1. Outline

NAIST Global³: cultivating Global leaders through Global standard graduate education on a Global campus

NAIST Global³ is a motto to (1) establish an international degree program for Global leaders, (2) develop a graduate educational model for high Global standard research, and (3) promote interdisciplinary education at Global campus with culturally diverse faculty, staff, and students.

Summary of project

NAIST will strive for global excellence in graduate education for advanced science and technology, specifically in three fields: Information Science, Biological Sciences, and Materials Science. Our current structure of three graduate schools will be merged into one integrated framework for advanced interdisciplinary education and research. Also, an international graduate program for advanced science and technology (5-year degree program) will be established. The program will offer a joint degree program with universities abroad. NAIST faculty and staff will benefit from faculty and staff development programs overseas. A support center for international students and researchers will become an integral part of the global campus for diverse faculty, staff, and students.
Summary of the 10-year plan

- **Satellite Offices and Research Centers Overseas**
  Global education and research centers will be situated in East Asia (Indonesia), North America (California), and Europe (France). Fulltime staff will support career development for international students as well as research and educational activities, in the surrounding areas and neighboring countries.

- **Japanese Language and Cultural Immersion at NAIST**
  All international students at NAIST will be required to take Japanese language classes and an introductory Japanese culture class. Campus activities (e.g., Japanese language partners, tutoring, host families, cultural activities) will encourage international students to become more familiar with Japanese language and culture.

- **Unifying the three existing graduate schools into one integrated framework**
  Our present structure of three graduate schools will be merged into one integrated framework. This transition will allow advanced interdisciplinary education and research to respond to the current needs of the times. Also, an international program for advanced science and technology (5-year degree program) will be established.

- **Joint Degree Programs with International Partners**
  In addition to continuing and enforcing our double degree programs, our international programs for advanced science and technology (5-year degree program) will offer joint degree programs with universities abroad. Also, studying abroad for one-year and overseas internships will be required.

- **English Use on Campus**
  Students can fulfill all degree requirements either in Japanese or in English under this new integrated framework at NAIST. Also, all documents, from university standards and regulations to cafeteria menus, will be translated in English.

- **University Education Administrators (UEA)**
  UEA of the Institute for Education Initiatives will support systematic curriculum development, coordination with national and international educational / research institutions, and career development.

- **Support Center for International Students and Scholars at NAIST**
  For a global campus, the Center will be established to assist international students and researchers with their private and academic lives.

**[Featured initiatives (Internationalization, University reform, Education reform)]**

With graduate programs only, NAIST can develop interdisciplinary educational programs in advanced science and technology with a vision to contribute our education and research to the world. Institutional assessment for education and research practices and accomplishments, based on the PDCA guidelines, is used to ensure the quality of NAIST education and research. A strategic committee led by the president envisions NAIST education and research in the next few decades.
2. FY2014 Progress

- **Common indicators and targets**

**Internationalization**

- **NAIST Top Global University Project Kick-off Symposium**
  In March 2014, NAIST hosted a symposium to discuss global trends in graduate education in the areas of advanced science and technology. Diverse speakers from affiliated universities gave lectures on global issues surrounding internationalization in higher education.

- **English Version of the University Guidebook**
  An English version of the University Guidebook is key in recruiting international students. The English guidebook was sent to NAIST’s partner and related institutions, and widely distributed at various Study-in-Japan and Study-at-NAIST fairs.

- **International collaborative education programs**
  Joint degree program feasibility was examined in accordance with the related ministerial act. The final consultation was made in January 2015 to seal a double-degree program agreement with Unitec in New Zealand in May 2015.

- **Overseas Staff Development Seminar**
  An overseas staff development seminar and English conversation classes were held to strengthen organizational capacity to support the globalization of education and research.

**University reform**

- **Establishment of the Center for Strategy and Planning**
  The Center for Strategy and Planning is placed immediately under the leadership of the President to unify planning of the future framework of university establishment systems and education and research strategies. The Center for Strategy and Planning operates as the headquarters for university management and institutional governance reformation through planning and evaluation of educational programs, and strategic policies on teaching staff allocation.

- **Organizing the Institute for Educational Initiatives (IEI) and Institute for Research Initiatives (IRI)**
  IEI has been set up to promote program planning and evaluation, and support education in order to cultivate global graduate education. IRI has been set up to support institutional research put forth in *The Program for Promoting the Enhancement of Research Universities*. Both are placed under the leadership of the President, closely connected with each other.

- **URAs & UEAs**
  University Research Administrators (URAs) analyze national and international trends of interdisciplinary research in the fields of science and technology. URAs also take part in expanding international networks for joint research. University Education Administrators (UEAs) engage in assessment of students’ aptitude, curriculum development and teaching evaluation, academic and career support for students, and exploration of potential partnerships with academic institutions abroad.
Education reform

● Overseas Faculty Development Seminar
  Newly appointed faculty at NAIST participated in the Overseas Faculty Development Seminar at the University of California, Davis, in October. The participants experienced how to incorporate active learning into their curriculum to meet students’ diverse needs. Such pedagogical support is the groundwork for preparing a quality learning environment as the top-level graduate institution.

● Improved Japanese Language Proficiency of International Students
  Japanese classes for 2015 at elementary and intermediate levels are under preparation. Language lessons are an integral part of successful student life for international students. Japanese language acquisition and communication skills are necessary for finding employment at Japanese companies in Japan or overseas.

● Improved English Language Proficiency of Japanese Students
  The core competence expected of Japanese master’s students includes acquiring skills to comprehend research articles published in English, as well as lectures and seminars delivered in English. Doctoral students are expected to present their research in English, and to acquire negotiation and trouble-shooting skills. TOEIC is used as a measure to evaluate and monitor students’ English proficiency.

■ University’s own indicators and targets

● Globalization concerning campus regulations
  NAIST initiated use of English in internal conference reports (conference titles only) and notification letters at all three graduate schools in 2014. This change encourages attendance of international faculty members at meetings. English versions of campus standards and regulations are under preparation.

● International environment promotion
  NAIST further facilitated globalization in the cafeteria area, having English menus and installing a HALAL food section in the union store for our international students and researchers from diverse backgrounds.

■ Featured initiatives based on the characteristics of the university

● Career support for international students in Japanese firms
  The number of NAIST’s international students (doctoral course) hired by Japanese enterprises exceeded 30%.

● Career support for international students returning home
  The number of NAIST’s international graduates (doctoral course) hired as faculty in their home countries exceeded 20%.

■ Free description

● NAIST was featured in Science magazine
  NAIST was featured in the prestigious Science magazine showcasing the “Top Global University Project” to enhance globalization and international recognition. (magazine: March 27/ad banner: March1-31)
3. FY2015 Progress

Common indicators and targets

**Internationalization**

- **Overseas Education Collaborative Office in Indonesia**
  NAIST opened its first Overseas Education Collaborative Office in Bogor, Indonesia. As an Asian hub, the office will strengthen NAIST’s international presence with objectives of improving recruitment and selection of international students, furthering relations with partner institutions and corporations, and promoting collaborative education and research with NAIST alumni in Indonesia and surrounding areas.

- **The 2nd Top Global University Project Symposium**
  NAIST hosted the “Challenges and Opportunities: Graduate Education in Science and Technology towards Global Engagement” symposium with keynote speakers from the National Science Foundation (USA), European Commission, and A*STAR Graduate Academy (Singapore). The symposium explored issues facing graduate education today in cultivating students’ qualities for tomorrow’s science and technology.

- **Educational Collaboration with Domestic Partner**
  NAIST signed a memorandum of understanding with International Christian University (ICU in Japan) to strengthen collaborations in global education for science and technology.

- **Staff Development**
  The Overseas Staff Development Program (Hawaii Tokai University) and a series of English conversation classes were held as part of the staff’s professional development. Improved English proficiency and administrative skills will support campus globalization.

**University reform**

- **Structural Reform**
  The Center for Strategy and Planning led by the President initiated reform movements concerning institutional management and governance. The Institute for Educational Initiatives promoted efforts towards program planning, evaluation, and support of global graduate education.

- **UEAs**
  International development University Education Administrators (UEAs) furthered global education support planning and the implementation of international partnerships, and faculty/staff development programs, etc. The appointment of UEAs for career/curriculum development to engage in career support, students’ professional aptitude assessment, curriculum development, and evaluation and improvement of teaching effectiveness.

- **Support for International Students, Faculty, and Scholars**
  Fulltime staff members were employed to provide a wide range of services for international students, faculty/staff, and scholars. University materials such as policies and regulations became available in English to promote information accessibility.

**Education reform**

- **Japanese Proficiency of International Students**
  Japanese lessons were held to improve students’ language proficiency to facilitate communication in their academic and future career.

- **International Collaborative Curricula**
  In addition to existing double-degree programs with Oulu University (Finland) and Paul Sabatier University (France), NAIST added programs with National Chiao Tung University (Taiwan), Unitec (New Zealand), and University of Malaya (Malaysia). The programs will further educational opportunities for both inbound and outbound students.
Education reform (continued)

- **Faculty Development**
The Overseas Faculty Development Program was held at the University of California, Davis. Seminars in university teaching and learning, followed by laboratory visits, are learning opportunities for NAIST faculty members to prepare for top-level graduate education in science and technology.

- **University’s own indicators and targets**
  - **English Proficiency of Students and Staff Members**
    As English communication skills are essential for realizing a global campus, TOEIC scores are used to assess and monitor the learning progress of students and staff member. In addition, emphasis was put on practical skills for academic studies and future research and employment. Master’s students are expected to develop abilities necessary for comprehension of research articles, lectures, and seminars delivered in English. Doctoral students must be capable to disseminate their research findings globally using English, including debate and deliberation skills. Staff who support international activities, including academic and research programs, are required to pursue English proficiency to improve their overall performance.
  - **English Use in Educational Programs**
    As part of globalizing efforts in graduate education, syllabi for courses offered in all three graduate programs became available in English. To prepare for a transition to a unified graduate program in the next few years, as well as an addition of international program for advanced science and technology (5-year doctoral program) to the curricula, English will become a primary medium of communication and instruction.

- **Featured initiatives based on university characteristics**
  - **Public Relations Efforts**
    Each year, NAIST delegations actively visit international partner education and research institutions, governmental offices, “Study in Japan” fairs, and others. English materials including guidebooks are critical in introducing our educational and international activities. Division for Global Education is now furnished with a flyer to explain NAIST’s approach to the Top Global University Project. NAIST widely distributes these materials to improve its presence in the international educational and research community.
  - **Comprehensive Life and Academic Support**
    With growing numbers of international students, faculty/staff, and scholars on campus, NAIST is focusing on being able to provide comprehensive support, ranging from pre-departure preparation to academic and personal life assistance. Services will extend to accompanying spouses and families.
  - **Career Support**
    UEAs in charge of career development were appointed to support international students seeking career in Japan and/or Japanese companies abroad through career guidance, information meetings, and fairs on campus. Also, a newly launched Indonesia Office will become a hub for students and alumni in Indonesia and surrounding areas to broaden the support network.
  - **Social Integration**
    Social integration is key for successful learning and living. Japanese language and culture courses are required for all international students to support their integration in Japan. NAIST organizes numerous cultural events to familiarize international students with various Japanese traditions, including day trips to historic Nara, sutra copying and lectures at Buddhist temples, flower arrangement (Kadō), Japanese confectionery (Wagashi) making, Ninja experience, and more.

- **Efforts to Realize Global Campus**
  NAIST believes in the importance of a truly multicultural community. Our signature global campus event, “NAIST Tea Time”, aims at strengthening our on-campus community and fostering mutual understanding and cultural familiarity among NAIST’s diverse population. Also, NAIST offers a bilingual menu at the cafeteria and Halal options in the convenience store to accommodate diverse needs of the international population.
4. FY2016 Progress

- Common Indicators and Targets

**Internationalization**

- **NAIST Indonesia Office**
  In cooperation with the Indonesian NAIST Alumni Association, the NAIST Indonesia Office was opened in Bogor in April, and an inaugural symposium was held in August to commemorate the opening in the presence of representatives from various Indonesian universities, Indonesian governmental offices, and Japanese companies in Indonesia.

- **UGM-NAIST Collaboration Office**
  The UGM-NAIST Collaboration Office was opened in the Center for Biotechnology Studies at Gadjah Mada University (UGM) in June to serve as a catalyst for enhancing academic and research collaborations with NAIST alumni at UGM and other universities in Indonesia.

- **NAIST Thailand Office**
  The NAIST Thailand Office was established within Kasetsart University’s Faculty of Engineering in March as a central point in Asia for global collaboration in higher education and research, such as recruiting international students, enhancing cooperation with partner universities, and strengthening NAIST alumni networks.

**University Reform**

- **The Center for Strategy and Planning**
  The Center for Strategy and Planning led by the President analyzed current academic exchange progress and addressed the advancement of collaborations with international partners.

- **Transition to One Graduate School**
  Newly appointed UEAs for curriculum development prepared for the one graduate school in response to societal demands and students’ needs for a multidisciplinary integrated program.

- **The Center for International Students and Scholars (CISS)**
  CISS, established in April, served as a one-stop service hub for international students and scholars to facilitate their social and cultural integration. Such services included academic and daily activity support, such as assisting in visits to local government offices, bank and medical facilities.

**Education Reform**

- **Faculty Development (FD) Program**
  Highly specialized curriculum of the International Faculty Development Program at the University of California, Davis (USA), introduced various practical pedagogical methods and strategies to participating faculty members, who then shared what they gained through participating in the institute executive meeting and departmental FD seminars.

- **Staff Development (SD) Programs**
  English conversation classes helped improve speaking ability of the staff members. Additionally, the International Staff Development Program was expanded to an upper level based on job shadowing at Macquarie University (Australia) and an intermediate level with a focus on on-site interviewing at the University of California, Davis (USA), and Hawaii Tokai International College (USA), to further promote understanding of administrative operations globally.

- **Double-Degree Programs**
  Through the double-degree programs, two NAIST students were sent to University Paul Sabatier (France) while two students from Unitec Institute of Technology (New Zealand) and one student from Oulu University (Finland) were enrolled in NAIST. In addition, NAIST concluded an academic agreement to encourage student exchange with the College of Engineering of National Chiao Tung University (Taiwan) to further enhance our relationship including the current double-degree program.
University’s Own Indicators and Targets

**English Proficiency of Students and Staff Members**
Students of all graduate schools took the TOEIC test, and the scores were used as an indicator of English proficiency. TOEIC scores of the staff members drastically improved in FY2016 as they were expected to support the continued internationalization of educational and research programs.

**Regulations and Syllabus in English**
Translation of regulations and documents to facilitate the experience of NAIST’s international community members was completed. Also, syllabi for courses offered in all graduate schools became available in English, which led to globally-focused curriculum development within the one graduate school.

**Featured Initiatives based on University Characteristics**

**International Alumni Network**
Alumni in Indonesia volunteered to represent NAIST at the Career & Scholarship Expo 2016 at Bogor Agricultural University (Indonesia), actively introducing our academic programs. An on-site staff member, a NAIST Indonesian graduate, is currently stationed in the NAIST Indonesia Office to support collaborative operations and to handle public relations in both English and Indonesian.

**International Public Relations**
The design and content of NAIST’s websites, both in Japanese and English, were renewed. The websites became mobile friendly and easier for users to obtain up-to-date information. In addition, the NAIST’s Top Global University Project website was renovated. Moreover, promotional materials in English were widely distributed around the globe, including to our partner universities, at “Study in Japan” fairs, and to overseas offices in Indonesia and Thailand, to actively introduce NAIST’s educational and research activities.

**Collaborations with Academic and Research Institutions**
To further graduate education based on world-leading research, NAIST concluded new academic agreements with top research institutions (e.g., Nanyang Technological University in Singapore, Indian Institute of Technology Bombay in India). Academic collaborations deepened with partner universities through international student workshops, joint symposia, student exchanges, etc.

**Japanese Language and Cultural Classes**
Japanese language and cultural courses for international students were offered to enhance communication skills and to promote understanding of Japanese traditions and customs. A self-study e-learning system was introduced in the classroom to facilitate the learning process.

**Career Support for International Students**
A newly appointed UEA in charge of career support for international students offered career support services in English. Also, easy access to career resources in English through the newly launched website facilitated student inquiries concerning their career paths. Moreover, the employment rate for international students improved as the UEA established networks with Japanese companies.

**Efforts to Realize Global Campus**

**Global Campus Events**
Our signature global campus event, “NAIST Tea Time”, is intended to increase cultural understanding within the diverse campus population by offering presentations from diverse speakers in an at-home atmosphere with various cultures’ drinks and foods. In FY2016, the events were opened to the public to strengthen relationships with local community members as well as to broaden their awareness on NAIST’s cultural diversity.
5. FY2017 Progress

Common indicators and targets

Internationalization

- **NAIST Indonesia Office**
  To place permanent staff member at the NAIST Indonesia Office, NAIST contracted the Indonesian NAIST Alumni Association to place a NAIST Alumni at the office, allowing for PR activities to be performed locally at recruiting fairs, etc. in Indonesian.

- **NAIST Thailand Office**
  NAIST joined the Japanese Universities’ Network in Thailand (JUNThai) to expand our network with education and research institutions, while holding a NAIST Thailand Office inaugural symposium in September as part of the TGU Project to improve our education and research presence. Also, through collaboration with Thai Alumni NAIST concluded an academic agreement with another top-level Thai university. (Chiang Mai University)

- **Diverse Faculty and International Students**
  NAIST diverse faculty has been achieved through international recruitment, domestic recruitment stressing education and research experience abroad and the continuing long-term faculty dispatchment program. Also, NAIST participates in study abroad fairs and actively recruits students at partner institutions, so that our international population is, while centered around Southeast Asia, geographically diverse. We currently have students from 33 countries and regions around the globe.

University Reform

- **Faculty Development (FD) Program**
  The FD program was held abroad with participants observing classes and meeting with professors and TAs to learn about PBL, active learning, and roles of TAs, to further promote student-focused education. An on-campus debriefing meeting and graduate school training sessions were held to spread the knowledge they gained throughout NAIST to improve teaching methodology.

- **Staff Development (SD) Activities**
  Through English training and overseas SD training the number of full-time staff (37 as of March 2018) that passed the foreign language requirement (TOEIC 750+ points) met the goals previously set, and NAIST was able to have a qualified English-speaking staff member at each administrative division/office. This was highly assessed in the 2017 TGU Project evaluations. Also, through the continuously held English training that is redesigned each year, the average staff TOEIC score has risen.

Educational Reform

- **Transition to a Single Graduate School**
  To establish a structure for the flexible and expedient organization of interdisciplinary educational curriculum of the 3 current fields and with the current graduate school curriculum, NAIST resolved to create a 1 graduate school, 1 department structure in 2018. In it, 7 education programs foster globally active human resources with broad and highly specialized knowledge of advanced science and technology, with internationally focused faculty gathering from different fields to educate to develop the specialized skills and knowledge and the broad understanding demanded by society and for interdisciplinary research collaboration and education.
University’s Own Indicators and Targets

- Improved International Student and Scholar Support
  The Center for International Students and Scholars (CISS) was re-organized and campus announcements led to an increase in cases handled (762 in total). Also, the Partner Opportunities Program (POP) planned in the TGU Project to promote recruiting of international faculty and the NAIST International Student Ambassador Program were set up, allowing for expanded support for international students and researchers, including increased dissemination of related information in English and Japanese.

- A Global Campus Connecting with the community
  NAIST Tea Time was held twice as Global Campus Events where NAIST faculty, staff and students, and members of the community gathered together to learn about other cultures and build ties. Also, the International Friendship Meeting was held in January, with a record attendance of 321 from within NAIST and other organizations, both private and municipal, that offer support for our international students, to promote understanding and further expand NAIST’s international community.

Featured Initiatives based on University Characteristics

- Furthering Double Degree Program Measures
  In February 2018 NAIST’s Double Degree Guidelines were formulated to assure high educational standards, while in the same school year the first double degree program graduates received their doctoral degrees. Especially, the 2 students NAIST sent to Paul Sabatier University who completed the double degree program under international collaborative supervision were both chosen for the Outstanding Student award. Additionally, to further develop the double degree program, NAIST signed a Double Degree Program Agreement with the University of Ulm (Germany) in July, 2017, while also being able to sign an agreement with University of Paris-Saclay during a courtesy visit to their campus in March 2018.

- Publicizing the Creation of the New Graduate School
  Necessary revisions to the NAIST Laboratory Introduction 2018 and the 2018 NAIST Guidebook were made reflecting the new single graduate school structure. In December an English leaflet based on the Japanese one explaining the single graduate school transition was produced and distributed to overseas institutions and offices to introduce the new education system to international students. Also, access to information for international students, current and prospective, was made easier through a special site explaining the graduate school transition and preparations for renewal of the English website in April in accordance with the new graduate school were undertaken.

- International Student Career Planning Support
  With Japanese corporations requiring advanced Japanese skills, an N1, N2 Japanese Proficiency Exam preparation course was held for those students wishing to work in Japan. A job fair was held on campus to assist international students in meeting with suitable Japanese corporations. Various career planning support was offered including business start-up seminars for those students who are interested in starting their own venture business.
6. FY2018 Progress

Common Indicators and Targets

Internationalization

- **NAIST Overseas Office Activities**
  NAIST established NAIST Indonesia and Thailand Offices to serve as hubs for education and research collaboration in Asia and these offices support activities held in collaboration with alumni, etc. At the Indonesia Office, resident staff held a booth at the Bogor Agricultural University Career & Scholarship Expo to recruit students. At the Thailand Office, a student symposium was held centered on the office’s activities to promote academic exchange between NAIST, Chulalongkorn University, Mahidol University and Kasetsart University, and to recruit talented students. Additionally, evaluations of Indonesia Office and NAIST–Universitas Gadjah Mada Collaborative Office activities were held and the executive administration confirmed its resulting decision to continue the offices’ operations.

- **Renewed Study Abroad Support System**
  Overseas language training and lab stay programs were held for doctoral students for global human resource development. The graduate school, English language instructors and a UEA of Division of Global Education (DGE) collaborated this year to offer an orientation focused on travel safety/risk management to increase awareness while overseas.

University reform

- **Implementation of the New UEA Personnel System**
  The new UEA personnel system (contract-to-permanent specialized staff employment) created in 2017 was implemented in April, 2018, and 2 UEA (Global Relations and International Student and Scholar Support UEs) were employed in DGE in July, 2018 and February, 2019, allowing establishment of a system for long-term global development and international community support.

- **Improved Staff Language and Globalization-focused Training**
  The Overseas Staff Development Program was held with staff participating in English language classes and interviewing staff at University of California Davis (UC Davis). A debriefing session was held and program reports are on the NAIST website to make participants’ experiences open to all staff to contribute to globalization around the campus and staff development.

Education reform

- **Faculty Development Program**
  The Overseas Faculty Development Program was held at UC Davis with faculty observing science/technology classes and meeting with faculty/teaching assistants to learn more about practical methodology of pedagogy and student motivation, and faculty gained insight into class development. In the debriefing session participants shared their valuable experiences to ensure feedback throughout NAIST. A DGE UEA accompanied them to examine and evaluate contents for future program planning.

- **Curriculum & Education Support System Enhancement**
  In response to the transformation to a single graduate school, the Division for Educational Development expanded framework to develop educational support systems for the new Educational Programs, implement student evaluations, and develop subject contents and materials.
University’s own indicators and targets

- **Career Support for Students**
  For career path support, current contents were reviewed to improve and expand job hunting information, activity scheduling, and guest speakers. In particular, efforts to establish domestic/overseas internships to develop internships for Japanese students have resulted in NAIST’s first internship at a company in the US, to be carried out next year. Career development support for international students consisted of career counseling in English, job hunting information, networking events (with companies looking for foreign human resources), and focused Japanese language classes for employment in Japanese companies.

- **Improved International Student and Scholar Support**
  The Center for International Students and Scholars, which was established in 2016, improved support to enhance academic and campus environments for both international students and scholars. New activities developed include the Credit Card Explanation Meeting, held in cooperation with the International Student Affairs Section, to assist students in living conveniently in Japan, and the establishment of the NAIST International Ambassador Program, a peer counseling program offering support for international students. (Ten Ambassadors were appointed and underwent training.)

- **Featured initiatives based on university characteristics**

  - **Language Education Enhancement for Students**
    The Professional Communication Special Enhancement Program (for English communication) was established as a new student English program to improve participating students’ English skills through a system that aims for 650 points or more in TOEIC. In addition to standard Japanese and other classes, Japanese classes offered by local volunteers contribute to overall understanding of Japanese which is essential for job hunting and life in Japan. These classes are offered twice a week and 80% of international students who enrolled in 2018 participated, contributing greatly to international students’ communication skills and, in turn, students who have close ties with Japan and Japanese people.

  - **NAIST Information & Procedural Clarification**
    NAIST education, research and international activity information was widely disseminated through the creation/distribution of NAIST Guidebook and Laboratory Introduction to partner and diplomatic institutions and on the HP. The DGE website was also renewed to make information concerning NAIST’s international efforts more accessible, including study abroad opportunities, double degree programs, etc. Additionally, procedures for student exchange, etc. were clarified to assist in engagement with our partner institutions.

  - **International Partner Agreements & Student Recruiting Activity**
    Globalization of NAIST’s campus was furthered by partner agreement efforts (105 agreements in 29 countries/regions, as of April 2019) and the large increase in international students. (161 students in April 2014 → 267 in April 2019) In addition to Japan Study Abroad Fairs, recruiting efforts at partner institutions has led to the successful admission of talented international students.

  - **Further Formalization of Double Degree (DD) Programs**
    Two new DD programs were established with University of Paris–Saclay and Sorbonne University, expanding our overall partner programs. After executive review of current program results, exchange activity, etc., the Universite Paul Sabatier program was renewed and the University of Oulu program was ended. This review assures proper growth for the DD program structure and content.
7. FY2019 Progress

[ Nara Institute of Science and Technology ]

■ Common Indicators and Targets

Internationalization

- **Strategic student recruitment using NAIST Overseas Offices**
  NAIST held various activities centered around its overseas offices in Thailand and Indonesia, which were established as hubs for education and research collaboration in Asia. The NAIST Indonesia Office, in collaboration with the Indonesia NAIST Alumni Association (INAAN, an officially recognized non-profit group), had a booth at the Bogor Agricultural University Career & Study Abroad Fair, where roughly 200 interested guests visited to inquire about internships, scholarships, etc., to support NAIST’s recruiting efforts. In July and August 2019, the NAIST Thai Office Head used the office as a base for recruiting sessions and internship program organizing for NAIST’s international partner institutions (Kasetsart University and Chulalongkorn University), which led to an increase in internships and the acceptance of excellent students. Also, in addition to the JASSO Study in Japan Fairs (Indonesia, Thailand, Vietnam, China), NAIST expanded its efforts in students recruiting through its first participation in the Postgraduate Education Fair in Malaysia and through visits to Malaysian partner institutions. The results of these efforts are the 282 international students from 33 countries/regions at NAIST as of April 2020.

- **Strengthened globalization support system through positioning of UEAs**
  Based on the new UEA personnel system (for highly specialized staff to become permanent staff members in their 5th year of employment) established in 2018, one new UEA (global strategies) was employed in the Division for Global Education in January 2020 and, along with the 2 UEAs (global relations and international students and scholar support) employed in FY 2018, further developed the long-term international development outlook and enhanced the international students and scholars support at NAIST.

University reform

- **Overseas and on-campus Faculty Development (FD) Program**
  In September 2019 NAIST invited a University of California Davis lecturer for the seminar “Employing Student-Centered Teaching and Project-Based Learning in STEM”. The lecturer then evaluated Overseas FD Program participants’ lectures to broaden participants’ knowledge and skills in teaching. In November as part of the Overseas FD Program, NAIST sent 4 faculty to UC Davis and other North American institutions to investigate teaching methodology and practical methods to increase student motivation, and to experience research instruction methods and lab management firsthand in lab stays. A debriefing session was held upon returning to NAIST to share what the participants achieved through the program.

An FD training session and Global Leadership Development Class simulation were held in March 2020 with a lecturer from the Japan Institute of Advanced Science and Technology (JAIST) introducing active learning design and its effects. After the initial session there was a panel discussion where NAIST’s PBL activities and possible future developments in PBL and active learning were examined. On the following day, a simulation of the “Global Leadership Development Special Practicum”, which is held at JAIST, was held for NAIST students. This type of discussion-focused class was refreshing for both the Japanese and international students, with many students looking forward to the introduction of this type of class at NAIST in the future.

- **Improved English education in the single graduate school system**
  The TOEIC test, which is used to evaluate student’s English skills, was held numerous times to effectively measure and determine student English ability. The “Professional Communication Special Enhancement Program for Students” was implemented to improve English skills. Through this program’s TOEIC preparation classes 69 of the 113 program participants cleared their target score. Additionally, a new campus-wide overseas English Program was planned and a customized 4-week training program to match NAIST’s English education was held at the University of Hawaii at Mānoa.
University's own indicators and targets

- **Campus-wide career development support**
  Visits to research centers of companies actively pursuing global expansion and various job-hunting/career development sessions were held to expand students' career images to the global stage. For Japanese students, the “Cultivating Global Career Aspirations Seminar” aimed at developing students’ career vision focusing on activity on a global scale. Also, through collaboration with overseas industry, a new research internship was developed and a Japanese doctoral student was sent to a California (US) company for 2 months. For international students, a “Career Meeting with Alumni” where international students can talk with international student graduates was held as a new event. Through this event, international students were able to gain insight about working in Japanese industry and in turn increase their momentum towards seeking employment in Japan.

- **Featured initiatives based on university characteristics**
  - **Improvement of international students' Japanese ability**
    In order to develop Japanese-Language Proficiency Test N2/N1 level Japanese ability, which most Japanese companies look for when recruiting International students, the “Japanese-Language Proficiency Test Preparation Class” offered as part of career development support for international students in 2017-2018 was held as the official NAIST subject “Japanese V” from 2019. With the establishment of “Japanese I-IV” which covers material from N5 to N3, the system to offer a wide variety of Japanese language education was completed. In addition to these official classes, volunteer Japanese classes are also offered for international students and their families.

  - **Double degree program enhancement**
    The double degree program was expanded with 3 new partner institutions (Sorbonne University, Macquarie University, Chulalongkorn University) and the current program quality was reviewed, leading to agreements with 2 institutions (Unitech Institute of Technology, University of Malaya) being allowed to expire upon individual program evaluation. Also, NAIST is currently working in cooperation with Kasetsart University to establish a double degree program for master’s students.

  - **Measures to promote Japanese student long-term study abroad participation**
    The Long-term Study Abroad Support Program was established in December 2019 to financially support Japanese students’ long-term research-focused study abroad activities at overseas education and research institutions, starting with the double degree program mobility, and was reviewed for implementation from 2020. Posters and flyers were produced in order to promote program participation, being put up and distributed to all the laboratories.
8. FY2020 Progress

|| Common Indicators and Targets
<table>
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<tr>
<th>Internationalization</th>
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<tbody>
<tr>
<td>- Strategic student recruitment using NAIST Overseas Offices</td>
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<tr>
<td>NAIST is actively recruiting using its overseas offices established in Indonesia and Thailand as hubs for education and research collaboration in Asia to attract talented international students and increase our international presence. In 2020, these activities continued using all-online formats due to the COVID-19-related travel restrictions. Through collaboration with the Indonesian NAIST Alumni Association, an online NAIST study abroad fair was held for students from our 7 Indonesian partner institutions where 50 participants talked directly with our faculty and students. (Oct. 2020) NAIST also actively participated in PR events for student recruitment including JASSO Study in Japan Virtual Fair and Study in Japan Overseas Base Collaboration Promotion Projects Virtual Study in Japan Fairs for South America, Russia, Uzbekistan, Kazakhstan, etc. for the first time to recruit students from new countries and regions. In one year, these activities reached more than 20 countries/regions and NAIST institution and research introductions were given to over 700 people who visited NAIST’s online booths, etc., reaching out to a wider student audience. As of May 2021, there were 280 students from 33 different countries and regions and, even in spite of the COVID-19 pandemic, NAIST has maintained its diverse student population.</td>
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<tr>
<td>- Strengthened globalization support system through positioning of UEAs</td>
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<tr>
<td>Based on the new UEA personnel system (contract-to-permanent specialized staff employment) created in 2017, two UEAs were employed in the Division for Career Development and the career development support for Japanese and international students was improved and expanded.</td>
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<th>Education reform</th>
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<tr>
<td>- Online overseas faculty development training</td>
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<tr>
<td>Every year NAIST sends its faculty members to UC Davis, a partner institution, for overseas FD training in order to further improve their education, research and managerial skills using English. In 2020, it was not possible to have in-person training overseas, so the first-ever online FD training was held on Nov. 17-19, 2020. Five faculty members from the Division of Information Science, Division of Biological Science and Division of Materials Science participated in the training and, utilizing Zoom and Canvas, an e-learning study management system, the training was very interactive and opinions and information were actively exchanged. The participants learned about student-centered learning and project based learning, shared information concerning class management and student motivation during the pandemic, and gained insight into practical methodology.</td>
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<tr>
<td>- International FD Webinar</td>
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<tr>
<td>To improve faculty and staff’s international awareness, an online FD webinar series (2 times in total) was held in cooperation with UC Davis. In the 1st webinar, “Aftermath of COVID-19 and an outlook for international education in New Normal” (Oct. 2020), the issue of educators needing to rethink education’s function and mission as new online education and study formats are developing due to the pandemic was brought up. In the 2nd webinar, “UC Davis: Incorporating the SDGs in Teaching and Research” (March 2021), participants learned about the importance of UC Davis’s approach to SDGs as part of its mission to stress diversity, equality and inclusiveness for university internationalization. A faculty member introduced a plan to undertake a human resource endeavor for ‘sustainable society makers’ through education and research focusing on the theme of bioeconomy in the Digital Green Innovation Center (Est. Jan. 2021) at NAIST, and lecturers and participants both actively exchanged opinions concerning this.</td>
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<tr>
<td>- Continued education and research activities using ICT for ‘continual learning’ during the pandemic</td>
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<tr>
<td>Under the Guide for Limiting Activities at NAIST to Prevent the Spreading of the New Coronavirus Infection, the education and research environments for ‘continual learning’ was prepared and remote classes using the lecture archive began in April 2020. Also, to improve study environments, NAIST began offering archived classes with Japanese and English subtitles using AI technology to automatically add English subtitles to archived lectures. This initiative is a first in Japan. For student recruiting, the Open Campus was held twice (May 2020, Feb. 2021) using VR technology and entrance examination interviews were held online.</td>
</tr>
</tbody>
</table>
University’s own indicators and targets

Campus-wide career development support
To increase momentum of Japanese students going abroad, “Study Abroad and Global Career Seminar” was held with participants introducing their study abroad/international internship experiences along with overseas opportunities. (Dec. 2020) A speaker was invited from the US for an online science/technology career paths abroad presentation. Through this kind of seminar, the establishment of a full-time study abroad counseling service, and long-term overseas study abroad support program which began from 2020, interest in taking the challenge to go abroad is high. Support for Japanese students to have overseas internships starting from last year continued and 1 student participated in a remote internship (July–Sept. 2020) at Joint Genome Institute, an internship destination that was newly established in 2020. For international student career development support, 2 counselors offering English support were placed and had 340 consultations. Through an event introducing international graduates working in Japan and an event with companies interested in employing international students, students’ interest in working for Japanese companies has increased. Additionally, international students who started their own venture business were invited to speak at a startup seminar to offer various career path information for students.

Featured initiatives based on university characteristics

Strengthened graduate network
Every year Indonesian NAIST Alumni Association (INAA), a Indonesian government recognized nonprofit corporation and NAIST’s sole overseas alumni organization, holds alumni gatherings throughout Indonesia with NAIST faculty participating. Due to the pandemic, the 2020 gathering was held online for the first time with NAIST Indonesia Office’s cooperation. (Sept. 2020) Graduates working at NAIST’s 7 Indonesian partner institutions introduced education and research activities. Also, NAIST’s young researchers who collaborate with Indonesian researchers and current NAIST Indonesian students gave presentations. There were about 70 participants including INAA members, NAIST faculty, our alumni and current Indonesian students studying at NAIST who met online, catching up with old friends and colleagues and making new ties centered around their NAIST experiences.

Dissemination of attractive information to overseas students
For the Virtual Open Campus for Prospective Students, a ‘3D campus’ and ‘2D campus’ were created by NAIST faculty and English versions were made. Using this, NAIST was able to introduce laboratories to recruit students and prospective students could take virtual NAIST campus tours. Also, NAIST Guidebook was revised to introduce students’ life on campus and alumni career introduction to include attractive information for international students considering enrollment.

Additional description

Enhanced PR activities
The NAIST TGU homepage was renewed to improve access to NAIST TGU activities for NAIST and the public. Also, the Division for Global Education began issuing a newsletter to timely deliver updates and information concerning the globalization of education, international engagement, and globalization-related activities on campus.
9. FY 2021 Progress

- **Common Indicators and Targets**
  
  **Internationalization**
  - **Strategic student recruitment using NAIST Overseas Offices**
  NAIST is using its overseas offices established in Indonesia and Thailand as hubs for education/research collaboration in Asia to actively recruit international students. In 2021, these activities continued to be all-online due to COVID-19-related travel restrictions. The Online NAIST Study Abroad Fair 2021 was held focusing on students from our overseas partner institutions and, with our overseas offices, etc. cooperation, roughly 110 participants met with NAIST faculty and students (Oct. 2021). Also, the establishment of the Thai Virtual Office was decided to ensure the continuation of activities in difficult global conditions such as the COVID-19 pandemic and 6 Thai student assistants were appointed to support office activities from FY2022.

  - **Symposium held in collaboration with NAIST Overseas Office, etc.**
  A commemorative symposium for the NAIST Indonesia Office 6th anniversary was held with 150 attendees mainly from our 8 Indonesian partner institutions, including the IPB University President and many NAIST Indonesian alumni. In the symposium, NAIST faculty who furthered collaborative research with Indonesian and recruited Indonesian students participated and shared the results of their education/research collaborations over the years. (Aug. 2021)

  **University reform**
  - **Strengthened career support system through positioning of UEA**
  Based on the new UEA personnel system (contract-to-permanent specialized staff employment) created in 2017, a UEA was employed in the Division for Career Development support for international students and the career development support for Japanese and international students was improved and expanded.

  - **Division for Innovation Education established**
  The Division for Innovation Education was established with a Division director and a Specially-appointed Professor in April 2021 to plan and hold education programs focusing on “technician development”, “entrepreneur education”, and “innovation education”, and FD projects.

  - **Online overseas staff development (SD) training**
  Due to COVID-19-related travel restrictions the overseas SD training was held online for the first time ever to strengthen staff’s global understanding. Three staff members participated, investigating subjects they individually chose at Hawaii Tokai International College and Macquarie University, and shared the results of this training to contribute to the globalization of the administration.

  **Education reform**
  - **Center for Digital Green-innovation established**
  With aim of solving global-scale environment/food supply problems and creating a rich, sustainable society, the Center for Digital Green-innovation (CDG) was established under the principles of bioeconomy, fusing NAIST’s world-class research in plant biology and microbiology fields with digital technologies. (Jan. 2021) CDG will create next generation science and technology, and disseminate the achievements to society. In FY2021, CDG held the Social Implementation Workshop for Researchers series and SDGs x CDG Seminars to promote NAIST’s policies and efforts to contribute to innovation and SDGs on and off campus. Also, CDG prepared for the establishment of an education program to foster human resources to lead digital green science and technology and innovation.

  - **Online Overseas Faculty Development Training**
  The Overseas faculty Development Training is held to improve faculty member’s abilities to instruct, conduct research and administrate in English, and to improve the quality of education and classes. Once again, due to travel restrictions, this year’s Overseas Faculty Development Training was held online. Six faculty members learned about active learning, class planning methods and increasing student involvement through discussions.

  - **International FD Webinar**
  NAIST invited Dr. Kenneth C. Burtis (Faculty Advisor to the Chancellor and Provost, UC Davis) to give an online seminar titled “Lessons learned from my journey through UC Davis administration: advice for future academic leaders”, to encourage all NAIST members to participate in the planning/achievement of NAIST’s future. (Aug. 2021) In the first half, Dr. Burtis introduced leadership lessons he learned at UC Davis and followed this with an exchange/presentation of opinions concerning President’s Vision 2030. (See below)
University’s own indicators and targets

Campus-wide career development support
To increase momentum of Japanese students going abroad, the Study Abroad and Global Career Seminar was held with speakers introducing their study abroad/international internship experiences along with overseas opportunities. (April 2021) Through the regular holding of these events and study abroad consultations, students’ desire to study abroad hasn’t weakened and in FY2021 5 students were chosen for the long-term study abroad support program and 2 of them studied abroad. (Université Paris-Saclay & University of Bonn) Also, for international student career support, 2 experienced consultants were appointed and 362 English appointments were held. Discussions with NAIST graduates in Japanese companies, study groups with companies looking for international recruits and 1-day visiting programs were held as well. As a result, international student job placement was high (92% for master’s graduates and 100% for doctoral graduates) and the percentage for domestic job placement in industry and academia was 31.5%.

Featured initiatives based on university characteristics

Strengthened double degree programming
NAIST concluded its first Master’s double degree program with Kasetsart University based on active education & research exchange through internships etc. The structure for an organized international collaborative education was reviewed and preparation for the program to begin in FY2023 has continued. An online signing ceremony was held with the 2 presidents, JICA officials and the Thai Consul General attending. (July 2021)
For other continuing double degree programs, 3 students in FY2021 and 1 student in April 2022 entered the program. (Université Paul Sabatier: 1 student sent and 1 received, Université Paris-Saclay: 1 student sent and 1 received) As of April 2022, 9 students (5 sent and 4 received) are studying as double degree program students are studying in an international collaborative environment, receiving collaborative guidance.

Towards achieving a global campus
An employee housing building was renovated to create a share-type dormitory to promote interaction between Japanese and international students and opened in April 2021. Also, the NAIST International Student Ambassador Program was expanded from its original purpose of peer counseling for student support to include planning and holding events and participating in PR activities. In summer of 2021, 14 students were appointed Ambassadors after completing training. Ambassadors have been active both on and off campus, giving advice about presenting in English to local high school students, participating in online recruiting fairs, giving pre-departure orientations, etc.

Measures for increased collaboration with overseas partner institutions
Due to the COVID-19 pandemic, visits to overseas partner institutions have not been possible for some time. With this in mind, online presidential visits to institutions with which NAIST has active education and research exchange (University of Indonesia, Gadjah Mada University, IPB University, Ateneo de Manila University, University of the Philippines Diliman) to introduce the new executive administration. In these visits, discussions concerning future collaborations were held with partnership administrators, including introductions of NAIST current education and research.

Additional description

President’s Vision 2030
President’s Vision 2030 was released in 2021 as NAIST celebrated its 30th anniversary, to create a new graduate school format under the idea of “Co-creation” as we head towards 2030, which described the strategic effort and measures that should be prioritized to achieve this. President’s Vision 2030 contains 4 visions for the direction of NAIST in 2030, with 16 mid- long-term goals to achieve these visions and 16 strategies for planning and achieving the visions and goals.