

Top Global University Project (Type A) : Outline of Nagoya University's Approach

1. Concept Outline

【Concept Name】

Asian Hub University contributing to a sustainable society in the 21st century

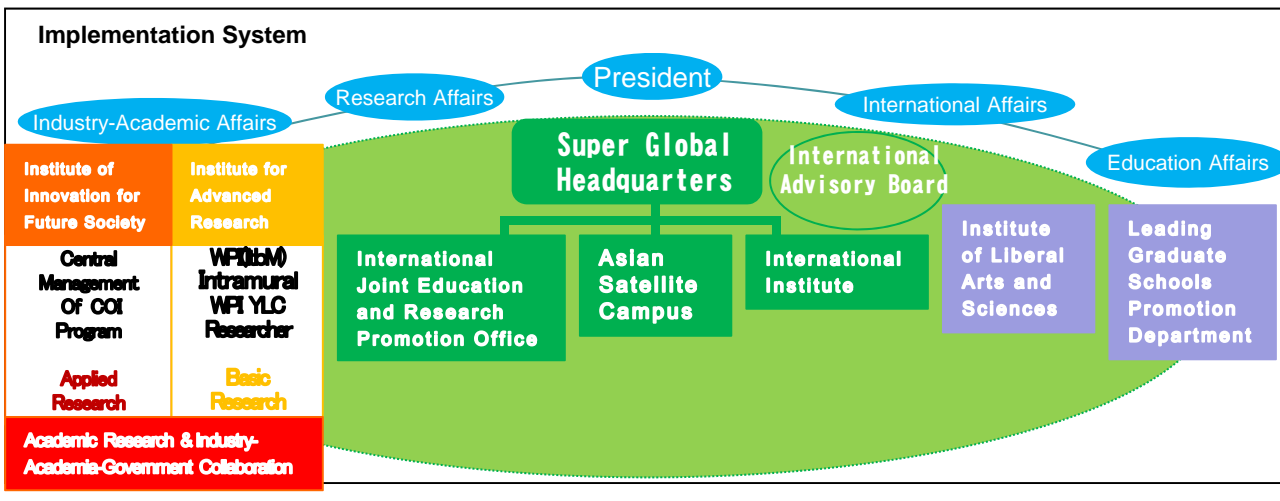
【Future Vision of Nagoya University through the TGU Project】

Nagoya university defines the Academic Charter with the fundamental principles of "Contributing to the well-being and happiness of humankind through research and education in all aspects of human beings, society, and nature under a free and vibrant academic culture". Our university plans on becoming the "Hub University of Asia" by setting the research objective of "Supporting World-Class Advanced Research" and educational objective of "Becoming an Attractive Global Nagoya University", and implementing those goals throughout Asia. We will play a role as the hub university of Asia which creates a sustainable society by realizing these aims, and consequently become an undisputed "Top Global University" with the spirit and capability to contribute to human society in the 21th century.

【 Concept Outline 】

Nagoya university promotes the following four strategies to implement various approaches on a global scale in a multi-layered and multi-polar fashion and develop into a Top Global University that leads the world within the next 10 to 20 years.

- (1) Supporting World-Class Research (2) Developing Joint Degree Programs with Top Universities
 (3) Cultivating Global-Minded Leader (4) Expanding Academic Network in Asia



【10 years Plan Summary】

In creating this plan, we established the research objective of “Supporting World-Class Research”, the educational objective of becoming an “Attractive Global Nagoya University”, and by implementing these throughout Asia, the objective of becoming an Asian Hub-University.

Strategy 1 : Supporting World-Class Research

In addition to the TGU project, the Ministry of Education has selected Nagoya University for other large-scale research projects such as WPI and COI. Inspired by our six Nobel Prize laureates, faculty are contributing to the development of an innovation hub and one of Japan’s top research institutions. Despite high quality research output however, Nagoya University performs less well than might be expected in many of the world university rankings. Hereafter, we will engage in activities that will allow us to utilize our maximum potential and increase our world ranking.

Strategy 2 : Developing Joint Degree Programs with Top Universities

To join the upper rankings of the Top 100 universities in the world by 2020, Nagoya University seeks to first, increase our faculty members’ peer-reviewed publications with international co-authors and second, to raise the percentage of international faculty on our campus. To make it easier for our researchers to collaborate with those in foreign nations we are establishing an “International Joint Education and Research Unit for the Establishment of Joint Degree Programs”.

Strategy 3-1 : Cultivating Global-Minded Leaders “Educational Reinvention”

In addition to increasing the number of international students and courses taught in English, the goal of Nagoya University is to also improve the learning environment. We aim to be a university where the quality of teaching is recognized to the extent that it can attract excellent students from all around the world.

- Improving our educational system so that it is consistent with current international best practices
- Improving educational quality

Strategy 3-2 : Cultivating Global-Minded Leaders “Global Interaction”

To foster a new generation of students with a global mindset, Nagoya University is establishing a new “International Institute” to collaborate more deeply with partner universities, increase student mobility, and develop new international educational programs. We provide a step-by-step process to encourage our students to study abroad. To increase our international students to 3000 by 2020, we are focused on increasing the availability of discipline-specific English-taught courses.

Strategy4 : Expanding Academic Network in Asia

Nagoya University has always been at the forefront of cultivating Human Resources from various Asian countries in areas such as Law, Medicine, and International Development, and is held in high regard both at home and abroad. It forms part of Nagoya University’s Human and Intellectual Networks, and we have established 14 alumni associations overseas and are working to strengthen our networks. Through such efforts to expand our engagement in education and research within an environment of diversity, we aim to become a Hub University that grows together with a Developing Asia. The Asian Satellite Campus Institute has commenced the “Education Program for the Development of Core National Human Resources of Asian Nations” and is currently implementing high quality Ph.D. programs on both the main campus and the Asian Satellite Campuses. Our next objective is to establish Satellite Campuses in 8 countries (Current: Cambodia, Mongolia, Vietnam; Planned: Indonesia, Laos, Uzbekistan, Myanmar etc.) by 2016, and cultivate 50 or more Core National Human Resources across 5 areas (Law, Medicine, Bio-Agriculture, International Development, Environmental Studies) within 10 years.

【Characteristic Activities (Internationalization, Governance Reinvention, Education Reinvention etc.)】

We are streamlining the internal decision-making process to make it easier for the President’s leadership to be effective. Specifically, the President, Administrative Executives, and Deans will be meeting more often, and interdepartmental sharing of information and awareness of issues. The Internet will be utilized as well for the exchange of suggestions (JAM Sessions). Collection of external data, analysis of the university’s strengths, and monitoring of the Strategy Planning Procedures (Departmental Participation) and their effects will also be carried out. Suggestions and opinions from an international perspective as provided by the International Advisory Board and other international advisors will be included.

【Measures to promote collaboration with overseas universities】

Due to the internationalization of university education, world-famous universities promote collaboration in research and education with overseas universities. We have already been engaging in various ways in response to the internationalization of research and education, but there is a need for renewed efforts from graduate departments. In February 2014, the Graduate School of Medicine signed a Joint Degree Program with the University of Adelaide in Australia. We hope to use this as a model to expand our partnerships with approximately 20 other research universities with which we have a history of exchange including the University of Freiburg (Germany), University of Muenster (Germany), Strasbourg University (France), Johns Hopkins University (US), University of Michigan (US), University of Edinburgh (UK), and Kasetsart University (Thailand). To effectively implement these objectives, we have established an international joint research program center, to promote international joint degrees and research projects.

2. Progress of our activities (Year 2014)

■ Common Performance Indicators and Objectives

Internationalization

1. The Asian Satellite Campus Institute's "Education Program for the Development of Core National Human Resources" Inauguration

We established satellite campuses and started accepting students in Mongolia, Cambodia, and Vietnam. Local residents were actively employed as designated lecturers and administrative staff. Environmental preparations were made as necessary with the cooperation of local partner universities, such as the construction of educational and research facilities. Our institute enables students to study as NU students without needing to be away from their workplace in their home countries, providing easy access to our programs and thus contributing to the internationalization (diversification) of NU.



<Campus opening ceremony in Cambodia>

2. Joint Degree Activities

The International Joint Education and Research Program Promotion Office was founded to establish International Joint Education and Research Unit in Western and Asian major universities. Throughout this we aim to foster human resources who can work around the world, and help the level of our research and education be recognized by the world best educators and researchers. In March 2014, The graduate school of Medicine signed a memorandum of understanding including the conferral of Medical Doctor degrees, in joint programs with the University of Adelaide and University of Freiburg, and have since been discussing specifics for the implementation of International Research Strategies and Joint Education Programs. In March 2015, we submitted an application for the establishment of a Joint Degree Program with the University of Adelaide, and is the first Japanese university.

3. Increase of English-taught courses

We are now in the process of increasing English-taught courses, responding to increasing overseas undergraduate students. There were 850 courses in 2013, and now there are over 1,000 courses that are English-taught. The G30 English education program accepted 200 undergraduate students overseas in 2014. Additionally, as part of overseas students recruitment, we performed trial lectures in China, Indonesia, and Thailand, to demonstrate the quality of our lectures. As for support of Japanese students, we created IELTS and ILETS-IBT intensive courses for students who want to study abroad, and are currently preparing infrastructure that will allow them to enroll in English-taught courses together with international students, which is expected to contribute to the internationalization of students.

Governance reinvention

1. Open symposium for our faculty members

We held a symposium in May 13, 2015 for all faculty members to share information and better understand our strategies and goals for becoming a leading university in the world. Each member in charge fully explained each strategy and action plan (strategies to implement in 2015-2017), and over 550 members attended the symposium. We also invited 4 members from the International Advisory Board (IAB), including foreign teachers, and had a panel discussion about our strategies and their problems with the president and department directors. The symposium was successful to the point that it was necessary to extend the time due to the large number of questions.



<President and directors listening to IAB>

2. Preparation for project operation

To actively promote this project, we established the TGU project head office, and prepared the various committees and organizations required for the implementation of the project. 4 individuals with many years of experience in the operations of foreign/domestic universities or international institutes were selected as members of the International Advisory Board (IAB) to establish a system that includes international perspective. Also, we created and presented the Action Plan I (2015-2017) to clarify its objectives to the project members.

Education reinvention

1. Activities to enhance international applicability of our education system

- We introduced a quota system-based flexible school term to make it easier for our students to study abroad. We established a educational reform WG, the system of which will be designed within 2015, and will be prepared for implementation by 2016.
- Along with systemizing and structuring curriculums, we will implement a course numbering system which makes it easier for our student to transfer credits from foreign universities, and create a visualization of where each individual course stands in relation to all curriculums.
- We are preparing a guideline for creating syllabus in English, so that graduate courses may provide syllabus in both Japanese and English.

2. Activities to enhance international applicability of our educational content

- We are implementing various policies for the international standardization of liberal arts education, increasing graduate school general education courses, enhancing English-standardization of graduate courses, and promoting students' independent study. From 2015, we have begun offering a training camp-style active learning course on the subject of "Academic Writing and Research Ethics".
- To enhance academic writing education, we will be hiring two native English speaking teachers for the academic writing education department in the liberal arts institute (to be employed in October 2015).
- We extended the university library's night and holiday opening hours to promote students' independent study.

■ Common Performance Indicators and Objectives of Nagoya University

1 Number of Joint Degree Units

Beginning with the establishment of an international joint education and research unit by the Graduate School of Medicine in collaboration with the University of Adelaide and the University of Freiburg, we are pursuing collaboration with Top Universities across all graduate departments, and are aiming to have established 5 units by 2017.

2 Utilization of Study Abroad Savings Accounts

Savings Account system, in which students interested in studying abroad save 10 thousand yen a month, was established in 2015. In case the deposit is not enough for studying abroad, he/she can borrow the necessary amount from the university's loan system without interest. Over 200 people attended the orientation held for parents and guardians in May 2015. This system began in 2015 and we estimate that about 400 students will have utilized this system by 2017.



<Orientation on Savings Accounts system for studying abroad>

3 Number of Students Studying Abroad through NU Overseas Take-off Initiative(NU-OTI)

To encourage students to study abroad, Nagoya University is pursuing the expansion of short term exchange programs with well-defined curriculums. In February of 2015, with the help of our regional office in Bangkok, Thailand, internships with local Japanese companies were implemented on a trial basis. As a result, we were able to offer several new programs in 2014, and increased the number of dispatched students by 25% (from 123 to 155). And, as of June 2015, with the improvement of the Summer exchange program, we are expecting to dispatch 70% more students compared to last year (59 to 98).

■ Approaches Enhance Nagoya University's Reputation in the World

1 UBIAS – Intercontinental Academia

UBIAS (University-Based Institutes for Advanced Studies) is an organization that aims to promote a network between national institutes of advanced studies of universities around the world and stimulate international research exchange. Currently, Nagoya University is playing a central role in the planning and operations of the "Intercontinental Academia" project which seeks to nurture leaders of the next generation in collaboration with the University of São Paulo Institute of Advanced Studies. A workshop was held at the University of São Paulo in April 2015 and the next workshop is planned at Nagoya University in March 2016. Nagoya University and the University of São Paulo have discussed, during 2014, the contents and management of the program, and how to recruit applicants over the internet.



<Discussion on Intercontinental Academia at NU>

2 Nagoya University Selected among 10 Universities under HeForShe Campaign's "IMPACT 10X10X10" Program

Nagoya University has been selected as one of 10 World Universities under the HeForShe campaign's "IMPACT 10X10X10" program of UN Women (the United Nations entity engaged in gender equality and women's empowerment). This program is a part of the HeForShe campaign which calls on men for their cooperation and involvement for women's empowerment and 10 leaders (institutions) each have been selected from the governments, corporations and universities. We were evaluated highly for our gender equality activities, especially for the educational program for women leaders' development, support for female students and researchers and preparation of the facilities inside and outside of the university. Presidents of other universities selected include those of the University of Hong Kong, the University of Leicester in the UK, and the University of Waterloo in Canada.

【Partnership Achievements with Foreign Universities】

In November 2015, Nagoya University dispatched representatives to the University of Freiburg in Germany, one of our partner universities, to discuss a comprehensive education and research exchange. Representatives include then Nagoya University President Hamaguchi, Trustee Kunieda and representatives from the schools of law, economics, linguistics, science and the School for Advanced Study. They mainly discussed concrete details for a cooperative system for education and research collaborations as well as the expansion of the partnership between the universities. Joint degree programs and UBIAS Intercontinental Academia mentioned above were also discussed at the time and a comprehensive cooperation system was established.

In January 2015, Nagoya University Day was held at Chulalongkorn University in Thailand. We provided some events such as a trial lesson for senior high school students and discussions by two Nobel Prize Winners and then President of Nagoya University for a potential partnership with local high schools as well as with the university.

Regarding Programs for Leading Graduate Schools (PhD Professional: Gateway to Success), Nagoya University and the University of Edinburgh in England collaborated to hold a symposium on Transferable Skills Training at the University of Edinburgh in September 2014 and at Nagoya University in February 2015.

■ Other

Efforts for World-Class Research

Nagoya University has strived to promote an energy saving society since Distinguished Professor Akasaki and Distinguished Professor Amano were awarded a Nobel Prize in 2014. We have also taken the initiative to work towards the establishment of the GaN (Gallium Nitride) Consortium within 2015, in which public and private sectors jointly conduct research for the GaN crystal growth, GaN-based device development, and the organization of a research system. This effort attracts a great deal of interest and 40 organizations, including over 20 companies, participated in the discussion meeting for the GaN Consortium establishment.



<Distinguished Professor Akasaki (right) and Distinguished Professor Amano (left)>

3. FY2015 Progress

■ Common Indicators and Targets

Internationalization

1. Asian Satellite Campus

Asian Satellite Campuses were newly established in Uzbekistan, the Philippines, and Laos. Together with the 3 that were established last year, a total of 6 different countries are host to our Satellite Campuses. Beginning with the Graduate School of Environmental Studies in 2015, a total of 5 graduate schools currently provide the “Education Program for the Development of Core National Human Resources of Asian Nations” with access to their doctoral degree programs. Expanding the number of campuses and graduate schools involved has allowed us to provide more programs for more fields, to more countries.

2. Joint Degree Activities

Our university’s Graduate School of Medicine launched an International Joint Degree Program with the University of Adelaide, Australia, as the first Japanese university to do so with official recognition from MEXT in October of last year. And in commemoration of this achievement, we invited faculty responsible for international agreements from the University of Adelaide and other universities to participate in a Commemorative Symposium on October 16, 2015, where we discussed our future plans for joint degrees. We will continue to actively pursue, establish, and develop partnerships with Top Universities from overseas with whom we have a history of exchange (University of Freiburg, University of Strasbourg, University of Edinburgh, Kasetsart University, North Carolina State University, etc.)

3. Increase of English-taught Courses

To provide international students with more access to our renowned academic programs, we have opened courses taught entirely in English across the Humanities and Sciences such as Mathematics, Chemistry, Physics, Biology, Automotive Engineering, Economics, Law, Literature, and Japan-in-Asia Cultural Studies. Since 2015, we have also increased the number of classes taught in English from 820 to over 1700 (Initial goal: 1000). Japanese students enrolled in these courses are provided with an environment in which to improve their English. Also provided are Intensive Courses and classes for IELTS and TOEFL-IBT to improve their English in anticipation of studying abroad.

University reform

Preparation for Project Operation

- This year, the “TGU Head Office”, established for reliable operation of the project, formed Accounting and Planning subcommittees to provide support for the project’s various activities.
- The “International Joint Education and Research Promotion Office” was established to provide support for international joint academic activities. We created a framework of policies and infrastructure in which schools and graduate schools other than the Graduate School of Medicine could implement International Joint Degree Programs.
- We published and handed out a leaflet titled “Action Plan 1 (2015-2017)” to related personnel in order to clarify our objectives.
- A symposium was held on May 13, 2015, for faculty and staff, to explain the purpose of the project as well as the efforts being made. The symposium was a success with over 550 participants in attendance, and questions continued well after the time the symposium was set to finish.

Education reform

1. Activities to enhance international applicability of our education system

- The Educational Reform Work Group drafted a timeline for Undergraduate programs that would allow for the use of quarter-term courses, prospectively from 2017.
- A Course Numbering system was implemented for most academic departments
- Templates of English syllabuses were created to implement Japanese-English bilingual syllabuses for most academic departments.
- The decision was made to establish the “Educational Foundation Coordination Headquarters” for educational quality assurance as well as the integrated reform, based on the 3 educational policies, of the admissions process.

2. Activities to enhance international applicability of our educational content

- The Educational Reform Work Group examined the international standardization of our grade evaluation system, including the revision of the symbols used to show the evaluation results.
- The “Academic Writing” course, a common course for all graduate schools, was reformulated to the new and improved “Research Skills” course which addresses thinking skills, writing skills, speaking skills, and research ethics.
- To stimulate autonomic learning by the students, the open hours of the affiliated libraries in the late hours and on the weekends has been extended, in continuance from last year. The number of students using the library over the weekends has increased by 50% (From 100,000 to over 150,000), and survey results show that students consider this measure an important factor in improving their educational environment.



〈 Opening ceremony of Asian Satellite Campuses in Laos 〉



〈 A Commemorative Symposium on October, 2015 〉

■ University's own indicators and targets

1. Number of Joint Degree Units

Beginning with the establishment of an international joint education and research unit by the Graduate School of Medicine in collaboration with the University of Adelaide and the University of Freiburg, we are pursuing collaborations with Top Universities across all graduate departments, and are aiming to have established 20 units by 2023.

2. Utilization of Study Abroad Savings Accounts

Savings Account system, in which students interested in studying abroad save 10 thousand yen a month, was established in 2015. In case the deposit is not enough for studying abroad, he/she can borrow the necessary amount from the university's loan system without interest. Over 200 people attended the orientation held for parents and guardians in May 2015. This system began in 2015 and we estimate that about 400 students will have utilized it by 2017.

3. NU Overseas Take-off Initiative(NU-OTI)

In 2015, programs consisting of coursework both inside Japan and overseas were opened as Liberal Arts and Sciences courses (4 Liberal Education Courses in Interdisciplinary Fields, 3 Literary and Cultural Studies). To take the 4 Liberal Education Courses in Interdisciplinary Fields for example, they were designed to each consist of clear and unique content and implemented with the expansion of the program (USA, Uzbekistan, Thailand, UK). Participants were able to achieve objectives such as experiencing the global expansion of the place of learning (USA) and acquiring the fundamental attitude towards future academic research (Uzbekistan, Thailand, UK). These achievements have been shared both internally and publicly through publications or oral presentations, etc. 101 students participated in NU-OTI courses in 2015, and the total number of students dispatched from Nagoya University this year reached 1,013 (Last year, 605).



〈 Overseas study tour in Uzbekistan 〉

■ Initiatives for the enhancement of international reputation/ Featured initiatives based on the characteristics of the university

1 Academic Consortium; AC21

An Academic Consortium(AC21) with our university serving a central role was formed in June 2002 amongst 24 world leading universities and research institutions at an international forum attended by their representatives with the objective of establishing an academic network. The list of members include North Carolina State University(USA), the University of Adelaide(Australia), or the University of Strasbourg (France), just to name a few. The principle theme of the inaugural forum, "The Role of Universities in the 21st Century", continues to guide AC21's activities to this day. Last year's activities include hosting the Student World Forum in Strasbourg (France) and Freiburg (Germany). The forum's theme was "The European Experience in Local and Regional Democracy", and 38 students from 18 member universities participated in group discussions etc., which student surveys showed to have provided the participants with a great opportunity to enhance their awareness of cooperation and coexistence that transcends national boundaries.

2 RENKEI(Research and Education Network for Knowledge Economy Initiatives)

RENKEI was established in March 2012 as a consortium between 12 Japanese and UK universities (6 Japan, 6 UK). Its objective is to promote collaboration between universities or with private sector industries in areas of education and research, and has created workgroups to engage in various activities. In 2014, Nagoya University collaborated with the University of Bristol and the University of Southampton to hold the "2014 RENKEI Japan-UK Joint Workshop on Aerospace Engineering", in which 20 Japanese and UK students and young researchers participated in a week-long workshop. We also dispatched students to each of the workshops held by the University of Southampton, University College London, and Osaka University.

【 Results for the promotion of collaboration with foreign universities (Type A only) 】

Our faculty are conducting "Visiting Lectures", focusing mostly on partner universities in developing countries, with the aim of encouraging research and education collaborations as well as acquiring talented graduate students. We are especially active in China where, with the assistance of our Shanghai Office, the Visiting Lectures are conducted under the name "Nagoya University Lecture Series". In 2015 alone, over 500 participants attended Visiting Lectures in Zhejiang University, Nanjing University, Jilin University, Northeastern University, and Huazhong University of Science and Technology. As a result, numerous applications to enter our graduate schools in 2016 were submitted by students from the schools that were visited. We also conducted the Visiting Lectures in Vietnam and Thailand, and we look forward to applications from talented students from those countries as well.

■ Free description

Efforts towards World-Leading Research

Nagoya University was selected to be included in MEXT's 2016 Project "Research and Development of Advanced Semiconductors that Contribute to Establishing an Energy-Efficient Society" for our efforts in utilizing the GaN Research Consortium which was established in October 2015 with involvement from all around Japan. Henceforth, Prof. Hiroshi Amano of the Institute of Materials and Systems for Sustainability will become our research representative and work to accelerate the research through Academia-Industry-Government collaborations towards the early applications of advanced materials such as GaN, etc., with Nagoya University as the center of such efforts.



〈 Public symposium 〉