number of lectures and talks for local students (See 1-6)
- Number of employees from Okinawa (researchers and staff)  
(Others: refer to each item)

### 4.2 Campus Development

#### Goal:

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

#### Actions:

- Continue the construction of Laboratory 2, Auditorium, and Parking Facility etc. on campus.
- Construct the houses for faculty, students etc. and other facilities in Village Zone, in a planned manner, under a partnership with a private developer. (Scheduled to construct

approx. 130 units by spring 2013 in the first construction phase.)

- Based on the Act for Promoting Proper Tendering and Contracting for Public Works (Act No. 127 of 2000), continue to promote disclosure of pre- and post-tendering and contract information such as tendering schedule and result, etc. to ensure transparency.

### 4.3 Other matters

#### Goal:

OIST Graduate University will improve the education and childcare environment available to OIST employees.

#### Actions:

- Continue the efforts to improve the educational environment for children of employees and students by increasing the opportunities of taking classes in English, in collaboration with OPG, Onna-son and other surrounding communities. Such efforts will include appointing an education facilitator to develop educational programs that integrate OIST families with local community schools.
- Study and implement necessary measures to satisfy the various needs of early childhood education of employees and students, considering the situation of public childcare service provided in Okinawa.

#### Goal:

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

#### Actions:

- Make response manuals for natural disasters such as earthquakes and tsunamis and provide training to employees.
- Continue to study effective measures to communicate with the employees under emergency cases, considering the international nature of the university, and introduce them in steps.
- Enhance the sustainability of the campus under natural disasters in collaboration with Onna-son, and study a possibility to offer the campus to local residents for evacuation under disasters.

#### Goal:

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

#### Actions:

- Promote use of recyclable products.
- Endeavor 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 to facility development, provide sufficient measures such as installation of turbid water treatment plan to prevent red soil run off.
- Manage campus facilities and landscaping to preserve natural balance and protect indigenous species.

## Research Units (as of November 1, 2011)

Unit Name		Faculty
1	Biodiversity and Biocomplexity Unit	Dr. Evan P. Economo
2	Brain Mechanism for Behavior Unit	Dr. Gordon Arbuthnott
3	Biological Systems Unit	Dr. Igor Goryanin
4	Chemistry and Chemical Bioengineering Unit	Dr. Fujie Tanaka
5	Collective Interactions Unit	Dr. Mahesh Bandi
6	Cellular and Molecular Synaptic Function Unit	Dr. Tomoyuki Takahashi
7	Computational Neuroscience Unit	Dr. Erik De Schutter
8	Cell Signal Unit	Dr. Tadashi Yamamoto
9	Developmental Neurobiology Unit	Dr. Ichiro Masai
10	Developmental Signalling Unit	Dr. Mary Ann Price
11	Ecology and Evolution Unit	Dr. Alexander Sergeevich Mikheyev
12	Electron Microscopy Unit	Dr. Akira Tonomura
13	Energy Materials and Surface Sciences Unit	Dr. Yabing Qi
14	Fluid Mechanics Unit	Dr. Pinaki Chakraborty
15	Formation and Regulation of Neuronal Connectivity Unit	Dr. David Van Vactor
16	Femtosecond Spectroscopy Unit	Dr. Keshav Dani
17	Genomics and Regulatory Systems Unit	Dr. Nicholas M. Luscombe
18	G0 Cell Unit	Dr. Mitsuhiro Yanagida
19	Human Developmental Neurobiology Unit	Dr. Gail Tripp
20	Information Processing Biology Unit	Dr. Ichiro Maruyama
21	Integrative Systems Biology Unit	Dr. Tatiana Marquez-Lago
22	Light-Matter Interactions Unit	Dr. Sile Nic Chormaic

Unit Name		Faculty
23	Marine Biophysics Unit	Dr. Satoshi Mitarai
24	Mathematical Biology Unit	Dr. Robert Sinclair
25	Microbiology and Biochemistry of Secondary Metabolites Unit	Dr. Holger Jenke-Kodama
26	Molecular Cryo-Electron Microscopy Unit	Dr. Matthias Wolf
27	Molecular Genetics Unit	Dr. Sydney Brenner
28	Marine Genomics Unit	Dr. Noriyuki Satoh
29	Mathematical and Theoretical Physics Unit	Dr. Shinobu Hikami
30	Neural Computation Unit	Dr. Kenji Doya
31	Nanoparticles by Design for Nanotechnology and Biomedical Applications Unit	Dr. Mukhles Ibrahim Sowwan
32	Neuronal Mechanism for Critical Period Unit	Dr. Yoko Yazaki-Sugiyama
33	Neurobiology Research Unit	Dr. Jeff Wickens
34	Unit on Neural Systems and Behavior	Dr. Masaki Isoda
35	Open Biology Unit	Dr. Hiroaki Kitano
36	Optical Neuroimaging Unit	Dr. Bernd Kuhn
37	Physics and Biology Unit	Dr. Jonathan Miller
38	Plant Epigenetics Unit	Dr. Hidetoshi Saze
39	Quantum Dynamics Unit	Dr. Denis Konstantinov
40	Quantum Systems Unit	Dr. Thomas Busch
41	Quantum Wave Microscopy Unit	Dr. Tsumoru Shintake
42	Structural Cellular Biology Unit	Dr. Ulf Skoglund
43	Trans-Membrane Trafficking Unit	Dr. Fadel Samatey
44	Theory of Quantum Matter Unit	Dr. Nic Shannon

## Major Research Areas of the OIST Graduate University

Many of the unsolved problems facing society today require an interdisciplinary approach. Interdisciplinary research combines the tools of different disciplines to work together on a common problem that cannot be solved by research within a single discipline. OIST started with a strong emphasis on biology and has now established a complementary program in the physical sciences.

### Physics and chemistry

Physicists at OIST investigate fundamental questions in hard and soft condensed matter physics, atomic, molecular and optical science, material science, nanomaterials, nanostructures, quantum computation, quantum coherence, membranes, single molecule spectroscopy, structural molecular biology, computational physics, and fluid mechanics. Research in the physics of biological systems connects with biological areas. Chemistry research at OIST includes the study of catalysis and the chemistry of proteins and peptides, using techniques of organic chemistry and organic synthesis of peptides, enzymes, and small organic molecules.

### Integrative biology

Cross-disciplinary studies are aimed at using field, laboratory and computational techniques for answering fundamental questions in ecology, evolution, and marine science. Much of the research leverages next-generation technologies in molecular biology, parallel computation, and DNA sequencing to test long-standing theoretical questions, and to generate novel data necessary for new theoretical synthesis. Principal lines of research include studies of genome evolution, theoretical ecology, experimental evolution, biogeography, and microbiology, as well as physical, ecological, and evolutionary oceanography.

### Marine Sciences

OIST is very well placed to develop a comprehensive marine sciences program, owing to the tropical waters and the coral reefs surrounding the campus and the prevailing Kuroshio current. A growing focus of research is the genomics of corals and other marine animals, particularly marine invertebrates and primitive chordates, and their response to climate change and other stresses. OIST already has demonstrated its experience in physical, ecological, and evolutionary oceanography, and plans to extend its observation capacity with an extensive monitoring system for the collection of ocean data.

### Mathematical and computational sciences

Mathematicians at OIST are extracting new mathematical structures from biology. They are also developing qualitative and quantitative analytical techniques for sequence analysis, fundamental areas of complexity, and modularity theory, using techniques of pure and applied mathematics and scientific computation. Computational approaches to science are increasingly important. A current aim is to integrate metabolic, signal transduction, and gene regulatory networks with possible protein-protein interaction networks.

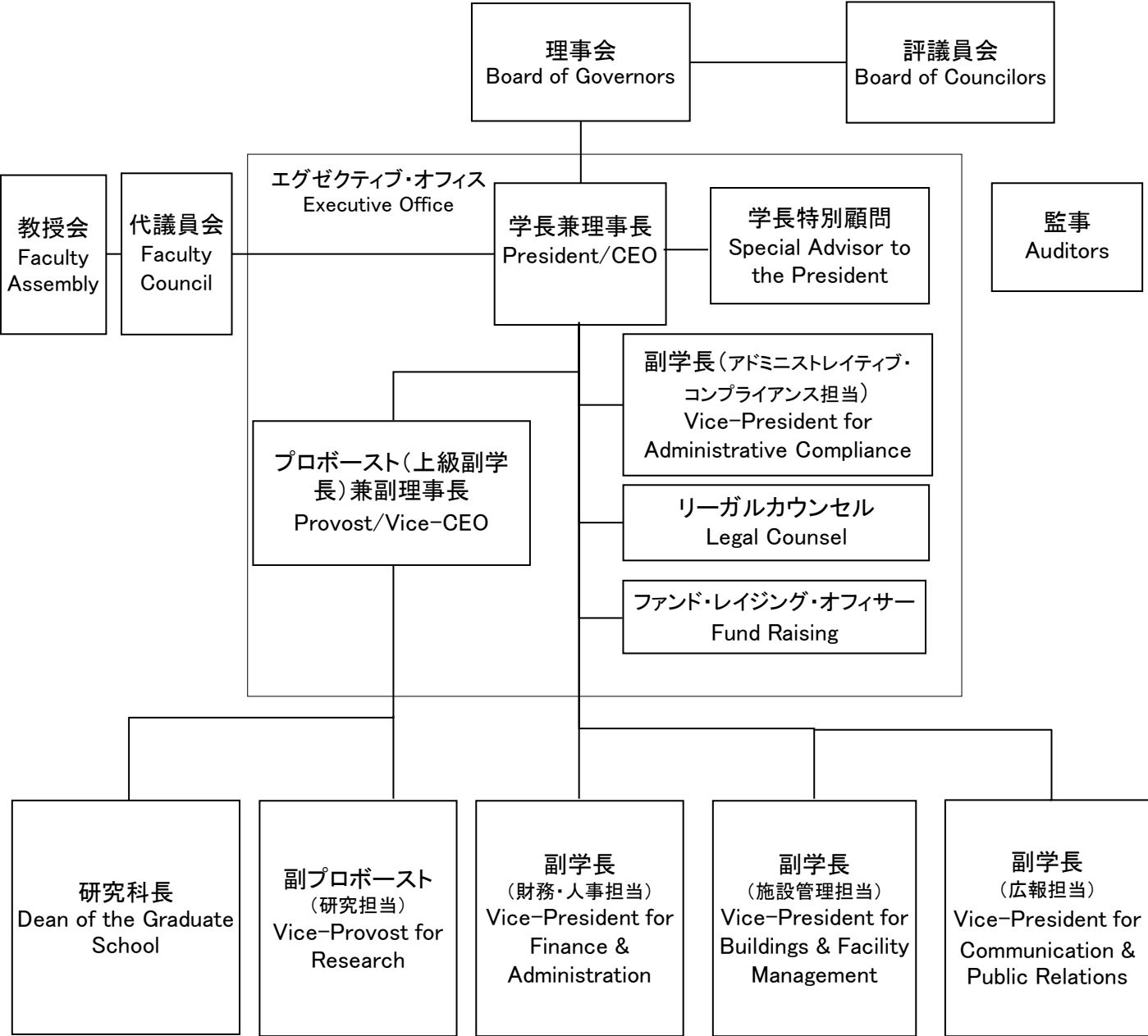
## **Molecular, cell, and developmental biology**

Fundamental cellular processes such as transcription, cell cycle, metabolism, and cytoskeletal dynamics are regulated by signals coming from, for example, nearby cells or the environment. This regulation is essential to the development of multicellular organisms and to cellular health in both multi- and unicellular organisms. OIST scientists study these mechanisms using genetic, biochemical, and molecular and cellular approaches at the level of single proteins up to whole organisms. Specific topics include cell signaling pathways and their relationship to development, genetic and epigenetic regulation, effects of nutrient content on cellular homeostasis, and structural analysis using X-ray crystallography, optical imaging, and advanced electron microscopy techniques.

## **Neuroscience**

OIST neuroscientists work on the neural basis of behavior, cognition and learning from many perspectives spanning multiple levels of analysis from behavioral responses in humans and experimental animals, through cellular mechanisms of neural signaling and plasticity, to genetic and molecular levels, using electrophysiological, optogenetic, transgenic, and gene knockout approaches. Computational modeling of neuronal and metabolic networks provides insight into biophysical, neural network, brain system, and psychological processes. Topics of current study include the cerebellum, cerebral cortex and basal ganglia, reinforcement mechanisms and higher cognitive functions, and human disorders such as alcoholism, Parkinson's disease and attention-deficit hyperactivity disorder.

沖縄科学技術大学院大学学園組織図  
OIST School Corporation Organizational Chart



FY2011 Income and expenditure budget statement

( Unit : K yen )

Revenues		Expenses	
Items	FY2011 Budget Amounts	Items	FY2011 Budget Amounts
Subsidy for Operations	5,073,924	Personnel Expense	1,157,448
Subsidy for Facilities	5,719,354	Academic related Expense	236,888
Other Revenues	180,000	Education & Research related Expense	1,109,713
		Common Resource Expense	2,517,221
		Administrative Expense	232,654
		Construction Expense	5,719,354
<b>Total</b>	<b>10,973,278</b>	<b>Total</b>	<b>10,973,278</b>

## Projected income statement

FY2011

( Unit : K yen )

Items	Amount
Ordinary Revenues	3,346,626
Revenue from Subsidy for Operations etc.	2,767,612
Revenue from Donation etc.	180,730
Reversal of Assets Offsetting Subsidy for Operations etc.	394,907
Reversals of Assets Offsetting Contributions	1,551
Reversals of Assets Offsetting Donated Assets	1,826
Financial Income	0
Miscellaneous gains	0
Ordinary Expenses	3,346,626
Operating Expenses	1,606,955
General Administrative Expenses	183,209
Personnel Expenses	1,157,448
Depreciation	399,014
Financial Charges	0
Miscellaneous loss	0
Ordinary Profit	0
Nonrecurring profit	0
Nonrecurring loss	0
Net Profit	0
Reversal of Reserve	0
Gross Profit	0

**FY2011 Projected Balance Sheet**  
(March 31, 2012)

(Unit : thousand jpy)

Assets			
I	Fixed assets		
1	Tangible fixed assets		
	Land		1,481,511
	Buildings	27,822,530	
	Accumulated depreciation on Buildings	△ 70,569	27,751,961
	Structures	6,004,897	
	Accumulated depreciation on Structures	△ 33,691	5,971,206
	Machinery	69,605	
	Accumulated depreciation on Machinery	△ 19,183	50,422
	Equipment	5,352,733	
	Accumulated depreciation on Equipment	△ 275,254	5,077,479
	Vehicle and transportation equipment	9,115	
	Accumulated depreciation on Vehicle and transportation equipment	△ 317	8,798
	Tangible fixed assets total		40,341,377
2	Intangible fixed assets		
	Patents		3,979
	Software		6,466
	Other intangible assets		54,232
	Intangible fixed assets total		64,676
3	Investment and other assets		
	Others		5,440
	Investment and other assets total		5,440
	Fixed assets total		40,411,494
II	Current assets		
	Cash & deposit	1,014,973	
	Accounts receivable	416	
	Inventories-Stock	5,642	
	Current assets total		1,021,030
	Assets total		41,432,524
Liabilities			
II	Fixed liabilities		
	Encumbrance for assets-Subsidy for operation	5,677,373	
	Encumbrance for assets-Subsidy for equipment	108,989	
	Encumbrance for assets-Donation	11,302	
	Encumbrance for assets-Donation by National government	69,468	
	Allowance-Retirement benefits	57,550	
	Fixed liabilities total		5,924,683
I	Current liabilities		
	Deposits received-Donation	1,200	
	Deposits received-Others	36,555	
	Accounts payable	1,014,785	
	Accrued expenses	23,260	
	Allowance-Bonuses	33,260	
	Current liabilities total		1,109,059
	Liabilities total		7,033,742
Net assets			
I	Contributions		
	Contribution from national government	24,251,290	
	Contributions total		24,251,290
II	Additional paid-in capital		
	Additional paid-in capital	10,540,182	
	Accumulated depreciation-directly deducted from equity	△ 392,690	
	Additional paid-in capital total		10,147,492
III	Retained earnings		
	Unappropriated retained earnings	-	
	(Current gross income (gross loss))	( - )	
	Retained earnings total		-
	Net assets total		34,398,782
	Liabilities and net assets total		41,432,524