

University of Tsukuba Integrated Report 2020



To Our Stakeholders

While it had been the practice of the University of Tsukuba to publish an annual financial management report to deepen your understanding of that information, AY2019 was the first year that we issued an integral report which combined the regular financial management report and non-financial information such as the university's goals, initiatives, and performance in activities.

Through this report, we hope not only to fulfill our obligations of accountability, which is our social responsibility, but also to share with all of you the university's vision for the future and to connect this vision with ongoing improvement for the sustainable growth of the university based on your views and dialogue with you.

One change from the AY2019 report is that the AY2020 report shows the achievements and results of education and research and the financial conditions by segment. We hope that this is of help to you in understanding the activities of the university's education and research organizations in more detail.

In preparing this integrated report, we referred to other reports compiled by private enterprises and other large universities as well as frameworks provided by the International Integrated Reporting Council. In the future, we intend to further improve the content of this report to publish and deliver to you a full integrated report.

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* When reading this report, please note that figures of less than one unit in tables and diagrams have been rounded and may not coincide with the total.



About the University

Founding Philosophy

The University of Tsukuba aims to promote free exchanges and close relationships in basic and applied sciences with educational and research organizations and academic communities in Japan and other countries. While reaping the benefits of interdisciplinary cooperation, we intend to pursue education and research to cultivate men and women with creative intelligence and rich human qualities and to contribute to the progress of science and culture.

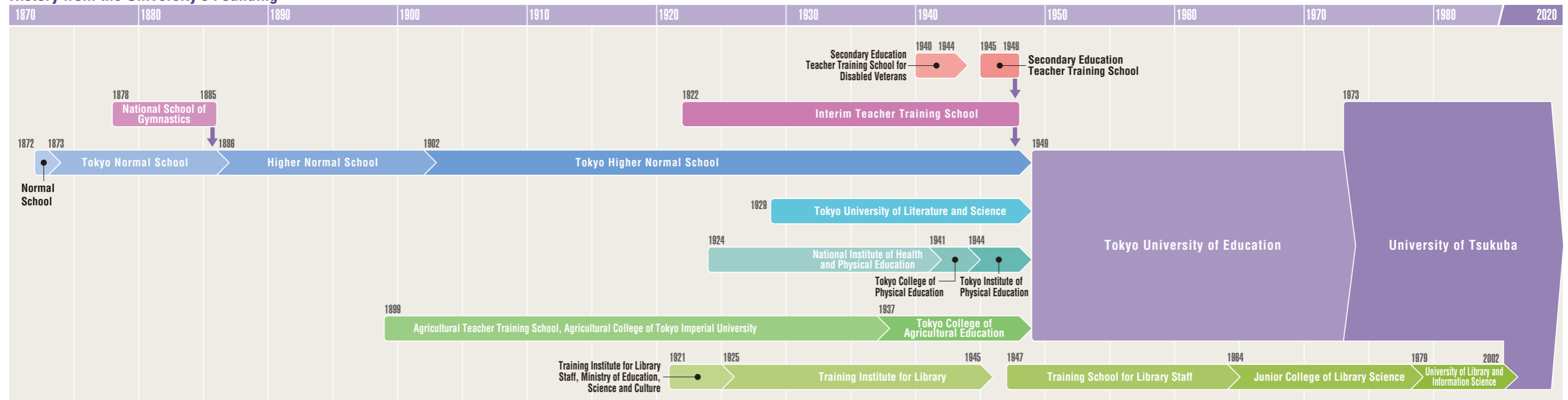
In the past, Japanese universities tended to remain confined to somewhat narrow, specialized fields, which led to stagnation and rigidity in education and research and alienation from everyday society. As an institution looking to the future, the University of Tsukuba is committed to being a university open to all people in and outside of Japan. To this end, while continually responding to changes in today's society, the university is determined to develop new education and research functions and a management organization highly international in character with diversity and

flexibility.

The university will also establish an accountable management framework to implement these activities.



History from the University's Founding



History

The University of Tsukuba was launched in October 1973, when the Tokyo University of Education was relocated, as a comprehensive university characterized by "open university," "new system for education and research" and "new university autonomy" as the result of undertaking Japan's first fundamental university reform to meet demand, both inside and outside the university, while making the most of the positive aspects of the traditions and characteristics of the predecessor school. Being a leader in university reform, we strive to make the university even more energetic and internationally competitive through varied efforts such as pursuing the advancement of education and research, differentiating the university from others and invigorating university management.



History of the University of Tsukuba

Our university was reborn in Tsukuba Science City in 1973 as a comprehensive university for pursuing the study of a wide range of disciplines from literature, science and physical education to the arts. Although the University of Tsukuba is a new university with only 40 some odd years since establishment, its history dates back to the Normal School, founded in 1872 as the first institution of higher education in Japan. The immediate predecessor of our university, the Tokyo University of Education, was established in 1949 with the consolidation of four institutions: the Tokyo Higher Normal School, Tokyo University of Literature and Science, Tokyo College of Physical Education and Tokyo College of Agricultural Education.

Since its founding, the University of Tsukuba has continued to pursue new reforms and challenges in the Tsukuba area, without becoming complacent with traditions inherited from the Normal School, which supported the development of education that became the cornerstone of Japan's modernization.

- 1872 Normal School is founded in Tokyo
- 1873 Normal School is renamed Tokyo School of Teachers
- 1886 Tokyo School of Teachers is renamed Higher Normal School
- 1902 Higher Normal School is renamed Tokyo Higher Normal School
- 1929 Tokyo University of Literature and Science is established
- 1949 Tokyo University of Education is established under the National School Establishment Act
- 1973 University of Tsukuba is established under the Law for the Partial Amendment of the National School Establishment Act
- 2004 University of Tsukuba is established as a national university corporation under the National University Corporation Act

Education & Research Organizations (as of May 1, 2020)

Education Organizations

Graduate Schools

- Graduate School of Business Sciences, Humanities and Social Sciences
 - Degree Programs in Humanities and Social Science
 - Degree Programs in Business Sciences
- Graduate School of Science and Technology
 - Degree Programs in Pure and Applied Sciences
 - Degree Programs in Systems and Information Engineering
 - Degree Programs in Life and Earth Sciences
- Graduate School of Comprehensive Human Sciences
 - Degree Programs in Comprehensive Human Sciences

Undergraduate Schools

- School of Humanities and Culture
- School of Social and International Studies
- School of Human Sciences
- School of Life and Environmental Sciences
- School of Science and Engineering
- School of Informatics
- School of Medicine and Medical Sciences
- School of Physical Education, Health and Sports Sciences
- School of Art and Design
- School of Comprehensive Studies

Affiliated Schools

- Elementary School, University of Tsukuba
- Junior High School at Otsuka, University of Tsukuba
- Junior High School at Komaba, University of Tsukuba
- Senior High School at Otsuka, University of Tsukuba
- Senior High School at Komaba, University of Tsukuba
- Senior High School at Sakado, University of Tsukuba
- Special Needs Education School for the Visually Impaired, University of Tsukuba
- Special Needs Education School for the Deaf, University of Tsukuba
- Special Needs Education School for the Mentally Challenged, University of Tsukuba
- Special Needs Education School for the Physically Challenged, University of Tsukuba
- Special Needs Education School for Children with Autism, University of Tsukuba

Education and Student Support Centers

- Center for Education of Global Communication
- Sports and Physical Education Center
- Admission Center
- Health Center

School of Global and Integrative Majors

Research Organizations

Faculties (Faculty Organizations)

- Faculty of Humanities and Social Sciences
- Faculty of Business Sciences
- Faculty of Pure and Applied Sciences
- Faculty of Engineering, Information and Systems
- Faculty of Life and Environmental Sciences
- Faculty of Human Sciences
- Faculty of Health and Sport Sciences
- Faculty of Art and Design
- Faculty of Medicine
- Graduate School of Library, Information and Media Science
- Faculty of Transdisciplinary Research

Advanced Research Centers

- Center for Computational Sciences
- Life Center for Survival Dynamics
- Tsukuba-Plant Innovation Center
- Shimoda Marine Research Center
- Plasma Research Center
- Alliance for Research on the Mediterranean and North Africa (ARENA)
- Center for Cybernetics Research
- Center for Research in Isotopes and Environmental Dynamics (CRIED)
- Center for Artificial Intelligence Research
- Proton Medical Research Center
- Mountain Science Center
- Microbiology Research Center for Sustainability
- Advanced Research Initiative for Human High Performance (ARIHHP)
- Transborder Medical Research Center
- Tomonaga Center for the History of the Universe
- Tsukuba Research Center for Energy Materials Science

University Development Centers

- Algae Biomass and Energy System R&D Center
- R&D Center for Precision Research
- R&D Center for Frontiers of MIRAI in Policy and Technology
- R&D Center for Sport Innovation
- R&D Center for Health Services
- R&D Center for Tailor-Made QOL
- R&D Center for Working Persons' Psychological Support
- R&D Center for Innovative Material Characterization
- R&D Center for Innovative Drug Discovery

Research Organizations

- International Institute for Integrative Sleep Medicine (IIS)

Other Facilities

- Innovation Medical Research Institute
- Tsukuba Clinical Research & Development Organization (T-CReDO)
- Open Innovation Strategy Organization
- Athletic Department

Research Support Centers

- Research Facility Center for Science and Technology
- Academic Computing Communications Center

Affiliated Facilities

University of Tsukuba Library

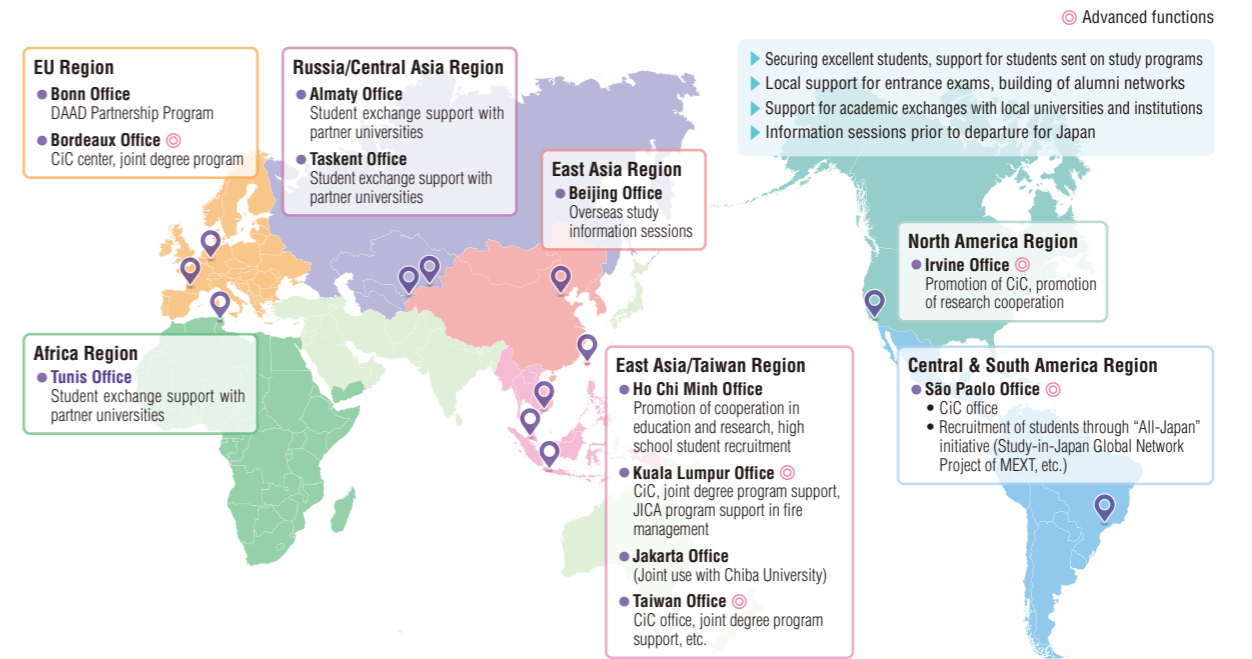
University of Tsukuba Hospital

Overseas Offices at the University

Under the university's basic policy on internationalization strategy and regional expansion, we have established centers in 12 countries and regions. The purpose is to engage in activities to support international cooperation in promoting education and

research activities of the university and also to provide support when an education or research institution of those countries or regions engages in education and research activities in Japan in cooperation with the university.

University of Tsukuba Overseas Centers (12 Centers in 12 Countries/Regions)



Financial Base

Funds that form the financial base of the university's education and research activities consist mainly of management expense grants from the government, tuition and other student fees, which are non-subsidy revenue, hospital revenue, and external funds

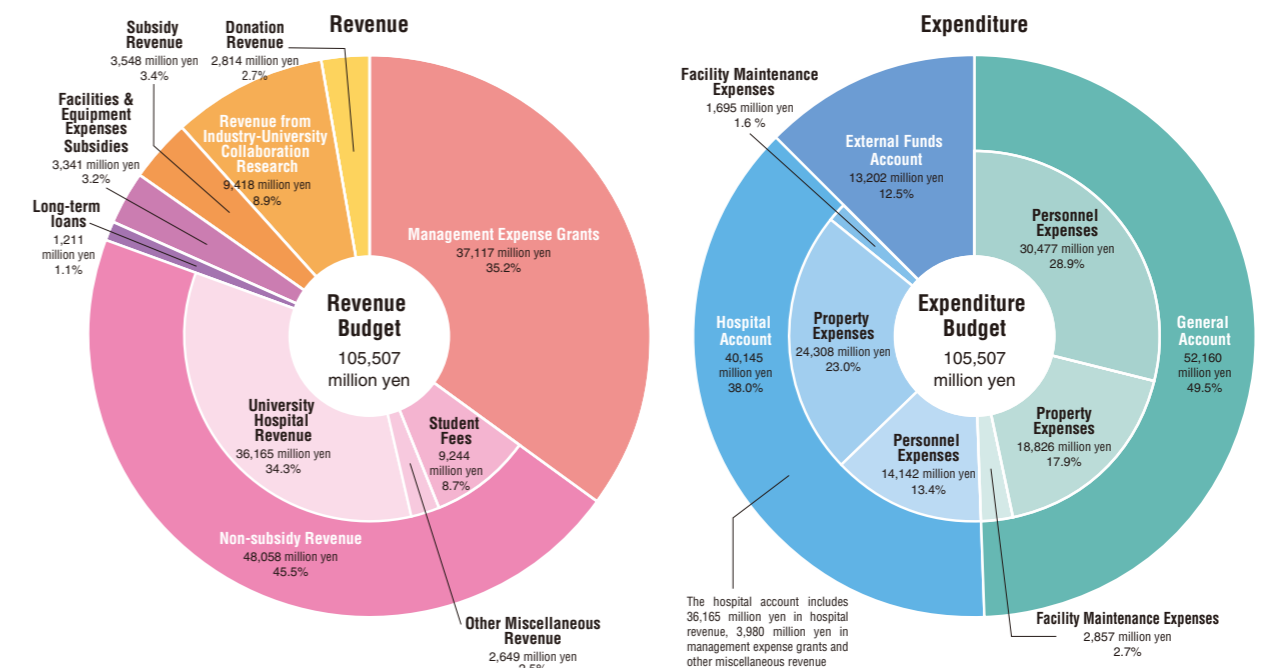
derived from joint research fees from corporations. In addition, there are many donations from individuals and companies, and these support various activities of the university.

Basic Information (as of May 1, 2020)

Students	Total No. of students (7th)	Undergraduate students (12th)	Graduate students (6th)	Affiliated school students, etc.
	16,586	9,797	6,789	4,061
Staff	Total number of teachers and staff	Directors	Teachers	Staff
	5,264	11	2,402	2,851
International Exchanges	Foreign teachers and staff	Ratio of international students (3rd)	International exchange agreements	
	163	14%	390 (69 countries and regions)	
Area	Land area (8th)		Building area (6th)	
	12,715,059 m ² (excluding affiliated schools)		988,200m ² (excluding staff housing)	
No. of Recipients	Nobel Prize Recipients		No. of Olympic and Paralympic Medals	
	3	Sin-Itiro Tomonaga (1965 Prize in Physics) Leo Esaki (1973 Prize in Physics) Hideki Shirakawa (2000 Prize in Chemistry)	Olympics 24 17 22	Paralympics 13 23 19

*The above figures in parentheses indicate the national university corporation ranking of the University of Tsukuba as of May 1, 2019.

AY2020 Initial Budget



Planning for the Future and Taking on Its Challenges as Frontrunners



Kyesuke Nagata

President, University of Tsukuba

As a new kind of university free of conventional ideas of what a university should be, our university has capitalized on its strength of having a wide range of disciplines including basic science, physical education, and art and has made efforts to solve issues on a global scale by always engaging in education and research required by society through the integration of new academic fields. Our university, which began as a university committed to being open and promoting constant reforms, has played a role as a unique university in Japan in leading university reforms from both a philosophical and statutory perspective.

In today's turbulent globalized world, we face a host of problems. To enhance and strengthen our role as a center for global education and research that will create knowledge to solve global issues and develop global human resources who will lead in taking on this challenge, we have set five main goals in the Third Mid-term Goal Period.

1. Under high ethical standards, we will pursue sound specialist expertise in a wide range of disciplines related to nature, humans, society and culture, and we will promote research at the world's highest level as a leading center in the creation of outstanding knowledge by pioneering interdisciplinary fields, realigning our research functions, and strengthening our internationalism.
2. We will accept diverse students from all over the world, build an educational system backed by advanced, cutting-edge research results, which will develop the individuality and abilities of students through degree programs, and we will train men and women capable of developing rich humanity and creative intellect throughout life and working as individuals in a global society.
3. As a comprehensive university that offers education with international interchangeability and pursues research activities in various diverse fields at the world's highest level, the University of Tsukuba will enhance its presence at the center of a network of countries and regions around the world. As a university that has international credibility and competence in communication, the University of Tsukuba will also demonstrate its ability to practice internationalism in everyday life.
4. We will play a core role in the innovation creation center TSUKUBA, with its concentration of science and technology, and we will strengthen our collaboration with educational and research institutions as well as industry. Moreover, we will enhance our education and research functions, and contribute to strengthening Japan's global industrial competitiveness.
5. As we enhance the professional skills and diverse capabilities of faculty and staff, we will work to strengthen information governance and the management base and to redistribute university resources under the leadership of the president. Moreover, through autonomous reforms in education and research functions, we will lead university reforms in Japan as a university capable of responding to changes in the world and society as quickly as possible.

To achieve these goals, we will continue our relentless efforts to fulfill the role society requires of us. As we look closely at the challenges of tomorrow, we look forward to carefully facing our daily research, education, and students with care. Having been selected as a Designated National University Corporation for the Fourth Mid-term Goal Period (starting AY2022), we intend to further improve our education and research activities to prepare ourselves for our new beginning as a Designated National University Corporation.

Toward the Realization of the Designated National University Corporation Scheme

Being a university committed to being open and promoting constant reforms, we have applied to become a Designated National University Corporation for the Fourth Mid-term Goal Period and received the designation in October 2020.

Designated National University Corporations are national university corporations designated by the Minister of Education, Culture, Sports, Science and Technology of Japan as showing a certain level of promise for world-class education and research activities, with the aim of accelerating the improvement of education and research standards and the creation of innovations in Japanese universities. Designated universities are expected to go beyond the scope of domestic competition inside Japan to compete with leading universities around the world in the international competitive environment and are expected to lead reform efforts across Japanese national universities by proactively sharing specific outcomes of their contributions to social and economic development.

● Our Vision for the Future: Toward a "Genuinely Comprehensive University" Committed to Resolving Global Problems

The University of Tsukuba, modeled after innovative universities in the US and Europe, was established in Tsukuba

Science City, the largest of its kind in Japan, to become a world-class university based on a new concept. Taking advantage of our international and interdisciplinary nature, which is our legacy, we intend to conduct research across the boundaries of different disciplines, get ahead of the world in terms of educational models, make the most of our location in Tsukuba Science City to actively promote university-industry collaboration, and so on, as a "genuinely comprehensive university" committed to creating new knowledge to design future society. Through such initiatives, we will strive to create and establish GLOBAL TRUST as a new base value for the future society that will come after the COVID-19 pandemic.

The designation we have just received is a powerful reminder that the University of Tsukuba is expected to play a leadership role in the reform of national universities. We are sure that by meeting this expectation we can become a driving force behind further growth of higher education in Japan, and overall development of the country. All members of the university will make concerted efforts to make this come true, while being fully aware that the whole world is the stage for our collaboration and competition. We look forward to your continued support.



Information about the Designated National University Corporation scheme of the University of Tsukuba is also available on the following website of the Ministry of Education, Culture, Sports, Science and Technology of Japan: https://www.mext.go.jp/b_menu/houdou/mext_00343.html

Planning for the Future and Taking on Its Challenges as Frontrunners

Research

[See page 10 for details]

Promoting International Leading Edge Research

Education

[See page 12 for details]

Training Human Resources Capable of Working Independently in a Global Environment



Founding Principle: An Internationally Open University

Mission of the University:

Create knowledge to solve global issues and develop global human resources who will lead in this challenge

University-Industry Collaboration

[See page 14 for details]

Contributing to the enhancement of Japan's global industrial competitiveness

International

[See page 16 for details]

Realizing a University that Practices Internationalism on an Every Day

Tsukuba University Hospital

[See page 17 for details]

Strengthening its "True" Function as an Affiliated Hospital of a Comprehensive Research University

Affiliated Schools

[See page 18 for details]

Constructing an Education Model for Primary, Secondary and Special Support Schools

University Management [See page 19 for details]

Transformation from Operating to Managing a University by Strengthening the Management Foundation and Information Governance

Achieving Our Goals

Goals

Promoting research of the world's highest level

To develop leading-edge research at the world's highest level in both research that deeply explores the truth and research aimed at returning research results to society in broad academic disciplines,

- ① We will steadily proceed with fundamental research by reviewing and centralizing our existing research center system, and we will work toward making a dramatic leap forward in interdisciplinary research through the introduction of new systems and collaboration with universities and other institutions in Japan and other countries.
- ② We will boldly reform research systems within the university.

Main Measures

① Steady implementation of fundamental research and working toward a dramatic leap forward in interdisciplinary research

We will form international joint use and joint research centers in fields where our university has strengths and notable characteristics such as mathematical and material science, environmental energy, information computational science, life and medical sciences, humanities and social sciences, and sports science by strengthening cooperation with research institutes including universities in Japan and overseas, engaging in interactive joint research and large-scale international joint research, and inviting overseas research units to the university.

We will further accelerate our priority research support, and promote research at the world's highest level centered on research at the International Institute for Integrative Sleep Medicine (IIIS), the Center for Computational Sciences, the Life Science Center for Survival Dynamics, Tsukuba Advanced Research Alliance (TARA), Tsukuba-Plant Innovation Research Center, and the Shimoda Marine Research Center.

International Institute for Integrative Sleep Medicine (IIIS)

IIIS was established as an institute for the study of sleep medicine, which is an integrated field of research encompassing the three fields of neuroscience, drug discovery science, and experimental medicine. IIIS is a leading international institute that aims to contribute to improvement in human health by shedding light on the mysteries of sleep and developing methods of treatment for sleep disorders.



The Center for Cybernetics Research (CCR)

A new field of interdisciplinary research centered on humans, robots, and informatics, "cybernetics" integrates a wide range of other fields such as brain and neuroscience, behavioral science, robotics, information technology (IT), artificial intelligence, system integration technology, physiology, psychology, philosophy, ethics, law and business administration.



As an international cybernetics research and development center that closely links people, technology and society, CCR engages in collaboration with partners in Japan (such as CYBERDYNE Inc., an innovative company that implements R&D results in society and promotes virtuous cycle innovation) and international collaboration with partners in the EU and the United States through the integration of medicine and engineering, new industry-government-university private partnerships, and regional and international partnerships.

② Bold reforms in university research systems

To promote basic research, interdisciplinary research, and research based on the university's strategies in a well-balanced manner, and to ensure that support and empowerment of research organizations are consistent and based on assessments on the whole, the university roughly divides its research organizations into advanced research centers and development research centers based on the results of a research center review for restructuring, reorganization, and consolidation. For the advanced research centers, the university will introduce a system for evaluating them every five years and certifying them (four levels: R1 to R4). The research and development centers engage in research activities aimed at social implementation and all of their operating costs are covered by external funding.

Together with the introduction of this system, the university will convert research centers to education and research support centers, and will consolidate, reorganize and convert research centers to research units.

Center for Computational Sciences

The Center for Computational Sciences is engaged in research activities, mainly ultrafast simulations and large-scale data analysis in a variety of scientific research fields, as well as the development of ultrafast computing systems and ultrafast network technology and research on innovative applications of information technology. Besides being an R&D institute, it also functions as a facility for shared use by researchers from across Japan, available also to external researchers, and has been approved as a center of excellence for shared use under the Advanced Interdisciplinary Computational Science Collaboration Initiative (AISCI) since 2010.



Specific Initiatives

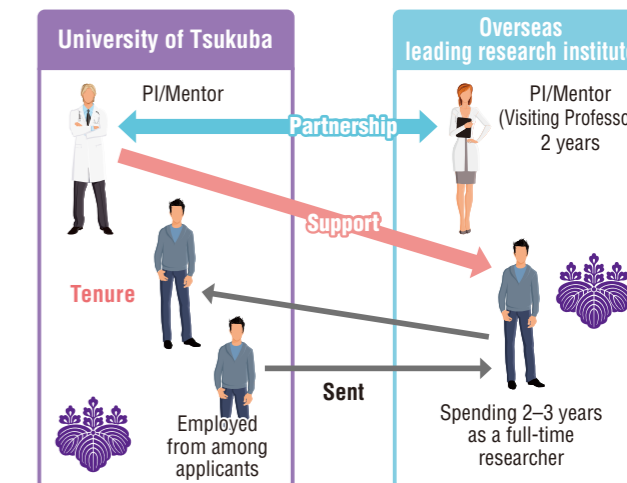
Classification of research centers

The university categorizes the research centers into functions (advanced research centers and research support centers) for constructing a "research cycle system" as an effective framework for promoting research based on growth stages of the research and activating the metabolism (turnover) of the university's research as a whole. It then grades the advanced research centers according to four classifications and allocates priority and strategic resources based on their classification as follows. R1: world-class research

centers, R2: national-class research centers, R3: priority training research centers, and R4: training research centers (research units). Furthermore, it assesses each research center every five years (with an interim assessment in the third year) and works to establish an assessment system to stimulate the research activities of the research centers. (An interim assessment was implemented in AY2020.)

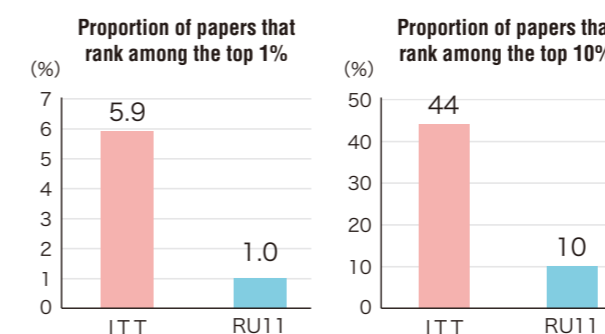
Development of young researchers through an international tenure-track system

The university introduced an international tenure-track system in AY2013 as a measure for improving its international co-authoring rate, which shows a strong correlation with paper citation indices. The purpose of the system is to enhance the university's research expertise by employing excellent young researchers as international tenure-track faculty members and sending them to leading research institutes overseas during their tenure to help them develop the ability to conduct quality research in a competitive environment, reinforce international joint research projects, increase the number of international joint papers, raise the university's Q value (proportion of papers that rank among the top 10% most cited), network with the world's best research institutes, and so on. Papers which the university's international tenure-track faculty members published by AY2019 are of higher quality compared to other universities and have substantially contributed to a surge in the overall research expertise of the entire university. Further positive outcomes are expected now.



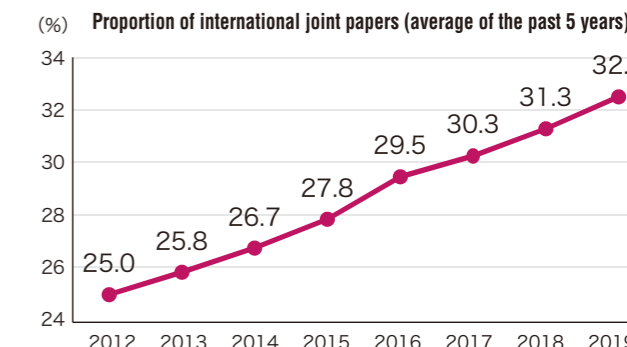
PI : Principal Investigator

Papers by international tenure-track faculty members are markedly higher quality even compared to the entire RU11



· Source: Scopus (Aug. 19, 2020)
 · Condition: Field-weighted Target: All publication types published in 2015-2019
 · Results of the first 25 tenure-track system faculty members

International joint papers co-authored with members of the university increased



· Source: Scopus (Aug. 19, 2020)
 · Target: All publication types

Progress of KPIs of the Third Mid-Term Goals and Mid-Term Plans

KPI	Published in 2017	Published in 2018	Published in 2019	Published in 2020
Achieve a position within the world's top 100 in a substantial number of research areas	Sports-related Subjects (QS World University Ranking #26)	Sports-related Subjects (QS World University Ranking #25) Library & Information Management (QS World University Ranking #37)	Sports-related Subjects (QS World University Ranking #49)	Library & Information Management (QS World University Ranking #33) Sports-related Subjects (QS World University Ranking #51-100)
(Reference) (QS World University Ranking #400 in the area of research)	(Main Areas) Archaeology Art & Design Chemistry Physics & Astronomy Biological Sciences, etc. (17 fields)	(Main Areas) Modern Languages Archaeology Chemistry Materials Science Physics & Astronomy, etc. (13 fields)	(Main Areas) Art & Design Earth & Marine Sciences Physics & Astronomy Linguistics Modern Languages, etc. (14 fields)	(Main Areas) Art & Design Physics & Astronomy Linguistics Chemistry Materials Science, etc. (12 fields)

Goals

Delivering education with international interchangeability

- 1 Deliver education with international interchangeability and train human resources who can play active roles on a global scale.
- 2 Promote education through transborder partnerships with Japanese and overseas universities and R&D enterprises in Tsukuba Science City.
- 3 Recruit diverse, outstanding students from around the world.

Main Measures

1 Training human resources with international interchangeability

By providing education based on a student-centered viewpoint and guaranteeing the quality of education for stakeholders, we will shift our educational curriculum to be one based on degree programs by enriching existing diploma programs and establishing new degree programs, thereby establishing an educational system focused on international interchangeability and international cooperation.

2 Transborder partnerships with Japanese and overseas universities and R&D enterprises in Tsukuba Science City

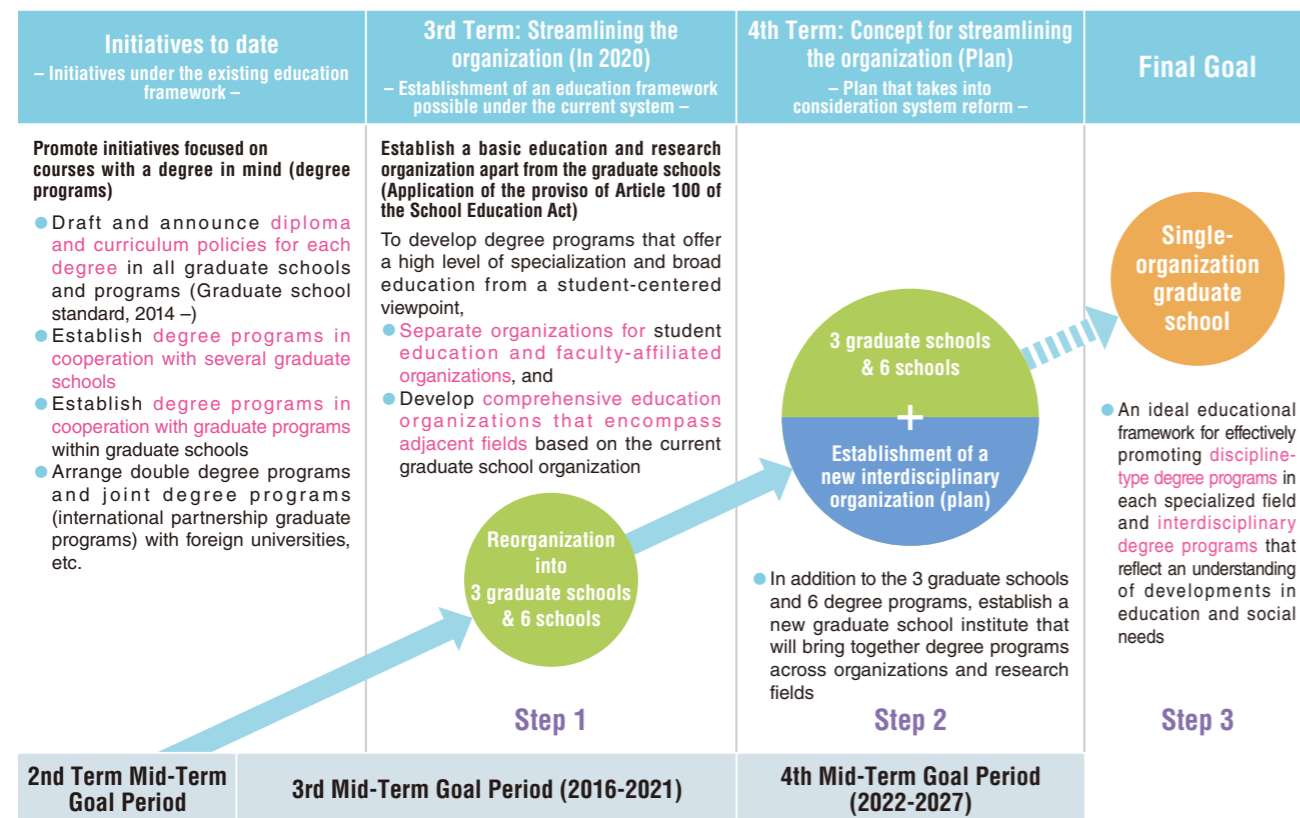
We will implement degree programs in a wide range of fields centered on graduate courses in collaboration with researchers at R&D enterprises and R&D departments of companies in Tsukuba Science City and researchers in relevant fields at the University of Tsukuba.

3 Specific measures for recruiting diverse, outstanding students from around the world

For undergraduate programs, we will conduct a comprehensive entrance examination for disciplines including the humanities, social sciences, and natural sciences appropriate to an educational system that brings the true abilities of the applicants out to the fullest (including international students and persons already in employment).

Plans for the future

Vision for Graduate School Reform and Organizational Improvements from the Third Term
— Degree programs that will develop students' individuality and abilities under an open education system —



Specific Initiatives

Degree programs under the new partner graduate school system:
Launch of the Master's and Doctoral Programs in Risk and Resilience Engineering

Today's society comes with countless risks; for example, the possibilities of large-scale urban disasters and traffic accidents, influenza, global environmental problems and personal information leakage on the Internet. By predicting such risks, quantitatively assessing them, and controlling and reducing them, you can construct the resilience needed to recover flexibly from emergencies. The goal of the Master's and Doctoral Programs in Risk and Resilience Engineering is to analyze risks and develop people who can contribute to a more resilient society.

These programs are implemented chiefly by the Resilience Research and Education Promotion Consortium under the partner graduate school system and are taught mainly by researchers belonging to companies and research institutes both inside and outside Tsukuba Science City. A quality and diverse research environment is provided through synergy between the university, companies and research institutes.

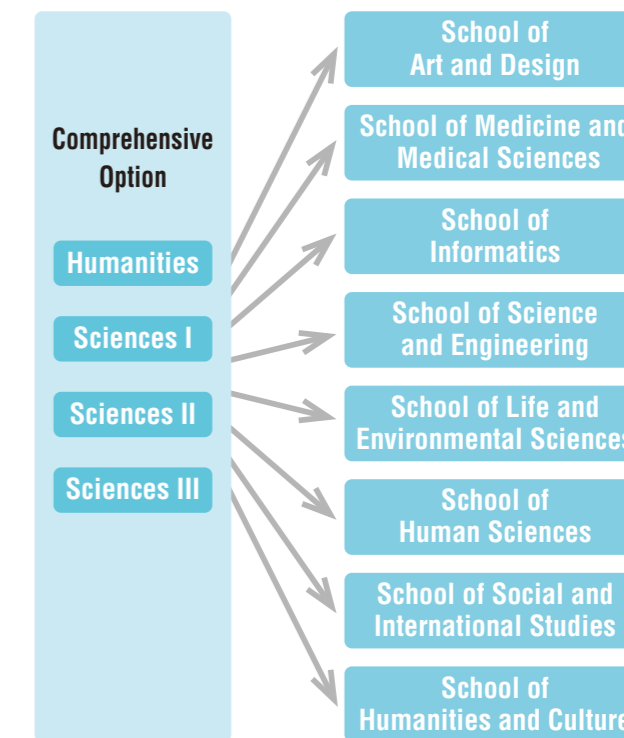


Reform in Enrollment Selection
—Introduction of a Comprehensive Option—

To nurture the development of young men and women who will lead interdisciplinary research based on sound expertise and specialized knowledge across diverse disciplines, the University of Tsukuba, as a research university, has been studying entrance exam reforms. In line with new liberal arts education that enables students to study and think beyond the confines of segmented areas of specialization, we will introduce a "comprehensive option" in the first semester curriculum for the general selection from the 2021 entrance examination.

Until now, entrance examinations have been based on a system where applicants decide on a college or specialized school at the time of the entrance examination. In addition, we will introduce a comprehensive option for selecting applicants outside of the college and specialized school framework, which will account for approximately 25% of students recruited, and will conduct the first semester in two streams: comprehensive option and college/specialized school option.

Students admitted under this comprehensive option will join a college or specialized school from the second year of study. This admissions arrangement allows students who want to decide on the kind of college where they can do the research they wish to pursue after commencing their education at university and students who have a wide range of interests and want to study a wide variety of subjects to study various specialized fields after enrollment. In this way, students have the opportunity to discover the path they want to pursue while acquiring a wide range of skills.



Progress of KPIs of the Third Mid-Term Goals and Mid-Term Plans

KPI	Target	AY2016 Achievement	AY2017 Achievement	AY2018 Achievement	AY2019 Achievement
Establish programs that can be studied in English only	60	49	52	63	65

Goals

1 Promotion of research of the world's highest level to create innovation

To develop leading-edge research at the world's highest level in both research that deeply explores the truth and research aimed at returning results to society in broad academic disciplines, we will promote research that provides returns to society through ALL TSUKUBA by working in collaboration with universities, research institutes, etc. in Tsukuba Science City.

2 Strengthening industry-university collaboration functions and creating innovation

- We will strengthen university-industry collaboration functions centered on Tsukuba Science City.
- We will promote active industry-university collaboration activities.

Main Measures

1 Promoting research that can be returned to society through ALL TSUKUBA

Under the Headquarters for International Industry-University Collaboration, we will introduce a research and development center system based on external funding. Through this system, we will aggressively promote research that provides returns to society through joint research with companies, the development of research organizations through joint investment, and the joint use and sharing of research facilities and equipment on and off campus.

We will collaborate with universities, government institutes, research and development corporations, corporate research laboratories and other research institutes in Tsukuba Science City. Through such collaboration, we will promote research that provides returns to society in areas such as the development of new devices, equipment, functional plants, and research in new medicines such as cybernics by constructing an innovation research platform beyond the barriers of government agencies and corporate organizations to bring together human resources under a cooperative structure that will further develop the Tsukuba Innovation Arena for nanotechnology (TIA-nano, 2009-2015) system.

2 Strengthening industry-university collaboration functions centered on Tsukuba Science City

We will build an innovation research platform based on a unified ecosystem with organizations in Tsukuba Science City, and we will bridge fundamental research and development research and promote cooperation in research activities between universities and research institutes to establish a platform of universities and research institutes that will promote the integration of graduate school education and research activities. Moreover, we will establish a structure for uniformly promoting clinical research through medicine-engineering collaboration between the University Hospital and relevant medical institutions and companies in Tsukuba Science City.

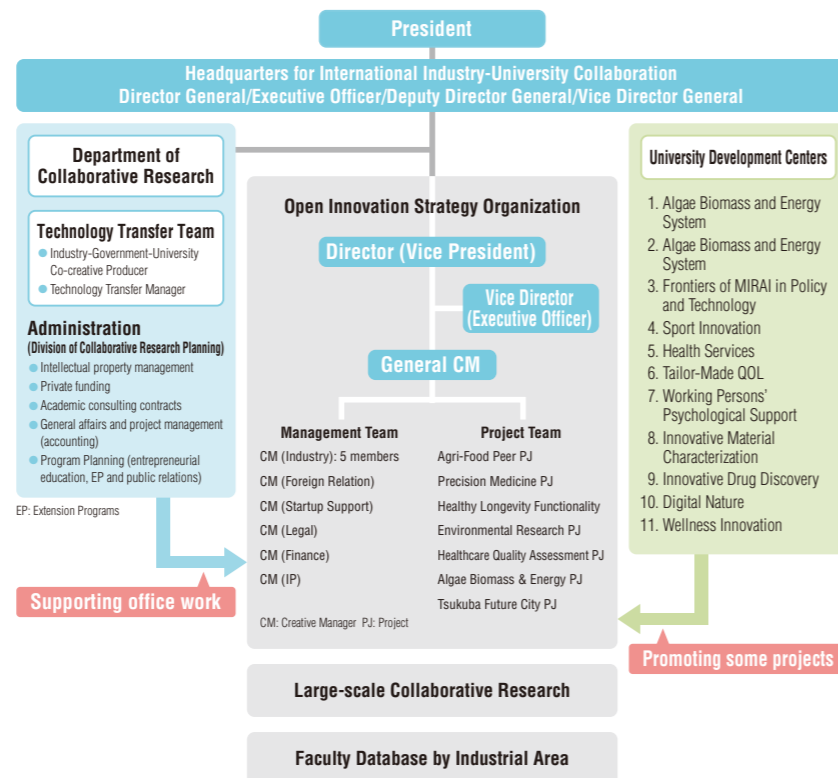
3 Promoting vibrant industry-university collaboration activities

We will clearly establish design thinking and entrepreneur education in undergraduate and graduate education and the training of young men and women in Tsukuba Science City.

Specific Initiatives

Establishment of the Open Innovation Strategy Organization

The Open Innovation Strategy Organization was established in 2019 under the Open Innovation Organization Development Project by the Ministry of Education, Culture, Sports, Science and Technology of Japan. The organization promotes: 1) expansion of external funds through needs-driven joint research projects, 2) international implementation of open innovation and 3) industrialization of research results through a venture ecosystem. It adopts a system in which Creative Managers manage joint research projects driven by corporate needs, so that an industrial area-based database (DB organized by industrial area) that classifies faculty members and research organizations in a cross-sectoral manner can be used. It now manages Super City as a new area, in addition to the original five areas: agriculture, life science, bio technology, service and energy.



Promotion of development research centers

The university establishes development research centers as a system for creating venues for applying the university's interdisciplinary research capabilities to create next-generation industries. These centers are intended to actively engage in research and development with companies in academic fields where there is a strong social demand and establish collaborative research frameworks.

With a focus on these development research centers, we will promote industry-university collaboration of researchers in various fields and actively contribute to achieving Society 5.0 and the SDGs.

The Algae Biomass and Energy System R&D Center (ABES)
The world's first algae biomass comprehensive research and development center

The Research and Development Center for Precision Medicine (PMC)
Aiming to become Japan's first 1,000 dollar genome analysis center

R&D Center for Frontiers of MIRAI in Policy and Technology
Advanced research center for mobility infrastructure that realizes Society 5.0

R&D Center for Sport Innovation
First social experiment center of a national university athletic department in Japan

R&D Center for Health Services
Japan's first center specializing in the study of services that bring health and happiness

R&D Center for Tailor-Made QOL
Provision of programs for improving QOL on an individual basis through food, exercise and sleep

R&D Center for Working Persons' Psychological Support
Development research center for research on providing psychological support for working persons and building social contribution infrastructure

R&D Center for Innovative Material Characterization
Toward innovative measurement and evaluation technologies

R&D Center for Innovative Drug Discovery
100 years of vitality with new drugs and new technologies

R&D Center for Digital Nature
Exploring the new relationship between computers and nature

R&D Center for Wellness Innovation
Aiming to realize a healthy longevity (wellness) society in which both physical and mental health and happiness can be felt

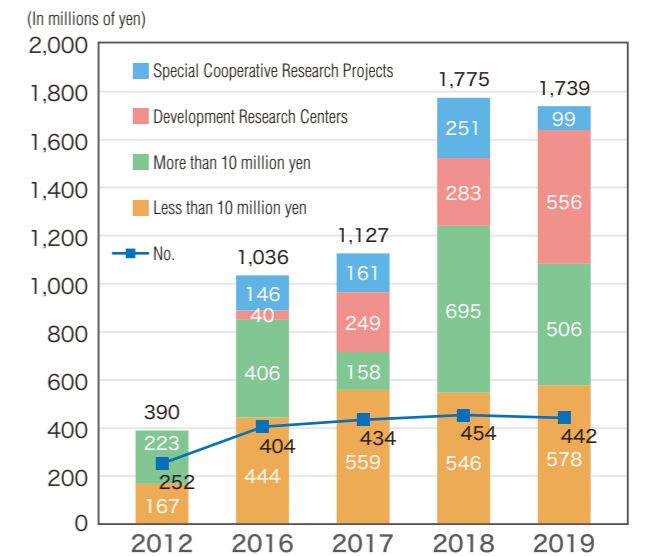
Progress of KPIs of the Third Mid-Term Goals and Mid-Term Plan

KPI	Target	AY2016 Achievement	AY2017 Achievement	AY2018 Achievement	AY2019 Achievement
No. of cooperative research projects	Versus AY2012 70% increase (Approx. 528 projects)	Approx. 52% increase (472 projects)	Approx. 66% increase (516 projects)	Approx. 74% increase (542 projects)	Approx. 66% increase (515 projects)

Changes in Cooperative Research with the Private Sector

In 2014, we established the Headquarters for International Industry-University Collaboration and have been pursuing largescale cooperative research with the private-sector. The value of cooperative research with the private sector in AY2019 exceeded 1.7 billion yen. This is about 4.5 times the amount of AY2012 prior to the establishment of the headquarters, in terms of KPI.

Changes in Cooperative Research with the Private Sector (including overseas corporations)



Goals & Main Measures

1 We will strengthen our global competitiveness and deliver education with international interchangeability as well as research of the world's highest level

To achieve the goals of our Top Global University project "Creating a Transborder University for a Brighter Future" supported by MEXT, we will cooperate with our partner universities worldwide and promote international collaboration in education and research through the Campus-in-Campus initiative, which facilitates sharing education and research beyond institutional and national boundaries.

2 We will lead the overall globalization of Tsukuba Science City

We will strengthen the global presence of the university and all of Tsukuba Science City through the active dissemination of education and research outcomes by hosting international conferences in which research institutes within Tsukuba Science City as well as educational and research organizations of the university participate.

Specific Initiatives

Promotion of the Campus-in-Campus (CiC) Initiative

This is an initiative for realizing transborder education and research exchanges beyond national and institutional boundaries by sharing campus facilities with international partner universities that have signed Campus-in-Campus (CiC) agreements with the University of Tsukuba. Specifically, by creating the University of Tsukuba campuses in overseas partner universities and creating overseas partner campuses at the University of Tsukuba through the following initiatives, we aim to make universities around the world home campuses where our students and faculty can freely engage in academic and other activities.

- Promotion of Transborder Education and Research**
- 1) Create a "Course Jukebox System" → Promote collaborative education with overseas partners
 - 2) Mutually share education and research units with overseas partner universities → achieve world top-level education and research
 - 3) Utilize Tsukuba Science City institutions and affiliated schools → Establish venues for transborder education and research
 - 4) Make faculty and staff available beyond university boundaries → Promote international collaboration and cultivate international awareness



Tsukuba Global Science Week (TGSW) and Tsukuba Conference

The Tsukuba Global Science Week brings wisdom from around the world to Tsukuba Science City where participants engage in discussions beyond national borders and fields of research in efforts to build an international collaboration network, and at the same time to create knowledge backed by a high level of research. The TGSW, which aims to disseminate information on solutions to global issues from Tsukuba to the world, has been held since AY2010.

Building upon this achievement, we decided to create a new forum for young leaders, including entrepreneurs, and held the Tsukuba Conference in 2019 under the theme "How do science, technology and innovation contribute to achieving Society 5.0 and SDGs?" Aiming to be a "young version of Davos or the World Economic Forum" in Tsukuba, the conference provides a forum for younger generations to present their powerful energy and bold attempts.



Progress of KPIs of the Third Mid-Term Goals and Mid-Term Plan

KPI	Target	AY2016 Achievement	AY2017 Achievement	AY2018 Achievement	AY2019 Achievement
CiC partner universities	10	5	7	8	10
TGSW overseas participating institutions in AY2021	30	46	88	84	105
TGSW overseas participants in AY2021	300	300	262	298	344

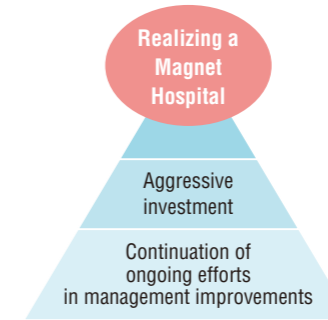
Goals & Main Measures

The University Hospital has education and research functions as an affiliated hospital of a comprehensive research university, and medical treatment functions as the only special function hospital in the prefecture.

In education and research functions, we will promote initiatives that leverage the strengths and uniqueness of the university in areas such as enhancing and strengthening regional medical education centers, strengthening the framework for promoting clinical research to accelerate the creation of innovative medicines, introducing the use of robots in medical treatment to realize cutting-edge R&D and medicine and social applications, and establishing innovative cancer treatment regimes using boron neutron capture therapy (BNCT).

In medical care, we are promoting efforts to contribute to regional medicine in Ibaraki and other prefectures by strengthening services such as the provision of telemedicine and advanced medical care (lifesaving and emergency medicine, etc.) and strengthening new outpatient functions.

- From fiscal 2018, the hospital has been shifting from the stage of ensuring sound management is on track to aiming for "true enhancement in functions!"
- With our sights set on the future, we aim to make investments necessary for the "real" functional strengthening of the hospital, putting in place an environment that will be satisfying not only for patients but also for staff as we realize a "magnet hospital."*



Strengthening Functions

- ◆ **Improving and enhancing the education and training environment**
 - Support the training of staff who provide advanced acute care
 - Improve and strengthen regional medical care education center functions
- ◆ **Improving the research environment**
 - Strengthen the framework for promoting clinical research
 - Promote world-leading medical care R&D and its social implementation
- ◆ **Improving the medical care environment**
 - Strengthen specialist outpatient functions (including chemotherapy)
 - Establish a framework for providing telemedicine, advanced medical care

*An attractive hospital with comprehensive medical treatment systems, facilities and equipment for providing advanced acute care, with high-level human resource development capabilities, which appeals to doctors, nurses, etc. and is trusted by patients

Specific Initiatives

Physician-led clinical trials through the University of Tsukuba Clinical Research & Development Organization (T-CReDO)

T-CReDO supports the development of research results (seeds) in medical technology and their practical application in clinical development. Likewise, it supports the implementation of clinical trials to obtain useful clinical knowledge. T-CReDO began new physician-initiated trials for dasatinib in December 2019. Since AY2016, T-CReDO has launched five projects, and plans to launch another one in AY2020.



State-of-the-art medical care at the Center for Innovative Medicine and Engineering (CIME)

CIME promotes the clinical development of medical devices and pharmaceuticals through interdisciplinary research including medical engineering collaboration, and conducts physician-initiated clinical trials and other clinical research aimed at new treatments using the robot suit HAL. In driving simulator research, we are also moving ahead with social implementation of our data analysis results, which are at present reflected in the Autonomous Driving Program Guidelines of the Ministry of Land, Infrastructure, Transport and Tourism.



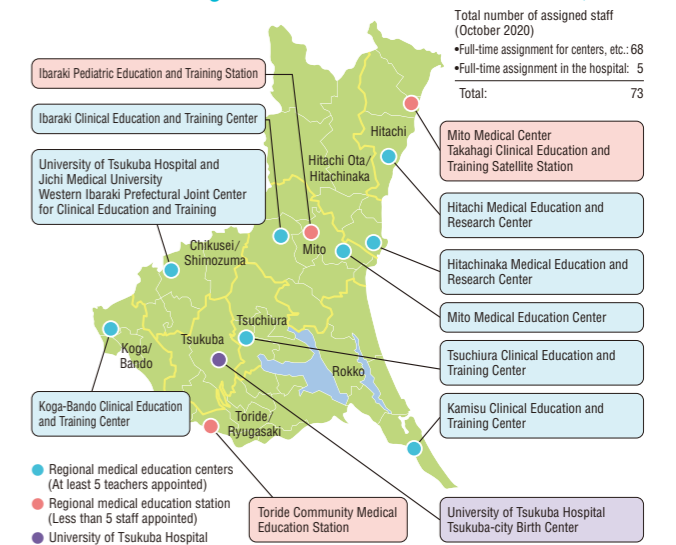
Contribution to regional medicine

Within the core medical institutions located in each of the secondary health areas (nine locations) in Ibaraki Prefecture, we have established local medical education centers (including local clinical education centers, local clinical education stations, etc.) and invest intensively in university hospital education resources and know-how by assigning full-time faculty members. We are also working to support local medical care by strengthening their functions as training center venues for students, and as venues for medical treatment and training of human resources who will be responsible for local medical care such as clinicians and clinical researchers. By AY2019, we had completed the establishment of centers

in all secondary health regions within the prefecture, and have assigned 71 full-time teachers. In this way, we are contributing to building a framework for providing community health care. Furthermore, the University Hospital was designated by Ibaraki Prefecture as the prefecture's first Advanced Critical Care Center in October 2019. The center was put into operation in 2020 and has always been ready to accept critical emergency patients that are hard to treat at tertiary emergency facilities. In addition to providing safe and secure emergency medical care, the center also strives to train emergency physicians as the core hospital of the emergency department specialist program, which is an indispensable part of strengthening the emergency medical care framework.

With the goal of realizing a society in which all people in the prefecture can lead safe and secure lives, the University Hospital will not only function as the last resort in emergency medical care but also work to enhance the emergency medical care framework through the development of emergency physicians.

Locations of Regional Medical Education Centers, etc.



Goals & Main Measures

Applying the results of three types of centers (leading education centers, teacher education centers and international education centers), we will establish a consortium with universities and affiliated schools throughout Japan and develop and propose curricula for developing global knowledge.

We perceive the 11 affiliated schools as a cluster of schools that will lead education nationally. With this understanding, we share the accumulated knowledge of the affiliated schools including the high level of teaching expertise of the teachers in areas such

as guidance in curriculum, school events, and special support education at the affiliated cluster through exchanges at the cluster of schools. Moreover, we will leverage our strengths that can be developed and we will strengthen our framework of collaboration with universities nationwide to develop programs aimed at a "Tsukuba-type inclusive education system." Furthermore, we will return the results of those activities nationwide through open research seminars and publishing activities.

Specific Initiatives

Leading Education Centers in Effective Curriculum Development Aimed at Improving Basic Academic Ability: Research and Practice for Leading Education in Japan

With affiliated elementary schools, junior high schools, high schools, and special schools catering to students with all types of disabilities, the University of Tsukuba is a unique university in the world. The university's affiliated schools also have a long history as experimental schools leading the schools of Japan, and we actively report on research and practices in the affiliated schools to lead education in Japan.



"Buds of Science" Prize Commendation Ceremony and Presentation

(Main Initiatives)

- Affiliated school research presentations
- 14th "Buds of Science" Prize

Advanced Teacher Education Centers for Improving Teacher Instruction: Leadership in Teacher Training and Teacher Education

The university's roots go back to Japan's first Normal School. Since then, the university has led education in Japan. The affiliated schools have also played a vital role in cooperating with university research and in practical training for teachers and caregivers. Leveraging the characteristics of their respective school types, the affiliated schools hold open classroom visits and workshops for practicing teachers, accept short-term and long-term teacher trainees, and use their classrooms as venues for conducting courses for teachers renewing their teaching certificates (Option D).



In-service teacher training

(Main Initiatives)

- Curriculum development for nurturing uniform global skills in elementary, junior high and high school
- In-service teacher training (teacher training workshops for newly appointed teachers), etc.

International Education Centers Cultivating Skills in Internationalism: Developing the Ability to Respond to Internationalism

Each affiliated school promotes international exchange activities for young students and teachers based on two common concepts:

- (1) In parallel with their development as individuals, infants, children, and students at the schools develop an attitude of understanding and appreciation of their own culture and the cultures of other countries and an attitude of actively communicating with people of other countries.
- (2) Respecting the culture of their own country and the culture of other countries, teachers make efforts to promote internationalism at their schools as a whole and consider what their schools can do for Japan and the world.



SGH international fieldwork of the affiliated Senior High School at Sakado (Indonesia)

(Main Initiatives)

- International Baccalaureate (IB)
- Promotion of Olympic and Paralympic Education

Goals & Main Measures

The university aims to shift away from university management depending solely on operating expense grants from the Japanese government to university management backed up by diverse financial resources to meet a broad spectrum of social expectations as a "center of excellence" in the midst of harsh financial conditions surrounding national universities.

In addition to formulating "management strengthening measures" to achieve this objective and implementing the measures to diversify the university's financial resources and reform its revenue

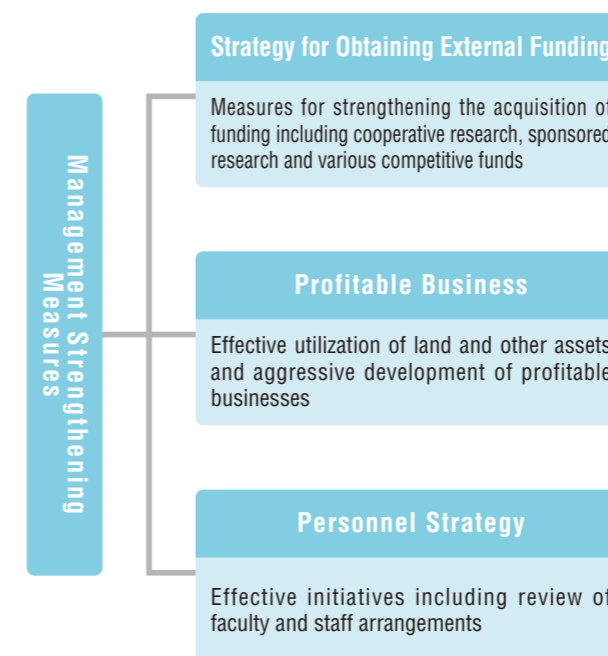
and expenditure structure, we have established the University Management Reform Office as an advisory body under the direct control of the President. This office includes external corporate managers and other experts, and we are examining concrete plans for the future.

To strengthen governance, we have also established a basic policy on information security and are making efforts to put a framework in place.

Specific Initiatives

Implementation of Management Strengthening Measures

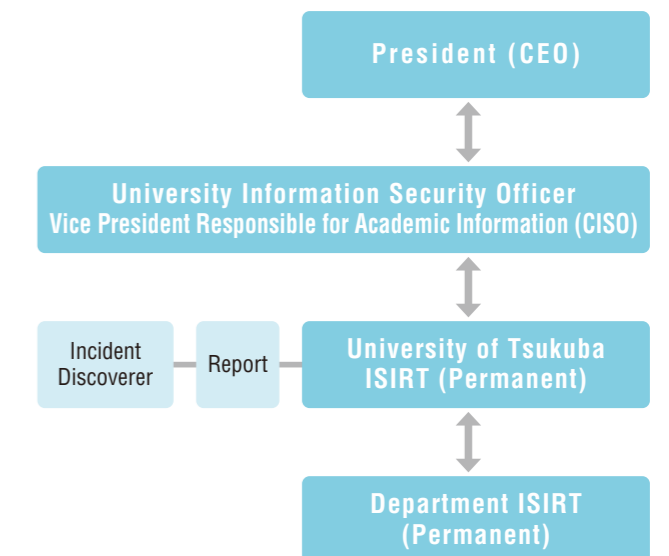
To maintain a stable business foundation at the university, we must revamp the income and expenditure structure. Therefore, in the Third Mid-term Goals Period we formulated "management strengthening measures" based on a strategy for obtaining external funding, the development of profitable businesses and a personnel strategy, and we are currently working towards their realization.



Information Governance Framework Enhancement

Under the basic policy on information security, we are putting in place rules and systems necessary for implementing appropriate information security measures to maintain information security standards that form the foundation of open, comprehensive universities both in Japan and internationally and to ensure the ongoing stable implementation of education, research and administrative business.

Information Security Organization and Framework



* ISIRT (Information Security Incident Response Team)

Progress of KPIs of the Third Mid-Term Goals and Mid-Term Plan

KPI	Target	AY2016 Achievement	AY2017 Achievement	AY2018 Achievement	AY2019 Achievement
Young teachers	25%	21.4%	20.6%	20.1%	21.0%
Female teachers	20%	18.2%	18.2%	18.5%	19.1%
Foreign teachers	10%	7.0%	6.9%	6.7%	7.4%
Teachers on annual salary	30%	28%	30.3%	32.3%	34.0%
Teachers on mixed salary arrangements	Versus AY2015 (18)	18	26	47	65%

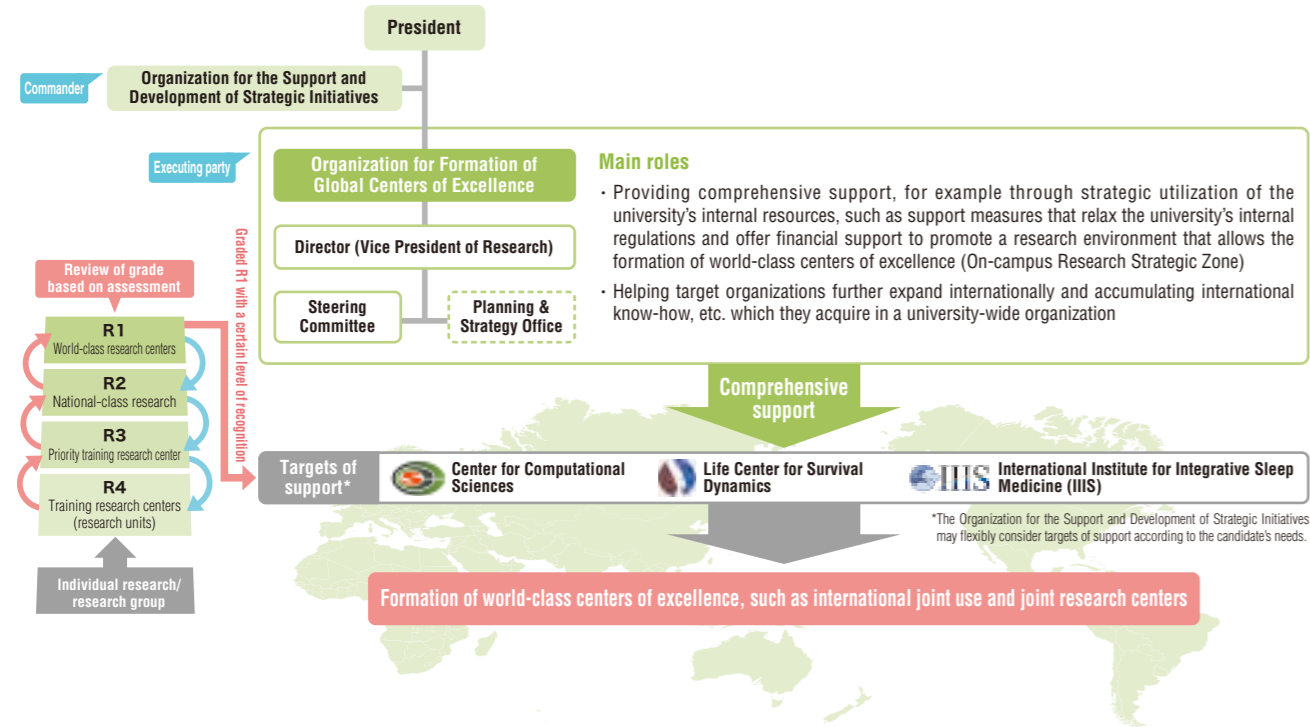


**Results of Main Activities
in AY2019**

Foundation of the Organization for the Formation of Global Centers of Excellence

We have founded a university-wide organization named Organization for the Formation of Global Centers of Excellence in AY2019 to construct a framework for enabling the formation of world-class research centers, such as international joint use and joint research centers. The purpose is to explore new research and education possibilities of the University of Tsukuba by providing its world-class research centers (Center for Computational Sciences, Life Center for Survival Dynamics, and International Institute

for Integrative Sleep Medicine (IIS)), which are strengths and characteristics of the university, with the support they need to form the world's best centers of excellence and helping them operate on a global scale. We intend to establish our own style of research organization management and promote it both inside and outside the university as a model case, so that various systems developed by the Organization for the Formation of Global Centers Of Excellence can be adopted across the university and across Japan.

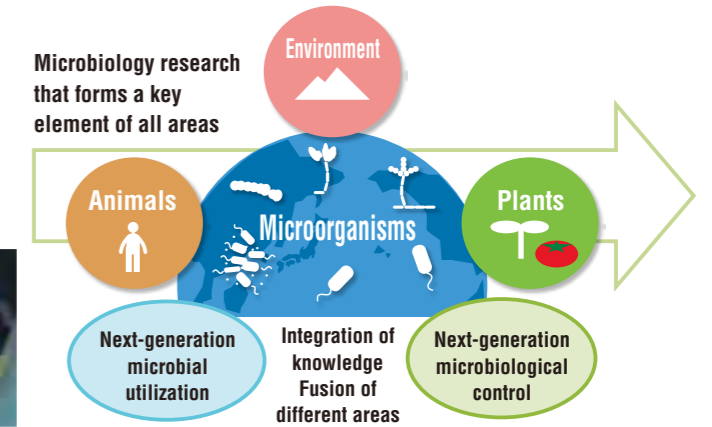


Achievement of the Microbiology Research Center for Sustainability

Microorganisms are becoming increasingly important for the maintenance of the homeostasis of animals and plants and the resolution of global issues. For the survival of the human race, it is now an urgent task to create a new academic discipline that controls and utilizes microorganisms by understanding the new ecosystem microorganisms create as the main actors through symbiosis with the environment, plants and animals, and to foster innovation using the discipline. To this end, the Microbiology Research Center for Sustainability was established in AY2018, with the goal of integrating basic and applied research and technology related to microorganisms, which are deeply involved with all life on Earth, and forming a center which promotes studies of microorganism

sustainability that aim to build a more sustainable society through understanding, control and utilization of microorganisms, and encourages innovation as Japan's core center.

It is a unique research center that conducts research on many different areas of microbiology that cover virtually all the Sustainable Development Goals (SDGs), thereby contributing to achieving the SDGs, which are major priority tasks for the world. In AY2019, the center was selected as a representative area under the Grant-in-Aid for Scientific Research on Innovative Areas scheme and held a kick-off symposium with the theme "Post-Koch Ecology: The next-era microbial ecology that elucidates the super-terrestrial organism system." Future research advances are anticipated.



"Environmental Radioactivity Research Network Center" Put into Action

The Center for Research in Isotopes and Environmental Dynamics has three research sections (Radioisotope Research Section, Radionuclide Environmental Transfer Section and Environmental Dynamics & Prediction Section), which work in cooperation with one another to conduct research on the environmental behavior of radioactive substances derived from the nuclear power station in Fukushima, and has achieved substantial results by promoting concerted research efforts between the research sections. Recognized for these results, the center was selected for an "Environmental Radioactivity Research Network Center," a joint use and joint research center approved by the Ministry of Education, Culture, Sports, Science and Technology. With an ambitious goal of unraveling the circulation process of radioactive substances in the global ecosystem, the center implements interdisciplinary research based on collaborative networking with different research communities, namely Fukushima University, Hirosaki University, Japan Atomic Energy Agency, National Institute for Environmental Studies and National Institutes for Quantum and Radiological Science and Technology, and promotes unique research by, for example, creating a new academic discipline of environmental dynamics analysis using isotopes as tracers.



No. of Grants-in-Aid for Scientific Research Projects Adopted Annually (8th in Japan)

University	No. of Projects Adopted (New + Ongoing)	No. of New Projects
1. Tokyo University	3,995	1,466
2. Kyoto University	2,898	1,046
3. Osaka University	2,591	987
4. Tohoku University	2,480	959
5. Kyushu University	1,865	669
6. Nagoya University	1,796	671
7. Hokkaido University	1,694	651
8. University of Tsukuba	1,273	481
9. Kobe University	1,144	384
10. Hiroshima University	1,135	408

No. of Highly Cited Academic Papers of the University (8th in Japan)

One indicator that reflects a university's achievements and actual results in research is the number of citations of academic papers. According to Clarivate Analytics' "Essential Science Indicators" database, the University of Tsukuba ranked 8th in Japan for the number of highly cited papers (excellent papers that are in the world's top 1% based on the number of citations) for the 11-year period from January 1, 2009 to December 31, 2019.

University	No. of highly cited papers	Ratio (%)
1. Tokyo University	1,535	1.7%
2. Kyoto University	978	1.5%
3. Osaka University	590	1.2%
4. Tohoku University	531	1.1%
5. Nagoya University	479	1.3%
6. Kyushu University	379	1.0%
7. Tokyo Institute of Technology	353	1.3%
8. University of Tsukuba	312	1.3%
9. Hokkaido University	304	0.9%
10. Okayama University	256	1.6%

Promoting Graduate School Education Reform: Shifting to a University-wide Degree Program System

Unlike other comprehensive universities, the University of Tsukuba is home to education and research in an exceptionally wide range of disciplines. The university has proactively explored new interdisciplinary and crosscutting education and research while deepening each specialized field. To precisely meet human resource development needs that are becoming increasingly advanced and diversified in today's society, which is undergoing rapid changes and faced with complex challenges, it is essential to go outside of the box and make bold attempts. The university made a decision to make a general transition from the traditional education system based on graduate schools and programs to a new education system centered on degree programs in AY2020 to enable faculty from a wide range of disciplines to collaborate and provide education beyond the traditional organizational framework to enhance the individuality and abilities of students and implemented the reforms below in AY2019.

The university became the first in Japan to make a full university-wide shift to the degree program system. We will play a trailblazing role in promoting this system and continue to develop diverse highly skilled human resources to meet the needs of today's society, which is changing rapidly and requires problem-solving actions that straddle multiple domains.



Reform Point 1 Reorganizing the eight Graduate Schools and 85 Graduate Programs into three Graduate Schools and six Degree Programs

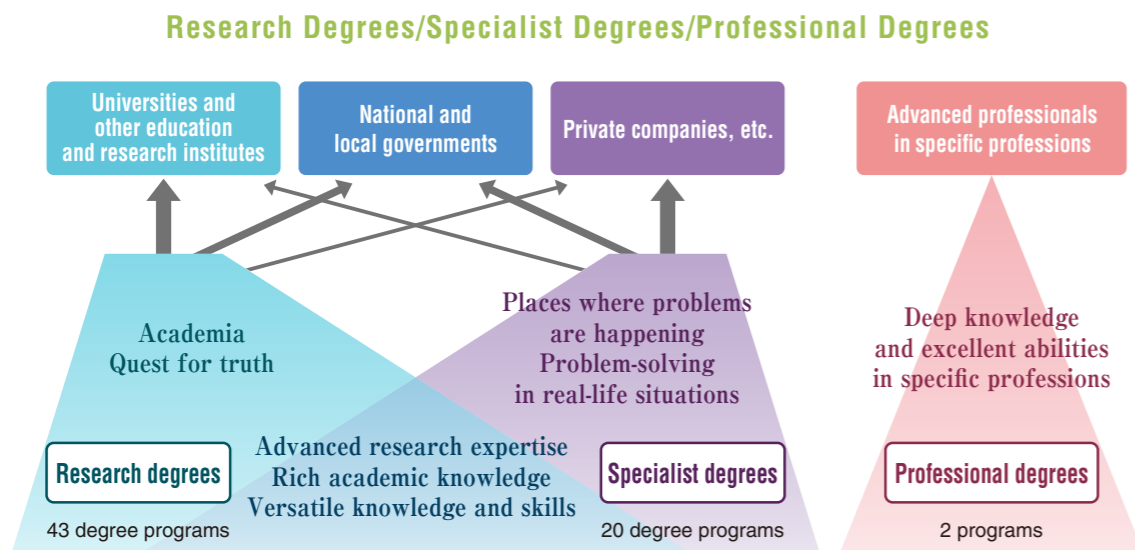
- The eight Graduate Schools and 85 Graduate Programs were reorganized into three Graduate Schools and six Degree Programs in April 2020.
- The six Degrees Programs consist of 56 specific degree programs and provide lectures and research supervision through cooperation between faculty from a wide range of disciplines, mainly full-time faculty members of each Degree Program.

Reform Point 2 Clarifying the knowledge and abilities (competences) that should be learned

- Further clarifying the knowledge and abilities which students should develop by the time of degree conferment from the perspectives of both versatility (general competences) and expertise (specialist competences) and compiling a systematic curriculum to allow students to achieve them.
- Regularly monitoring the progress of students in accordance with the achievement evaluation method set by each Degree Program and providing individual students with the customized learning support that they need in order to make sure that they can master the necessary general competences and specialist competences by the time of completion.

Reform Point 3 Categorizing degrees according to the purposes of human resource development and launching specialist degrees

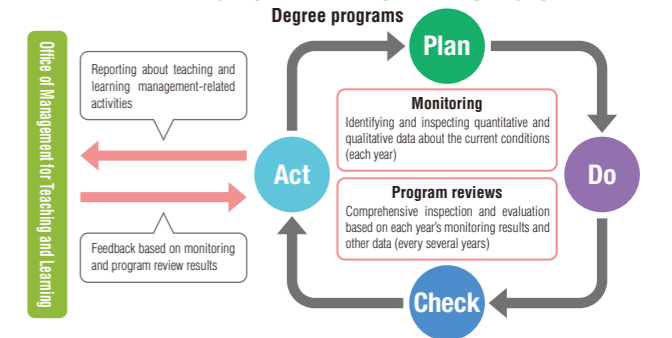
- Realizing human resource development that meets the diverse graduate education needs of society and corporations by classifying degrees into three categories, namely research degrees, specialist degrees and professional degrees, which is the university's unique approach, and clearly defining the purposes of human resource development of each category.
- Particularly, the launch of "specialist degrees" is a new endeavor that places emphasis on developing the practical skills required to deal with specific real-life challenges in society, in addition to research abilities expected of recipients of Master's and Doctor's degrees, and aims to further promote the development of people who can contribute to resolving specific social issues.



Reform Point 4 Realizing university-wide management for teaching and learning

- Establishing the Office of Management for Teaching and Learning to realize university-wide teaching and learning management with the aim of sustainably ensuring and improving the educational quality of degree programs after the reorganization.
- The purpose of the Office of Management for Teaching and Learning is to promote the establishment and advancement of internal quality assurance mainly through degree program monitoring (each year's self-inspection) and program reviews (comprehensive inspection and evaluation implemented every several years according to the seven-year cycle of organization-specific accreditation), in addition to quality assurance reviews for creation and reorganization of degree programs, promotion of systematic faculty development, and research and studies about higher education.

Establishment of internal quality assurance through monitoring and program reviews



Self-inspection and evaluation (monitoring and program reviews) by each educational organization and degree program and improvement based on the results → Establishment of internal quality assurance

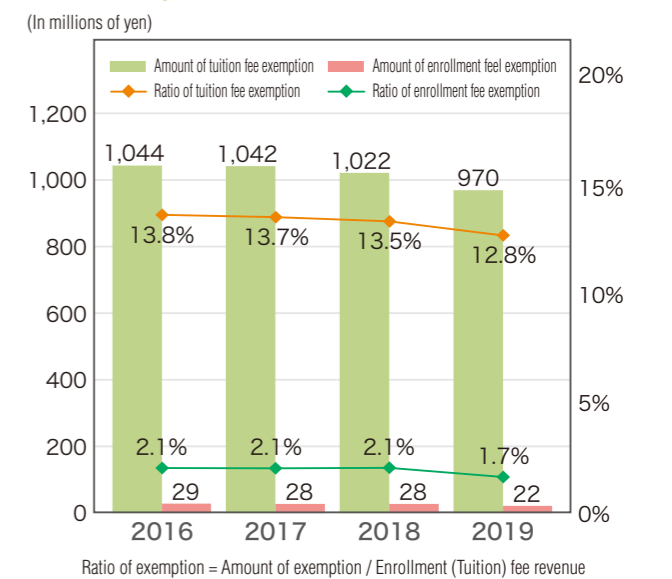
Improving Student Support

Enhancement of the Tuition Fee Exemption

The university exempts students who have difficulty paying due to financial reasons and other students who are deemed to have unavoidable circumstances, in addition to students who are recognized as having outstanding grades, from paying the enrollment fee and tuition fees in whole or in part.

In AY2019, 80 students were granted exemptions from enrollment fees totaling 22 million yen and 5,482 students were granted exemptions from tuition fees totaling 970 million yen.

Exemption of enrollment and tuition fees



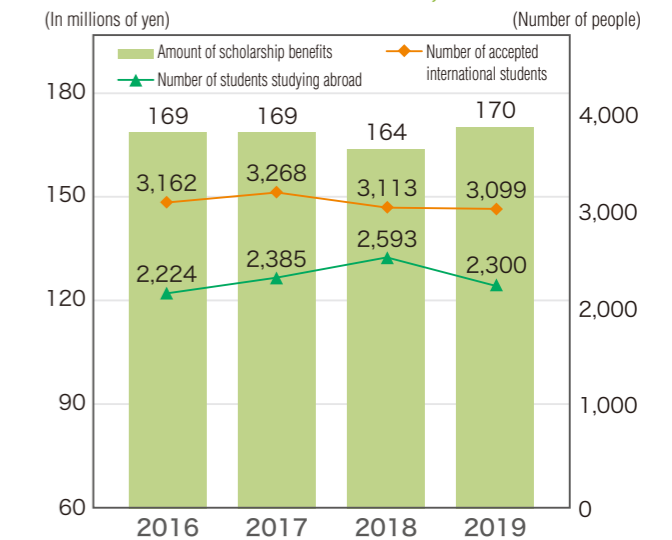
Receiving International Students and Improving Support for Overseas Study

The Tsukuba University Student Scholarship "Tsukuba Scholarship" is a program that provides financial support for international students, support for students studying abroad, and emergency support for educational expenses through various initiatives for internationalization including the Project for Establishing University Network for Internationalization. This is the university's own scholarship program for supporting students and is funded by non-subsidy revenue of the university. With the increase in the number of international students received by the university and the number of students studying abroad, the program provided 66 million yen in support of 164 students in AY2019.

The "Habatake! Tsukudai-sei Study Exchange Support Program" is another scholarship program sponsored by the university for assisting students studying abroad. In AY2019, the university provided financial support to 651 students. As the result, the number of students sent abroad rose to 2,300 in total, as some students who participated in a short-term study abroad program went on a longer-term study abroad program later.

In AY2019, the university provided a total of 170 million yen in financial support including the Tsukuba Scholarship to assist students to study abroad and participate in overseas study programs.

Amount of scholarship benefits, number of accepted international students, etc.



International Implementation of Industry-University Collaboration

We established the Headquarters for International Industry-University Collaboration in AY2014 and have been striving to strengthen the framework for industry-university collaboration with the goal of expanding our joint research projects with both Japanese and overseas corporations.

In AY2019, we set up overseas bases for strengthening our international industry-university collaboration in Boston and Silicon Valley. We became the first Japanese university to sponsor Venture Café at Cambridge Innovation Center in Boston (CIC), under the title of "University of Tsukuba Night," in August and launched the International Unicorn Development Program in September, in which the University of Tsukuba started its international marketing by sending five teams of faculty members and students to CIC to work for overseas startup operations at coworking spaces there. We also opened the Laboratory of Intellectual Innovation (LII) in Silicon Valley to prepare ourselves for constructing channels with

angel and VC investors based in the region.

Besides activities through these two bases, we have also launched an entrepreneur education program in San Diego in partnership with the University of California, San Diego (UCSD).

In the future, we are planning to start two other initiatives through the bases in Boston and Silicon Valley, namely 1) international funding through startups launched at the University of Tsukuba and seed-stage startups and 2) construction of international relationships of industry-university collaboration through introduction of the university's research activities to local companies, while at the same time working to develop our bases in Europe and Asia (Malaysia, etc.).

Silicon Valley



- **Establishment of a base of operation**
LII (Laboratory of Intellectual Innovation)
Opened on May 29
- An office adjacent to Downtown Mountain View Station (Google Area)

Boston



- **Venture Café "U of Tsukuba night"**
August 29
- **International Unicorn Development Program**
Product-Market-Fit activities at coworking spaces
Five teams per month from September on

CIC : Cambridge Innovation Center



San Diego



- **UCSD Training** (University of California, San Diego)
Implemented in February
- In partnership with T-CReDO
- One-week mentoring-based market-fit program in San Diego

Boston

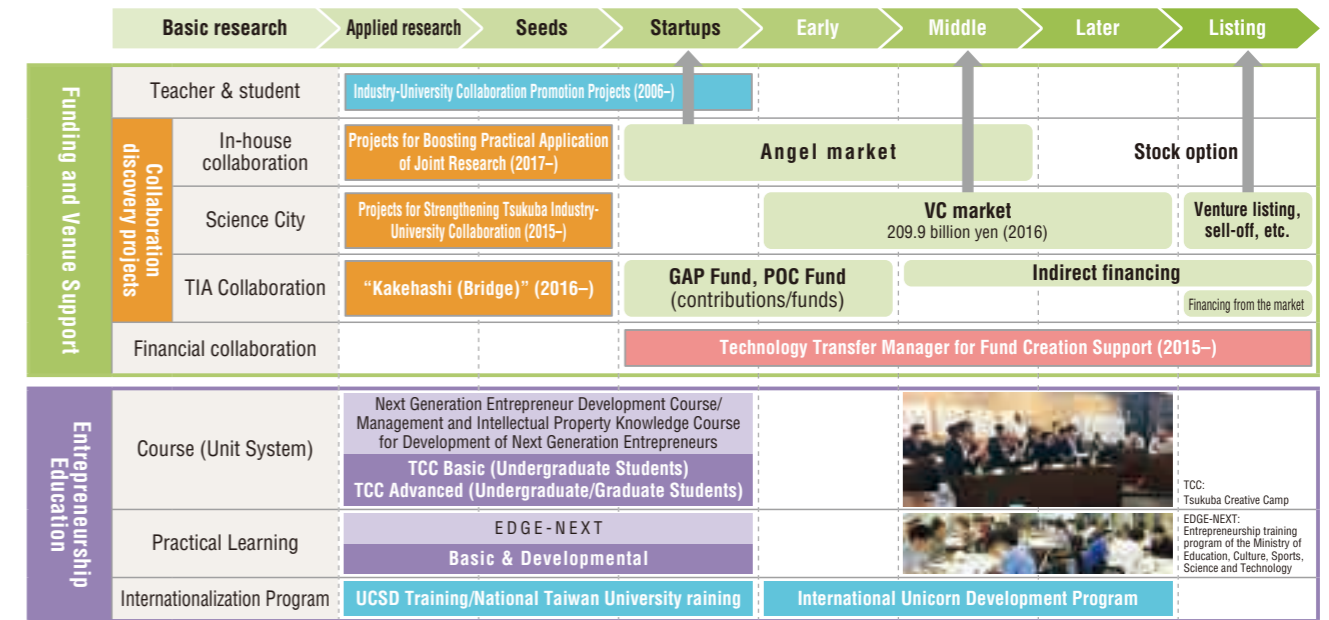


- **World-class innovation hub** (700 billion yen in investments in AY2016)

Support in the Creation of Ventures

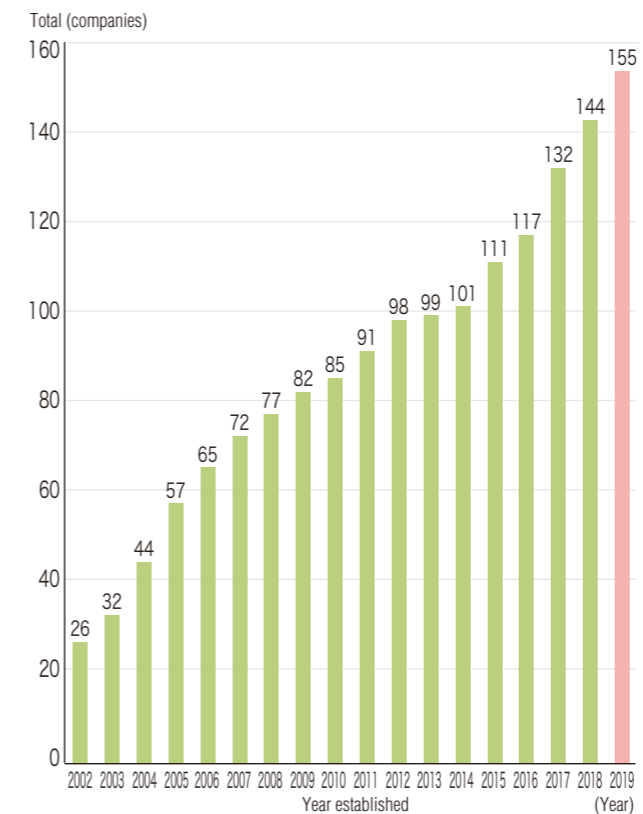
Our support in the creation of ventures is divided into two areas: funding and venue support and entrepreneurship education. In AY2019, we supported collaboration themes between faculty and students of the University of Tsukuba and Tsukuba Science City in the area of funding and venue support through four projects for which we had invited applications from the public. In the area of

entrepreneurship education, we promoted the shift towards the unit system in the undergraduate and graduate schools, as well as practical education and internationalization programs under the Exploration and Development of Global Entrepreneurship for NEXT generation (EDGE-NEXT) by the Ministry of Education, Culture, Sports, Science and Technology.



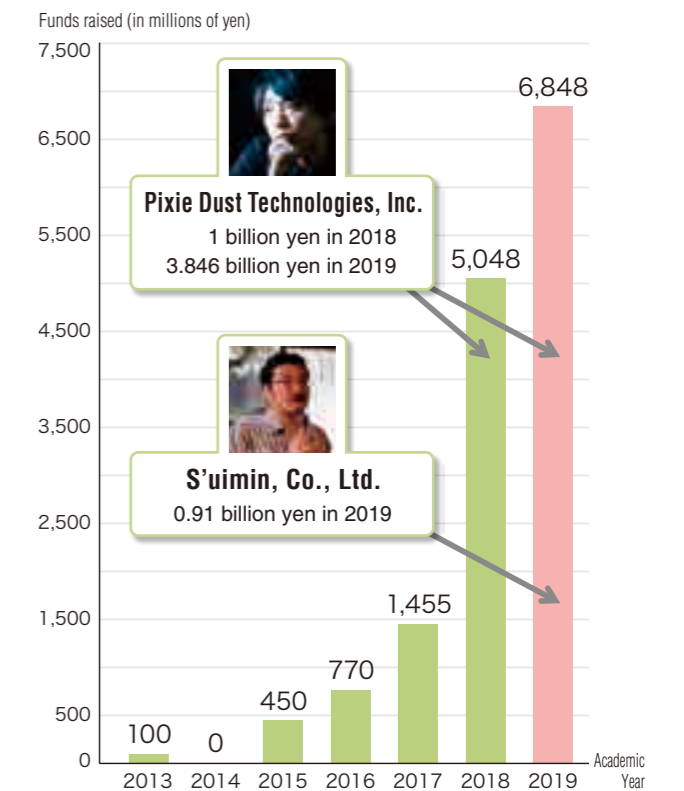
No. of Startups Launched at the University

Approximately 10 startups have been launched annually at the University of Tsukuba since 2015, and as of the end of AY2019, 155 startups have been established in total.



Annual Change in Funding for Ventures Launched at the University

Fund raising for startups launched at the University of Tsukuba has grown rapidly, reaching 6.8 billion yen as of the end of 2019.



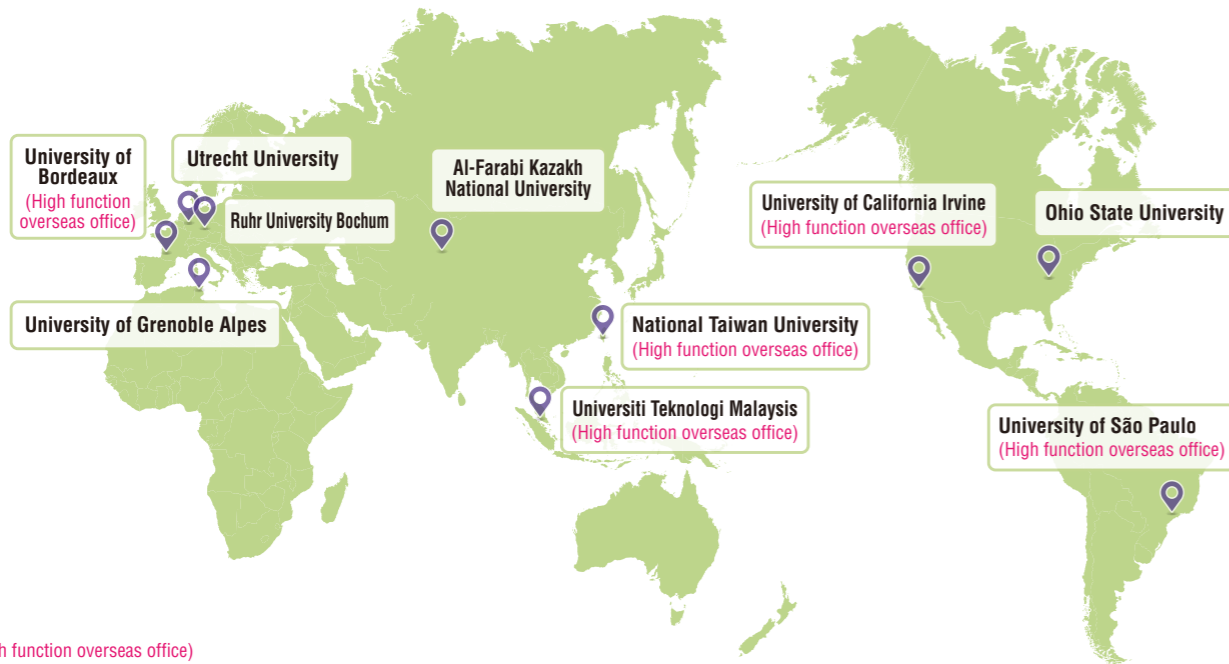
Enhancing the Campus-in-Campus Program

Campus-in-campus is an initiative for mutually sharing campuses with partner universities overseas to promote transborder exchanges in education and research beyond national boundaries and institutional barriers. As part of this initiative, we signed a new agreement with Ruhr University Bochum (Germany) and the Al-Farabi Kazakh National University (Kazakhstan), bringing the number of our CiC partner schools to ten.

In addition to expanding the registration of courses that make

use of the characteristics of CiC partner schools, we registered approximately 2,800 courses in the course jukebox* in addition to courses in English at the University of Tsukuba to provide courses based on students' interests and to promote studying abroad.

*A system that allows overseas partner universities and the University of Tsukuba to mutually offer course subjects to students of their respective universities through what the university refers to as "the jukebox." Through this arrangement, students have the option of taking courses registered on the jukebox at overseas partner universities.



(High function overseas office)
An office in charge of the strategic functions of the CiC Program, such as exchanges between students and researchers

Hosting the First Tsukuba Conference (a Young Version of Davos or the World Economic Forum) "Tsukuba Conference 2019"

Building upon the past achievements of the Tsukuba Global Science Week (TGSW), the University of Tsukuba hosted the "Tsukuba Conference 2019," a new international conference launched to provide young researchers, students and other people both inside and outside Japan with a forum to discuss scientific and social issues, as part of its efforts to increase the presence of the university and Tsukuba Science City.

The conference took place at Tsukuba International Congress Center on October 2-4 and 50 sessions were organized by the University of Tsukuba and other research institutes based in Tsukuba Science City under the main theme "Society 5.0 and SDGs." In holding this conference, the University of Tsukuba played a central role from the planning stage, for example by having the president act as Chair of the Tsukuba Conference Organizing

Council. The conference had 1,500 participants (including 344 from abroad) from 250 organizations (including 105 overseas organizations) in 65 different countries and regions in the world and the Tsukuba Declaration was adopted by young researchers and other participants in the closing ceremony.

During this conference, the University of Tsukuba also became the first Japanese organization to co-host a WCC Awards Ceremony with the World Cultural Council (WCC), an international organization formed by Nobel laureates and other researchers to promote academic culture across the world, to give special recognition to outstanding researchers on an international level.

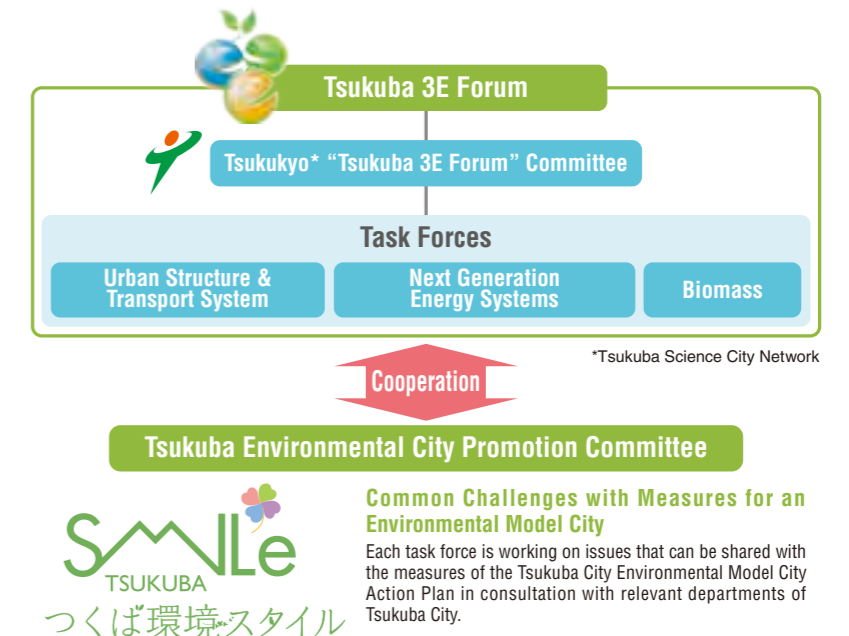
We are planning to host the Tsukuba Conference or TGSW alternately each year in the future to continue to promote the University of Tsukuba and the international city of Tsukuba.



Promoting the 3E Forum

The Tsukuba 3E Forum, an initiative aimed at making Tsukuba Science City an energy-saving, low-carbon science city by strengthening the Tsukuba Science City network, engages in various activities including holding the 13th Tsukuba 3E Forum in January 2020. Under the theme, "Waste Plastics," which has been attracting increasing attention recently, the forum presented keynote speeches from researchers and other speakers, case studies,

and a panel discussion, and had approximately 100 participants, including local residents, researchers and administrative officials. In addition, a total of four projects, one of which was "Development of Small UAV (Drone)-assisted Technology for Greenhouse Gas Measurement in Farmland, Lakes and Rivers," were implemented by task forces set up under the forum.



Promotion of Olympic and Paralympic Education

The University of Tsukuba established the Office for the Promotion of Olympic and Paralympic Activities in AY2017 to integrate a wide range of information about promotional activities for the Olympics and Paralympics, form integrated research and education groups for the activities, proactively promote to society the Olympic and Paralympic movement to which the university is committed, revitalize local communities through the Olympic and Paralympic activities, and facilitate the activities.

In AY2019, the university not only provided training courses for volunteers but also implemented, across Japan, educational programs designed to promote the philosophy of the Olympics and Paralympics, such as seminars on hospitality and inclusive education, through the Center for Olympic Research and Education in cooperation with the Education Bureau of the Laboratory Schools and its affiliated schools at the request of the Japan Sports Agency.



Toward a Medical Institution More Friendly to Foreigners: JMIP and JIH Accredited

The University Hospital was newly recognized by the Japan Medical Education Foundation as an institution sufficiently equipped to accept foreign patients under the Japan Medical Service Accreditation for International Patients (JMIP) system in September 2019. This accreditation system assesses how well equipped a hospital is to allow international patients to receive safe and reliable medical services from five perspectives: acceptance, services for patients, management of provision of medical care, organizational system and administration, and improvement efforts. The University Hospital became the first hospital in Ibaraki Prefecture to be accredited and the sixth accredited hospital affiliated to a national university, following those affiliated to Osaka University, Kyushu University, Okayama University, Hokkaido University and Kobe University.

The hospital also had its accreditation by the Medical Excellence Japan (MEJ) for Japan International Hospitals (JIH) renewed in December. This accreditation system promotes internationalization of medical services by the Japanese government as one of the pillars of the Japan Revitalization Strategy and encourages Japanese medical institutions to accept inbound medical travelers. As of now, 49 hospitals across Japan have been accredited as recommended hospitals and the University Hospital is the only

accredited hospital in Ibaraki Prefecture.

It is expected that growing numbers of international patients will come to Japanese hospitals in 2021, when the Tokyo Olympic and Paralympic Games will take place. The University Hospital will further equip itself to improve its medical services for international patients and provide them with even higher quality medical care and continue to be a medical institution friendly to foreign patients through efforts led by the International Medical Center.



Development of Kirinoha Mall

The University Hospital developed an amenity mall named "Kirinoha Mall" as a public-private partnership (PPP) project with the aim of increasing convenience for patients and their families, staff members and other people and completed it in AY2019.

Kirinoha Mall, which opened in April 2020, accommodates a



convenience store, dispensing pharmacies, barber shop, coffee shop and medical fitness club. In addition, another new facility, University of Tsukuba Hospital Hall, has also been completed for holding lectures, seminars, ceremonies, etc.



Promotion of the Collaboration Center Development Project for Next-generation Medical Devices

In AY2019, the University Hospital was selected for the Collaboration Center Development Project for Next-generation Medical Devices by the Japan Agency for Medical Research and Development (AMED). Taking advantage of its existing resources, such as the interdisciplinary environment of Tsukuba, a seamless support system as a bridging research center, international operations and corporate support as an exit strategy and a rich

range of practical training seminars for professionals, the university has begun to provide researchers from industry, government and academia and graduate students with practical educational programs, such as clinical training programs, as a human resource development hub for research and development of next-generation medical devices that can be promoted internationally.



Launch of the Support Project for Building the Worldwide Learning (WWL) Consortium

We have successfully applied for the Support Project for Building the WWL Consortium by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) to pass on and further enhance the results of our Super Global High School (SGH) activities, which we have been implementing for five years since AY2014. Senior High School at Sakado, University of Tsukuba, which acts as the base school, two academic high schools and three special needs education schools with high school departments affiliated to the University of Tsukuba and partner schools both inside and outside Japan have jointly promoted international education through organizing the High School Students' International ESD Symposium and other programs. Being the administrative organization for the organizer, the Education Bureau of the Laboratory Schools will continue to contribute to Japan's efforts to develop international human resources in partnership with MEXT, for example through hosting the All Japan High School Forum.



Strengthening Cooperation Between the University and Affiliated Schools

A career forum was implemented in lecture meeting form after repeated consultations between senior high schools affiliated to the University of Tsukuba and Ochanomizu University. Besides this, special interest-group sessions have been carried out on a continued basis under the title "Career Café." Not only have the results been reported on various occasions, such as educational research conferences, but they have also been repeatedly verified through questionnaire surveys. In addition, we have been working on the development of volunteer workers for the Olympic and Paralympic Games in cooperation with private universities in Tokyo and administrative authorities, including ward offices, by taking advantage of programs which we have developed, and have led some participants to register as volunteers. Building upon these achievements, we have also hosted a symposium to increase people's understanding and awareness of parasports.



Promotion of Development of Inclusive Education through the Miura Beach Community Life and Other Programs

Until 2018, we held the "Kurohime Kogen Community Life," an ongoing three-day, two-night program to promote mutual understanding and exchanges through communal living of students from the ordinary schools and the special needs schools of the affiliated schools. Based on the success of this program, we held the "Miura Beach Community Life" program as a new three-day, two-night program, in which all 11 affiliated schools participated, in August 2019 in Miura City, Kanagawa Prefecture. Students participated in this program for raising awareness concerning people with disabilities through joint activities such as marine sports, crafts and spending time with each other under one roof.



Furthermore, Special Needs Education School for the Mentally Challenged, University of Tsukuba has been engaged in interdisciplinary research in cutting-edge fields of information engineering, developmental psychology and medicine using FUTUREGYM, which is equipped with projection mapping technology that projects various information on the floor and tools in step with the movements, actions and group behavior of children, to observe the social behavior of children with developmental disabilities, stimulate their social development and help them develop the ability to express themselves through creative activities.



Tsukuba Futureship

Since April 2010, the University has been awarding the Tsukuba Futureship to students who demonstrate potential to pave a new path for the future to provide them with a stable environment where they can concentrate on study and research and with opportunities to engage in various mutual exchanges as well as to contribute to promoting education and research at the university, and also social contribution activities.

The Tsukuba Futureship has both a General Fund and Specified Funds. The General Fund mainly provides financial support to elementary, secondary and tertiary students for study and research purposes and for international exchanges and development of global human resources.

The Specified Funds, which are established for the implementation of specific projects conducted by the university, are used for purposes such as training and strengthening athletes

and teams in sports clubs and developing human resources who will provide high-quality medical care at affiliated hospitals.

The Study Support Fund, which is a specified fund, provides support to students who have difficulty studying due to economic reasons. In accordance with the tax deduction scheme introduced under fiscal 2016 tax reforms, donors to this fund can receive a tax deduction by choosing either an “income deduction” or “tax deduction,” whichever is more advantageous.

In addition to tax incentives for making donations, the university also gives commendations to donors based on the amount of their donations, as an expression of gratitude to donors.

For further details, please see the Tsukuba Futureship website. We thank you for your understanding of the mission of the Tsukuba Futureship and we look forward to your continued support.

151st Year Since Founding and 50th Anniversary of the University of Tsukuba Commemorative Fund



The University of Tsukuba traces its roots to the Normal School, Japan's first institution of higher education, founded in 1872. This institution underwent a number of transformations until it became the Tokyo University of Education, the immediate predecessor of the University of Tsukuba, which was established in 1973 as a “new concept university.” Thus, in 2023, we will celebrate the 151st year since our founding and the 50th anniversary of the establishment of the University of Tsukuba.

To realize our founding ideals, we established the “151st Year Since Founding and 50th Anniversary of the University of Tsukuba Commemorative Fund” for (1) the support of world-leading research and (2) the support of international exchanges and development of global human resources. We sincerely thank all stakeholders for your understanding of the mission of the fund and look forward to your support and cooperation.



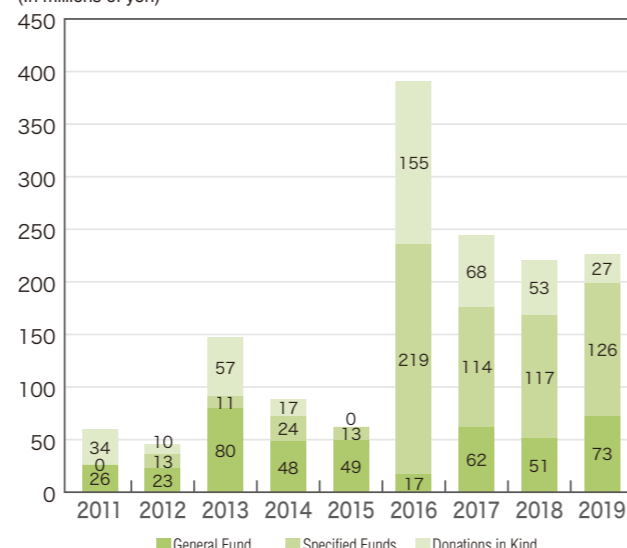
AY2019 Cash Donations Received

(In thousands of yen)

Purpose of Donation	Donation Amount	No. of Donations
General Fund	73,331	2,698
Specified Funds	126,343	5,732
151st Year Since Founding and 50th Anniversary of the University of Tsukuba Commemorative Fund	33,378	2,652
University of Tsukuba Sports Association Project	30,245	1,300
University of Tsukuba Hospital Support Project	13,893	34
Shiho-kai Fund	36,730	1,399
Tsukuba Futureship Association for International Student Support	745	161
Junior High School and Senior High School at Komaba 70th Anniversary Fund	6,005	141
Student Support Project Fund	5,341	44
Assets-in-kind Utilization Fund	6	1
Total	199,674	8,430

Changes in Receipt of Cash Donations

(In millions of yen)



Crowdfunding

In AY2017, we launched a business partnership with READYFOR Inc. for crowdfunding, a powerful tool for obtaining donations. In AY2019, we implemented four projects with a funding amount of approximately 29 million yen. In particular, in the Project to Revive the University of Tsukuba Hakone Ekiden, which was launched in 2011 to allow the university to qualify again for the collegiate Hakone Ekiden race and was accelerated in 2015 by the appointment of Tsutomu Hiroyama, a University of Tsukuba graduate, as the new

coach, our team has improved its records thanks to support from many supporters and eventually realized our long-cherished wish by gaining a spot in the race for the first time in 26 years since 1994. In the future, we hope to actively develop projects unique to our university to draw greater public attention to our initiatives and contribute to cultivating the act of making donations to causes a customary practice in Japan.



(5th round) A serious challenge by a national university! Project to Revive the University of Tsukuba Hakone Ekiden



Arriving in the disaster zone within 48 hours! Introduction of “DPAT cars” as mobile bases for mental care



Support for students by students! Let's expand the network for peer support



(4th round) A serious challenge by a national university! Project to Revive the University of Tsukuba Hakone Ekiden

Hosting of a Special Paid Exhibition



Commemorating the broadcasting of the historical drama television series “Iaten,” we organized an exhibition entitled “Jigoro Kano and Shiso Kanakuri Special Exhibition” to improve our branding and for other purposes. In association with this exhibition, we have also concluded partnership agreements with Kumamoto Prefecture, Tamana City, Nagomi Town and Nankan Town, and have received crowdfunding support from them, including financial support for a training camp which our Ekiden team has received from Kumamoto Prefecture and other supporters. This has contributed a lot to the team's participation in the Hakone Ekiden race.



Initiatives to Strengthen Management

Based largely on the National University Management Strategy (Ministry of Education, Culture, Sports, Science and Technology, June 2015), the university formulated management strengthening measures for the Third Mid-term Goals Period (approved by the Board of Directors on March 23, 2017), consisting of three pillars (strategy for acquiring external funds, development of profitable businesses, and a personnel strategy) aimed at reforming the revenue and expenditure structure to diversify the university's independent financial resources and strengthen the financial base. We are currently working to realize these measures. Results for AY2019 are as follows:

(1) Strategy for acquiring external funds

- 1) We acquired a total of 12,939 million yen, which was higher than the previous fiscal year, due mainly to an increase in sponsored and cooperative research and donations.
- 2) We adopted a stock option system to allow the university to own stock acquisition rights in exchange for venture licenses and asset rentals as part of our efforts to form a venture ecosystem to attract external funds.

(2) Development of profitable businesses

- 1) Through cloud funding, four businesses acquired a total of 29 million yen.
- 2) In the extension programs, 16 courses generated a total of 48 million yen.
- 3) In funding projects, we established the "151st Year Since Founding and 50th Anniversary of the University of Tsukuba Commemorative Fund" and acquired a total of 47 million yen through public relations activities targeting mainly companies, corporations and other organizations to which our graduates belong. The total amount raised by our funding projects in AY2019 was 227 million yen.

- 4) In regard to the effective use of land and other assets, we commenced "the development of compound facilities for accommodation and other purposes" in September to integrate privately financed accommodation facilities.

(3) Personnel strategy

- 1) We made efforts to curb personnel costs through effective initiatives including a review of teacher and staff arrangements.
- 2) The number of personnel assigned to development of new research fields reached 107.
- 3) The number of personnel contributing to efforts to recruit young, female and foreign teachers and strengthening research expertise has grown to 62.
- 4) With further promotion of the cross-appointment system, the number of applicable faculty reached 65.

Initiatives of the Office of University Management Reform

Review of the university's medium- to long-term strategy from a management perspective

The mission of the Office of University Management Reform is to prepare recommendations on specific measures for strengthening the university's future management base and requirements necessary for strengthening university management to enable the University of Tsukuba to continue to compete as an international university on the world stage 10 to 20 years from now and further develop education and research, bearing in mind future social changes and other changes in the environment surrounding the university. Therefore, to conduct a more fine-tuned, multifaceted review, we have even added external experts such as corporate managers and marketing specialists to the collaborative framework of faculty and staff members.

In AY2019, the office discussed the university's future vision towards the Fourth Mid-term Goals Period and examined the respective projects proposed in the previous year as packages of proposals relevant to the vision through a total of six plenary meetings and e-mail correspondence. Toward the fourth term, the office also took fact-finding trips to overseas benchmark universities and explored how human resources should be developed for university management to put each measure into practice. The office also worked to facilitate sharing of information about the future vision, for example by providing opportunities for faculty of the university to exchange views, and reported the results to the president.



"Trust" as the Keyword for Achievement of the SDGs

In his opening address at the Tsukuba Conference 2019, President Kyosuke Nagata called for efforts to achieve Society 5.0 and the SDGs using the keyword "trust."

Message from the President

The key to Society 5.0 and the SDGs is "trust" between people, organizations and society. "Trust," as used here, means believing in people (organizations, society, etc.) and leaving it all up to them, while "belief," a similar word, refers to believing what people do, for example what they say. Furthermore, "accountability" refers to responsibility for consequences and dependability, and "reliability" responsibility that should be taken.

My belief is that while "reliability" and "accountability" are essential parts of achieving the SDGs, the ultimate element is "trust." Trust is also what brings Society 5.0 and the SDGs together. As long as trust is maintained, Society 5.0 can contribute substantially to achievement of the SDGs.



Examples of University Initiatives

Advancement of prediction and control of wind power generation

(Center for Computational Sciences)

Wind power generation is expected to generate power at a lower cost than other forms of renewable energy production. However, when it comprises a large part of power systems, it can adversely affect the stability of power supply as its output is subject to climatic conditions. Therefore, to minimize the negative effect that wind power generation can have on the stability of power supply, it is necessary to deepen our understanding of the relationship between climatic conditions and fluctuations in wind power generation output from a meteorological point of view.

In this research area, the center pays special attention to rapid output fluctuations in wind power generation that can affect the supply, demand and utilization of electricity and has been studying factors contributing to rapid wind fluctuations that can cause ramps from a meteorological point of view using a numerical meteorological model, for example by targeting "meteorological wind ramps" using temporary values (fluctuation time range and time length) in terms of size. Figuring out factors contributing to rapid wind fluctuations that can cause ramps from a meteorological point of view is expected to contribute to increasing the precision of numerical meteorological model-based prediction and reproduction of ramps.



The Driving Sustainable Development website contains a message from the president as well as messages from faculty members who are deeply involved in the SDGs, and articles on research projects being conducted by the research center and research units.

<https://www.osi.tsukuba.ac.jp/sdgs/>

Ability to develop a full picture of the globe and to independently address issues

(Bachelor's Program in Global Issues)

To realize a sustainable global environment and an inclusive society that respects diversity, it is necessary to regard Earth as one planet and have a full picture of the world, not recognizing any national borders for the human race. To this end, the University of Tsukuba has broken out of the conventional boundaries of university education and introduced a new people development program named "Bachelor's Program in Global Issues."

"Global Issues," as used here, refers to issues caused by relations between global systems and human society. To deal with such issues, university students in the 21st century are required to be educated to be able to develop a big picture of the globe as earthlings, ranging from an outline of the mechanisms of the universe that gave birth to Earth, the history of how Earth was formed along with the moon, biological evolution from the beginning of life to sapience, to the history of Homo Sapiens. At the same time, they are also required to understand what humans have done to exercise governance on Earth and become able to make their own judgments about commitments by the international community, nations, local communities and each one of us.

Students develop basic knowledge of international commitments, such as the Stockholm Conference on the Human Environment (1972) and the SDGs, as well as more specialist knowledge, to comprehensively associate the SDGs themes. Practical training and other types of training are provided to enable individual students to propose their plans and projects designed to make society easier for them to live in by graduation.





**Initiatives for
Strengthening Governance**

Under the leadership of the president, the university decides on the roles and responsibilities of the internal organizations, and establishes appropriate decision-making procedures. In particular, the university has been making efforts to further strengthen governance and execute prompt business operations through the appointment of university executive officers and Management Committee, which are systems unique to our university.

University Officers

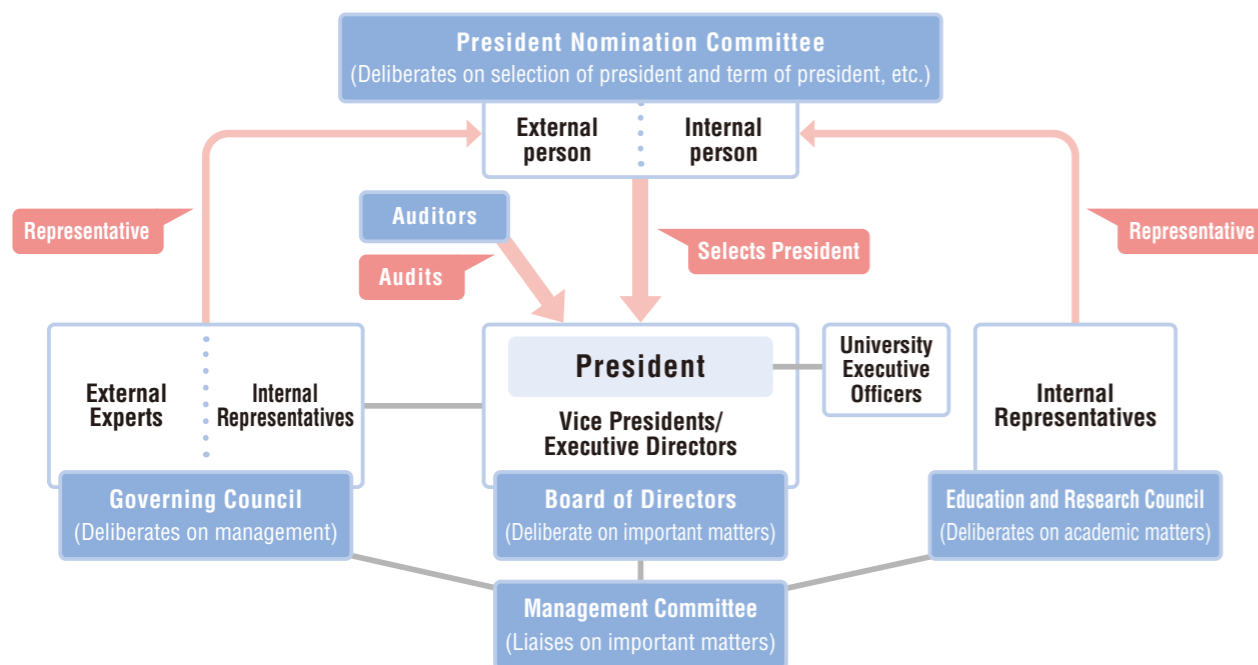
- The president is selected by the President Nomination Committee and is appointed by the Minister of Education, Culture, Sports, Science and Technology. The President Nomination Committee is composed of members selected from external members of the Governing Council and members selected from the Education and Research Council to reflect not only views on campus but also views of society at large.
- The executive directors (8) assist the president in managing the affairs of the university corporation.
- The vice presidents (10 in total, 7 of whom are concurrent directors) assist the president, receive orders from the president, and manage school affairs.
- The university executive officers (13) support the president, receive orders from the president, and supervise specific duties under the university's unique system. The faculty heads (10), who head the faculty organizations, and persons (3) who are in charge of specific tasks are responsible for these duties.
- The auditors (2) are appointed by the Minister of Education, Culture, Sports, Science and Technology. In addition to auditing the university on a regular basis, the auditors cooperate in assessing the performance of the president at the annual meeting of the President Nomination Committee.

*Furthermore, although not a director of the university, the accounting auditor is appointed by the Minister of Education, Culture, Sports, Science and Technology, and conducts audits of the financial statements, business reports (financial segments) and financial results.

Deliberating Bodies of the University

- The Board of Directors deliberates on important matters concerning administration, and meets once a month. It is comprised of the president and executive directors (8). The auditors and vice presidents also attend board meetings.
- The Governing Council is an organization which deliberates on important matters concerning management and meets seven times a year. It consists of the president, seven full-time executive directors appointed by the president, and 11 off-campus council members. To reflect the views of the wider society, the majority of the members are off-campus members. With other officers such as auditors, vice presidents, university executive officers and general managers of administrative organizations also in attendance, the Governing Council serves as a venue where a wide range of opinions can be exchanged.
- The Education and Research Council deliberates on important matters concerning education and research, and meets once a month. Comprised of the president, executive directors, vice presidents, heads of departments such as the university schools and colleges, and persons appointed by the president (total of 51 members), the Education and Research Council serves as a venue where the heads of all the organizations responsible for education and research at the University gather together.
- The Management Committee, which is a system specific to our university, serves as a liaison and coordinating organization in important matters concerning the management of university affairs. It is comprised of the president, executive directors, vice presidents and university executive officers (26 members) and auditors also attend its meetings. All matters discussed by the above councils go through the Management Committee, which meets once a week to allow for flexible management. A characteristic of this committee is that the heads of the faculties, who are the heads of the teacher organizations, participate in decision-making from the initial stages as university executive officers of the university.

Governance Framework



The university has established the Education and Research Funds Misuse Prevention Plan to prevent the wrongful use of research funds and other funds, and has taken various measures to eliminate the causes of misuse and promote appropriate use of funds. The university also strives to raise awareness by implementing compliance education for faculty and staff, and has established a framework for strengthening the organization to ensure that it can respond to risks at an early stage.

Misuse Prevention Plan

We have established a system of accountability in regard to the management of research expenses, with the president as the chief administrative officer, and we have clarified roles and responsibilities under this system.

The general managing officer, who assists the chief executive officer and supervises the organization-wide framework, organizes the Education and Research Expense Management Promotion Committee and establishes the University of Tsukuba Research Funds Misuse Prevention Plan to identify the causes of misuse and to eradicate these.

Based on this misuse prevention plan, the department officers take necessary measures and report the status of implementation to the general managing officer. They also implement compliance education within the respective departments that they manage and supervise, manage research expenses, monitor the status of management and provide guidance for improvement.

The Office of Auditors monitors the progress and penetration of each measure from a university-wide perspective, and reports to the Chief Executive Officer.

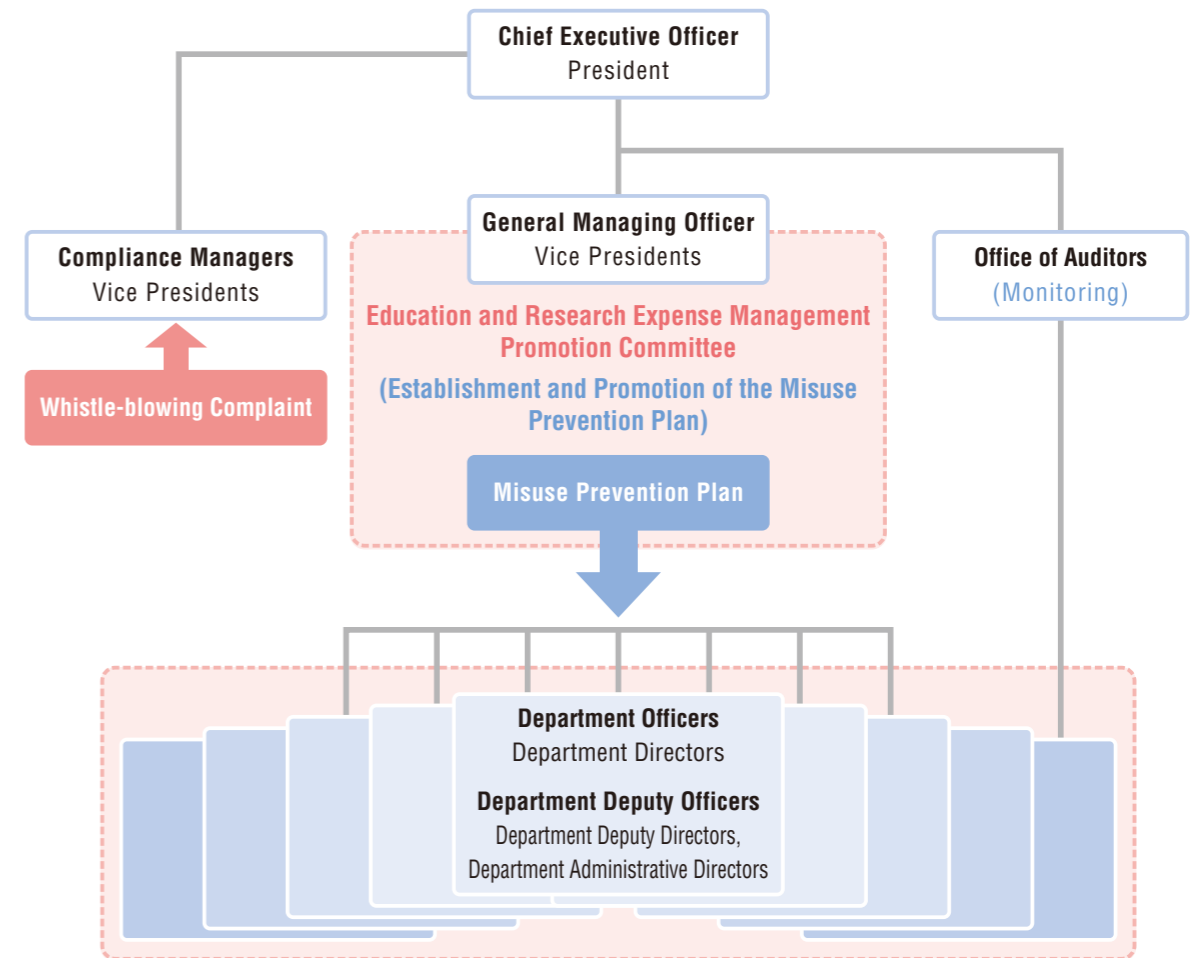
Establishment of an Environment for Appropriate Use

Accounting rules are reviewed in a timely manner based on actual conditions of business to ensure consistency in their operation.

To ensure all accounting rules are easy for faculty and staff to understand, we have prepared the Accounting Rules Handbook. In addition, we make efforts to educate and raise awareness of faculty and staff by providing instruction on compliance and other matters through e-learning.

Under the vice presidents, who are the compliance managers, we have also established a system for addressing risks at an early stage to promote the soundness of the organization. For example, we have set up a contact desk for accepting from both inside and outside the university whistle-blowing complaints concerning misuse, as well as investigation guidelines concerning misuse to facilitate prompt investigation of the details of the complaints.

The University's Framework for Preventing Misuse



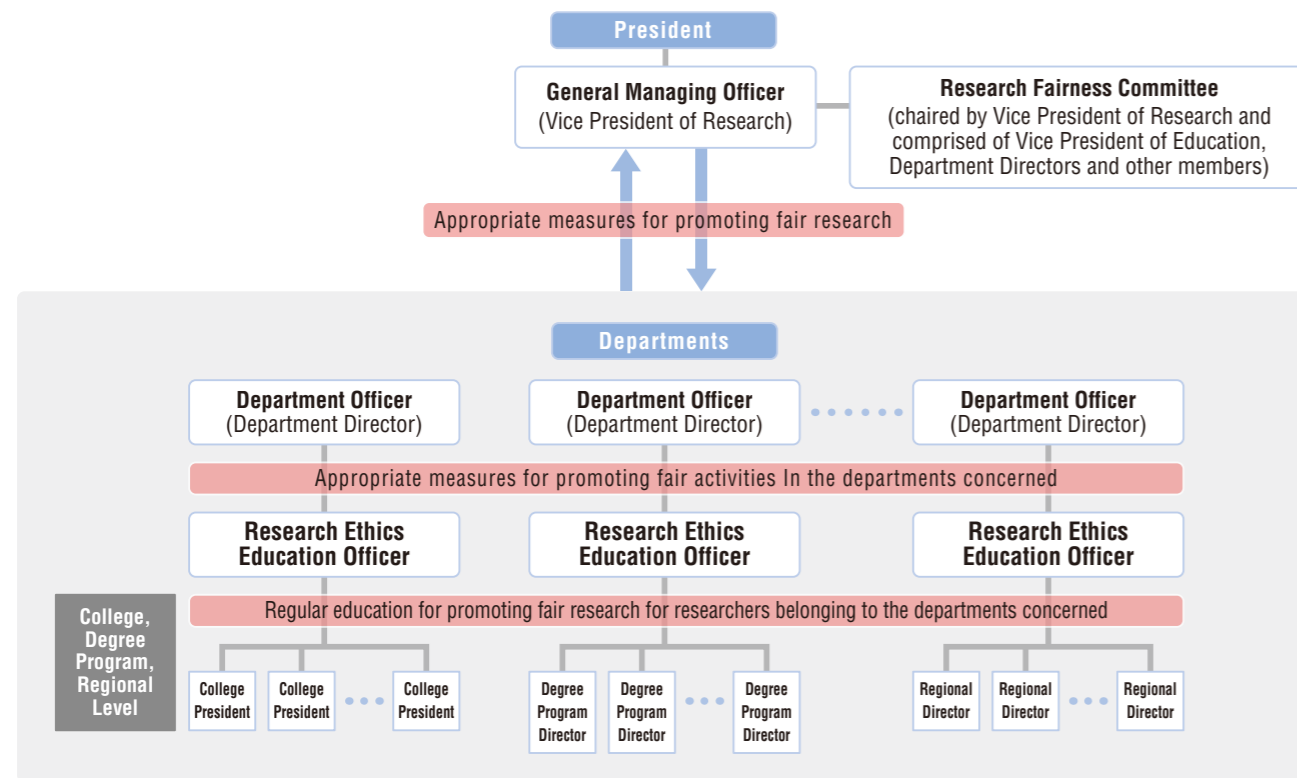
Initiatives to prevent the misuse of research funds at the university are also posted on the university website. <http://www.tsukuba.ac.jp/research/guideline.html>

The University of Tsukuba has established the University of Tsukuba Research Fairness Rules to prevent inappropriate conduct and to put in place a framework for realizing fair research activities. The university has also established guidelines for research ethics education and the storage of research materials and strives to maintain fair research activities.

Establishment of a Framework for Promoting Fair Research Activities

Based on the Guidelines for Responding to Misconduct in Research Activities (decided by the Minister of Education, Culture, Sports, Science and Technology), we established the University of Tsukuba Research Fairness Rules and a framework consisting of a general management officer (Vice President of Research), department officers (department directors), Research Ethics Education Officers (appointed by the director in each department), and the Research Fairness Committee.

Framework for Promoting Fair Research Activities



Guidelines for Research Ethics Education (March 2, 2017, decided by the President)

Research ethics education aims to ensure that researchers engage in responsible research activities by independently observing norms, thereby establishing trust in science and contributing to the sound development of science.

Method of Study and Period of Implementation (University Faculty)

- Research ethics training at the time of recruitment
- Obligation to undertake regular study through Research Ethics e-Learning (eL CoRE or eAPRIN)
- Regular participation in research ethics FD workshops
- Research ethics training based on characteristics of the research field

Guidelines for the Storage of Research Materials, etc. (March 2, 2017, decided by the President)

Researchers are required to store research materials to prove the validity of their activities in the event any doubt arises concerning research misconduct or to ensure the possibility of third-party verification. Furthermore, because the results of research and the data on which they are based have the characteristics of public assets, it is the responsibility of each researcher and the university to properly manage and preserve research materials.

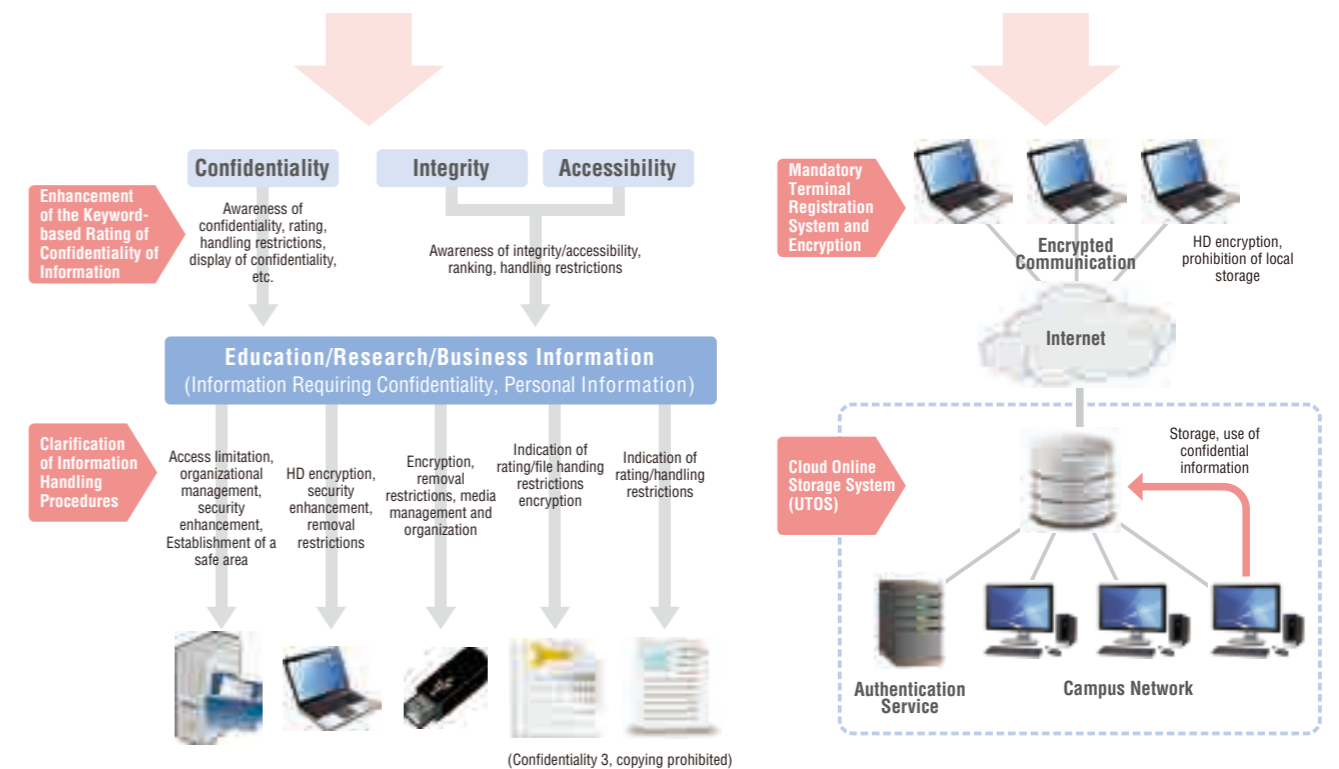
Data and Material Subject to Storage Obligations, Storage Period and Storage Method

- The storage period for documents (documents, numerical data, images, etc.) is 10 years after their publication.
- The storage period of objects such as specimens (experimental samples and specimens) and equipment is five years after the publication of the paper concerned.

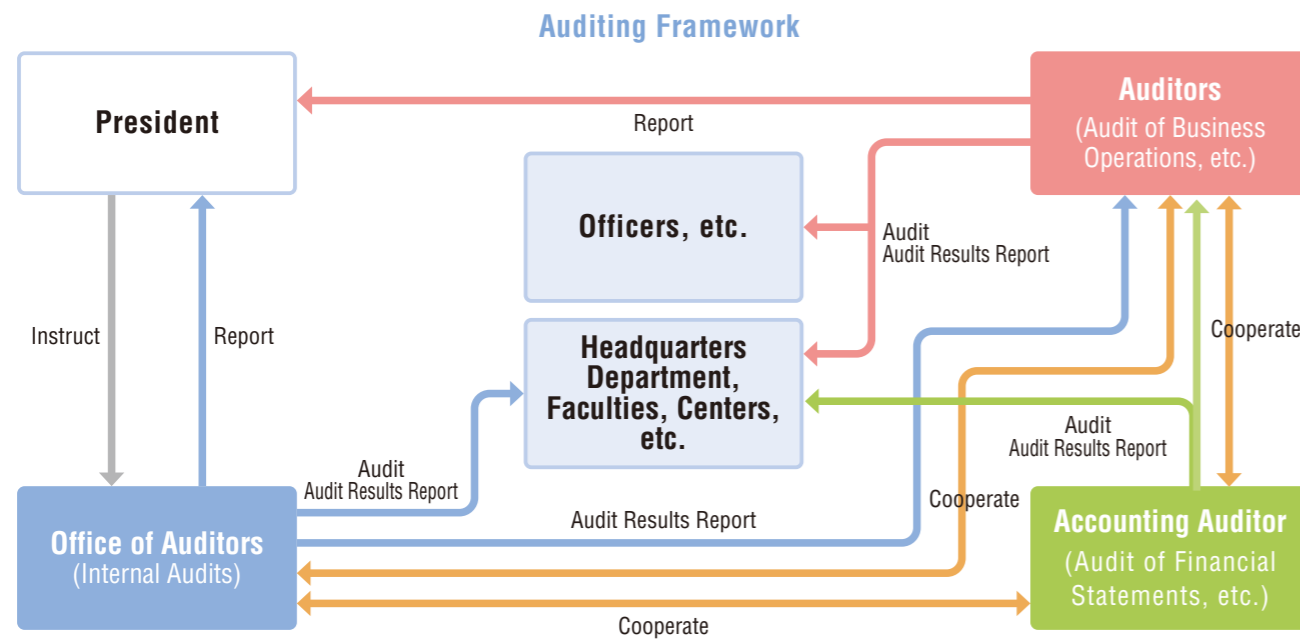
The University is making efforts to strengthen the security of its risk management and network system by making information security education mandatory and through audits. For example, since fiscal 2018, we have established an information security management system that is recognized internationally in terms of rating the confidentiality of information and establishing a dedicated system for storing confidential information.

Education	<p>Information security education through e-Learning and seminars for students and faculty</p> <ul style="list-style-type: none"> ○ Students and faculty: e-Learning (INFOSS Information Ethics) ○ Faculty, staff and students: information security seminars ○ System administrators: security technology seminars ○ Targeted email attack training
Risk Management	<p>Information security audits</p> <ul style="list-style-type: none"> ○ Since AY2016, audits in cooperation with the Office of Auditors and the Information Security Risk Management Office on the status of systematic initiatives for information security and the status of incident response systems, etc. for five departments selected in part ○ Follow up audits for departments audited the previous academic year
Network System Security	<p>Initiatives to prevent incidents, minimize damage, and prevent damage from spreading</p> <p>In preparation for advanced cyber-attacks,</p> <ul style="list-style-type: none"> ○ Implemented detection and prevention of security invasions in the core network systems ○ Periodically implemented vulnerability diagnosis using vulnerability check tools ○ Monitored communication from inside to outside the university
Confidentiality Management	<p>Enhanced the keyword-based rating of confidentiality of information and clarified information handling procedures according to the level of confidentiality (system aspects)</p> <ul style="list-style-type: none"> ○ Undertook the rating of information handled in work duties, formulated information handling restrictions and handling procedures based on information rating, and introduced these in AY2018
Confidential Information	<p>Established a dedicated system for storing confidential information and operation rules requiring mandatory registration on user terminals (equipment) and encryption of terminals</p> <ul style="list-style-type: none"> ○ Developed a cloud-based online storage system (UTOS) to prevent taking confidential information off campus, and commenced operation in 2018 ○ Enforced the rules for mandatory registration and encryption of UTOS user terminals

Reinforced in AY2018



The university cooperates with business operation audits of the auditors, internal audits of the Office of Auditors, and audits of the accounting auditor, and makes efforts to verify these to improve the quality of education and research, and maintain and improve the appropriateness, rationality, efficiency, and soundness of business operations.



Audits by Auditors

1. Audits

To execute duties appropriately, maintain an impartial attitude and independent stance, and at the same time communicate their intentions to officers, faculty and the accounting auditor, the auditors strive to collect information and maintain the audit environment to appropriately and efficiently manage business of the university corporation. In addition, by focusing on dialogue across the university and its organizations as a whole, the auditors promote the sharing of goals and issues, and provide necessary advice and proposals for solving issues through their audits.

2. Audit Items

- (1) Audits concerning business operations
- (2) Audits of financial results, financial statements, and management of surplus funds

3. Audit Reports

The auditors prepare a written opinion and present it to the president and other parties concerned regarding audits related to business operations.

In addition, the auditors prepare an audit report concerning financial results and submit it to the Minister of Education, Culture, Sports, Science and Technology.

Audits by Office of Auditors

1. Audits

The Office of the Auditors investigates and verifies the status of execution of business operations from the viewpoint of legality, rationality and efficiency from a fair and objective standpoint, and based on its results, provides information as well as advice, suggestions and support for improvement in business operations.

2. Audit Items

- (1) Audit concerning accounting operations (including monitoring of the Education and Research Funds Misuse Prevention Plan and status of staff work)
- (2) Audit concerning public research funds
- (3) Audit concerning information security
- (4) Cooperation with auditors' audits

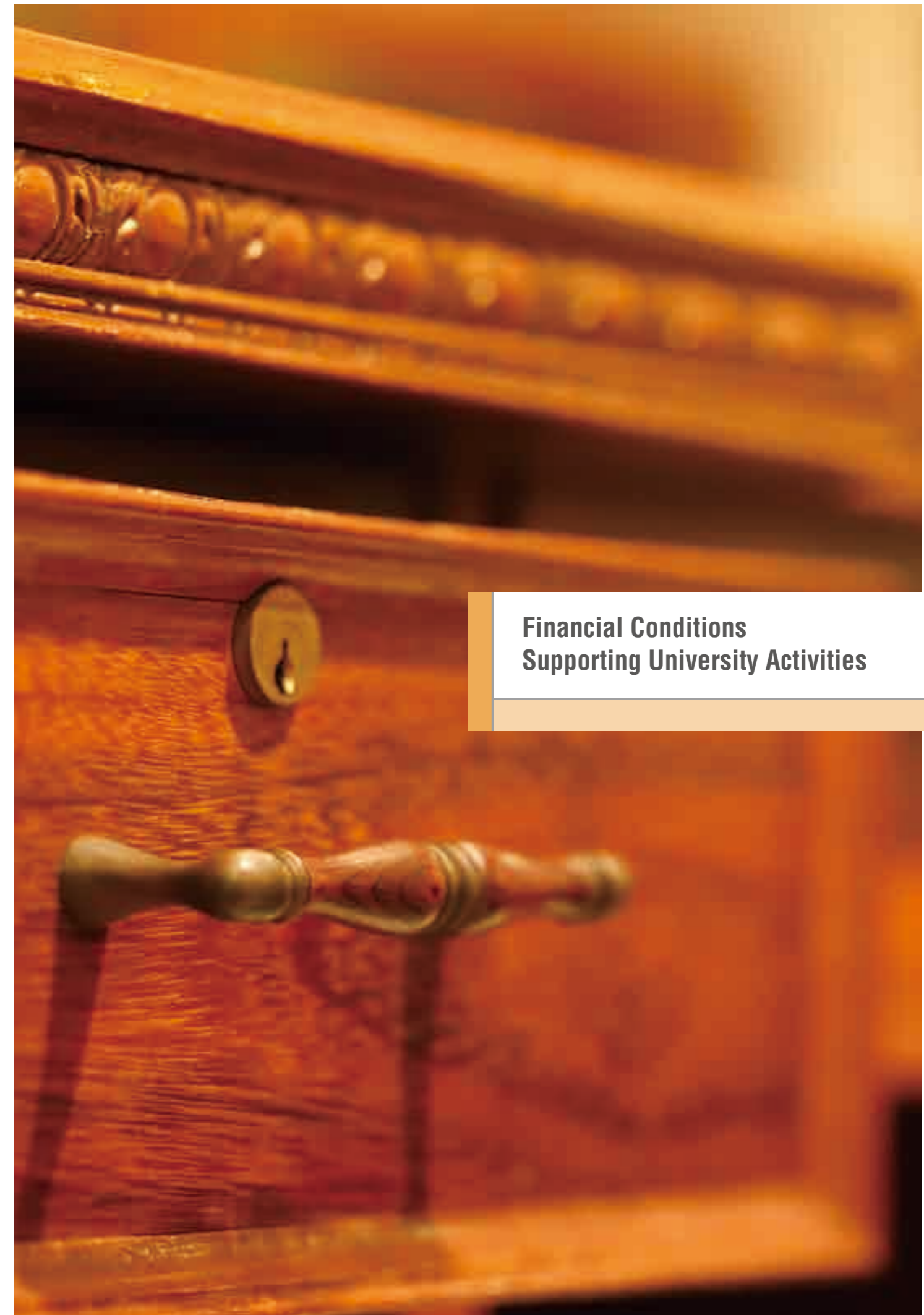
3. Audit Reports

The Office of Auditors prepares an audit report and presents it to the president. The auditors also disseminate their findings and precautions to be taken in the audit to thoroughly prevent similar cases from recurring, and they carry out follow-up audits the following academic year.

Audits by the Accounting Auditor

The financial statements and reports on financial results are audited by an accounting auditor appointed by the Minister of Education, Culture, Sports, Science and Technology.

In addition, the accounting auditor holds meetings as appropriate with the president, auditors, and the Office of the Auditors to share information on issues in accounting procedures and other matters.



**Financial Conditions
Supporting University Activities**

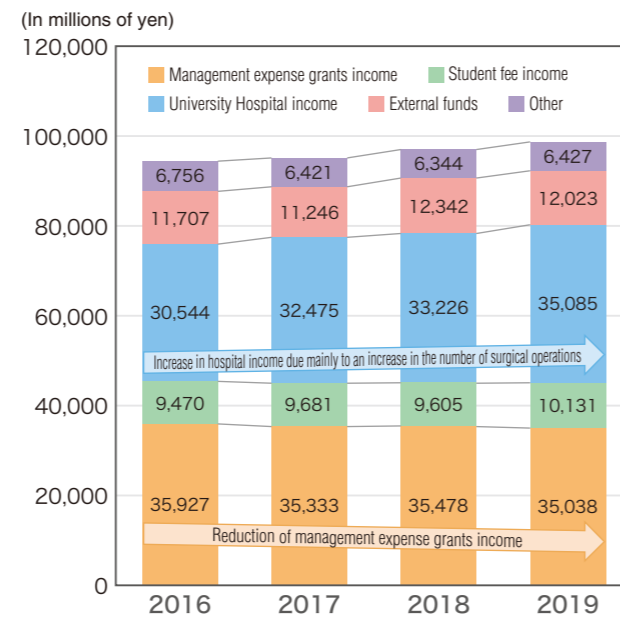
Financial Conditions

In recent years, expectations from society for national universities have increased, and they are required more than ever to act as "bases of knowledge." At the same time, however, conditions surrounding national universities are becoming increasingly severe, and the challenge they face is to establish a stable financial base in order to reliably respond to the demands of society. Therefore, to diversify non-subsidy financial resources and strengthen the financial base, we formulated management strengthening measures consisting of three pillars: a strategy for acquiring external funds, the development of profitable businesses, and a personnel strategy. We are currently working to reform the income and expenditure structure based on these goals.

The figures below show changes in the Profit and Loss Statement over a four-year period. The trend in income in recent years is that although management expense grants from the government are reduced, the income of the University Hospital has been increasing due mainly to an increase in the number of surgical operations, and the receipt of external funds is steadily growing. At the same time, there have been increases in expenses, namely medical expenses of the University Hospital and personnel expenses resulting from an increase in the number of medical staff, although education and research expenses have remained almost the same.

Ordinary Income

Resource Classification	AY2016	AY2017	AY2018	AY2019
Management expense grants income	35,927	35,333	35,478	35,038
Student fee income	9,470	9,681	9,605	10,131
University hospital income	30,544	32,475	33,226	35,085
External funds	11,707	11,246	12,342	12,023
Donation income	2,053	2,164	2,496	2,685
Sponsored research income	4,911	4,156	4,695	4,111
Joint research income	1,194	1,253	1,587	1,927
Sponsored operations income	1,406	1,353	1,320	1,194
Subsidy income	2,143	2,320	2,244	2,106
Other	6,756	6,421	6,344	6,427
Total	94,404	95,156	96,995	98,704



Ordinary Expenses

Resource Classification	AY2016	AY2017	AY2018	AY2019
Education and research expenses	15,666	15,707	15,902	15,830
Education expenses	6,477	6,743	6,833	6,985
Research expenses	6,846	6,771	6,756	6,572
Education and research support expenses	2,343	2,193	2,313	2,273
Medical expenses	19,818	20,689	21,260	22,951
External funds	6,642	5,927	6,542	6,188
Sponsored research expenses	4,261	3,568	3,951	3,413
Joint research expenses	1,085	1,126	1,391	1,682
Sponsored operations expenses	1,296	1,233	1,200	1,093
Personnel expenses	48,407	48,628	49,226	49,869
General administrative cost	2,471	2,586	2,846	2,880
Other	738	606	521	503
Total	93,742	94,143	96,297	98,221



*Subsidies and donation expenses are included in education expenses, research expenses and personnel expenses.

Financial Conditions Concerning Research

Research-related expenses (*1) are mainly expenses required by faculty members for research activities. Research-related expenses in the university segment (*2) in fiscal 2019 were approximately 26 billion yen, and we secured the same level of financial resources as in other years.

The breakdown of financial resources for research-related expenses shows that external funds account for about 47%, which together with operating expense grants constitute the financial resources that support the university's research activities. To further invigorate research activities of the university, it is important to acquire further subsidies and to increase cooperative research

and sponsored research from private companies.

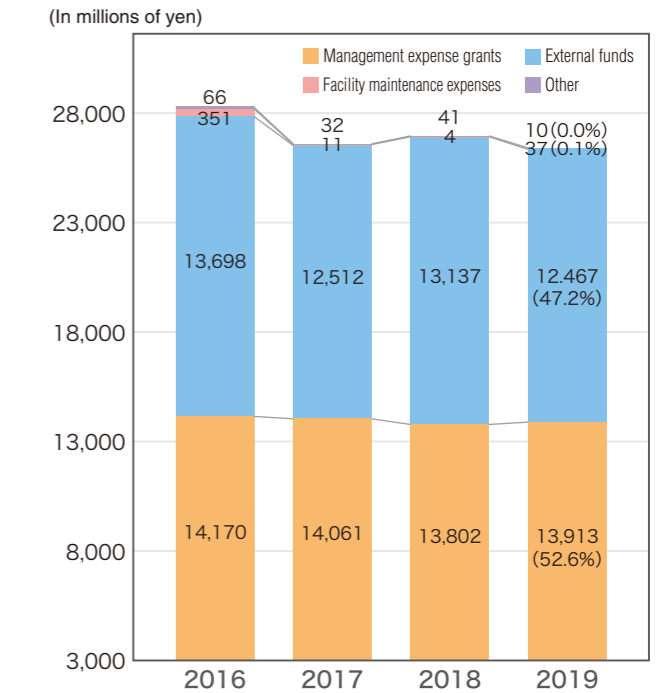
The breakdown of research-related expenses shows that property expenses accounted for 31% of expenses, and the breakdown of property expenses shows that compensation/consignment commissions accounted for 23%, and consumables accounted for 22% of property expenses.

*1. Research-related expenses include in part personnel expenses and education and research support expenses based on the research effort rate of teachers
*2. Excludes the University Hospital segment and affiliated school segment

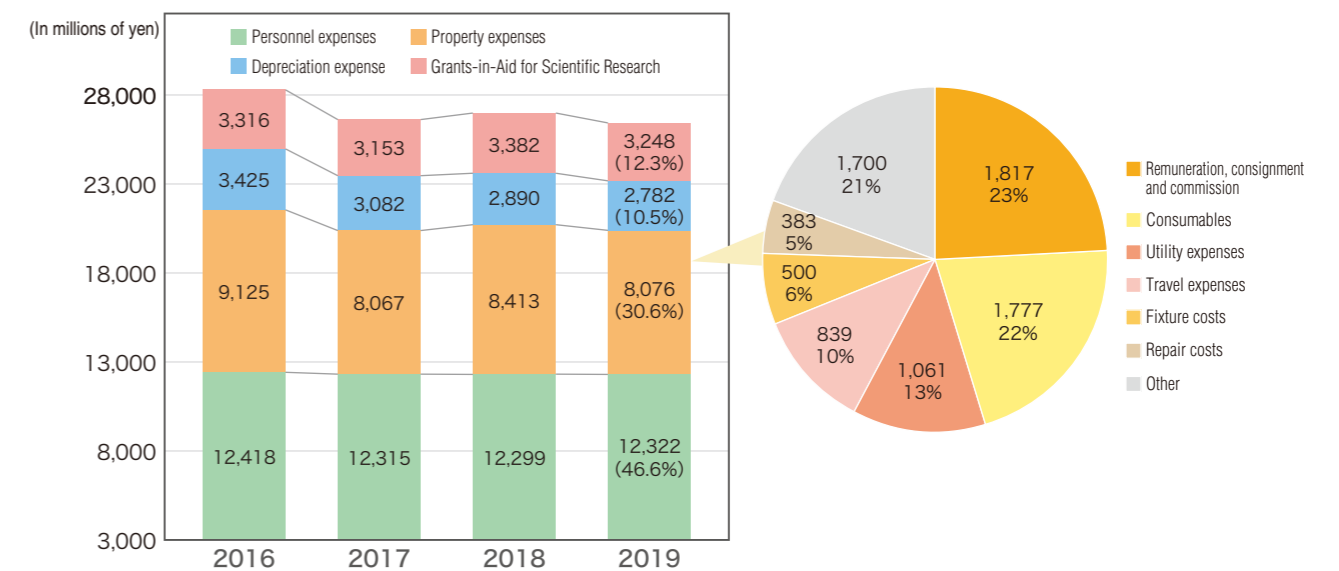
Breakdown of Financial Resources

Resource Classification	AY2016	AY2017	AY2018	AY2019
Management expense grants	14,170	14,061	13,802	13,913
External funds	13,698	12,512	13,137	12,467
Donations	822	846	972	953
Sponsored research	4,047	3,121	3,164	2,702
Joint research	993	1,012	1,151	1,432
Sponsored operations	1,021	966	869	788
Subsidies	1,530	1,493	1,364	982
Grants-in-Aid for Scientific Research	3,694	3,528	3,773	3,678
Indirect expenses	1,592	1,547	1,844	1,930
Facility maintenance expenses	351	11	4	37
Other	66	32	41	10
Total	28,285	26,617	26,984	26,427

*Management expense grants
Includes management expense grants and non-subsidy revenue such as other miscellaneous revenue



Breakdown of Expenses



Financial Status of Education

Education-related expenses (*1) are mainly expenses required for student education activities such as classes and extracurricular activities. Education-related expenses in the university segment (*2) in fiscal 2019 were approximately 16.2 billion yen, and we secured the same level of financial resources as in other years.

A look at the breakdown of financial resources for education-related expenses shows that management expense grants accounted for 89% of financial resources.

The breakdown of education-related expenses shows that property expenses accounted for 33%, and the breakdown of building expenses shows that scholarship expenses accounted for 22% of these. This is due to waiving of the enrollment fees and tuition of students who have difficulty paying for economic reasons or students who are recognized as having outstanding grades, and therefore have future prospects as human resources who can

play active roles on the global stage. In addition, our university has many physical education facilities and student dormitories on a vast campus, and the ratio of consignment expenses for maintenance and management, utilities costs, and repairs is also high. Thus, costs allocated to education tend to be higher than other universities.

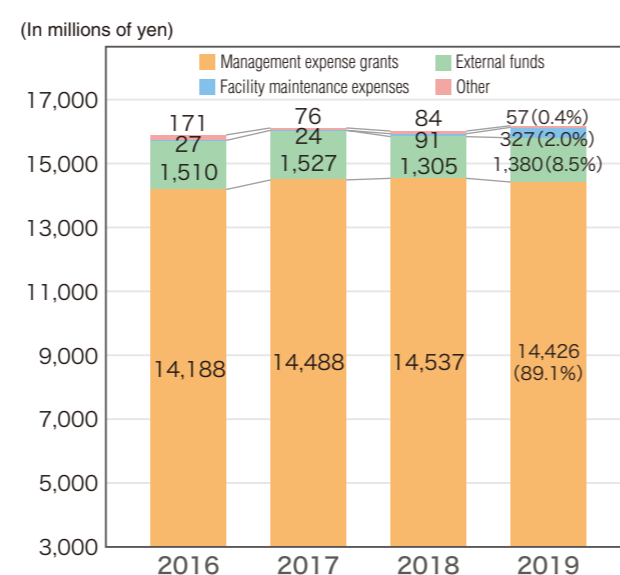
To further improve the quality of education, it is important to secure and diversify financial resources by increasing voluntary financial resources through the development of profitable businesses, as well as by obtaining subsidies and receiving donations.

*1. Education-related expenses include in part personnel expenses and education and research support expenses based on the education effort rate of teachers
*2. Excludes the University Hospital segment and affiliated school segment

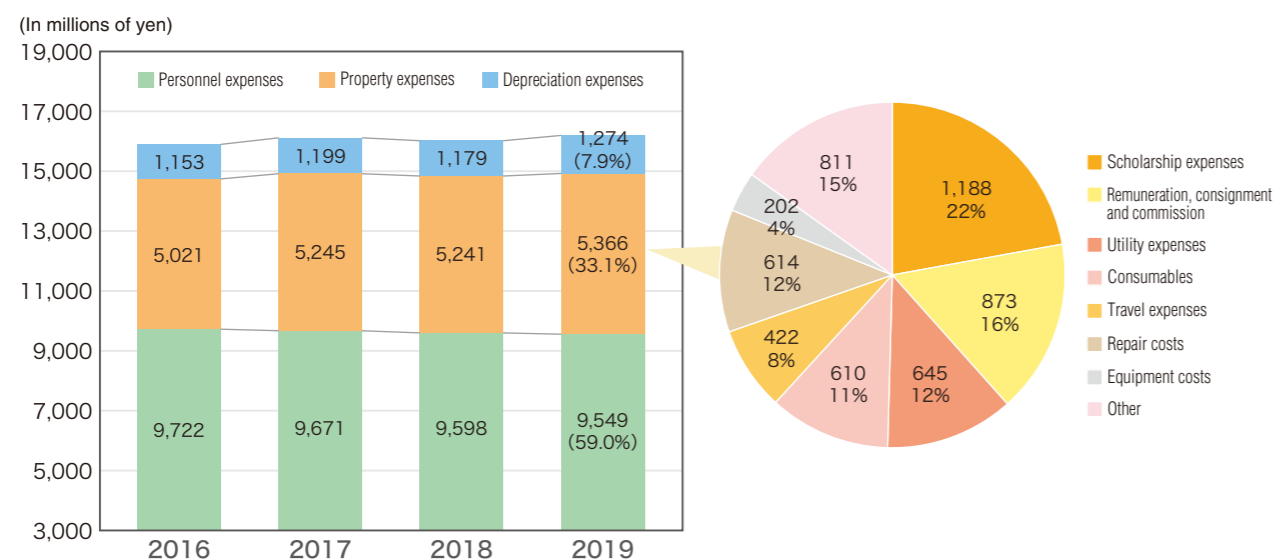
Breakdown of Financial Resources

Resource Classification	AY2016	AY2017	AY2018	AY2019
Management expense grants	14,188	14,488	14,537	14,426
External funds	1,510	1,527	1,305	1,380
Donations	351	375	392	456
Subsidies	1,159	1,152	914	924
Facility maintenance expenses	27	24	91	327
Other	171	76	84	57
Total	15,897	16,115	16,018	16,189

*Management expense grants
Includes management expense grants and non-subsidy revenue such as other miscellaneous revenue



Breakdown of Expenses



Conditions Concerning Personnel Expenses

Personnel expenses are comprised of compensation or salary, statutory welfare payments, and retirement benefits for teachers and staff.

Total personnel expenses for AY2019 amounted to approximately 49.9 billion yen (university segment: approximately 34.8 billion yen, hospital segment: 15.1 billion yen), a year-on-year increase of approximately 600 million yen.

Personnel expenses in the university segment decreased by approximately 200 million yen following initiatives to review teacher and staff appointments based on the steady implementation of the personnel strategy, which is one of the management strengthening

measures.

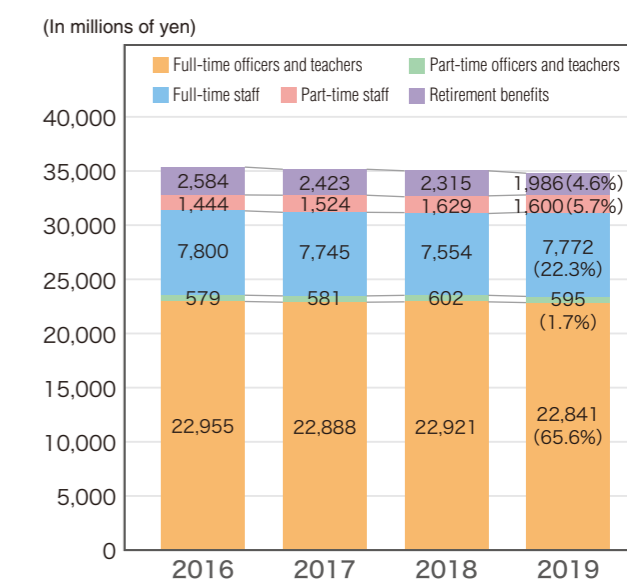
Personnel expenses in the hospital segment increased by approximately 900 million yen due to an increase in the number of medical staff including doctors to further strengthen hospital functions.

To improve the quality of education, research, and medical care, it is important to make effective use of the personnel budget. However, the business environment surrounding the university is expected to increase in severity. Therefore, it is important to steadily implement ongoing initiatives under the personnel strategy.

Changes in Personnel Expenses (University Segment)

Resource Classification	AY2016	AY2017	AY2018	AY2019
Management expense grants	33,450	33,396	33,208	33,055
External funds	1,739	1,680	1,703	1,718
Donations	549	540	638	726
Subsidies	1,122	1,100	1,015	937
Indirect expenses	67	40	51	55
Other	172	85	110	23
Total	35,361	35,161	35,021	34,795

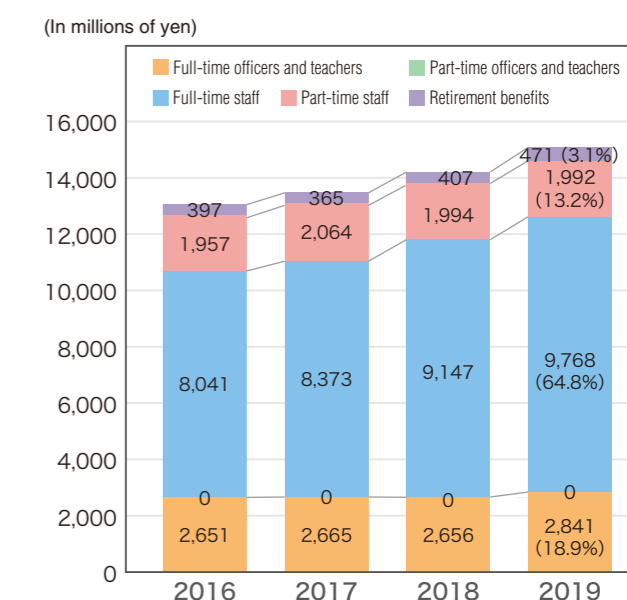
*Management expense grants
Includes management expense grants and non-subsidy revenue such as other miscellaneous revenue



Changes in Personnel Expenses (Hospital Segment)

Resource Classification	AY2016	AY2017	AY2018	AY2019
Management expense grants	2,337	2,035	2,044	2,065
University hospital revenue	9,909	10,579	11,182	12,007
External funds	763	847	972	1,000
Donations	686	759	774	807
Subsidies	68	78	97	85
Indirect expenses	10	10	101	108
Other	37	7	6	1
Total	13,046	13,467	14,204	15,073

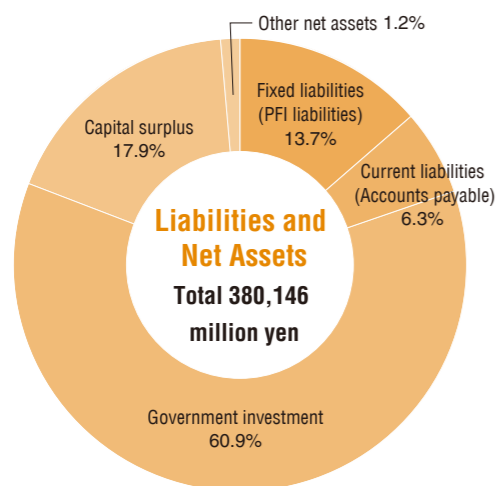
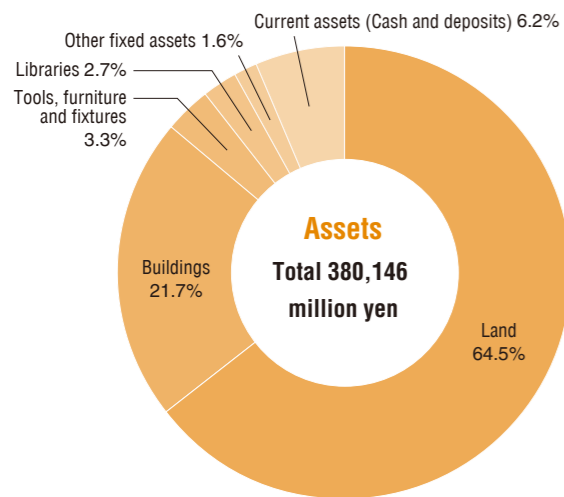
*Management expense grants
Includes management expense grants and non-subsidy revenue such as other miscellaneous revenue



Balance Sheet

(In millions of yen)

Item	AY2018	AY2019	Change
Assets	385,865	380,146	▲ 5,719
Main Items			
Land	246,463	245,071	▲ 1,392
Buildings	85,909	82,466	▲ 3,443
Tools, furniture and fixtures	12,940	12,505	▲ 435
Libraries	10,295	10,325	30
Construction in progress	179	1,427	1,248
Investment in securities	6,518	3,305	▲ 3,213
Cash and deposits	14,352	15,605	1,254
Accounts receivable	6,740	7,028	288
Liabilities	82,695	76,221	▲ 6,474
Main Items			
Per contra liabilities for property acquisition	1,740	990	▲ 750
Borrowings	7,886	3,622	▲ 4,265
Lease liabilities	5,123	4,891	▲ 232
PFI liabilities	22,501	20,766	▲ 1,735
Donation liabilities	5,207	5,222	16
Sponsored research/sponsored operations liabilities	1,737	1,779	42
Deposits received	1,450	1,658	208
Contra-accounts for assets	25,217	26,277	1,060
Accounts payable	10,110	9,206	▲ 905
Net Assets	303,170	303,925	755
Main Items			
Government investment	231,333	231,333	-
Capital surplus	67,109	67,885	776
Reserve funds carried forward from previous Mid-term Plan period	2,444	2,421	▲ 23
Reserve funds	1,329	1,722	393
Unappropriated retained earnings at the end of the term (or undisposed loss)	953	575	▲ 378



Balance Sheet

The balance sheet presents financial conditions of a corporation on the day of settlement. The liabilities and net assets indicate the sources of procurement of funds while the assets show how the procured funds have been managed.

Total assets are 380,146 million yen (year-on-year decrease of 5,719 million yen)

The amount decreased due to the recognition of impairment losses on the former staff dormitory site and the progress in the depreciation of buildings and structures.

Total liabilities were 76,221 million yen (year-on-year decrease of 6,474 million yen)

The amount decreased due to steady repayment of PFI liabilities for the University Hospital and long-term loans mainly for the purchase of land.

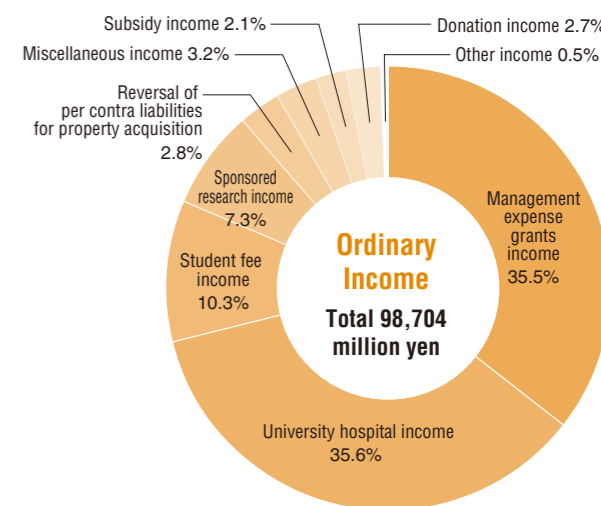
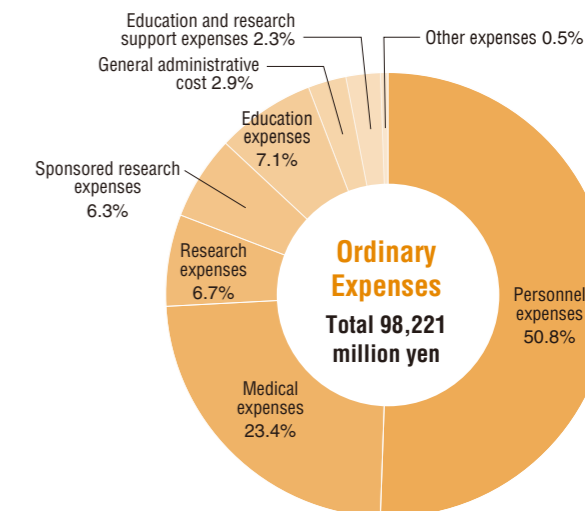
Total net assets were 303,925 million yen (year-on-year increase of 755 million yen)

The amount increased due to an increase in capital surplus due mainly to the repayment of long-term loans.

Profit and Loss Statement

(In millions of yen)

Item	AY2018	AY2019	Change
Ordinary Expenses	96,297	98,221	1,924
Main Items			
Education expenses	6,833	6,985	152
Research expenses	6,756	6,572	▲ 184
Education and research support expenses	2,313	2,273	▲ 41
Medical expenses	21,260	22,951	1,691
Sponsored research expenses	3,951	3,413	▲ 538
Cooperative research expenses	1,391	1,682	290
Sponsored operations expenses	1,200	1,093	▲ 107
Personnel expenses	49,226	49,869	643
General administrative expenses	2,846	2,880	34
Ordinary Income	96,995	98,704	1,708
Main Items			
Management expense grants income	35,478	35,038	▲ 440
Student fee income	9,605	10,131	526
University hospital income	33,226	35,085	1,859
Sponsored research income	4,695	4,111	▲ 583
Cooperative research income	1,587	1,927	341
Sponsored operations income	1,320	1,194	▲ 126
Subsidy income	2,244	2,106	▲ 138
Donation income	2,496	2,685	189
Reversal of per contra liabilities for property acquisition	2,997	2,757	▲ 240
Miscellaneous income	3,135	3,181	46
Extraordinary loss	48	106	59
Extraordinary profit	65	85	20
Reversal of reserve	238	114	▲ 124
Gross income (loss)	953	575	▲ 378



Profit and Loss Statement

This statement indicates a company's operating conditions during a given accounting period (fiscal year) by showing the amount of income less expenses as profit.

Ordinary expenses were 98,221 million yen (year-on-year increase of 1,924 million yen)

The amount increased due to an increase in medical service expenses resulting from an increase in the purchase of drugs and medicine at the University Hospital and an increase in personnel expenses resulting from an increase in the number of medical staff including doctors.

Ordinary income was 98,704 million yen (year-on-year increase of 1,708 million yen)

The increase was due mainly to an increase in University Hospital income resulting from the provision of Advanced Acute Medical Care services and an increase in cooperative research income resulting from an increase in the acceptance of cooperative research projects.

Gross income increased by 575 million yen (year-on-year decrease of 378 million yen) due mainly to the above ordinary profit and loss and extraordinary profit and loss conditions.

Due to their public nature, national university corporations are not profit-oriented and do not aim to achieve independent profitability. As they have financial resources from the national government, they apply unique accounting treatments that are different from

corporate accounting. The following provides financial information of the university and characteristics of its accounting treatment.

Balancing of Profit and Loss

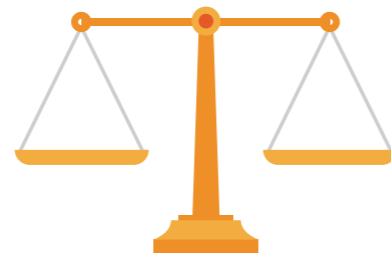
As with general corporate accounting, national university corporations apply the realization basis for income recognition. However, the "realization" is recognized according to the criteria specific to national university corporations.

For example, **when management expense grants are provided, they are first recognized as "liabilities" rather than income.** This is based on the idea that national university corporations receive consideration required only to carry out their business operations, and by accepting consideration, they are obliged to carry out such business operations. The same also applies to donations and sponsored research expenses received.

Business operations are carried out by investing in education and research, etc., and when **performance obligations for the consideration have been satisfied, income is deemed to be realized and the relevant liabilities are reclassified into income.**

Thus, in national university corporation accounting, **income does not represent revenue or sales amount, but represents a revenue source for expenses that are required to carry out business operations.**

This accounting treatment should represent a national university corporation's operational status where it is surely carrying out its business entrusted by the government, rather than its business performance. In order to represent it properly, **the accounting standards that are designed to balance profit and loss under normal operations are applied.**



Appropriated Surplus

Because education and research operations of national university corporations are carried out while being related to each other in a complicated manner, it is difficult to identify the level of achievement of each operation. Therefore, in principle, income from management expense grants is recognized on a periodic basis which recognizes that operations are achieved with the passage of a certain amount of time, rather than on an achievement basis which recognizes income based on the level of operational achievement.

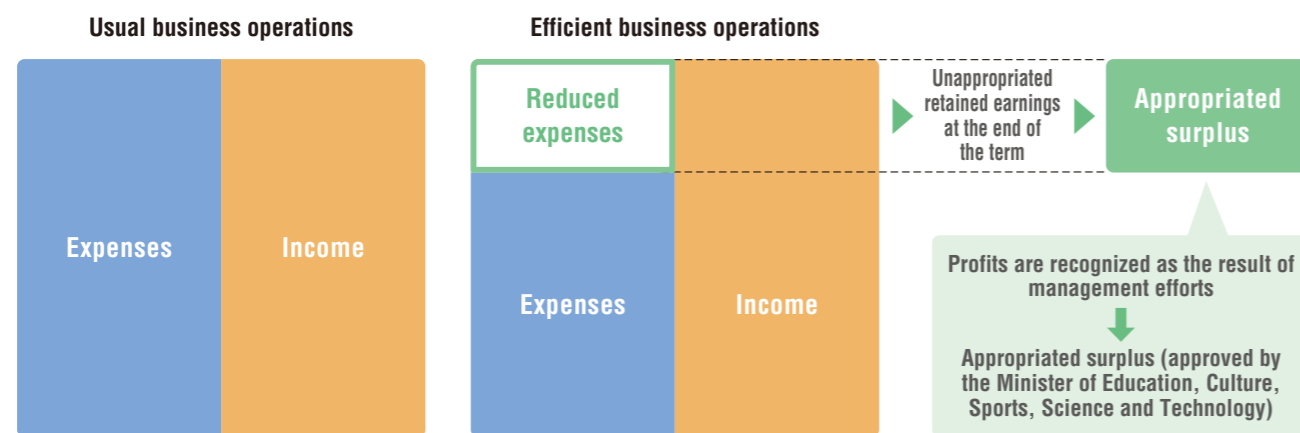
On a periodic basis, when operations are carried out as usual, expenses and income are equal as mentioned above, and profits and losses are balanced (the figure on the left below). On the other hand, **if operations are conducted efficiently to reduce**

expenses, unused expenses or profits are generated.

These profits (unappropriated retained earnings at the end of the term) are the result of efficient operations and reduced expenses. **Only when the profits are recognized as the result of management efforts by a national university corporation** are they **approved by the Minister of Education, Culture, Sports, Science and Technology as "appropriated surplus"** that can be used for education and research from the next academic year onward (the figure on the right below).

The approved appropriated surplus will be used to enhance education and research within the scope of use specified in the medium-term plan of the national university corporation from the next academic year onward.

Periodic basis



Depreciation

As with corporate accounting, when a national university corporation purchases a depreciable asset, the full amount required for acquisition is not included in the cost for the year of acquisition, but is distributed over the depreciation period of the asset.

When a depreciable asset is purchased, there will be a difference between the income used to finance the purchase of the asset and the cost (depreciation expense) recorded in the current period. However, from the perspective of properly showing the business operation status of national university corporations, **"different accounting treatments for different sources of funds," which are unique to national university corporations, are carried out**

to balance profit and loss.

When the university purchases depreciable assets using management expense grants as financial resources, **"per contra liabilities for property acquisition" (liability account) are once transferred to another liability account "management expense grants - per contra."** Then, **management expense grants - per contra are withdrawn according to the depreciation rate, and the same amount of income as depreciation expenses is recorded as a reversal of per contra liabilities for property acquisition.**

As a result, the expenses and income for each academic year become equal by offsetting the impact of asset acquisition on profit and loss.

< At the time of purchase of assets (machinery worth 300 million yen, financial resource: management expense grants) >

Assets		Liabilities	
Cash: 300 million yen	Machinery: 300 million yen	Per contra liabilities for property acquisition: 300 million yen	Management expense grants - per contra: 300 million yen

< At the time of depreciation >

	Expenses	Income	Profit/Loss
1st year	Depreciation expenses: 100 million yen	Reversal of per contra liabilities: 100 million yen	±0yen
2nd year	Depreciation expenses: 100 million yen	Reversal of per contra liabilities: 100 million yen	±0yen
3rd year	Depreciation expenses: 100 million yen	Reversal of per contra liabilities: 100 million yen	±0yen

Since the government as the investor should bear the ultimate responsibility for projects carried out by a national university corporation, financial resources for maintenance and renewal of buildings and facilities are provided by the government to ensure reliable implementation of necessary operations, including education and research.


Therefore, if no income is expected from some assets and it is identified that the government should provide their renewal costs, depreciation expenses for such assets are not included within the scope of operational responsibilities of the national university

corporation, and **the depreciation is not treated as expenses of the national university corporation.**

Specifically, the accumulated depreciation of such assets is not recorded as expenses (depreciation expenses), but **recorded as accumulated depreciation not included in the profit and loss statement by directly reducing the capital surplus as a substantial decrease in the financial basis of the national university corporation.**

< Financial resource: Depreciation of a building built with facility maintenance expenses [Balance sheet for academic year n] >

Assets	Capital surplus	Profit and Loss Statement
Building: 10 billion yen Accumulated depreciation: -1 billion yen	Capital surplus: 10 billion yen Accumulated depreciation not included in the profit and loss statement: -1 billion yen	No profit/loss recorded

A large, lush green tree dominates the center of the image. In the foreground, two cows, one black and white and one mostly white with black spots, stand in a grassy field enclosed by a metal fence. To the left, a white building is partially visible. The background shows a line of trees and a clear sky.

**Educational, Research and Other
Achievements and Results and
Financial Conditions by Segment**

Segment Classification

Segments for disclosure	University Segment										
	Faculty of Humanities and Social Sciences/Related Departments		Faculty of Business Sciences/Related Departments	Faculty of Pure and Applied Sciences/Related Departments	Faculty of Engineering, Information and Systems/Related Departments		Faculty of Life and Environmental Sciences/Related Departments	Faculty of Human Sciences/Related Departments	Faculty of Health and Sport Sciences/Related Departments	Faculty of Art and Design/Related Departments	
Classified Departments, Etc.	Faculty of Humanities and Social Sciences		Faculty of Business Sciences	Faculty of Pure and Applied Sciences	Faculty of Engineering, Information and Systems		Faculty of Life and Environmental Sciences	Faculty of Human Sciences	Faculty of Health and Sport Sciences	Faculty of Art and Design	
	Graduate School of Humanities and Social Sciences		Graduate School of Business Sciences	Graduate School of Pure and Applied Sciences	Graduate School of Systems and Information Engineering		Graduate School of Life and Environmental Sciences	Graduate School of Comprehensive Human Sciences (Education Sciences, Education, School Education, Psychology (Master's), Psychology (Doctoral), Disability Sciences, Lifespan Development and Lifespan Developmental Sciences)	Master's Program in Education	Graduate School of Comprehensive Human Sciences (Sports and Health Promotion, Sports Medicine, Physical Education, Health and Sport Sciences (Master's), Physical Education, Health and Sports Sciences (Doctoral), Coaching Science, International Development and Peace through Sports and Advanced Physical Education and Sports for Higher Education)	Graduate School of Comprehensive Human Sciences (Art and Design, World Heritage Studies and World Cultural Heritage Studies)
	School of Humanities and Culture	School of Social and International Studies		School of Science and Engineering (Mathematics, Physics, Chemistry and Engineering Sciences)	School of Science and Engineering (Engineering Systems and Policy and Planning Sciences)	School of Informatics (Information Science)	School of Life and Environmental Sciences	School of Human Sciences	School of Physical Education, Health and Sports Sciences	School of Art and Design	

Segments for disclosure	University Segment					Joint use/joint research centers			Affiliated Schools	University of Tsukuba Hospital
	Faculty of Medicine/Related Departments	Graduate School of Library, Information and Media Science/Related Departments	School of Global and Integrative Majors	University of Tsukuba Library Centers, Etc.	Faculty of Transdisciplinary Research	Life Center for Survival Dynamics	Center for Computational Sciences	Tsukuba-Plant Innovation Center		
Classified Departments, Etc.	Faculty of Medicine	Graduate School of Library, Information and Media Science								Elementary School Junior High School at Otsuka Junior High School at Komaba Senior High School at Otsuka Senior High School at Komaba Senior High School at Sakado Special Needs Education School for the Visually Impaired Special Needs Education School for the Deaf Special Needs Education School for the Mentally Challenged Special Needs Education School for the Physically Challenged Special Needs Education School for Children with Autism
	Graduate School of Comprehensive Human Sciences (Medical Sciences, Human-Care-Sciences, Kansei, Behavioral and Brain Sciences, Life System Medical Sciences, Clinical Sciences, Nursing Sciences and Agro-Biomedical Science in Food and Health (international joint degree program))	Graduate School of Library, Information and Media Studies								
	School of Medicine and Medical Sciences	School of Informatics (Media Arts, Science and Technology and Knowledge and Library Sciences)								

Faculty of Humanities and Social Sciences/Related Departments

Faculty of Humanities and Social Sciences, Graduate School of Humanities and Social Sciences, School of Humanities and Culture, School of Social and International Studies

Main Achievements and Results in AY2019

Faculty of Humanities and Social Sciences

Enhanced international influence

One characteristic of the faculty is that unique studies into the origins of human civilization and modern societies are conducted by the Research Center for West Asian Civilization, research unit specializing in Central Asia, department specializing in Middle Eastern and North African studies, "International Education and Research Laboratory Program" jointly implemented by the University of Tsukuba and University of Hamburg and other researchers.

The results published by these distinctive studies in AY2019 indicate that the faculty's international influence has improved markedly, as peer-reviewed papers written in English significantly increased (293% compared to the previous year) in addition to a rise in international joint papers (a year-on-year increase of 20%).



Promotion of participatory research activities contributing to the SDGs

The university has become an Asian hub of education and research concerning Goal 10 of the SDGs (Reduced Inequalities) as a member of the International Association of Universities and has been promoting international actions, for example by participating in higher education seminars held by the UNESCO headquarters and the United Nations as panelists. The university has also hosted a conference of the European Association for Japanese Studies as part of its efforts to raise the international influence of Japanese studies, and has supported the development of people contributing to the SDGs through activities at Japanese language teacher training centers in Central and Southeast Asia and the Middle East which it has been carrying out under the Central Asia-Japan Human Resource Development Project, financed by Nippon Foundation, and Asia-Africa Science Platform Program.

Graduate School of Humanities and Social Sciences

Improved academic paper productivity of students

In the field of humanities and social sciences, in which single authorship is the norm, it is unusual for master's students to write academic papers before their master's theses. Nevertheless, as many as 186 papers were published by students of this graduate school (528 students, including 263 master's students) in AY2019. Consequently, the academic paper productivity of students increased from 26.7% in AY2018 to 35.2%. Furthermore, the number of academic meeting presentations delivered by students of the school also rose to 306 in AY2019.

Stimulated international exchange

The graduate school sent students in Philosophy to the University of Hamburg in Germany under the International Education and Research Laboratory Program, students in Modern Languages and Cultures to the University of Prince Edward Island in Canada, and students in International Area Studies to many different countries as part of the university's internationalization efforts. At the same time, the school proactively admitted international students to its programs in International Area Studies and International and Advanced Japanese Studies.

School of Humanities and Culture

Optimized curriculum and increased competitiveness for applicants

The school created a truly essential curriculum by eliminating unnecessary specialized courses while at the same time institutionally reorganizing the timetable, for example by shifting from 1.5 credits (3 modules) to 1 credit (2 modules) for standardization purposes, so as to make courses easier to share between colleges. In addition, the school encouraged first-year students to travel abroad and carried out an employment support program for third-year students in partnership with the Division of Career Services. Consequently, the rates of overseas travel, employment and admission to higher education all rose.

The school also proactively sent faculty members to high schools to give lessons as guest teachers, as well as held information sessions for prospective students. As a result, competitiveness for applicants increased for all three colleges.

Efforts towards internationalization and multiculturalism

The school accepted many government-sponsored and self-supporting international students, as well as short-term study abroad program participants from partner schools abroad. The College of Japanese Language and Culture decided to set a regular quota of three foreign students in the Japan-Expert Program from AY2020 on, while the College of Comparative Culture invited students from Ohio State University on a short stay program in May 2019. The school also encouraged students to study abroad; it prepared a university-wide course completion certification program, "Tsukuba Global Plus," as a successor to the Area Studies Innovation Program (ASIP), which was jointly implemented with the School of Social and International Studies and Master's Program in International Area Studies, and has decided to implement it from AY2020 on. The College of Japanese Language and Culture also acquired competitive funds and organized an international symposium concerning college education entitled "Local Communities and Multiculturalism," which was participated in by 95 participants.



School of Social and International Studies

Increased competitiveness for applicants

Individual colleges implemented their own questionnaire surveys on the spring and summer Open Campus days to continue monitoring the intentions and interests of high school students. Consequently, the College of Social Sciences recorded a rise of 33.7% in competitiveness for applicants as the competition ratio, which was 4.9:1 in AY2018, increased to 6.6:1 in AY2019.

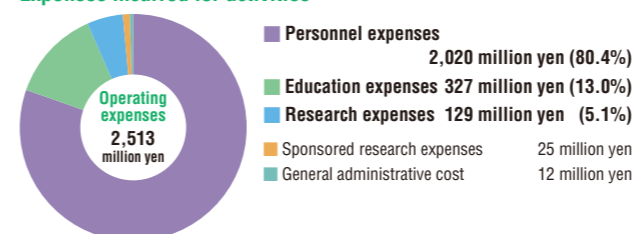
Promotion of globalized education

The College of International Studies established a system to send students to the United Nations Volunteers program and give them credits for the participation. In AY2019, two students passed the strict screening by the United Nations and were offered a placement in a UN office in a developing country.

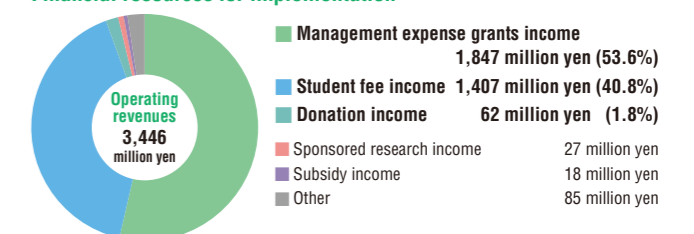
The Undergraduate Program of International Social Studies took part in the UNA-USA Model United Nations Conference and the delegation team was honored with a group award for working with faculty members to improve their learning and presentation skills in the preparation stage.

Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



Main Achievements and Results in AY2019

Faculty of Business Sciences

● Stimulated international publication of research results
 In AY2019, the number of peer-reviewed academic papers written in English per faculty member increased by 15% compared to AY2018. The total number of citations and the number of papers that ranked among the top 10% also rose from AY2018 levels in AY2019, indicating that the publication of research results through international academic papers improved in terms of both quality and quantity. Furthermore, AY2019 and AY2018 also saw remarkable increases in the number of oral presentations at international academic conferences per faculty member and the number roughly doubled in AY2019 compared to two years before. In this way, the international publication of research results has been significantly stimulated. At the same time, two patents were acquired in AY2019 where there were none in the previous year.

● Promotion of international exchange
 The faculty hosted an international conference entitled Knowledge & Systems Sciences 2018 (KSS 2018) in November 2018 and co-hosted the MIT-Tsukuba Joint-Workshop on Data Systems Science towards Social and Business Innovations with IDSS, a data science research institution of the Massachusetts Institute of Technology (MIT), in January 2020, to demonstrate its research expertise and promote international exchange. Conference papers from KSS 2018 have been published as proceedings by Springer.

● Diversification of financial resources
 An application for a Grant-in-Aid for Exploratory Research, which had been submitted to replace the research project in the Grant-in-Aid for Scientific Research (A) (General) category that the faculty head was the representative of and ending in AY2019 was granted. As a result of submitting another application in the Grant-in-Aid for Scientific Research (A) (General) category to further develop the results of the above research projects, the new application was successfully granted for AY2020. Moreover, the number of Grants-in-Aid for Scientific Research adopted per representative, amount of Grants-in-Aid acquired, number of collaborative research projects accepted and amount of funds received all increased in AY2019 compared to AY2018.

● Promotion of collaborative programs concerning CSR, etc.
 The International Management Professional Research Group proactively promoted collaborative programs on corporate social responsibility (CSR) and other themes in cooperation with overseas partnership universities in Europe and the U.S. and implemented research and development on international remote teaching by taking advantage of the scholarship donations received from Chugai Pharmaceutical Co., Ltd.

Graduate School of Business Sciences

● Improved academic paper productivity and pass rate for the bar exam
 The graduate school worked to encourage students to more actively author international conference papers, for example, by incorporating international conference reports, papers, etc. in the evaluation of achievement in degree programs as an indicator and sharing information on international conferences receptive to papers contributed by adult students. In addition, the school made necessary budget arrangements to continue with financial support for students traveling abroad to give presentations and took a measure to expand the choice of options students had when contributing papers. Consequently, the number of international conference papers increased by 76% compared to the previous year.
 In AY2019, the school's pass rate for the bar exam among students without a law degree (19.67%) was much higher than the national average (15.64%) and the educational program for students without a law degree that the school submitted was recognized as "an excellent initiative." As its pass rate for the bar exam among students without a law degree has exceeded that of the previous year almost every year since AY2016, the school ranked an impressive 17th place among 73 law schools in the number of successful bar exam takers in AY2019.

● Enhancement of data science education and overseas activities
 The Master's Program in Systems Management enhanced its patent and financial databases and supported dissertation research to enrich its data science education, as well as developed an extension program entitled "Data Analysis in Business Administration" with a view to discovering people potentially interested in data science. In addition, the school organized events, such as an international joint workshop with MIT, to provide an environment for doctoral students to regularly collaborate with each other. The Doctoral Program in Business Law implemented interdisciplinary research projects involving diverse themes, as part of which an extension program entitled "Seminar on the Law of Islamic Banking" was implemented, and provided highly academic education through leading researchers both from Japan and abroad.



Main Achievements and Results in AY2019

Faculty of Pure and Applied Sciences

● Implementation of scientific and engineering research and exploration of cross-cutting research
 The faculty covers varied fields of science (mathematics, physics and chemistry) and materials-related engineering (physical engineering and material engineering) and works to deepen fundamental sciences and promote engineering advancement while conducting interdisciplinary research between these fields. The results have been published in over 600 original academic papers (approximately 3 papers per member). Each year, over 2,000 citations are made from past published papers.

● Achievements as a center for advanced measurement
 Professor Hidemi Shigekawa, who has been conducting physics research based on the advanced measurement technology that he developed (scanning tunneling microscope), which has earned him a Grant-in-Aid for Specially Promoted Research, received the Medal of Honor with Purple Ribbon in the spring of 2019. The joint research project which the group led by Professor Eiji Nishibori has been conducting with Aarhus University in Denmark in the area of advanced measurement concerning crystallography also produced significant results. Furthermore, the R&D Center for Innovative Material Characterization (Director: Masahide Ito) was established with a view to industry-university collaboration and launched activities covering many different areas of advanced measurement of the Faculty of Pure and Applied Sciences.



Graduate School of Pure and Applied Sciences

● Promotion of internationalization
 The graduate school extended its double degree program system established with the University of Grenoble Alpes, involving mutual sharing of education and research units, which had been available only to doctoral programs, to master's programs, with the aim of promoting internationalization for improved quality of higher education. As a result, seven students (six from France) joined its master's programs in AY2019. Besides this, the school also promoted the internationalization of education in other ways, such as sending students to the Fermi National Accelerator Laboratory and Brookhaven National Laboratory to give them practical education there.

● Enhancement of career path support
 The school held a "networking event between graduate students and corporate researchers," in which students were given the opportunity to introduce their research activities and present themselves through posters, exchange with corporate researchers and have two-way interviews with corporate representatives. This event was participated in by graduate students and researchers and HR persons from corporations. We have received lots of feedback from both sides saying that the event was productive and worthwhile.

School of Science and Engineering

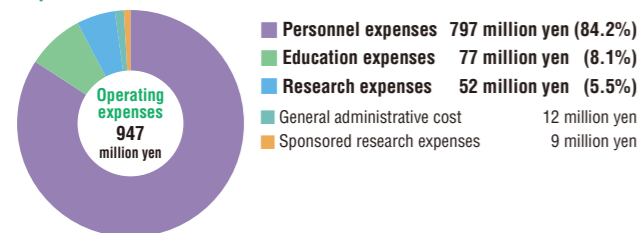
● A high graduate school advancement rate resulting from a rich education support system
 The school has in place an educational system that allows students to experience the pleasure of research and achieve their potential by providing career support in many different ways, including instructions in small-group seminars, programs in which students can experience working as researchers, support for studies abroad and various kinds of internship programs. In addition, the school offers a consultation service called "Tsumazuki Soudan Terakoya" for students having difficulty with their learning methods throughout the year, so that students can directly turn to faculty members for help. As a result of these initiatives, its graduate school advancement rate has increased to as high as 76.4%.

● Enhanced learning support for students of each college
 The school provided a broad variety of learning support to students. For example, the College of Mathematics provided a mathematics learning support service called "Sugaku Tenarai Juku" for students having difficulty with the transition from high school for 1-2 periods per week during the spring and autumn semesters, while a personal tutor system was introduced to allow all students of the College of Physics to receive support from graduate students before the summer semester break. Besides these, each college also implemented career support services, such as a career support meeting held by the College of Chemistry, in which students listened to the experiences of graduates and considered their future paths.

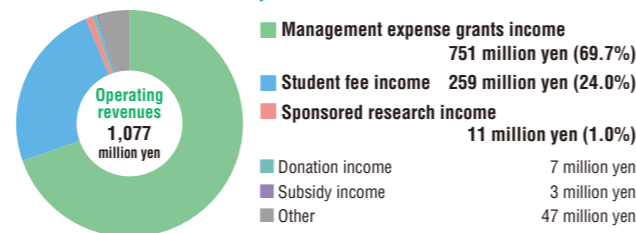


Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities

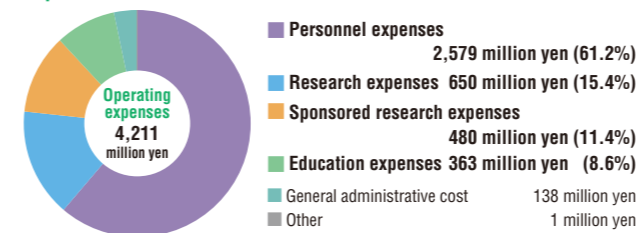


Financial resources for implementation

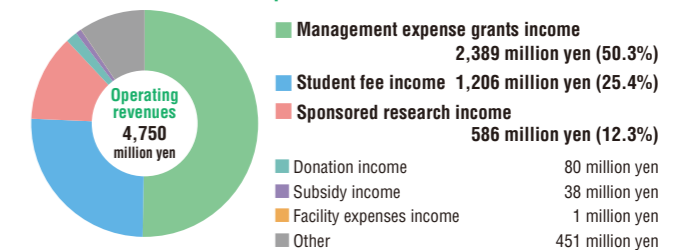


Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



Main Achievements and Results in AY2019

Faculty of Engineering, Information and Systems

● Support for submission of papers to top journals

The faculty provided support for the submission of papers to top journals to encourage submission of academic papers to journals with greater influence by covering some of the expenses incurred in relation to English proofreading, submission of papers, open access, etc. Consequently, the total number of peer-reviewed original academic papers (including peer-reviewed international conference proceedings) in AY2019 increased by 2% compared to the previous year.

● Acquisition of large-scale external funding

The faculty accepted large-scale joint research and sponsored research (16 projects), the total amount of which was approximately 700 million yen, about the same level as in the previous year. In addition, the faculty implemented the "Power Up Support for Grants-in-Aid for Scientific Research" as a new measure to promote the acquisition of large grants-in-aid for scientific research. A researcher who was honored with the Young Scientists' Award in the Science and Technology section of the 2019 Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology also applied for a large-scale Grant-in-Aid for Scientific Research.

Graduate School of Systems and Information Engineering

● Improved employment rate

Graduates of the graduate school have chosen a diversity of career paths. The employment rate among those who completed a master's degree in AY2019 was 83.9%, a year-on-year increase of 2.6%, while that among those who completed a doctoral degree was 64.9%, a year-on-year increase of 6% (93% when postdoctoral researchers were included, a year-on-year increase of 12.6%).

● Enhanced graduate education through the partner graduate school system

Graduate education under the partner graduate school system, led by the Resilience Research and Education Promotion Consortium, came into full operation. The school also expanded the partner graduate school system by paving the way for overseas double degree programs in collaboration with National Taiwan University, University of Grenoble Alpes and the Malaysia-Japan International Institute of Technology.



School of Science and Engineering

● Expanded opportunities to do specialized studies in English

The College of Policy and Planning Science launched an "English for Social Engineering Class" as a compulsory course and provided e-learning materials and specialized books written in English as part of its efforts to develop globalized human resources. Consequently, the English skills of students of the college improved and their TOEFL scores rose. The education of the college also attracted a lot of attention from prospective students at information sessions about the university, resulting in the competitiveness for applicants increasing from 3.8:1 to 5.0:1.



● Increasing participants in PBL training

The project-based learning (PBL) course of the College of Engineering Systems "Content Engineering Systems" is designed to develop the practical skills, flexible thinking skills and communication skills sought after by companies. The number of students enrolled in the course, which was 76 in AY2016, jumped to 95 in AY2019, which means that increasing numbers of students have experienced the group training implemented in the PBL approach of the course.

School of Informatics

● Participation in programming contest world finals

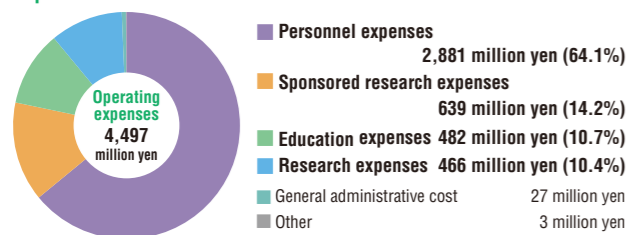
The school provides practical programming education to students, starting in the first year, while at the same time implementing other types of practical education, such as the Programming Challenge, Campus OJT and enPiT2. One outcome was that a team of three College of Information Science students reached the World Finals of the ICPC Programming Contest. With this, the College of Information Science accomplished the feat of having been in the World Finals for three years in a row.

● Adaptation to globalization

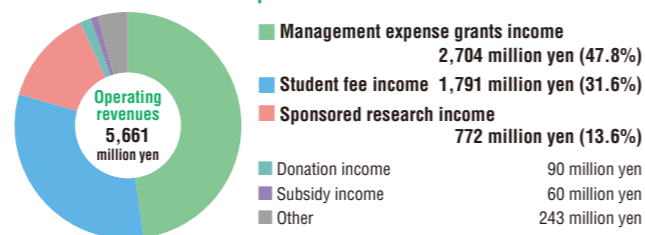
The school not only makes it compulsory for third-year students to attend TOEFL-ITP but also promotes overseas internship programs through exchange agreements with Bordeaux University and other partner institutions (three students in AY2019). It also proactively accepts excellent students from abroad and strives to develop human resources who can play important roles in the international community.

Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



Main Achievements and Results in AY2019

Faculty of Life and Environmental Sciences

● Efforts to attract more external funding

Both the number and amount of joint research projects accepted by the faculty have been on the rise in recent years and showed a year-on-year increase of 46.1% and 4.3%, respectively, and a new large-scale special collaborative research project was launched. The faculty also took a wide variety of measures to create a virtuous cycle of further advancement of research activities, creation of research results and giving back to society, for example, by collecting information about various research support programs, subsidies, etc. and supporting activities that can lead to financing for faculty members and joint research through URAs.

● Research activities expanded through international collaboration

The faculty has concluded international exchange agreements with many overseas research institutions (76 universities and research institutions in 28 countries, including the United Nations, as of November 2019) and has been carrying out research activities through active international collaboration. In 2019, Bordeaux University joined the Japanese-French international joint laboratory (TIL), which the Tsukuba-Plant Innovation Research Center (T-PIRC) and French National Institute for Agricultural Research (INRA) have been jointly operating based on an agreement between the two, and a new agreement was signed. The activities of T-PIRC and INRA-Bordeaux Center have been highly evaluated also in France and TIL has been certified as an International Associated Laboratory under the international research collaboration promotion system of INRA.

● Training support for young faculty members

The faculty has been providing FD training on how to give classes in English and make effective use of online courses on a continued basis to train young faculty members, and implemented "FLIPIT," a one-year online course provided by FLIP It Consulting (USA) in 2019. Besides providing financial support for submission and publication of international joint papers, etc. and supporting young faculty members involved in international activities through international collaboration coordinators, the faculty also continued to host the Collaboration Jam, a networking event for researchers in which young researchers can exchange and share information, to give young members of the faculty the opportunity to have interdisciplinary exchanges and explore the possibilities of collaborative research between different disciplines.

Graduate School of Life and Environmental Sciences

● Improvement of learning environment for globalized human resource development

With the aim of developing globalized human resources, the graduate school not only allows students to earn a degree through courses provided by respective programs entirely in English but also implements double degree programs and international joint degree programs in collaboration with overseas partner universities, including the CIC partner universities (National Taiwan University and Bordeaux University). Through these efforts, the school has been striving to globalize the campus by accepting more students from abroad (international student ratio in AY2019: 36.0%) and promoting studies abroad (study abroad ratio in AY2019: 27.9%).



● Meeting diversifying learning needs

The school has expanded opportunities for adult students and other non-traditional students to enroll in courses and earn degrees by taking advantage of systems such as the special entrance examination for currently employed applicants and early completion programs. This has encouraged more people to enroll in doctoral programs, resulting in increased competitiveness for applicants. Furthermore, the school has expanded opportunities for education and research and striven to improve the quality of education not only by making the most of the partner graduate school system but also by collaborating with other research institutions, such as other universities, governmental agencies, national research institutions, independent corporations and companies, for example, through implementation of the Master Degree Program of Mountain Studies, Certificate Program on Nature Conservation and joint programs with JICA.

School of Life and Environmental Sciences

● Leading the efforts for globalization

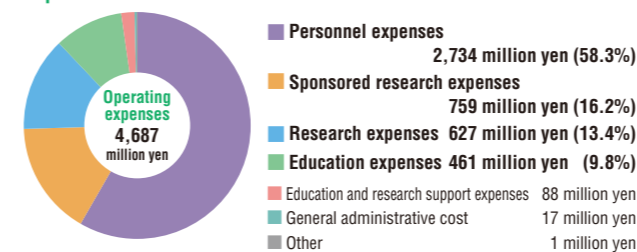
The school has launched the Interdisciplinary Program of Life and Environmental Sciences (G30 program for international students) as an interdisciplinary program straddling different colleges. In each college, the program is provided as the Interdisciplinary Course in Life and Environmental Sciences, and classes, etc. for international students (in English) and Japanese students are held in common. In this way, the school has been proactively facilitating globalized human resource development while encouraging intercultural exchanges between Japanese and international students. By doing this, the school has been leading the globalization not only of the school and colleges but also of the whole university. In AY2019, the international student ratio and travel abroad ratio was 14.0% (highest among the nine schools) and 12.2% (second highest among the nine schools), respectively.

● Implementation of online classes and remote education

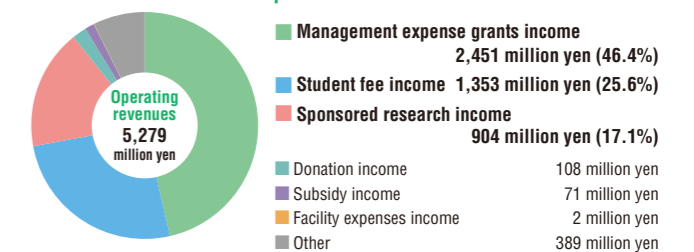
The school's initiatives in the area of online classes and remote education date back to before COVID-19 began to impact society. For example, the College of Agro-biological Resource Sciences implemented joint classes with National Taiwan University and Kyoto University in the form of remote learning, while the College of Biological Sciences provided small-group tutor classes "Terakoya Jugyo" and supported participation in higher education courses provided by the University College of London through faculty members. Building upon the outcomes of these efforts, the school will continue to strive to develop and offer quality online classes.

Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



Main Achievements and Results in AY2019

Faculty of Human Sciences

● Enhanced efforts to attract competitive research funds

The faculty implemented varied support for acquisition of Grants-in-Aid for Scientific Research, such as financial support for human sciences research by junior- and mid-level faculty members, peer review of application forms for Grants-in-Aid for Scientific Research by members of the faculty and support for applicants through Tsukuba Basic Research Support Program (Type C). Consequently, 37 new projects, including five Grant-in-Aid for Scientific Research (A) and (B) projects, out of 71 applications, were adopted. Besides this, the faculty also did groundwork to help faculty members apply for large-scale competitive funds, for example, by holding programs, such as the Faculty of Human Sciences Colloquium and Hyakunin Ronbun (a research-matching program aimed at connecting researchers to resources both inside and outside the faculty), and developing and enhancing a research lounge.



● Promotion of interdisciplinary and inclusive research

The faculty implemented some measures to promote interdisciplinary and inclusive research towards "understanding and inclusion of the diversity of people" based on the research expertise of faculty members. More specifically, the faculty encouraged collaborative research within the faculty, with core emphasis on "creation and promotion of a research center for social-neuro diversity science," a pre-strategic initiative center, promoted international collaborative research projects with partnership universities, including Ohio State University, University of São Paulo and National Taiwan University, and planned and designed undergraduate education and new graduate degree programs in the area of human sciences. The faculty also worked to reinforce coordination with the DAC Center of the University of Tsukuba and hosted a new extension program named "Inclusive Leaders' College: Co-creation-oriented Leadership in an Age of Diversity."

Graduate School of Comprehensive Human Sciences

● Improved employment/higher education advancement rate and academic paper productivity

In AY2019, both the Doctoral Program in Psychology and Doctoral Program in Disability Sciences recorded an employment/higher education advancement rate of 100%. While 0.55 students per faculty member were on non-regular study abroad programs in the Master's Program in Disability Sciences, the academic paper productivity of students in the Doctoral Program in Lifespan Developmental Sciences reached 216.7%.

● Internationalization and curriculum reorganization

The Master's Program in Education Sciences arranged double degree programs with Northeast Normal University in China. The Master's Program in Education Sciences, Doctoral Program in Education and Doctoral Program in School Education implemented globalized educational activities through partnership with Northeast Normal University, East China Normal University, etc. The Master's and Doctoral Programs in Disability Sciences continued collaborating with Ohio State University. The Master's Program in Lifespan Development and Doctoral Program in Lifespan Developmental Sciences were selected for the Graduate School Strategic Project Support Program and worked to identify the realities of university curriculums in different countries. The Master's Program in Psychology and Doctoral Program in Psychology developed a Certified Public Psychologist curriculum and launched practical training in the Department of Psychiatry of the University of Tsukuba Hospital.

Master's Program in Education

● Enhancement of internship programs

With the aim of encouraging students to learn more independently, the program enhanced internship and other training, such as fieldwork in South Korea, outdoor geology exercise internship, and practice teaching internship provided in cooperation with elementary, junior high and senior high schools affiliated with the University of Tsukuba. As a result, the internship participation rate increased from 13.5% to 15.7%.

● Database construction on an international network of teachers and promotion of international exchanges

By AY2019, 357 people from 45 different countries in the world had completed the internship training program for teachers from abroad that was launched in 1980. A database was compiled on the network of former participants of the program and a plan was established to promote exchanges for education and research purposes between former participants in different parts of the world to plan specific activities for AY2020 and later years.

School of Human Sciences

● Enhancement of overseas training

The school has been providing students with overseas training programs to promote exchanges with overseas partner universities. Past destinations include: Ho Chi Minh City University of Pedagogy in Vietnam (8 students in 2015), Northeast Normal University in China and Pusan National University in South Korea (16 students in 2016), Moscow City Teachers' Training University in Russia (11 students in 2018) and National Chiayi University (8 students in 2019). In 2019, 12 students participated in training in Ohio State University in the U.S. The school has been promoting exchanges on a continued basis by expanding the number of regions.

● Efforts to create an area of learning for a new age

The school has begun to consider reorganization of its college structure and curriculum to develop human resources for the age of Society 5.0. As part of its efforts, it has set up a committee to discuss the future of the School of Human Sciences and designed "Human Sciences" (to be launched in AY2020), a course common to the whole school.

Main Achievements and Results in AY2019

Faculty of Health and Sport Sciences

● Promotion of interdisciplinary research

In AY2019, the faculty began to provide financial and other support to research groups made up of members from different disciplines selected from among applicants from within the faculty with the aim of promoting interdisciplinary research in the area of health and sport sciences. In addition, the faculty has been disclosing and evaluating research results each year, resulting in increasing applications for Grants-in-Aid for Scientific Research (from 71 applications for AY2019 to 81 applications for AY2020).

● Participation in Innovation Japan 2019

Representing the University of Tsukuba, the faculty participated in the Innovation Japan 2019-University Trade Fair, held in August 2019, in which it introduced research that the Faculty of Health and Sport Sciences conducted in the area of sport and health sciences, as well as its industry-university collaboration and human resource development initiatives, under the theme "Sport and Health Innovation" in its exhibition about the university organization. The faculty's poster presentation on research results and experiences of its exercise programs and motor and cognitive function evaluation systems attracted lots of visitors, while many people also attended the faculty's presentation, given by Professor Hideki Takagi, Faculty of Health and Sport Sciences. The event has turned out to be an invaluable opportunity to see how much public attention is now focused on comprehensive and advanced educational and research activities in the area of sports and health.



Graduate School of Comprehensive Human Sciences

● Capacity fulfillment rate and degree awarding rate remained high

Admission to all programs has been highly competitive for applicants, resulting in recruitment of good students. In particular, the competition ratio of the Master's Program in Physical Education, Health and Sport Sciences was 3.3:1. The capacity fulfillment rate was 116.5% in the Master's Program in Physical Education, Health and Sport Sciences and 106.7% in the Doctoral Program in Physical Education, Health and Sport Sciences. The degree awarding rate was 120% in the Doctoral Program in Coaching Science and 117.4% in the Master's Program in Physical Education, Health and Sport Sciences. Each program seeks to provide quality education to students from admission to completion.

● Promotion of educational curriculum internationalization

The Master's Program in Physical Education, Health and Sport Sciences provides a basic course named "Tsukuba Summer Institute (TSI)," meant to be an opportunity for Japanese students to learn together with international students and having on-campus study exchanges with them, while the Tsukuba International Academy for Sport Studies (TIAS) teaches all classes in English. The Doctoral Program in Coaching Science has institutionalized its international exchange program and has started to provide financial support. In this way, each program has been promoting educational internationalization.

School of Physical Education, Health and Sports Sciences

● Development of athletes and staff for top professional leagues in Japan

Many graduates are employed and active in Japan's leading professional leagues, mainly in ball sports, as players and staff (analysts, trainers, etc.). More specifically, graduates of the school have joined soccer (J. League), basketball (B. League/W. League), volleyball (V. League) and rugby (Top League) teams in recent years, specifically, 13 players and one staff member in AY2018 and 17 players and two staff members in AY2019.

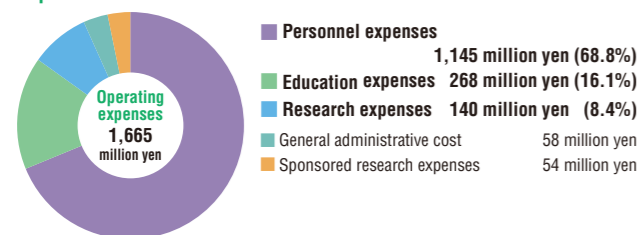
● A marked increase in the number of students selected to represent Japan

The school has reformed its admission practices in relation to the commendation and AC systems and has enhanced its support system for enrolled students (medical and scientific support, training environment improvement, academic support, etc.). As a result, the number of students selected as members of Japanese national teams, including those at specific age levels, increased substantially from 12 in AY2014 and 19 in AY2015 to 24 in AY2018 and 52 in AY2019.

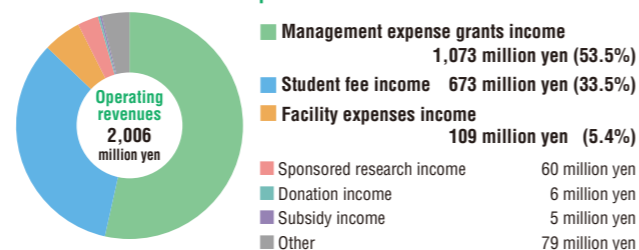


Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities

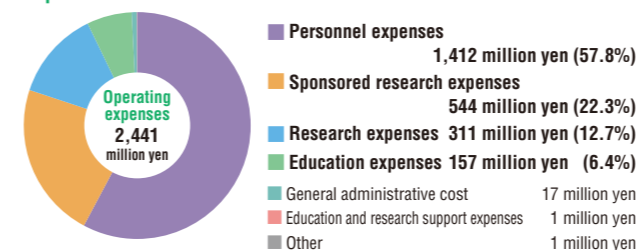


Financial resources for implementation

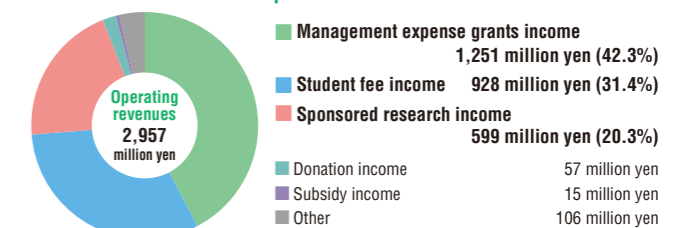


Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



Main Achievements and Results in AY2019

Faculty of Art and Design

● **Enhanced efforts to attract competitive research funds**

A Faculty of Art and Design FD meeting (information session on Grants-in-Aid for Scientific Research) and a briefing on applying for Grants-in-Aid for Scientific Research were held to acquire more competitive research funds, while departmental URAs (research administrators) and research promotion office committee members helped with the preparation of applications. The faculty also promoted the Faculty of Art and Design Research Project to encourage young faculty members to apply for Grants-in-Aid for Scientific Research. Consequently, the number of applications for Grants-in-Aid for Scientific Research increased from 28 in AY2019 to 34 in AY2020.

● **Implementation of Reborn Art Ball Project 2020**

The faculty implemented workshops and exhibitions of works inside and outside Ibaraki Prefecture in the Reborn Art Ball Project 2020 (a cultural program promotion project by Ibaraki Prefecture), planned by the faculty.

The faculty's research and education activities linking art and sports in this project have been highly evaluated as a distinctive initiative. For example, it has been adopted as a cultural program for the 2020 Olympic and Paralympic Games and selected for the PR Exhibit Project at the Ministry of Education, Culture, Sports, Science and Technology's Joho Hiroba (Information Plaza).



School of Art and Design

● **Increased internship participants and employment rate**

The school held study sessions on companies, employment seminars, internship debriefing sessions, etc. on a regular basis, mainly through the Career Support Committee, and swiftly communicated various types of employment-related information to all students via a mailing list. The number of internship participants increased from 62 in AY2018 to 79 in AY2019, while the employment rate also rose from 82.7% in AY2018 to 86.2% in AY2019.

● **Won the highest prizes, such as the Minister of Education, Culture, Sports, Science and Technology Prize and grand prizes**

The school proactively encourages students to apply for exhibitions inviting applicants from the public, art competitions, etc. and gives them guidance. Consequently, over ten works are accepted/awarded each year. In AY2019, students of the school won the highest prizes, such as the Minister of Education, Culture, Sports, Science and Technology Prize and grand prizes in exhibitions for which students across Japan applied, as well as encouraging prizes in national exhibitions for which professionals also applied.

The exercise course that was launched after the Great East Japan Earthquake on the theme of creative reconstruction not only produced educational effects through collaborative projects with local communities but also gives back to society through its educational outcomes.

Graduate School of Comprehensive Human Sciences

● **Increased employment/higher education advancement rate**

The employment/higher education advancement rate in the Master's Program in Art and Design was 59.6%, a year-on-year increase of 13.1%. Those who have completed the Doctoral Program in Art and Design tend to be working in high-skilled professions, such as university faculty, by taking advantage of the graduate education. The employment/higher education advancement rate in the Master's Program in World Heritage Studies was 85.7%, a year-on-year increase of 45.7%.

● **Promotion of internationalization**

The Master's and Doctoral Programs in Art and Design have been carrying out efforts towards greater internationalization of education under the university's educational strategic project "Construction of SDG-oriented Educational Programs through Collaboration between the University and Affiliated Schools" and the strategic project of the Graduate School of Comprehensive Human Sciences "Development of Human Resources for Global Communication through Art Writing."

The UNESCO Chair on "Capacity Building Workshop on Nature-Culture Linkages in Asia and Pacific," implemented chiefly by the Master's Program in World Heritage Studies and Doctoral Program in World Cultural Heritage Studies, is conducted fully in English. These programs have also implemented classes in English by inviting former ambassadors from the Ministry of Foreign Affairs of Japan, employees of the Japan International Cooperation Agency (JICA) and people with working experience in the International Union for Conservation of Nature (IUCN), International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM) and other related organization as instructors.

Main Achievements and Results in AY2019

Faculty of Medicine

● **Greater emphasis on the publication of research results**

With the aim of establishing a center of excellence through exploration of new areas of research and promotion of internationalization, the faculty has been promoting quality academic research, as well as research projects of great clinical significance. Consequently, the numbers of peer-reviewed academic papers and international joint papers rose to an impressive 1,577 and 111, respectively. Furthermore, the number of top 10% papers increased by 19% compared to AY2018, while the numbers of patent applications and registrations increased by 61% and 141%, respectively, compared to AY2018.

● **Promotion of social implementation of research results**

The R&D Center for Innovative Drug Discovery was established to develop new antibody drugs for refractory diseases and has been promoting research and development on innovative drugs and diagnosis technology to meet medical needs in today's super aging society with a declining birthrate. In addition, the faculty was selected as a recipient of the JICA Grassroots Technical Cooperation Project for the "Project to Support Emergency Medical Services to Save Lives from Traffic Accidents" and has been promoting the project in Laos through collaboration between emergency medical and international healthcare experts both from Japan and other countries.



Graduate School of Comprehensive Human Sciences

● **Promotion of internationalization and enhancement of research expertise**

The enrollment capacity fulfillment rate was over 100% in most programs. The international student ratio rose compared to the previous year in five out of the seven programs (6.6%–21.6%), indicating greater internationalization. The academic paper productivity increased in four programs, particularly in the Doctoral Program in Life System Medical Sciences (72.6%), showing an improvement in research expertise. The employment/higher education advancement rate also increased in four programs (5.0%–57.1%). All programs in medical sciences jointly supported applications for the Research Fellowship for Young Scientists by the Japan Society for the Promotion of Science, resulting in an adoption rate of 35.5%, higher than in the previous year (34.6%).

● **Promotion of international and interdisciplinary exchanges and reform of medical education**

Many programs held international seminars for exchanges and symposiums to encourage international exchanges. Interdisciplinary education was also implemented through dual degree programs between different areas of research of engineering, design, and kansei, behavioral and brain sciences. The school carried out reform of medical education through special programs,

such as the training program for basic medical researchers with a guarantee of pathology board certification, development of human resources who can deal with all phases of radiation disasters and development of medical human resources who can realize optimized cancer treatment.



School of Medicine and Medical Sciences

● **Doubling of students enrolled in a project-based training program for high-skilled medical human resources**

The "development of human resources who can deal with all phases of radiation disasters" was adopted by the Ministry of Education, Culture, Sports, Science and Technology as a Brush up Program (BP) for professionals in AY2019. This program has attracted students from a wide variety of professional backgrounds, such as firefighters, police officers and clerks, in addition to doctors and medical staff. The number of students enrolled in this program doubled from 12 in AY2018 to 27 in AY2019.

● **Increasing applicants for the special entrance examination for International Baccalaureate holders**

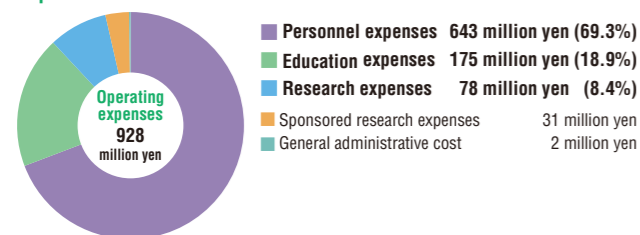
The school launched a special entrance examination for International Baccalaureate holders as part of the entrance examination for AY2015. The numbers of applicants for AY2016 and later years indicate that applicants for the special entrance examination have been on the increase as follows: four applicants in AY2016, six applicants in AY2017, five applicants in AY2018 and seven applicants in AY2019. The School of Nursing also had two International Baccalaureate applicants for AY2019.

● **Aptitude tests and enhanced resilience education**

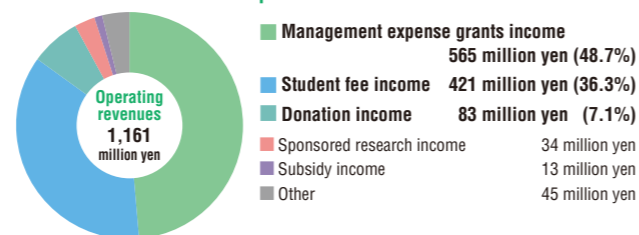
The School of Medicine introduced aptitude tests (a written test and an interview) in the entrance examination for AY2019 to comprehensively evaluate the enthusiasm for learning, reasons to be a doctor, persistence, independence, resilience, etc. of applicants, while at the same time helping students become more resistant to stress, for example by incorporating practical training on resilience into an introductory medical course.

Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities

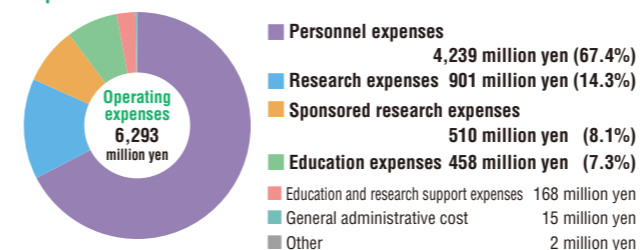


Financial resources for implementation

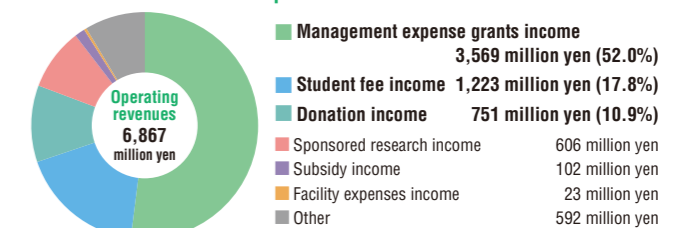


Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



Main Achievements and Results in AY2019

Graduate School of Library, Information and Media Science

Promotion of industry-university collaboration and academic conference activities

The graduate school enhanced research publicity through the website and coordination with the Headquarters for International Industry-University Collaboration and carried out collaborative research projects with a wide variety of corporations. Consequently, the amount received per faculty member increased by 130%. Furthermore, the school contributed to the execution of the International Conference on Asia-Pacific Digital Libraries (ICADL) and Asia-Pacific Conference on Library & Information Education and Practice (A-LIEP), which were held at the same time, as a leading Asian-Pacific member of iSchools, an organization formed by universities and schools specializing in information around the world. As a result of these activities, the school was ranked high in the Library & Information Management category of the QS World University Rankings: 33rd in the world and 1st in Japan.

Implementation of the world's first international cyber disaster response drill

The world's first international cyber disaster response drill was organized as part of CREST CyborgCrowd (a project for flexible and scalable aggregation of human-machine intelligence). This event was participated in by Ehime Prefectural Government, Banda Aceh City Government and Syiah Kuala University in Indonesia, Toyama University, Kyoto University, Niigata University and the French National Centre for Scientific Research and was implemented with the cooperation of Yahoo Japan Corporation, Geospatial Information Authority of Japan and the University of the Philippines. People and AI cooperated in disaster response across borders.



Graduate School of Library, Information and Media Studies

Improvement of employment rate and promotion of international exchange

The graduate school provides a personal consultation service to students, so that they can consult with career advisors to put what they have learned in the school to good use in society. Consequently, the employment rate among Master's students improved from 86.2% to 89.4%. At the same time, the school proactively promoted international exchange activities, for example, by sending a student to Germany on a support program for the educational strategy promotion project and facilitating student exchanges with the University of Art and Design Linz in Austria, with which the school has signed a partnership agreement.

Granted excellent paper awards by an academic journal and international conference

"Simulation of Plastic Deformation of Hair for Character Animation in CG," a study proposed by students and conducted in cooperation with supervisors, was published in the academic journal of the Institute of Image Electronics Engineers of Japan and was granted two awards, the Excellent Paper Award and the Nishida Prize (a prize awarded to the authors of outstanding papers on CG), at the same time. Besides this, they also gave a presentation at IEVC 2019, an international conference held in Indonesia, and won the Best Paper Award. In this way, the school has been producing steady research results.

School of Informatics

A high percentage of students taking TOEFL and the highest score within the university

Continuing from AY2018, all students in the first and third years of the College of Media Arts, Science and Technology took TOEFL. The third-year student who scored 670 scored the highest in the entire university. The College of Knowledge and Library Sciences also demonstrated high levels of performance; 98% of first-year students and 95% of third-year students took the TOEFL and the highest score among them was 610. This is considered to be the fruit of the school's unique TOEFL course, provided to improve the English skills of students, and other educational activities.

Promotion of practical PBL education through industry-university collaboration

The school has been making across-the-board efforts to promote PBL classes in the form of industry-university collaborative groupwork through collaboration with the educational program of the Ministry of Education, Culture, Sports, Science and Technology "Formation of a Training Center for Information Technology Personnel Supporting Growth Areas (Business System Design)" and "Embedded Technology Campus OJT," a program implemented in cooperation with the Campus OJT Industry-University Education Foundation, and has developed innovative human resources who can independently carry out practical problem solving processes.



Main Achievements and Results in AY2019

Improved employment/higher education advancement rate and degree awarding rate

The School of Global and Integrative Majors has been established to implement and manage cross-cutting degree programs straddling different areas of undergraduate and graduate education, and a broad variety of programs have produced significant results. The Ph.D. Program in Human Biology saw a year-on-year increase of 50.9% in the academic paper productivity among students. In the Master's/Doctoral Program in Life Science Innovation, there was a year-on-year increase of 25% in the employment/higher education advancement rate and a year-on-year increase of 69.2% in the academic paper productivity among students. The degree awarding rate in the Doctoral Program in Empowerment Informatics improved by 11.1% compared to the previous year.

Ph.D. Program in Human Biology

This was the first degree program that a graduate school of the University of Tsukuba ever established. The aim of the program is to develop global leaders based on its admission policy, curriculum policy and diploma policy. This program was rated S, the highest rating, in the final assessment by the Program for Leading Graduate Schools.



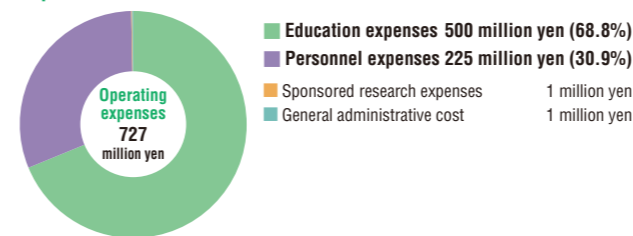
Doctoral Program in Empowerment Informatics

This program consists of three pillars, namely supplementation, harmony and extension of human functions, and has the world's leading track record in the field of empowerment informatics, such as effective utilization of information and robotics technology in rehabilitation and functional recovery, independent living support, and research on human-machine systems aimed at improving the safety and comfort of driving. This program was rated S, the highest rating, in the final assessment by the Program for Leading Graduate Schools.

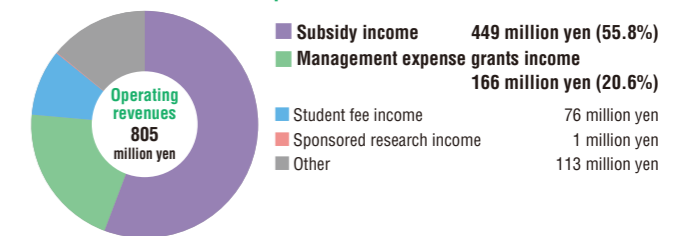


Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities

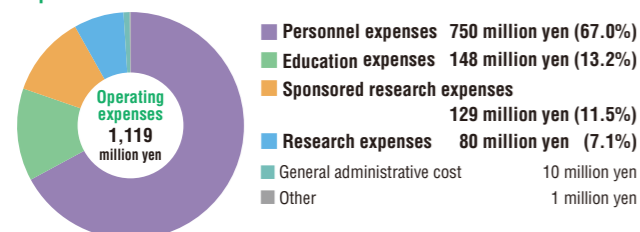


Financial resources for implementation

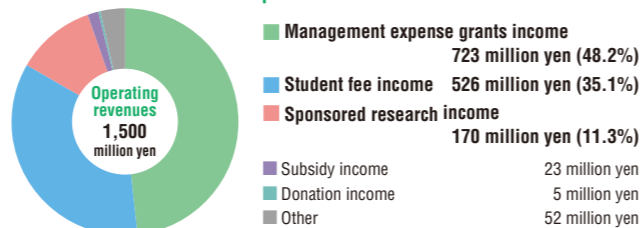


Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



Main Achievements and Results in AY2019

University of Tsukuba Library

Enhanced services for users with visual impairment and other needs

The University of Tsukuba Library, consisting of the Central Library and four specialized libraries (Physical Education/Arts, Medicine, Library Information Science, Tokyo Campus), operates under a unified management system. In addition to housing about 2.7 million books in print including various collections and valuable books, the library provides electronic journals and databases through its website. Other services are also available upon request such as loan renewals, reservations, and copies of documents to and from other universities. With the goal of being a library accessible to users with difficulties, the library offers a wide range of assistance services.

In AY2019, the university library exchanged a memorandum with the National Diet Library in relation to the provision of "data and metadata for people with visual impairment and other needs" and began to provide textbooks and other text data created through cooperation between the University of Tsukuba Library and DAC Center to the National Diet Library. This means that text data created by the university library is now available through the Internet, via the Data Transmission Service for Persons with Print Disabilities of the National Diet Library, not only to people outside the university but also to vision-impaired people and people with difficulty reading regular printed materials (persons with print disabilities) all over the world.



to enhance human sleep research and expanding the new construction plan of a human sleep measurement facility to five beds instead of three.

In addition, the institute has converted a hydrogen fuel cell bus into a mobile sleep laboratory in partnership with the R&D Center for Frontiers of MIRAI in Policy and Technology and has been working to create an environment that enables measurement of the sleep of subjects with sleep problems in many different situations.



Center for Diversity, Accessibility and Career Development

Enhanced support for students with developmental disabilities

The University of Tsukuba established the Center for Diversity, Accessibility and Career Development (DAC Center) in 2015 to promote diversity, assist students with disabilities and provide career support. The center was accredited by the Ministry of Education, Culture, Sports, Science and Technology as a Joint Usage Education Center (an educational center for human resources supporting students with varied developmental profiles) in 2018 based on its past records and it has been developing training programs reflecting the diverse developmental characteristics of students for teachers, staff members and professional personnel of institutions of higher education across Japan. It is also developing support-related content and it works to spread the information it creates.

In AY2019, the center implemented a measure to resolve students' problems, reflecting the activity and research results of a support project for students with developmental disabilities. In addition, psycho-educational personal assessments were implemented by specialist staff members (assessors) to evaluate the strengths, areas of specialty, developmental disability trends and intellectual capabilities of different students in an objective manner.



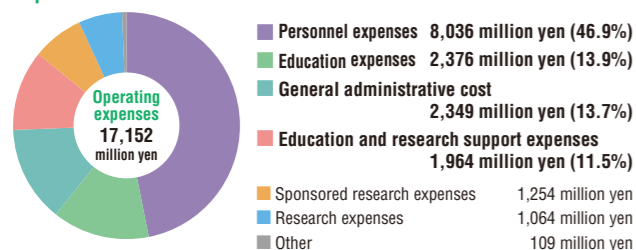
International Institute for Integrative Sleep Medicine (IIS)

Further reinforced research infrastructure

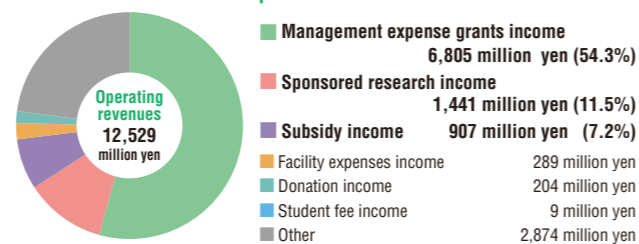
S'UIMIN Co., Ltd. was established in 2017 as a venture spun out of IIS to enhance industry-university collaboration and has been working to reinforce the research infrastructure for bridging research, clinical research, etc. to promote the social implementation of the results of basic research of IIS, which can be business seeds. As this spun-out venture succeeded in raising funds worth 900 million yen in 2018, collaborative research with IIS and the Center for Computational Sciences expanded in AY2019, resulting in further reinforcement of industry-university collaboration. The institute also substantially expanded the infrastructure for human sleep research, for example, by employing sleep specialists under a special collaborative research project with Ibaraki Prefecture

Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



Main Achievements and Results in AY2019

Promotion of international research

The center conducts international joint research in cutting-edge fields of life sciences by sending assistant professors to leading research institutions and universities inside and outside Japan through an international tenure-track system. Project faculty members who were selected to go on this program through the system in 2019 have launched an international joint research project with Stanford University in the area of structural biology. As a result of international research promotion, the amount of commissioned research and joint research of the center increased from 80 million yen in AY2018 to 138 million yen in AY2019.

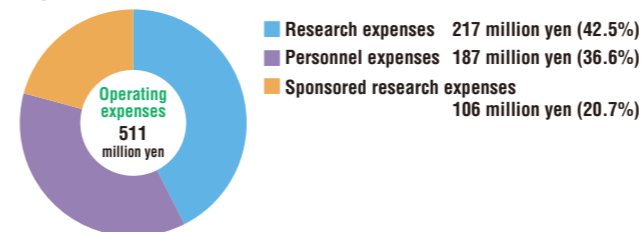
Ten-year tenure track for assistant professors that supports the project system

In AY2019, the center began to give new young assistant professors tenures of up to ten years with the aim of facilitating the smooth launch of new projects. Not only has this system resulted in stimulating the mobility of young assistant professors and ensuring continued support from them, but it also eventually resulted in the creation of projects that can be renewed at the same time as the dissolution of old projects in which the tenures of young assistant professors are set to end at the same time as the retirement of project professors.

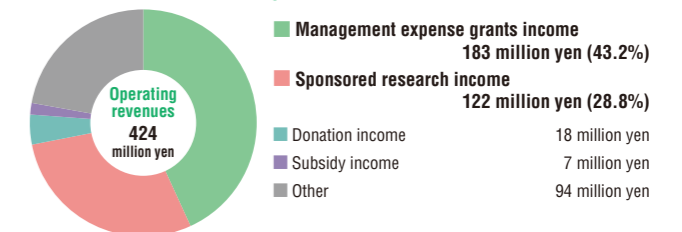


Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



Center for Computational Sciences

Main Achievements and Results in AY2019

Research outcomes straddling many different fields as a research center for computational sciences

A total of 174 peer-reviewed academic papers were published based on the construction and applied uses of ultra-high-performance systems through collaboration between six areas of basic and applied sciences (particles, space physics, nuclei, physical properties, life sciences and global environment) and two areas of information sciences (high-performance computational systems and informatics).

Construction of a multi-hybrid accelerated supercomputer, the first of its kind, and contribution to interdisciplinary computational sciences through shared use across the country

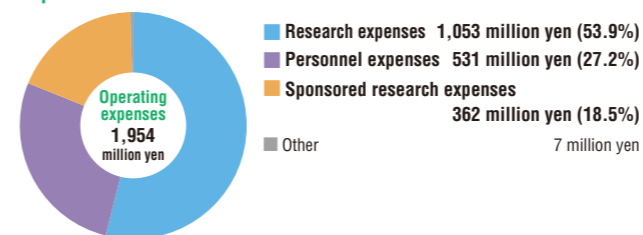
The center has constructed the world's first multi-hybrid accelerated supercomputer with combined GPU and FPGA systems, Cygnus (performance: 2.4 petaflops), while Oakforest-PACS (performance: 25 petaflops), the many-core supercomputer that the center has been jointly building and operating with the University of Tokyo for three years, still remains the highest-performance

among supercomputers owned by national universities in Japan. The center has been providing these systems for shared use across the country, so that they can be used for Japanese and overseas computational sciences and computer science research, resulting in contribution to the publication of a total of 305 original academic papers. Furthermore, the center acquired large budgets for various research projects (578.35 million yen in total), including a budget for R&D activities concerning the Cygnus system.



Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



Tsukuba-Plant Innovation Center

Main Achievements and Results in AY2019

- Production of research results leading to development of world-class transformation technology and fostering of new industries

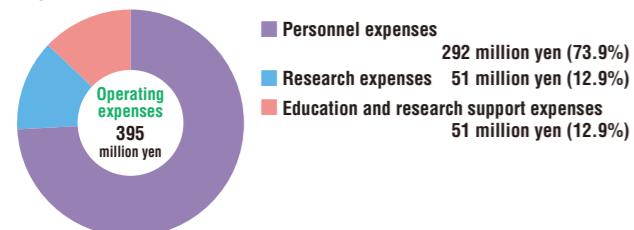
The center promotes translational research that translates basic research into more applied and more practical research. It has a strong track record of research achievements that lead to the development of world-class transformation technology and fostering of new industries, such as high-efficiency genetically engineered vector development, which enables gene transfer into diverse plants, and it published 83 original academic papers in AY2019. In addition, the center planned and implemented 39 joint use/joint research projects to help increase the research expertise of Japan in the area of transformation plant design as a joint use/joint research center authorized by the Ministry of Education, Culture, Sports, Science and Technology.

- Marketing of a high-GABA tomato variety, Japan's first genome-edited crop, and globalization as a center of excellence

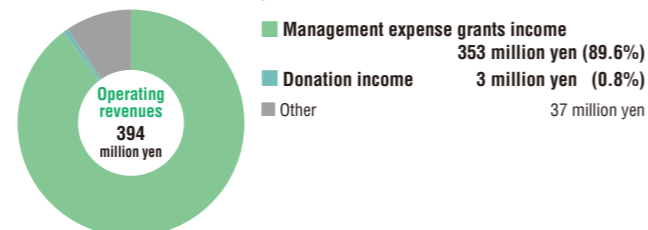
The center has developed a new tomato variety using genome editing technology, established Sanatech Seed Co., Ltd., a venture launched by the university, building upon the achievement, and worked towards putting the high GABA content tomato, Japan's first genome-edited crop, on the market. Being a core center for the National BioResource Project, the center has also promoted the "Creation of Innovative Advanced Technology for the Future of Food" (JST-OPERA program), as well as special collaborative research projects and strategic zone projects, while at the same time providing support for the acquisition of overseas genetic resources, working on development of new varieties using genetic resources and promoting new breeding technology and social implementation of it. In addition, the center has reinforced its partnership with Michigan State University and many other organizations abroad to globalize itself as a center of excellence.

Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



*Besides the above, some expenses incurred by faculty members operating at the center and financial resources for implementation of their activities are reported in the faculties to which they belong.

Center for Research in Isotopes and Environmental Dynamics (CRiED)

Main Achievements and Results in AY2019

- Launch of the Collaborative Network Center Project, authorized by the Ministry of Education, Culture, Sports, Science and Technology

The Collaborative Network Center Project was launched by six organizations, namely the University of Tsukuba, Fukushima University, Hiroshima University, Japan Atomic Energy Agency, National Institutes for Quantum and Radiological Science and Technology, and the National Institute for Environmental Studies, in April 2019. This project adopted 98 collaborative research projects and published 207 academic papers in the areas of forestry and marine ecosystems, etc. Its kickoff and annual reporting meetings were participated in by more than 100 people from across the world each time.



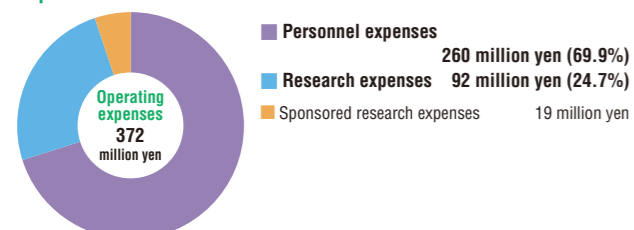
- Social contributions for Fukushima's recovery and collaborative research with IAEA

The center began to conduct research on the transfer of radionuclides and other activities immediately after the nuclear accident in Fukushima in March 2011. A majority of the activities were carried out jointly with IAEA with the goal of supporting the recovery of Fukushima; 1) implementing a special proficiency test designed for Japan, 2) promoting international joint research, 3) hosting IAEA's international conference, and 4) writing 486 IAEA Technical Reports. Besides these, research results of the center have been published through press releases, Japanese and overseas TV programs, newspapers, and so on.

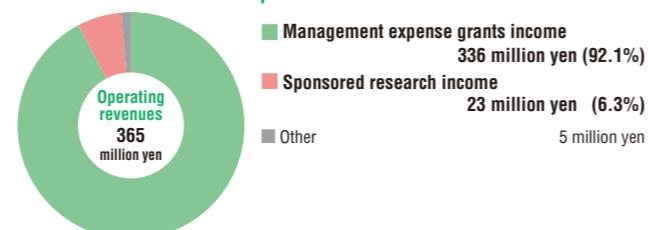


Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



*Besides the above, some expenses incurred by faculty members operating at the center and financial resources for implementation of their activities are reported in the faculties to which they belong.

Affiliated Schools

Elementary School, Junior High School at Otsuka, Junior High School at Komaba, Senior High School at Otsuka, Senior High School at Komaba, Senior High School at Sakado, Special Needs Education School for the Visually Impaired, Special Needs Education School for the Deaf, Special Needs Education School for the Mentally Challenged, Special Needs Education School for the Physically Challenged, Special Needs Education School for Children with Autism

Main Achievements and Results in AY2019

- Hosting of the 8th Senior High School International ESD Symposium

The 8th Senior High School International ESD Symposium and the 1st SDGs Global Engagement Conference @Tokyo took place in November 2019. This symposium, launched to encourage in students a willingness to independently address global issues and help them improve their qualities as international human resources with the goal of realizing a more sustainable society, has been hosted by Senior High School at Sakado, University of Tsukuba every year since 2012. The event was participated in by schools affiliated with the university, Japanese and overseas partner schools, UNESCO Schools, etc. and promoted international education through a variety of programs, including an SDGs workshop and a workshop on ethical consumption organized in collaboration with companies and other collaborators.



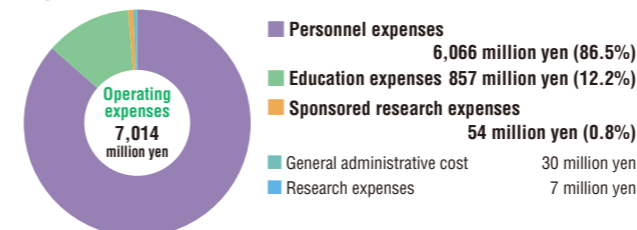
- Completion of Phase I construction of the Special Needs Education School for the Physically Challenged

The Special Needs Education School for the Physically Challenged is a school for children with physical disabilities and has about 120 students. The school building, which had originally been built about 50 years ago and was becoming dilapidated, was renovated to provide a more comfortable school environment for students. The completion of the new school building was met with reactions of joy from students, saying, "Our classroom is brighter," "The new building has fewer steep slopes than the old one, so it's easier for us to move around," and so on.

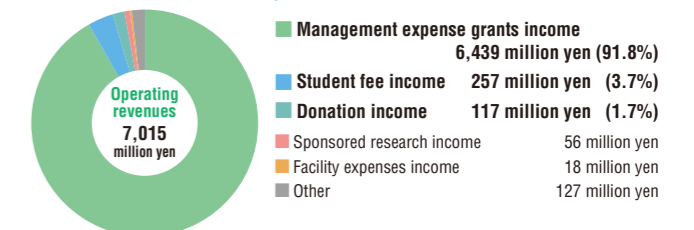


Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



*Besides the above, details of activities at affiliated schools in AY2019 are provided on Page 31.

University of Tsukuba Hospital

Main Achievements and Results in AY2019

- Approved as "Ibaraki Prefecture's first" Advanced Critical Care Center

In October 2019, the University of Tsukuba Hospital was approved by Ibaraki Prefecture as the prefecture's first Advanced Critical Care Center to accept critical emergency patients that are hard to treat at tertiary emergency facilities in the prefecture. In addition to providing safe and secure emergency medical care, the hospital has also been striving to train emergency physicians as the core hospital of the emergency department specialist program, which is an indispensable part of strengthening the emergency medical care framework.

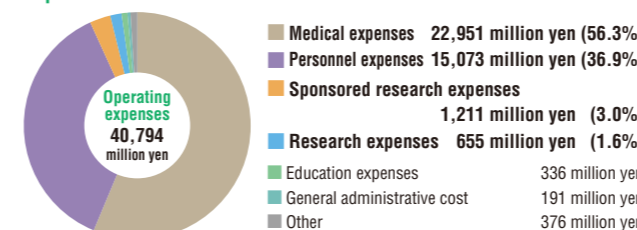


- Local medical education centers set up in all secondary health areas in Ibaraki Prefecture to establish a system for provision of quality local medical services

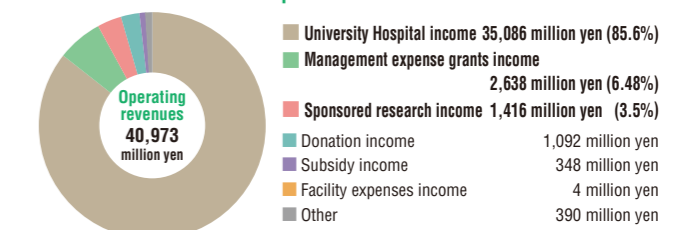
In order to address the pressing issue of resolving the shortage and uneven distribution of medical practitioners in Ibaraki Prefecture, we have allocated faculty members to core medical institutions in the prefecture and have been contributing to the provision of local medical services by building an education and supervision system and offering clinical support. With the establishment of the Koga-Bando Clinical Education and Training Center, which was set up within the Ibaraki Seinan Medical Center Hospital in April 2019 at the request of the endowed research department of the Ibaraki prefectural Welfare Federation of Agricultural Cooperatives, we have finished establishing our centers in all secondary health areas in Ibaraki Prefecture.

Expenses incurred for activities and financial resources for implementation

Expenses incurred for activities



Financial resources for implementation



*Besides the above, details of activities at the university hospital in AY2019 are provided on Page 30.

University of Tsukuba Integrated Report

The integrated report can also be viewed at the following website:
University of Tsukuba Integrated Report
<https://www.tsukuba.ac.jp/public/report/>



Relevant Detailed Information

→Financial Information:

AY2019 (16th Term) Financial Statements, etc.

https://www.tsukuba.ac.jp/public/misc/teikyo_22.html#zaimu
The financial statements have been audited by accounting auditor KPMG AZSA LLC, the university's accounting auditor.



→Mid-Term Goals and Mid-Term Plan

University of Tsukuba Third Mid-term Plans

https://www.tsukuba.ac.jp/public/publicity_term.html



Report Concerning Business Results of the University of Tsukuba

https://www.tsukuba.ac.jp/public/publicity_report.html



→Tsukuba Futureship

<https://futureship.sec.tsukuba.ac.jp/>



→Crowd Funding Business

https://readyfor.jp/lp/university_of_tsukuba/



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