

# Top Global University Project (Type A) Tohoku University

## 1. Outline

### Title

Tohoku University Global Initiative

### Future Accomplishments to be Achieved through the TGU Initiative

We will create a "fellowship of knowledge," with Tohoku University as the hub, that will enable us to truly "leap ahead as a world-class university" and conduct research that will lead the global age. In addition, we will foster advanced global human resources, create science/technology related to innovation, contribute to solving world-scale problems and sustainable development, and strive to earn a place among the world's top 30 universities.

### Outline of Plan

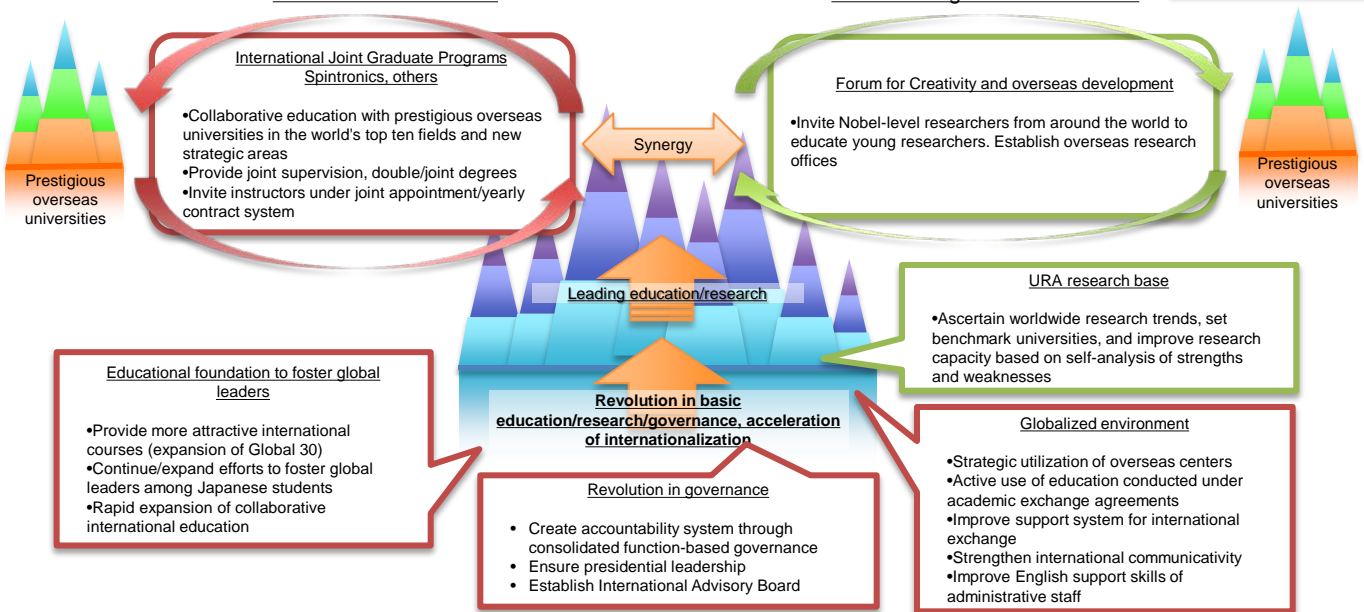
This plan will create a venue for talented Japanese and international students to "gather, learn, and create," and accelerate the building of an "educational foundation for fostering global leaders" that will not only impart our university's tradition of learning in advanced specialized abilities, but also allow young people living in this global era to acquire competency in next-generation literacy and a global mindset. Building on this foundation, Tohoku University will, in close cooperation with prestigious overseas universities, concentrate its education and research abilities on fields in which it excels and those which it wishes to focus on expanding in the future, thus creating a group of seven "International Joint Graduate Programs." Through these programs, we will foster individuals who possess the world's highest level of research skills, a broad perspective, global awareness, and experience, so that they can create new knowledge, produce innovations, and face global problems. Moreover, through initiatives to strengthen our research capacity, such as the "Forum for Creativity," and fostering organic connections, Tohoku University will become the hub of a leading education and research cluster that will form an "international fellowship of knowledge."

In order to implement our plans, we are working to further improve our globalized environment. A function-based structure, in which university resources will be consolidated and optimized by function, is being created as one measure to enable the president's ideas to be quickly implemented.

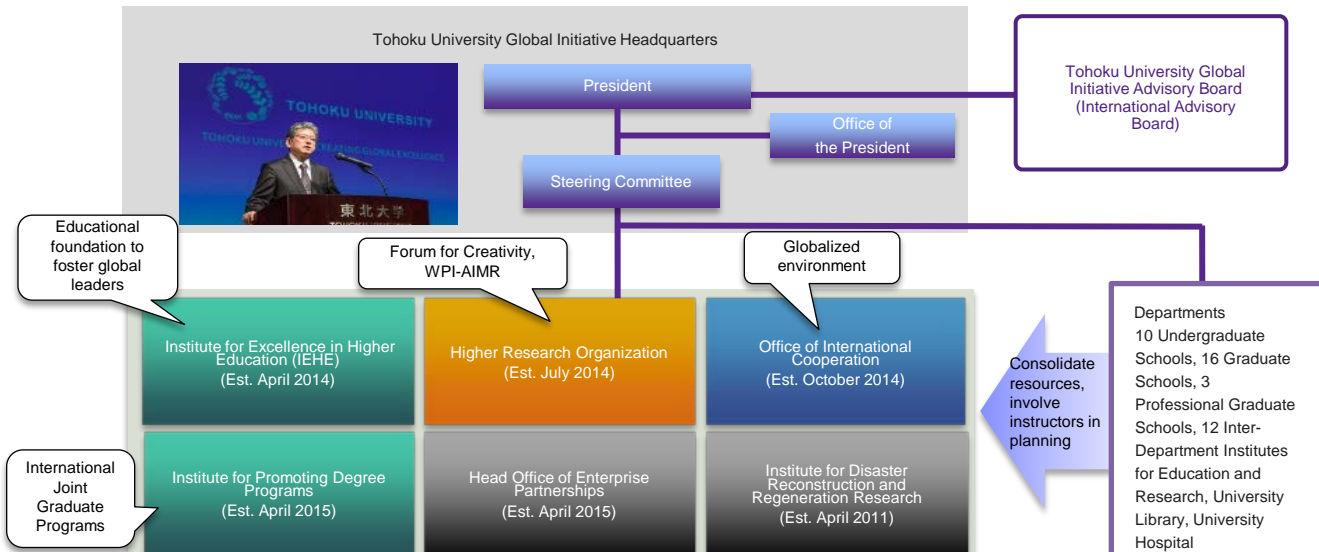
\*Programs outlined in green implemented under the Research University Enhancement Project

#### Revolution in Education

#### Consolidating Research Abilities



#### Tohoku University Global Initiative Headquarters



## Outline of 10-year Plan

### -Management system

The Tohoku University Global Initiative Promotion Headquarters were established in FY 2014. A management system was then organized. In FY 2015, the Tohoku University Global Initiative Advisory Board (International Advisory Board) was created. In FY 2016, 2019, and 2023 external evaluations will be conducted.

### -Revolution in governance

In addition to the IEHE, six organizations were established, including the Office of International Cooperation (est. October 2014) and Institute for Promoting Graduate Degree Programs (est. April 2014) to consolidate university resources for functional governance. Enhancement of IR functions will be promoted.

### -International Joint Graduate Program

We established the Graduate Program in Spintronics (GP-Spin) as the first of International Joint Graduate Programs in April 2015. Seven more International Joint Graduate Programs in various fields, including Data Science, will be established by FY 2019.

### -Educational foundation that fosters global leaders

We will increase the number of international students through efforts such as expanding the Future Global Leadership (FGL) undergraduate/graduate courses (established under Global 30 to attract excellent students from abroad). Additionally, we will continue to operate the Tohoku University Global Leader Program (TGL) to develop educational programs that provide students with overseas study combined with an essential education in global leadership. We will also drastically expand educational cooperation with overseas universities and collaborative international education programs such as graduate-level double degree/joint degree courses.

### -Globalized environment

International offices, academic exchange agreements, and consortia will be strategically strengthened to improve the international mobility of instructors/students and enhance international cooperation in education/research. Under the Office of International Cooperation (est. October 2014), we will strive to plan/implement international cooperative strategies, increase our international presence, and improve our ranking. We will further improve our globalized environment by working to enhance our international PR capacity (establishment of international PR center), improve our system for admitting students from abroad (establishment of international support office), and raise the administrative staff's English abilities.

## Unique Initiatives (internationalization, revolution in governance and education, etc.)

### Creation International Joint Graduate Programs

- Leverage Tohoku University's strengths to select fields that will potentially drive the world economy and contribute to human development
- Transcend the framework of traditional education to consolidate Tohoku University's knowledge base; implement collaborative education by deepening ties with prestigious universities overseas

Ideas &  
Roles

- 1) Match present needs and cultivate highly capable human resources across the world.
- 2) Create cutting-edge education programs that increase our research abilities.
- 3) Create an intellectual foundation for the future, support international competition, and create innovation to aid in the creation of a sustainable global society.

Break  
down

- Interdepartmental graduate programs
- Jointly supervised instruction between Tohoku University and overseas institutions
- Shift towards joint supervision/double degrees/joint degrees
- Plan to have a minimum of 7 programs within 5 years



## Promotion of Cooperation with Universities Overseas

-Create global network leveraging international offices, academic exchange agreements, and consortia

We will promote cooperation with top universities overseas through our university-level agreements with 197 institutions and departmental-level agreements with 383 institutions (as of June 2015), and the 5-university APRU consortium. We will create a global network by developing overseas bases (North America, Asia, Europe) that have research and education functions. These will be the basis for expanding collaborative international education.

-Creation of an international knowledge fellowship

We will create an international knowledge fellowship in cooperation with prestigious overseas academic/research schools through enhanced, synergistic, research programs such as the Collaborative International Graduate Program and Forum for Creativity.

## 2. FY2014 Progress

### Common Benchmarks and Milestones

#### International Relations

##### -Establishment of Office of International Cooperation and creating a globalized environment

The Office of International Cooperation was established in October 2014 to uniformly enhance international cooperation in education/research and promote our university's global strategy, thus improving its international presence. The International PR Center's functions were upgraded, enabling the creation of a homepage with a high level of international communicativity and promotional materials such as English promotional videos. In October 2014, the International Support Office was established to provide information to international researchers/students and a unified visa services system.

##### -Continuation of the FGL Program

We will continue the Future Global Leadership (FGL) courses (undergraduate/graduate), which offer degree courses taught in English for excellent international students.

##### -Enhancement of short-term study abroad programs (SAP etc.)

As a pillar of our effort to provide global education to Japanese students, we are focusing on developing and implementing university-wide short-term overseas programs such as the Study Abroad Program (SAP) as well as other short-term programs that leverage departmental strengths. Over 400 undergraduate students participated in FY 2014. Moreover, the Pre-enrollment Overseas High School Bridging Training Program, first implemented last year, proved popular and was implemented again in March 2015.



(Study Abroad Program)

##### -Support for practical English learning

To increase the Japanese students' practical English abilities, improvements were made to curricular/extracurricular English classes, and in FY 2015 the Tohoku University English Academy (TEA) was established to provide various kinds of extracurricular English learning support.

### Revolution in Governance

##### -Institutionalization of consolidated-function governance

In addition to the IEHE, the Higher Research Organization (July 2014), Office of International Cooperation (October 2014), and Institute for Promoting Degree Programs (April 2015) were established along with 2 other institutes. This consolidated university resources by function, establishing a governance system that quickly reacts to the President's ideas.

##### -Advancement of administrative staff

As a means of improving the administrative staff's English skills, all staff will be required to take the TOEIC within 3 years. Over 200 administrative and technical staff took the group test implemented in December 2014. External lecturers were invited to conduct English Learning Seminars to motivate the staff. 130 people participated.

##### -Enhancement of IR functions

Our education and research are becoming more visible due to, respectively, the IEHE's Center for Institutional Research and the URA center's IR functions. Deliberations on consolidating IR functions have also begun.

### Revolution in Education

##### -Revolution in liberal arts education by the IEHE

Under the Institute for Excellence in Higher Education (which was established as part of the strategic restructuring of the liberal education/student support systems in April 2014) a unified system was created for conducting surveys, research, development, and implementation related to educational practices with a view towards fostering global leaders, and education/learning management improvements were planned. A unique organization was founded with planning participation by the Global Learning Center, which handles international educational exchange.

##### -Commencement of International Joint Graduate Program

We began to prepare for the start of the Graduate Program in Spintronics (GP-Spin), the first of the International Joint Graduate Programs, in early FY 2014. After preparing a common curriculum and negotiating with the overseas partner universities, it was commenced in April 2015. We are beginning preparations for other programs as well.

##### -Adoption of new global-facing entrance examination

We resolved to adopt the International Baccalaureate exam and a global entrance exam for educational programs conducted in English for Japanese students. These will be implemented in FY 2017. Furthermore, external exams, such as the TOEFL, will be actively incorporated into an expanded AO exam.



(GP-Spin framework)

## University-specific Benchmarks and Milestones

### -Expansion of Collaborative International Education

Efforts were increased in international educational cooperation, such as double and joint degree programs. Admittance of double degree students by overseas partner schools has accelerated, with the number increasing to 47 in FY 2015. In order to increase the number of outgoing students, Tohoku University began offering a scholarship for students in international educational cooperation and International Joint Graduate Programs from FY 2015.

### -Tohoku University Global Leader Program (TGL Program)

Based on our foundation of highly specialized competencies, we implemented the Tohoku University Global Leader (TGL) Program, which organically incorporates sub-programs composed of classes, lectures and seminars that cultivate language/communication skills, international liberal arts abilities, and initiative, together with overseas study sub-programs. We held many classes including coeducational international seminars, classes focused on problem solving, and global career seminars. About 2,000 students, mainly 1st and 2nd year undergraduate students, registered for the TGL program. Students who fulfill the program's requirements are awarded Global Leader Certification.



(TGL Program)

## Initiatives to Improve International Rankings

### -MOU on Jointly Supervised PhD Program concluded with Mainz

An MOU on a jointly supervised PhD program was concluded with Johannes Gutenberg University Mainz (Mainz) in February 2015 as part of our promotion for the Graduate Program in Spintronics. Similar MOUs will be made in other fields hereafter.



(Signing of MOU on jointly supervised PhD program)

### -Tohoku University Day at University of Cambridge

Tohoku University Day was held at the University of Cambridge, England, in December 2014. Information on both universities was given, and we signed a joint declaration on future student/researcher exchange. There were also workshops in the fields of global safety and material science.

### -4th German-Japanese Universities Alliance (HeKKSaGOn) conference at Tohoku University

The German-Japanese Universities Alliance (HeKKSaGOn) conference was held at Tohoku University in April 2015. An overarching conference on the theme of Building Venues for the Creation of new Knowledge was held, in addition to parallel workshops composed of 8 other fields.

## Achievements in Cooperation with Universities Overseas

### -Activities with inter-university consortia:

We are independently participating in consortia with prestigious overseas universities. We attended the annual meetings of The Association of East Asian Research Universities (November 2014), Top Industrial Managers for Europe (November), and the Japan-UK Research and Education Network for Knowledge Economy Initiatives (December). We also attended the March meeting of the Japan-Russia Forum of Rectors as the Japanese representative. In addition to organizing the German-Japanese Universities Alliance (HeKKSaGOn) meeting in April 2015, we participated in the Alliance Internationale led by the University of Lyon in June.

### -Enhanced cooperation with overseas partner schools:

Tohoku University Day at Cambridge (December 2014), SGU Kickoff Symposium attended by many overseas partner schools (February 2015), Tohoku-Harvard Workshop at Harvard (May 2015) etc.

### -Activities at overseas offices:

Stepped up activities at overseas partner schools that host overseas offices. (Moscow State University, Russian Academy of Sciences Siberia, Lyon, Cambridge, UC Riverside, Chicago, Institut Teknologi Bandung, Chulalongkorn (scheduled), etc.)

## Free Answer Section (Other Initiatives)

### -SGU Kickoff Symposium

Tohoku University's Kickoff Symposium for the Top Global University Project was held in February 2015. Guests were invited from Mainz, Lyon, Cambridge, Case Western Reserve, Washington, and Chulalongkorn. Discussions on new collaborative international education/research programs were held with our overseas partner schools. About 100 people from Japan and abroad participated.

### -Initiative Website

<http://www.tohoku.ac.jp/sgu/ja/>



(SGU Kickoff Symposium)