



TOHOKU
UNIVERSITY

Research System Strengthening Plan as University for International Research Excellence

December 24, 2024

National University Corporation
Tohoku University



Tohoku University's Tradition and Principles

2

1907: Foundation of Tohoku University
as third national university



Diversity

Japan's first female university students,
1913 (111 years ago)



Chika
Kuroda



Ume
Tange



Raku
Makita

Open to diverse backgrounds



Seiji
Kaya

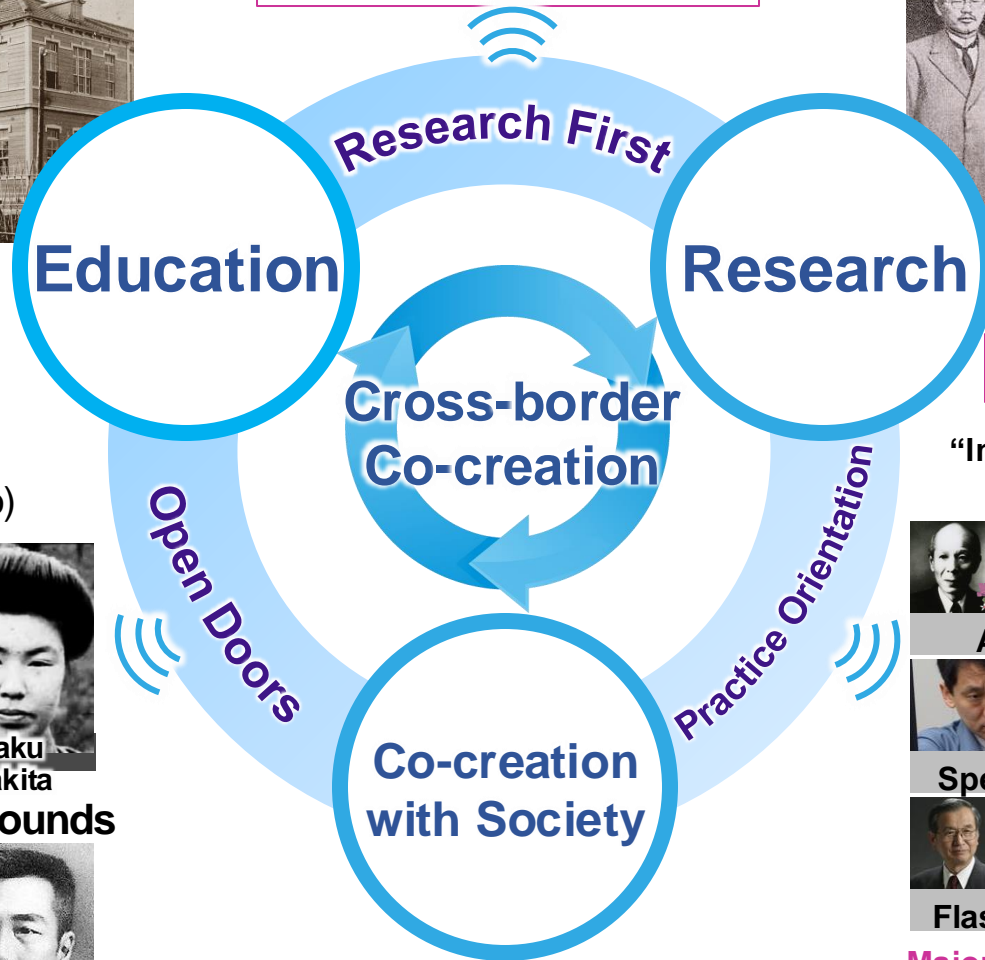


Shigeyoshi
Matsumae



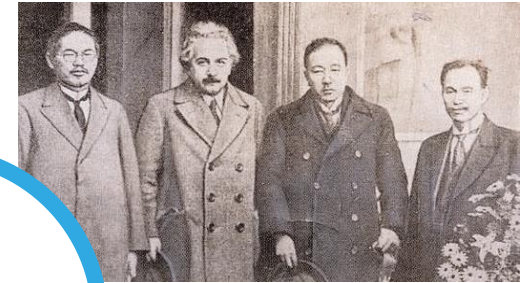
Lu Xun

**Synergy of Research
and Education**



*"Sendai is a city most suited
for research"*

- A. Einstein, 1922



Creating Social Value

"Industry is Academia's Dojo"
(Kotaro Honda, 6th President)



Antenna



Laser Diodes



Spectrometry



Recording Tech.



Flash Memory



Compactin

**Major contributions by members
to disaster recovery after the
2011 Great East Japan Earthquake**

**Tohoku University was founded with
considerable donations from third parties**



Declaration of Determination to Lead Reforms

- Tohoku University's concept focuses not on the promotion of individual research, but on **“systemic reforms”** to enable the University to grow as part of the world's leading institutions.
- We are determined to **lead these university reforms**, which can be considered Japan's last chance, and **become a “node of transformation”**

Commitment for Impact:

Based on the founding principles of “Research First” and “Practice Oriented Research & Education”, and drawing on the experience of the Great East Japan Earthquake, we will uncompromisingly pursue research excellence and create social value.

Commitment for Talent:

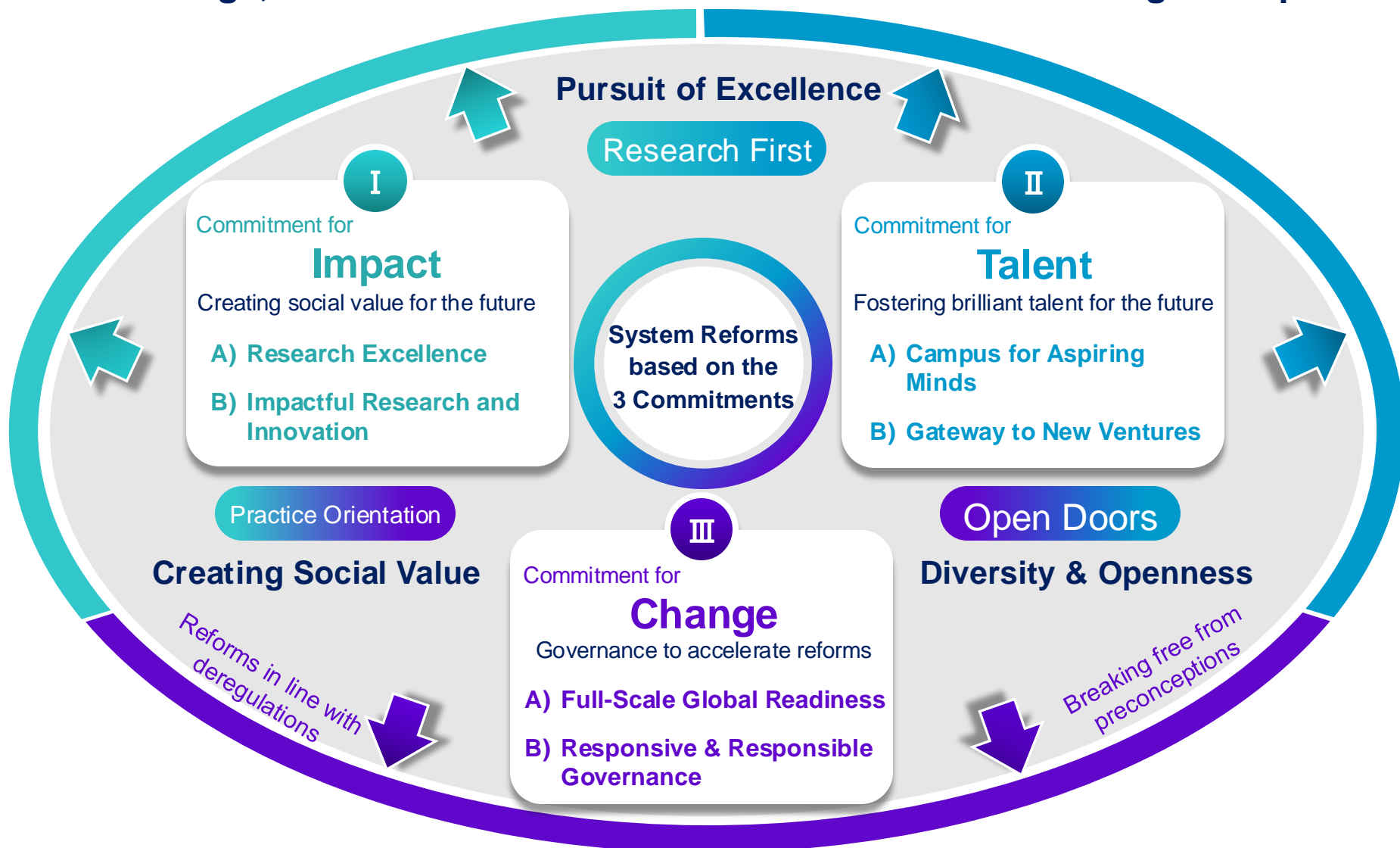
Following the spirit of “Open Doors”, accepting the first female students in Japan and breaking conventions, we will attract diverse talent from around the world, nurture their potential, and contribute to a better future for everybody.

Commitment for Change:

We aim to enhance the management and governance structure with a determination to boldly face challenges without fear of change, continuously reviewing and reforming our organization adapting to future requirements

Overview of the Strengthening Plan

Contributing to Communities at Home & Abroad
Knowledge, Talent & Social Value Based on the Three Founding Principles



Expanding Functionality as New Open Knowledge Action Platform



Commitments → Goals → Strategies

Mission

Tohoku University contributes to world-wide communities through global excellence in research, education of next generation leaders and collaboration with diverse partners

Founding Principles & Core Values

Research First – Pursuit of Excellence
Open Doors – Diversity and Openness
Practice-Oriented Research and Education - Creating Societal Value

Vision

Based on the three principles, Tohoku University strives to be a creative, open platform that creates new knowledge, fosters talent and establishes new social value for the realization of a sustainable future.

◆ Impact

We will drive excellence in research to create societal value, advance solutions to global challenges and enable resilient societies.

◆ Talent

We strive to be an even more diverse, international gateway for global talent, creating new opportunities for the future through collaboration.

◆ Change

We will drive change, innovate our governance structure and thrive sustainably together with our members, partners and society.

Commitments

I Commitment for Impact

Tohoku University is committed to creating social value through world-class research achievements and taking proactive measures for social innovation based on our experience in contributing to the recovery from the 2011 Great East Japan Earthquake.

II Commitment for Talent

Tohoku University is committed to working with international communities to nurture and educate the next generation of brilliant researchers. Diversity on campus is essential to the individual growth and well-being of each and every member of our university.

III Commitment for Change

Tohoku University is committed to becoming a new knowledge enterprise that pursues both excellence and growth. We will establish effective university governance that enables the realization of all the goals described and promised here.

Goals and Priority KPIs

A Research Excellence

Scientific output, Top 10% publication output & percentile, Top 10% publication output & percentile by early career researchers

B Impactful Research & Innovation

Funds from private companies, number of industry co-creation centers, university start-ups, IP revenue, joint publications with industry partners

A Campus for Aspiring Minds

Ratio of foreign researchers and female researchers, number of PI research units, ratio of PI and staff members, ratio of staff with international expertise

B Gateway to New Ventures

Ratio of international students, international experience of Ph.D. students, financial support for Ph.D. students, number of Ph.D. students, number of Ph.Ds.

A Global Readiness

Ratio of foreign researchers, staff with international expertise, international students, international experience of Ph.D. students, international executives

B Responsive and Responsible Governance

Ratio of independent funding, business scale, own funds, corporate strategic financing, international executives

Strategies

I-A-1: Excellence through solid research strategy
I-A-2: Tohoku University's unique Research Elevation Strategy
I-A-3: A dynamic new research system

I-B-1: Creating an open knowledge action platform
I-B-2: A science & technology hub to attract investments
I-B-3: Improved functionality for co-creation

II-A-1: Creating an attractive environment for researchers
II-A-2: Specialization and enhanced roles of administrative staff
II-A-3: A diverse campus supporting world-class challenges

II-B-1: Career management starting at graduate schools
II-B-2: Graduate school reforms for internationality and openness
II-B-3: Dynamic faculty reforms

III-A-1: Promoting internationalization
III-A-2: International brain-circulation
III-A-3: Creating an international hub for global co-creation

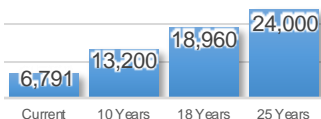
III-B-1: Management focused on growth and new challenges
III-B-2: Advanced governance structure
III-B-3: Management for actions and growth
III-B-4: Supporting diverse talent



Goals and Priority KPIs

Goal I - A Research Excellence (Academic Impact)

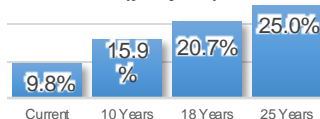
Publication numbers (per year)



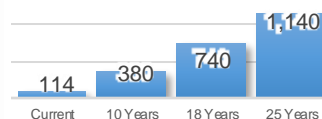
Top 10% publications (per year)



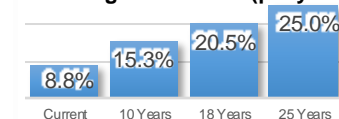
Top 10% publication percentile (per year)



Top 10% publications by starting researchers (per year)

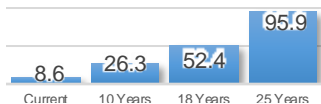


Top 10% publication percentile by starting researchers (per year)

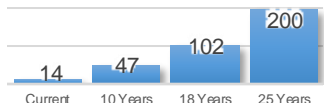


Goal I - B Impactful Research and Innovation (Social Impact)

Research funds from private companies (1B JPY)



Industry co-creation centers



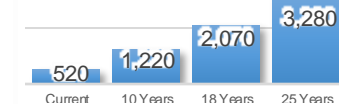
University start-ups



IP revenue (1M JPY)

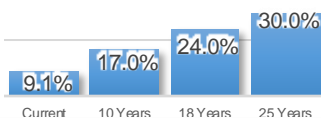


Industry joint publications

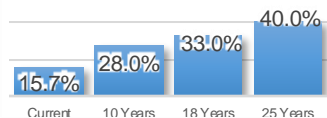


Goal II - A Campus for Aspiring Minds

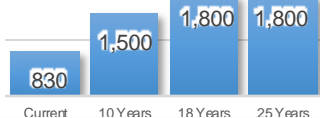
International researchers



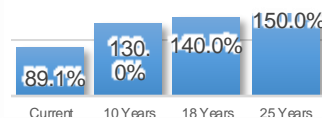
Female researchers



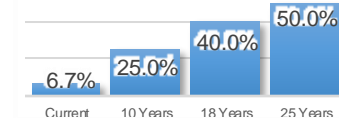
PI research units



Ratio of PIs and staff members



Staff with international expertise

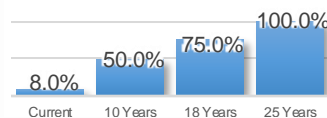


Goal II - B Gateway to New Ventures

International students



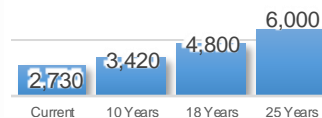
Ph.D. students with International experience



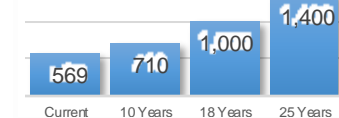
Financial support for Ph.D. students (1M JPY)



Ph.D. students



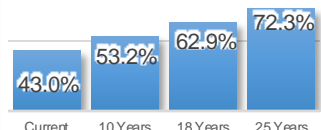
Ph.D.s conferred



Goal III-A Global Readiness (Coinciding KPIs with other Goals)

Goal III-B Responsive and Responsible Governance

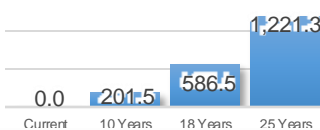
Independent Revenue



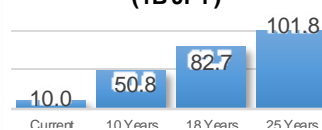
Business scale (excluding Hospital, 1B JPY)



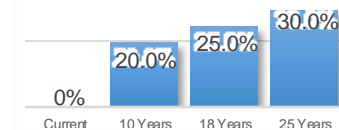
Own fund (1B JPY)



Corporate strategic financing (1B JPY)



International executives



I. Commitment for Impact

A Research Excellence

B Impactful Research & Innovation

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[I-A-1] Excellence through solid research strategy

[Strategic research policies & reviews from a perspective of international excellence] We will install a Research Strategy Board (RSB) by leading researchers and monitor research actions from a global perspective. World-class research governance through diverse, subject related evaluations and monitoring. Timely measures and support.

[Research support and acquisition of talent from a perspective of international excellence] We will strategically acquire excellent researchers from around the world through an HR Track for International Excellence. We will provide research unit leaders (PIs) with internationally competitive benefits and basic funding, and implement comprehensive research support.

[I-A-2] Tohoku University's unique "Three-layered Research Enhancement Package"

[Enhancement of top-level, interdisciplinary, and basic research] We will develop the three-layered research enhancement package to strengthen research capabilities in the most optimal way for each research field. We will expand the Core Research Clusters (CRC) of the first layer and the Research Clusters (RC) of the second, while focusing on the third layer, which will form the foundation for creating new World-Class Critical Mass. We will develop policies to build an internationally competitive research environment while emphasizing research diversity.

[I-A-3] A dynamic new research structure

[Flexible research centered around research units (PIs)] We will expand the unique research model for young researchers tested at the Frontier Research Institute of Interdisciplinary Sciences to the entire university, providing opportunities for independent research by early-to-mid-career researchers. In particular, we will establish a research structure in which tenured faculty members can operate as independent PIs, allocating resources based on field characteristics and department strategies.

[Strategic transition management toward a new research structure] In parallel with the introduction of PIs of tenure/tenure-track faculty, we will establish an HR Track for International Excellence to realize employment conditions and tenure standards that match the characteristics of academic fields. To assure continued improvements, we will monitor the progress of research performance and implement further reforms as necessary.

[Reinforcing research of clinical faculty members] While maintaining the advanced medical system required of universities, we will foster true physician-scientists who focus on clinical research. To enhance life science research in collaboration with the University Hospital and biobank, we will deploy research mentoring teams with diverse expertise, as well as personnel with practical experience in IP (intellectual property), BD (business development), and startup support.



Amplifying Research Impact

I-A-1

I-A-2

9

Tohoku University's Achievements

Core Research Clusters

Disaster
Science



Materials
Science



Spintronics



Next-Gen.
Medicine



Earth System
Science



10

International
Research Clusters
with Joint Grad School

Rank **S**
Core Facility
Support Program
Mid-term Evaluation

Rank **S**
Enhancement of
Research Universities

1st
Evaluation of
National Universities
3rd Mid-term Period

Rank **S**
Management
Reforms

Research Strategy Board (RSB)

Research activities from an international perspective

World Leading
Research
Clusters

Promote strategic research considering
strengths and demands of society
Establish world-class critical mass

Core Research Clusters (CRC)

Disaster Science, Materials Science,
Spintronics, Next-Generation Medicine

Interdisciplinary
Research Groups

Promote strategically important
research fronts to facilitate key
projects of the next generation

Research Clusters (RC)

Earth System Science (WPI, promoted to CRC),
Nihon-gaku, Cosmic Physics, Machine Science, Data
Science, Integrated Chemistry, Food Science

Research institutes & joint research organization
(semiconductors, quantum, AI, etc.)

Diverse Research Activities
as a Basis of Excellence

Promote diverse research
activities based on free ideas of
PIs from a long-term perspective

Transition to a flat & flexible unit-
based research system

Reinforce Research Support

New faculty HR management, EMCR education
reforms, more time for research, expanding
specialized staff e.g. URAs, strengthening core
facilities, unique research system, strategic provision
of benefits, international exchange & sabbatical,
incentives based on evaluations, etc.

Strategy

Diversity



Actions & Policies

- Reduce administrative and teaching duties etc. for faculty members (securing research hours)
- Opportunities for early- and mid-career researchers (EMCRs) to engage in challenging research

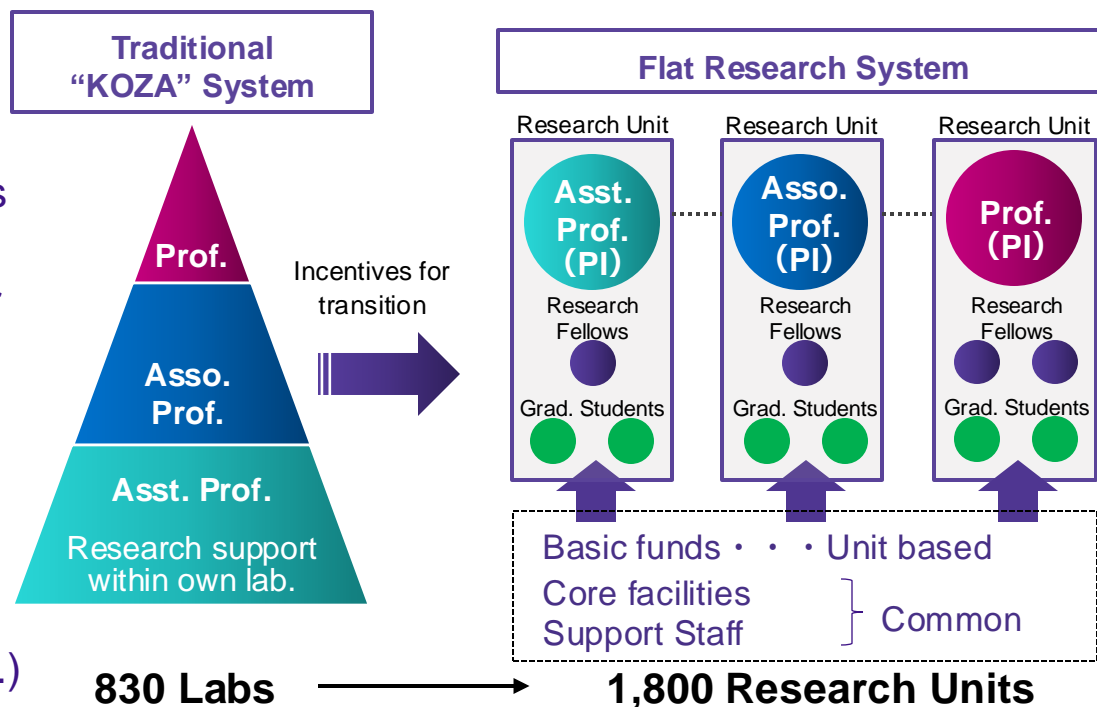
Achievements

50 early career researchers engage in top-level research at the Frontier Research Institute for Interdisciplinary Sciences (FRIS)



Strategic Transition of Research System

- Provide equal leadership opportunities for all 1,800 researchers as independent PIs
- Promote independence of EMCRs through tenure-track system
- Provide basic funding to empower early career researchers as independent PIs
- Enable the formation of subject-based research groups
- Expand professional staff (1,100 members for URAs, technical staff & IP managers, etc.)





[I-B-1] Creating an open knowledge action platform

[Value-creation based on comprehensive knowledge] We will contribute to global communities through value creation based on comprehensive knowledge, including the humanities and social sciences, by setting key themes such as "Resilience & Sustainability," "Nihon-gaku," and "AI Synergy." Beyond the traditional linear model of development from basic research to applications, we will bundle diverse research and quickly connect it to international collaborative actions (policy formation, business creation, HR development, etc.) to lead problem-solving of global issues.

[International collaboration to design the future] To strategically promote collaboration with top-level researchers and diverse global actors, we will accelerate research from a global perspective by enhancing international capabilities, including the expansion of overseas training and strengthening of international communication

[I-B-2] Investments through science, technology and innovation

[Strengthening unique flagship facilities] Based on the distinctive facilities at Tohoku University (e.g. NanoTerasu, the Tohoku Medical Megabank Organization, and Semiconductor Technology Co-creation), we will strengthen our functions as research hub in strategic areas such as semiconductors, quantum, AI, bio, and materials, and develop cutting-edge research and HR.

[Developing the Science Park] We will utilize the 330ha space on campus as place for open innovation. In particular, on the 4-ha space reserved for the Science Park next to NanoTerasu, we will create an R&D center including new buildings by utilizing university bonds and private investments, and establish an innovation ecosystem by developing the university's own "Science Park Project" that brings together various public-private actors.

[I-B-3] Improved functionality for co-creation

[Accelerate corporate integration through industry co-creation reforms] We will expand and strengthen the "Co-Creation Research Centers," which feature research and business development functions of companies on campus. We will also develop robust industry co-creation through outcome-focused project management, utilizing "Intellectual Contribution Fees" to value the "knowledge" of researchers and Ph.D. students.. Additionally, we will accelerate international collaboration, considering globalization of the industrial value chain as an opportunity.

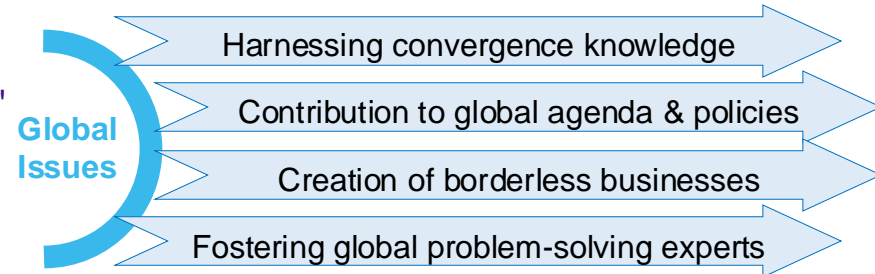
[Strengthening unique seamless startup support] We consider the entire city of Sendai as one integrated startup campus, strengthening seamless support from entrepreneurship development to proof of concept, business feasibility, and investment in startups. Furthermore, we will expand activities to global communities by strengthening ties with leading overseas universities and VCs, and provide cutting-edge entrepreneurship education and accelerator programs.



Open Knowledge Action Platforms

Contributing to global value creation through collaboration with diverse stakeholders

- Going beyond traditional linear research model:
“Basic Res. ➡ IP ➡ Business Dev. ➡ Soc. Deployment”
- New research frontiers for global challenges leading to
“Streamlined multi-actor global action”



Resilience & Sustainability

- Establishing Disaster Science & Disaster Risk Reduction for a truly resilient & sustainable society
- Developing integrated science of sustainability with respect to the future global agenda

Nihon-gaku

Communicating Japanese problem-solving methods and values with global perspectives in times of global separation

AI Synergy

Consolidating knowledge in humanities & deep understanding of cutting-edge technology for problem-solving in synergy with AI technology

Tohoku University's Contributions to Disaster Risk Reduction

- 2011.03 ● Great East Japan Earthquake
- 2011.04 ● Reconstruction Actions
- 2012.04 ● International Research Institute of Disaster Science (IRIDeS) established
- 2015.03 ● 3rd UN World Conference on Disaster Risk Reduction in Sendai
- 2015.07 ● Research with Social Impact



Three Global Agendas (2015)



- 2017.11 ● 1st World BOSAI Forum in Sendai
- 2019.11 ● 2nd World BOSAI Forum in Sendai
- 2021.04 ● Green Goals Initiative
Contributing to Global Agendas
- 2023.03 ● 3rd World BOSAI Forum in Sendai
- 2023.05 ● Mid-term evaluation of the Sendai Framework for Disaster Risk Reduction, UN meeting in NY
- 2023.05 ● G7 Science and Technology Ministers' Meeting





Urban Campuses as a Hub for Innovation

I-B-2

13

Creating Data-Driven Innovations

Tohoku Medical Megabank

Research Institutes

International Research
Institute of Disaster
Science (IRiDeS)

Science Park
40,000m²

Solution

Scientific
Big Data

NanoTerasu

Core Facilities

Integrated analysis of massive data, visualization of all phenomena
and simulations to create solutions to a wide range of issues

Semiconductor Technology
Co-Creation

Japan's Largest Academic
Semiconductor
R&D Platform

Science Park
40,000m²

3GeV synchrotron radiation facility NanoTerasu
Unique coalition-type facility maintenance

Tohoku University
Hospital

Clinical data
(800,000 patients)

Tohoku Medical
Megabank Organization

Japan's largest
population-based biobank
(150,000 participants)

Operational since
2015 in collaboration
with Sendai City

Subway

90min from
Tokyo

Sendai

Research Institute
Organization

Joint research centers as
international research platforms

500m



Actions & Policies

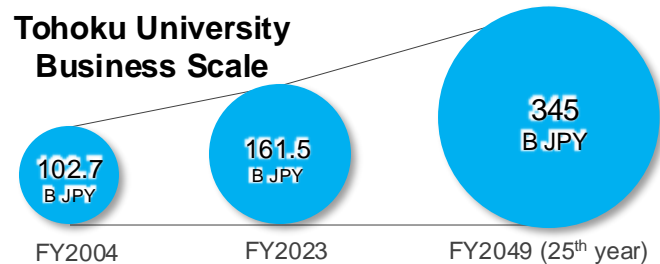
Driving sustainable growth for societal value creation through expanded revenue

Achievements

- Rapid growth of private investments by 13% p.a.
※FY2023: over 10B JPY (2x compared to FY2017)

- Development of advanced facilities (incl. Next-generation Synchrotron Radiation Facility “NanoTerasu”)

Tohoku University Business Scale



Expanding STI Platform & Science Park to Attract Investments

※STI : Science, Technology and Innovation

● Leading Flagship Facilities (Leveraged by Private Investments)

- ✓ NanoTerasu, Tohoku Medical Megabank, Semiconductor Technology Co-Creation, etc.
- ✓ Super Facility Network through integration of advanced research facilities on campus

● Our Unique “Science Park” Initiative

- ✓ Establishing key research hubs in critical national tech. domains
(semiconductors, AI, quantum, bio, materials etc.)
- ✓ Developing an innovation ecosystem for public-private co-creation

● On-campus R&D Centers

- ✓ Expanding Partnerships with industry through Co-Creation Research Centers

● New Business Strategies

- ✓ University bonds for the Science Park
- ✓ Japan’s first university joint venture subsidiary business ※TU Co-creation Initiative, Inc.



Tohoku University Science Park

Tohoku Medical Megabank
Japan’s largest cohort study
(150,000 participants)

Genome analysis
utilizing private investments

Semiconductor Tech. Co-Creation
Center for Innovative Integrated
Electronic Systems (CIES)

Japan’s only private funded university
facility with 300mm wafer prototyping



Tohoku University's Achievements

Survey on University-Developed
Venture Businesses by METI

199

Tohoku University
Startups
+108% compared to FY2017

1

Unicorn Company

2,328

Participants
per year

Entrepreneurship
Programs

Participants in FY2023

95

Business
Incubation
Programs
Seed Funding

Tohoku University
Venture Partners

Fund No.1
9.68B JPY,
26 investments

Fund No.2
7.8B JPY,
19 investments

6

IPOs
e.g. ispace, inc.

2

M&As

30

Seed Funding for
10 Universities
from Tohoku &
Niigata

The "SENDAI STARTUP CAMPUS"

Developing Startup Centers

1 2 3

Tohoku University
Innovation Center

(Aobayama Garage, Kawauchi Garage, Seiryō Garage, etc.)

4

NTT Urban Net
Sendai Central Building
(Sendai Startup Studio, etc.)



Leading Entrepreneurship Education

1 4

Collaboration with leading universities world-wide

Creating Startups that Excel Globally

1 4

Providing One-Stop Support for Startups
Global Accelerator Community Hub

Creating Startups through the Use of Leading Technology and Science Park, NanoTerasu

1

3GeV Synchrotron Radiation
Facility NanoTerasu & other
state-of-the-art research
facilities

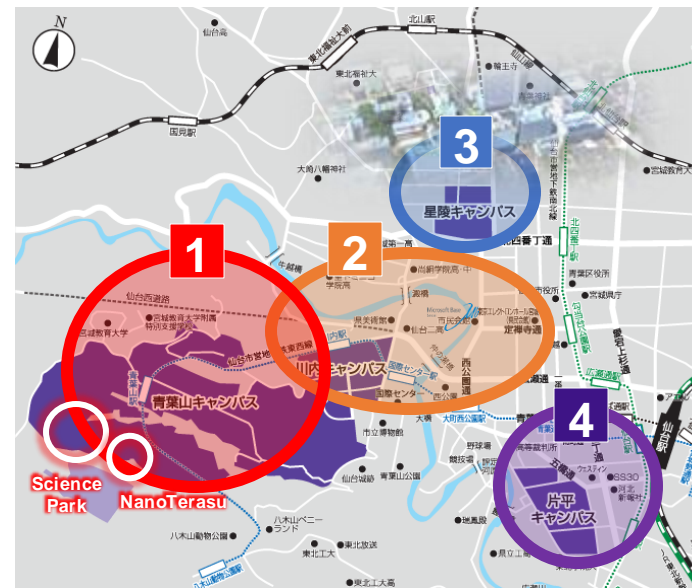


3

Medical facilities & centers such as the Tohoku University Hospital, School of Medicine, School of Dentistry, Institute of Development, Ageing and Cancer, Tohoku Medical Megabank Organization, etc.

4

Institute for Materials Research, Research Institute of Electrical Communication, Institute of Multidisciplinary Research for Advanced Materials, Institute of Fluid Science with outstanding world-class research results



II. Commitment for Talent

A Campus for Aspiring Minds

B Gateway to New Ventures

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[II-A-1] Creating an attractive environment for researchers

[An HR system that motivate researchers] We will establish an "HR Track for International Excellence" to realize internationally competitive employment conditions and tenure standards. We will also establish a flat research system where tenure/tenure-track faculty can operate independent research units as PIs and provide comprehensive research support. In particular, we will promote the spread of the tenure-track system, where early and mid-career researchers (EMCR) can take on ambitious research as PIs, and the "Office for Human Capital Management (HCM)" will provide support assuming diverse careers.

[Coherent HR management] We will design a comprehensive faculty HR management system aimed at attracting outstanding researchers who will lead the next generation (including international recruitment, peer review, and tenure track system). The Provost will lead the Council for Strategic Management of Human Resources, strategically strengthening the management of all tenure faculty's allocation, recruitment, and promotion, ensuring consistency based on common university-wide guidelines.

[II-A-2] Specialization and enhanced roles of administrative staff

[Transformation to an organization of experts] 'Regular staff' supports administrative university operations, management and general planning, while 'professional staff' specializes on research support, student support, etc. enabling a multi-track HR management. The career paths, positioning, evaluations and compensations will be clarified for each position. We will maintain a competitive management structure and compensations as well as swift and strategic recruitment to accelerate reforms in university administration.

[II-A-3] A diverse campus supporting world-class challenges

[Promoting diversity, equity & inclusion] We will assure a fair environment so all members and stakeholders can maximize their abilities for the best performance possible. To proactively advance diversity, we will monitor KPIs with goals such as 30% foreign researchers, 40% female researchers, and 30% early career researchers on campus.

[Increasing international accessibility] To realize a campus attracting diverse global talent, we will implement English and Japanese as the two official languages (expanding personnel with TOEIC scores of 800 or higher), provide one-stop international support, and develop attractive housing and living environments. Additionally, we will collaborate with the municipal government to create a city where overseas personnel can work and live comfortably, implementing online administrative procedures, international medical services, and support for the employment and education of accompanying families.

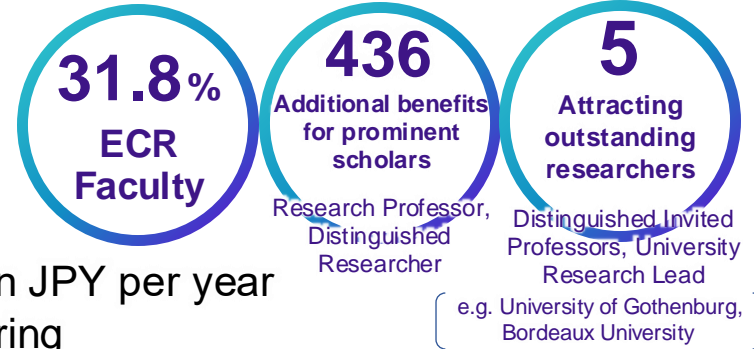


Actions & Policies

Foster career opportunities for EMCRs &
Expand opportunities for early independence & success

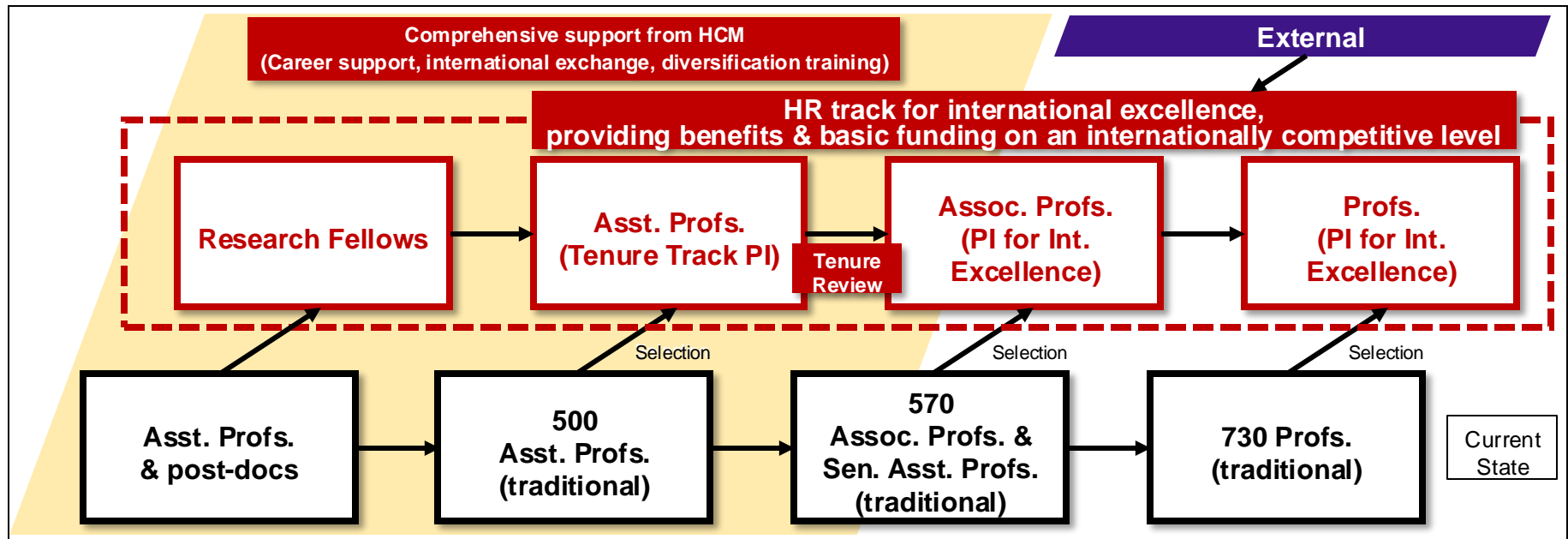
Achievements

- “Tohoku University ECR Promotion Initiative” with 3 billion JPY per year
- “Faculty HR Strategy Council” for university-wide monitoring



Establishing a Dynamic New Research Framework

- HR track for international excellence, providing benefits & basic funding for Principal Investigators (PIs) on an internationally competitive level
- Empowering EMCR careers by comprehensive support through Human Capital Management





[II-B-1] Career management starting at graduate schools

[Graduate schools as gateway to success] Graduate schools are a place for consistent development of skills. We will provide an interdisciplinary research environment where graduate students can team up for challenging studies based on their free inspiration, establishing a continuous career to becoming young researchers. In addition to treating graduate students as researchers and providing salary and financial support, we will also establish diverse programs and opportunities to acquire necessary skills and a mindset as future research professionals.

[II-B-2] Graduate school reforms for internationality and openness

[Expanding Ph.D. courses for the future] The number of Ph.D. students will be increased significantly (2,700 → 6,000 students) by developing attractive programs that respond to changes in society as well as the needs for highly specialized personnel in various sectors such as industry, academia, government, and international organizations, as well as to the needs of working people who wish to continue their studies.

[Integrated management at the Advanced Graduate School] We will establish the Advanced Graduate School in FY2027 for integrated management of graduate education. The new organization will oversee the management of educational programs, QE (Qualification Examination), degree conferrals, international student recruitment, admission reforms, capacity management, student assignment to research units and decisions in financial support, as well as career support. To increase responses to social needs and academic advancements, we will continue to foster brilliant researchers and entrepreneurs who will lead international actions by converting regular education programs to cross-disciplinary degree programs.

[II-B-3] Faculty reforms as research university

[The Gateway College] As a way of undergraduate education at a research university, a new "Gateway College" will be established in FY2027 to develop university-wide education with a focus on cultivating international responsiveness, with future options to connect to the Advanced Graduate School for further studies. The program will reorganize capacities from existing faculties and expand to 1,000 enrollments in 10 years, and eventually to all enrollments (2,000 students, excluding the 400 positions connected to national qualifications).

[Revision of student recruitment at the Admission Organization] The new "Admissions Organization" will supervise student recruitment for undergraduate and graduate studies. Conventional general entrance examination will be reviewed and changed into a comprehensive selection in which all examinations will be managed by the organization. In collaboration with overseas alumni associations and agents, the Admission Organization will expand online admission for overseas high school students, and develop strategic recruitment of talented international students, providing attractive programs such as flexible admission timing, pre-entrance education, and pre-enrollment international exchange.

Graduate and Undergraduate Reforms

II-B-1

II-B-2

II-B-3

20

Tohoku University's Achievements in Education

1st

THE Japan University Rankings

for 4 years

1st

Asahi Shimbun University Rankings
Overall Rating from High Schools

1st place for 15 times in 2006~2021

1st

Asahi Shimbun University Rankings
Universities with good COVID-19 response FY2022

1.8M JPY p.a.

Financial Support for all Ph.D. Students
Effectively free tuition per student

10

International Research Cluster with Joint Int. Graduate Program

30 %

AO entrance as of FY2021
AO entrance as tool to uncover talent

Strategic Admission

Acquisition of near full SAT score students in collaboration with high schools

Graduate School Reforms for Global Openness

Students: Ph.D. (Int.)		Master (Int.)		Years 25
6,000	(40%)	6,000	(40%)	
2,700	(30%)	4,000	(17%)	

Advanced Graduate School for unique education governance

- Management of graduate school capacities, student placements and degrees
- Flexible, cross-sectoral degree programs for academic and societal needs
- Mandatory international experience in collaboration with overseas universities

Increasing number of Ph.D. students to foster future leaders

- Expanding financial support (1.8 → 3M JPY), treatment as researchers
- Integrated program with international perspective starting from master's course (12,000 students)

Linked to 'Advanced Graduate School'

Undergraduate Reforms as Research University

Undergraduate Students (Int.)		Years 25
10,000	(20%)	
	(2%)	

'Gateway College' with intensive international co-learning

- Reorganize capacities from existing undergraduate schools (8,000 students)
- Co-learning environment with 2,000 international and 6,000 domestic students
- Mandatory study abroad to top level overseas colleges (1st-2nd year)
- Late specialization with trans-disciplinary education
- Solid professional education with broad perspective

(3rd-4th year)

Integrated Admission Organization

Overseeing all admissions

- Transitioning all admissions to comprehensive selection

Strategic Recruiting

- Attracting talented international students through collaboration with overseas graduates & agents

Relieving researchers from admissions tasks

- Elevating admissions through professional expertise



Globally Active, Excellent Researchers
Highly Specialized Personnel in Diverse Areas

Attracting Global Talent

III. Commitment for Change

A Global Readiness

B Responsive and Responsible Governance





[III-A-1] Promoting comprehensive internationalization

[Tohoku University's unique internationalization model] In order to pursue international excellence in research in a sustainable manner, it is essential that not only individual researchers but all university members share the same spirit of internationalization and that this essence continues in the organizational culture. In order to transform Tohoku University into an organization that acts in a more globally oriented manner, we will promote comprehensive internationalizations through a unique approach by orienting university-wide policies, regulations, measures, and activities.

[III-A-2] International brain circulation

[Linkage with top researchers] We will expand the unique program to dispatch early career leading researcher overseas and develop an international linkage program to support all early-to-mid-career researchers. Furthermore, international joint research at the International Joint Graduate Programs will advance overseas exchange, developing international joint research and international co-learning programs for all Ph.D. students by utilizing the network with world-class universities. For undergraduate students, we will provide opportunities for international co-learning and training through the new "Gateway College."

[Accelerate linkage for global start-ups] To contribute to creation of global value, we will collaborate with universities that are leading in creating startups and social innovators. These partnerships will enhance entrepreneurship development programs, and strengthen connections with the global startup ecosystem.

[Organizational linkage in strategic key areas] We will promote strategic partnerships with leading overseas universities in strong fields of Tohoku University (disaster science, sustainability, materials science, spintronics, next generation medicine, AI, quantum, semi-conductors, etc.) to accelerate international brain circulation. In humanities and social sciences, we will establish one of the world's largest communities in cross-sectoral 'Integrated Japanese Studies' through the expansion of the Hasekura League (30 universities from 18 countries).

[III-A-3] Creating an international hub for global co-creation

[International networks to solve global issues & overseas offices] We will accelerate efforts to form an international research hub utilizing a multilayered international networks such as the three overseas representative offices, 19 liaison offices, two international joint laboratories (Lyon, NYCU), three AIMR overseas satellites four strategic international partners and seven international university consortia. In particular, we will expand the network with associated organizations working on disaster science, infectious diseases, sustainability, green transformation, etc., and form overseas hubs to provide solutions to global issues.



Executive officer for comprehensive internationalization (CGO)

Transformation to a globally oriented, internationally responsive organization

Expanding networks of International Joint Graduate Schools, alumni associations, overseas offices (3), liaison offices (19), international joint labs (2), AIMR satellites (3), strategic international partners (4), consortia (7), exchange agreements (242), early career exchange (39), etc.

International Members

- Students: 30% (GS: 40%, UG: 20%)
- Researchers: 30%
- Administrative staff: 20%
- Council: 20%, Executives: 30%

Global Linkage & Network

Diversity

Mobility & Experience

International Experience

- UG students: 100% (co-learning)
- Ph.D. students: 100%
- Tenured faculty: 100%

Inbound readiness

- JP & ENG as official languages : 100%
- Courses in English: GS 100%, UG 50%
- Reinforcing recruitment
- Staff with international expertise: 50%
- Expanding cross-cultural dormitories, etc.

Global Readiness

Outbound readiness

- English level at Gateway College
TOEFL iBT® more than 79: 100%
- International co-learning seminars: 2x
- Travel expense support
- Overseas sabbaticals, etc.

Top management by Chief Global Officer (CGO)



Leadership & Structure

Advice from top level overseas experts



Research Strategy Board

University Advisors

Diverse Expert Advisors

Subsidiaries and strategic outsourcing

Reduced load and increased productivity

Policy

Toward a global campus based on fundamental policies and necessary regulatory reforms

Policies for comprehensive internationalization

3 commitments, 6 goals, 19 strategies
5 related priority KPIs





[III-B-1] Management focused on growth and new challenges

[Reinforcement of financial foundation linked with functional expansion] We will significantly expand external funding income by utilizing our unique "Co-Creation Research Institutes," "Intellectual Contribution Fees," and the "Science Park Project." We will also secure flexible management funds through speedy business development using university bonds and new management methods supported by deregulations. By expanding university functionality and strengthening the financial foundation through collaboration with various actors, we will achieve sustainable business growth and the formation of unique funds.

[Three elements for sustainable growth] First, "Strategic Use of Evidence Data," by visualizing important management indicators and researcher performance, practicing data-driven management through comprehensive digital transformation. Second, "Establishment of a Chief Financial Officer (CFO) for a Financial Strategy," to maximize the value of the knowledge management platform from management and financial perspectives, formulating and practicing strategies, including new management methods. Third, "Establishment of a Strategic Leadership Team (SLT) to Accelerate Transformation," where the President, Provost, CGO (Chief Globalization Officer), and CFO will formulate resource allocation policies linked to the overall management strategy.

[III-B-2] Advanced governance structure

[Diverse wisdom at the collegial body] The Management Policy Council will consist of external members (majority) and internal members, with a composition considering diversity such as a foreigner ratio of about 20% and a female ratio of over 30%. External members include experienced people from domestic and international businesses, university management, and experts in accounting and law, as well as leading figures from academia, industry, and other sectors of society. university- The chair will be selected among external members and the term of external members is 2 years, with the possibility of reappointment, ensuring continuity in oversight. From the university, the university president (as chief executive) as well as the provost (as executive for academic matters), the CGO (as responsible executive for comprehensive internationalization) and the CFO (as head of business finances) will have a seat in the council.

[Sophistication of academic and management matters] In promoting a significant strengthening of academic and management functionalities, we will clarify the authorities and responsibilities of academic (provost, etc.) and management executives (CFO, CGO, etc.). The division of roles in academia and management enhances functionality with suitable methodologies including placement of executives, with the 4 main executives SLT at the center of organic collaboration..



[III-B-3] Management for actions and growth

[Transparent & efficient evaluation system] We will realize a transparent evaluation and assessment system for individual researchers, research units, and organizations, visualizing activities with the management database and further promoting efficiency through digital transformation. Department heads will conduct personnel evaluations, and the Provost will lead the Council for Strategic Management of Human Resources to finalize evaluations, ensuring research excellence. Additionally, we will periodically review overall research activities from an international perspective, monitoring the university's research standards with diverse evaluation criteria.

[Management through strategic resource allocation] We will expand the highly flexible "corporate strategic funds" through increased income from business growth, issuance of university bonds, and the practice of new management methods. The three Commitments, six Goals, and 19 Strategies will be realized through strategic resource allocation using evidence data. Giving back research outcomes to society, Tohoku University will enhance its global presence, and continuously expand the virtuous cycle of funds that attract new investments.

[III-B-4] Supporting diverse talent

[Expanding functionality of Human Capital Management (HCM)] We will strengthen HCM functionalities to support actions by diverse talent, providing flexible career paths and employment, promoting individuality and personal growth, as well as improving HR resources for enhanced university management.

[Promoting comprehensive digital transformation] We will strongly promote comprehensive digital transformation across research, education, social co-creation, and management, transforming the university business model, creating new services, innovating research productivity, reforming work styles, and improving well-being. The Provost will also serve as Chief Digital Officer (CDO), thus positioning digital transformation at the center of university management, leading the transformation of the Japanese university model.

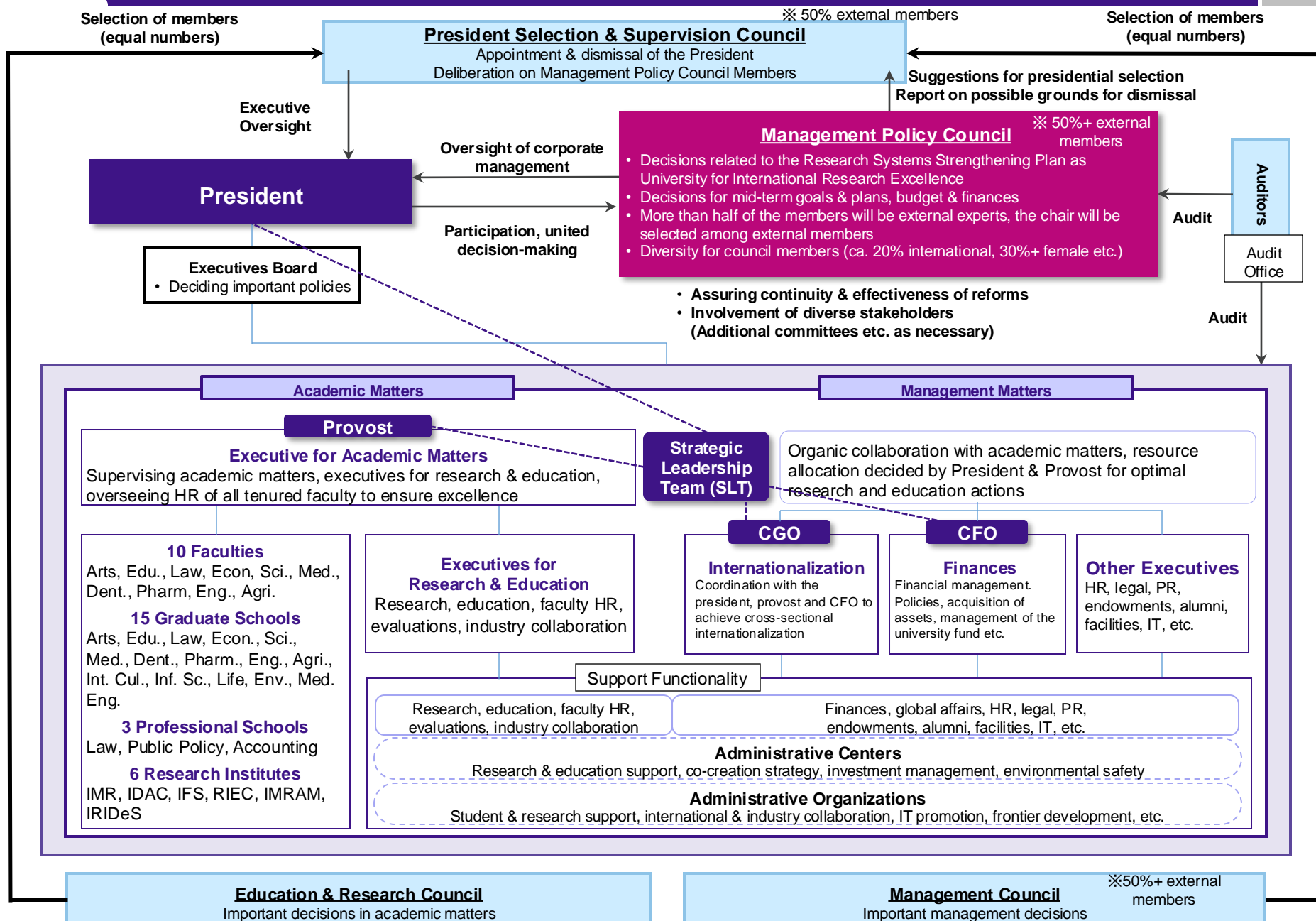
[Engagement with diverse stakeholders] To accelerate the expansion of endowments we will create opportunities that allow various stakeholders, including the private sector, overseas experts, students, and alumni, to participate in various activities of the university, providing mutually beneficial relationships with alumni, and increasing their support and assistance of the university. The CGO will oversee increased cooperation and actions by the overseas alumni community to strengthen international engagement and create a borderless Tohoku University community for activities such as talent acquisition, information gathering and PR actions.



Advanced governance structure

III-B-2

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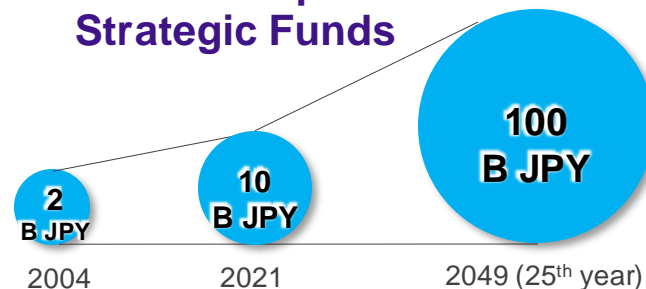




Tohoku University's Achievements

- One of Japan's largest corporate strategic funds as national university (ca. 10B JPY). The anticipated 100B JPY will be strategically managed under the leadership of the president.
- Driving organizational renewal, assessing viability through a stage-gate process for heightened vitality.

Scale of Corporate Strategic Funds



Strategic Management of Resource Allocation

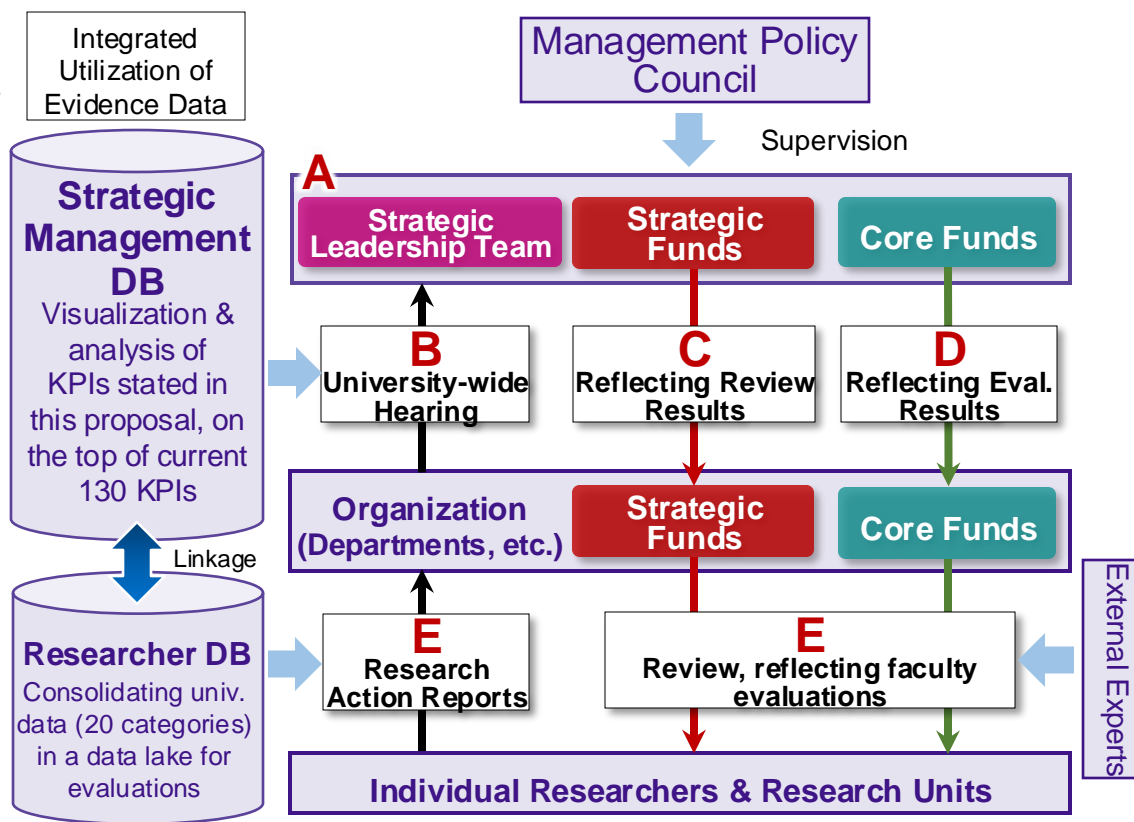
A Budgetary decisions by the Strategic Leadership Team (SLT) consisting of the President, Provost, CGO & CFO

B University-wide review of action proposals (incorporating insights from international advisors)

C SLT decides allocation of strategic funds

D Based on organizational evaluations using evidence data, including reorganizations, core funds is allocated.

E Funds are allocated in alignment with the division director's strategy through faculty evaluations based on evidence data and external expert peer reviews.





Comprehensive promotion of digital transformation by the Chief Digital Officer (CDO)

Connecting with the world beyond barriers such as distance, time, country, organization, culture, and values

Transforming the business model, increasing research productivity, improving well-being

