### **UTokyo Compass**

### Into a Sea of Diversity: Creating the Future through Dialogue

September 30, 2021 The University of Tokyo

### I. Basic Principles

As a hub for creating, connecting, and deepening academic knowledge, the University of Tokyo will foster the fundamental ability to question with the goal of achieving academic excellence and realizing an inclusive society. To achieve academic excellence, it is essential for diverse groups of people to come together to discuss, to learn, and to identify and share challenges and solutions. UTokyo will engage in research directed at the pursuit of truth and founded in academic freedom, and in education that nurtures people with a global perspective, high ethical standards, and tenacious practical skills, and it will build a new model of an autonomous and comprehensive university that integrates and deepens the great breadth of academic knowledge.

UTokyo will continue to work tirelessly to solidify confidence in the university as a place for creating value through academic activity. Going beyond the traditional roles of a national university, UTokyo must have the creativity to design its own practices in order to play an active role as an institution that serves the public good worldwide by helping to resolve the global challenges faced by human society. We will develop those practices through the university's managerial competency, solidify the university's foundations of material and financial resources to support autonomous and creative activity, and enhance the value of academic activity through the creation of knowledge, people, and place.

UTokyo aims to create a better future society that is inclusive and free, founded on the accumulation of distinctive and unique academic knowledge that has been inherited and enhanced over the generations. UTokyo is conscious of the foundation of its continued existence and its social responsibility. We will overcome divisions and obstacles through the practice of sincere dialogue that can correct the very real unfair and unreasonable disparities that exist in society today to create the academic knowledge needed to realize a better future society together and foster cocreation with all of society.

#### **Knowledge** (Perspective 1)

Exercising our academic freedom and autonomy as we seek to thoroughly understand the world in which we live, UTokyo will create a diverse body of academic knowledge that can be relied on when identifying the challenges facing society and their solutions. Through dialogue that is open and transparent to criticism and verification, new academic knowledge will be created by a university that is aware of its responsibility to serve the public, including those excluded from existing political and economic frameworks.

UTokyo will prioritize the advancement, in both breadth and depth, of basic research essential for technological innovation and will play an important role as a hub connecting and enabling access to all types of knowledge. Society cannot obtain the full benefits of new technologies without the support of academia to evaluate their impact. This role can only be fulfilled through collaboration that transcends boundaries between the humanities and the sciences.

The creation of academic knowledge in the pursuit of truth at UTokyo proceeds while listening to diverse voices, driven by the curiosity and inspiration of those who seek to learn and supported by the sincerity that is at the core of a commitment to society. Such dialogue is also the basis of the power to connect and energize the associated knowledge and people.

#### **People (Perspective 2)**

UTokyo nurtures talented individuals capable of creating the future. This university's mission is to provide the world with well-rounded talented individuals who have excellent dialogue skills and the specialized knowledge and education to support all places of society. At the same time, we will focus on providing an education that enables students, as leaders of the next generation, to listen to the voices of the overlooked and to build empathic relations with others with sensitivity to how their own voices resonate.

UTokyo welcomes diverse students, faculty, and administrative staff from throughout Japan and around the world and produces promising talent. The university fulfills its functions for research, education, and engagement with society at the core of a large and continuously circulating network that is open to the world. In order to nurture flexible dialogue skills, UTokyo will enhance the framework for students to gain a variety of real-life experiences, including expanded opportunities for overseas study, experience at overseas universities and partner facilities and in global internship programs, and engagement with local practitioners.

UTokyo will take full advantage of the potential of digital transformation and cyberspace to pioneer education that promotes student dialogue and student participation beyond conventional bounds. The university will promote an

inclusive education that is not fixed to any particular age groups, attributes, or backgrounds, in keeping with the increased importance of inclusion in this age of rapid change and complex values and issues.

#### **Place (Perspective 3)**

UTokyo will redefine the role of the university as a place of inclusion, where the practice of dialogue brings out the individuality and creativity of each academic discipline and its polyphonic nature is energized. Together with diverse people from all walks of life, we will devise ways to make full use of the place provided by the university. Through such repeated dialogue, we will expand our network and communicate to the world the attraction of UTokyo as a university that anyone in the world would want to join.

UTokyo's vision of creating place is not limited to the enhancement of equipment and facilities. We also make comprehensive efforts to develop attractive research, education, and employment systems that will lead to a brighter future. We value the diversity of our faculty, administrative staff, and students, reexamine the ways in which we learn and work to fully exploit the opportunities offered by digital transformation, provide stable employment and diverse career paths for young people, and improve the inclusion and treatment of university members who may be facing difficulties in relation to their nationality, gender, disability, or other characteristics. We will develop education and research methods based on the improvement and expansion of the online environment, with the aim of recreating the campus as a place that helps to keep people safe even in the event of unexpected disasters and emergencies.

UTokyo regards the broader society as the proper locus of its activities and will engage in creative dialogue to build relations founded on confidence and allow the university to serve as a bridge among diverse people and organizations. We will also work actively to expand our financial base, including through endowments and bond issuances, to enhance the university as a place. By creating a variety of places, we will build a virtuous circle of confidence and support for the university's public significance and unique functions.

#### A future made possible through dialogue

Academia's fundamental mission is to aspire to high ideals, to recognize the shortcomings of our current situation, and to identify issues for progress and improvement, so that we can envision a better future. It is through dialogue that we can break through society's divisions and blockages and create new connection and interaction where before there was isolation. Through the confidence cultivated over many years in the university's academic creativity and educational development, we can deepen dialogue with diverse stakeholders in our mission and ideals, foster understanding, and work together to resolve public issues such as the stewardship of the global commons for future generations. These are responsibilities that society expects us to fulfill.

Upholding academic freedom and autonomy, UTokyo strives to pursue truth and create knowledge and aspires to form a complex and pluralistic academic space in cooperation with other universities and research and educational institutions in Japan and around the world. The university's pursuit of research and education that asks questions together is also a practice that shares a clear direction to the future for a society that is searching for a way forward in the face of difficult global challenges. As an autonomous and public entity, UTokyo is deeply aware of its role in society and the world and of the impact of its research and educational activities. UTokyo will further promote dialogue that is open to diversity and will work hand in hand with society to create an ideal vision for a shared future.

### II. The 20 Goals of UTokyo Compass

### Establishing Management Capacity for Autonomous and Creative Activity



#### 0-1. Develop an Autonomous and Creative University Model

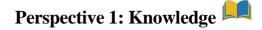
We will establish a model of management specific to universities—a new university model—that expands the autonomous and sustained creative activities of all members of the university and provides a foundation for serving the global public through the pursuit of truth and the creation of knowledge based on academic freedom. We will enhance our risk governance in areas including financial affairs, legal affairs, and university-industry collaboration, as well as develop systems for accumulating, referencing, and sharing achievements in research, education, and social collaboration from across the university. We will thereby build a model that optimizes the collective activities of the university as an organization that serves the public in the context of its relationships with the wider society.

#### 0-2. Formulate a Sustainable Management Strategy and Expand the Functions of the University

We will develop management mechanisms that enable the university's growth as an organization that serves the public good. By doing so, we will enhance the attraction of talent, the acquisition of funding, and the provision of adequate time for research so as to support UTokyo's value creation activities, including the liberal-arts education and innovation in science and technology that are necessary for the production of nextgeneration knowledge, the cultivation of diversified human resources, and the solution of humanity's challenges. In order to expand the functions required of the university in response to societal needs, we will secure financial resources for upfront investments of a considerable scale, through means including the establishment of new endowments and the agile and effective issuance of university bonds.

#### 0-3. Cultivate Support and Appreciation for the University's Roles

We will gain the trust of wider society through multidimensional dialogue, including visible demonstrations of UTokyo's research outcomes and educational appeal, communication of our new vision, two-way community engagement, strengthening of alumni networks, and timely exchange of ideas with international experts. These activities will raise our international reputation and foster greater support and appreciation for the roles performed by UTokyo, both within Japan and across the world.



#### **1-1. Seek Solutions to Global Problems**

We will mobilize knowledge across all disciplines at UTokyo to seek solutions to global problems that confront human society in areas including health economic disparity gender equality conflict and division energy resource circulation and climate change.

#### 1-2. Promote Diverse Scholarship

We will extend the scholarly accomplishments handed down to us through our long history as well as nurture the seeds of novel research founded on free thinking. For these purposes we will build a stronger foundation for our support for the diversity of scholarship and of the researchers who pursue it promote further research in the humanities and social sciences, and raise awareness of our research by encouraging people to share and utilize research findings.

#### 1-3. Generate Excellent Academic Knowledge

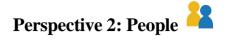
We will further strengthen our world-class research facilities as hubs for linking different types of knowledge, promoting research of the highest global standards, and generating new academic knowledge through co-creation across disciplines.

#### 1-4. Generate Value through Co-creation with Industry

We will bolster our co-creative activities with industry using academic knowledge to generate value in a variety of forms, as well as ensure the sustained growth of that value generation. We will strengthen the university's functions as a gateway for joint research across industry and the private sector, academia, government and the public sector, and society as a whole, in cutting-edge fields such as artificial intelligence, quantum technology, next-generation semiconductor technology, and next-generation cyber infrastructure. We will also pursue comprehensive partnerships and generate innovation across borders based on a shared overarching vision that incorporates perspectives from the humanities and social sciences.

#### 1-5. Promote Responsible Research

We will promote Responsible Research and Innovation (RRI) through dialogue with the wider society, taking into account the societal impacts of science and technology.



#### 2-1. Nurture Inclusiveness and Capacity for Creative Dialogue

We will establish educational programs that foster the inclusiveness and advanced capacity for dialogue and action that are crucial in today's increasingly complex society. These programs, which will be designed for undergraduate students and deployed for graduate students as well, will entail a wide range of learning in areas including diversity and inclusion, global commons, data science, and digital applications. Moreover, we will present students with a variety of role models and furnish practical space for them to develop a capacity for creative dialogue, as well as enhance our support for faculty engaging in this type of education. We will also promote extracurricular activities as opportunities to foster students' independent creativity.

#### 2-2. Nurture an International Outlook

We will foster a new generation of individuals equipped with a wealth of experience in engaging with diverse value systems, with an international outlook, and with a capacity for empathy. We will promote a variety of learning and other activities beyond Japan and provide students, including international students and other peers of highly diverse backgrounds, spaces to learn together, thereby fostering individuals capable of pursuing active careers as leaders in international society.

## 2-3. Undergraduate Education: Cultivate Disciplinary Expertise, Wide-ranging Knowledge, and High Ethical Standards

In the undergraduate curriculum, we will offer liberal-arts education in the Junior Division to equip students with wide-ranging knowledge, as well as specialized education in their disciplines that fully leverages our strengths as a comprehensive research university. Additionally, we will provide students with more opportunities to develop a deeper understanding of other fields, and we will enable them to think holistically from a broad perspective and to possess high ethical standards. To realize these goals, we will design flexible educational systems informed by a long-term academic vision that transcends the barriers between the humanities and sciences.

#### 2-4. Graduate Education: Cultivate Advanced Disciplinary Expertise and Practical Capabilities to Tackle

#### **Next-Generation Problems**

In the graduate schools, we will nurture public-spirited individuals with multidisciplinary outlooks and a strong sense of inclusivity, as well as advanced disciplinary expertise and practical capabilities. Our graduate education will also be responsive to our social mission of fostering outstanding researchers to serve the creation of new knowledge and contribute to society through excellent scholarship.

#### 2-5. Support Early-Career Researchers

We will develop appealing environments that attract up-and-coming researchers both domestically and internationally and enable them to pursue their research freely and to the full, and we will foster exceptional early-career researchers to contribute to the creation of next-generation knowledge. We will generate a virtuous cycle in which these researchers become accessible role models who inspire talented, motivated students to pursue careers in research.

#### 2-6. Cultivate Administrative Staff with Advanced Expertise and a Creative Mindset

The work expected of UTokyo's administrative staff will inevitably change and grow more complex in line with societal changes such as internationalization and digitalization and with the extension of the university's functions. We will develop systems responsive to these changing expectations and expand opportunities for administrative staff members to acquire advanced expertise and planning abilities.

#### 2-7. Connect the University and Society through Bidirectional Recurrent Education

In order to engage with a complex and rapidly changing society, we will implement bidirectional recurrent education that positions the university as a place of exchange, both providing knowledge to society and learning about society's problems.



#### 3-1. Create a Supportive and Empowering Campus that Anyone in the World Would Want to Join

We will create an attractive and inclusive campus where people of diverse origins and backgrounds contribute to the creation of new value as they expand their horizons through interaction and dialogue with one another. For this purpose, we will increase the diversity of our membership and the plurality of our communities, while at the same time establishing a culture that fosters mutual trust through the pursuit of dialogue and developing our employment systems, advisory services and other aspects of the human and physical environment to ensure that everyone at UTokyo feels comfortable to learn, work, and pursue their activities, regardless of who they are.

#### 3-2. Support Education and Research Activities

In order to develop an environment that enables people to focus on their education and research activities, we will promote the use of digital technologies and collaboration between the academic and administrative staff, as well as enhance our research support services and the university's overall organizational capabilities. We will expand access to on-campus jobs that allow students with specialized skills and advanced knowledge to participate in a variety of activities within the university. We will also design organizational structures befitting a university that is expanding its functions, enabling the more effective deployment of education, research, and value creation activities.

#### **3-3.** Expand the Campus in Cyberspace

We will develop systems for the comprehensive advancement of UTokyo's digital transformation. We will utilize our physical and cyber campuses multidimensionally to make UTokyo a university that anyone in the world would want to join, as well as develop an environment that enables research exchanges to be pursued internationally without the need for physical mobility. Moreover, we will use the digital transformation of our research, education, and management activities to promote dialogue among both internal and external stakeholders and to build learner-centered educational systems.

#### **3-4. Extend Our Place into Wider Society**

With the aim of achieving a knowledge-intensive, circulatory society, the start-up ecosystem that is currently being formed around the Hongo Campus will be developed into a global hub, tentatively called the "Hongo Intelligence Hill." We will also strengthen and internationalize the networks connecting UTokyo with investors, start-ups, large corporations, and accelerators. Moreover, we will leverage the strengths of each of our campuses and specialized facilities, including the university hospitals and affiliated schools, to form partnerships with communities throughout Japan, as we aim to create new values of inclusion and harmony with the global environment.

#### **3-5. Extend Our Place Internationally**

We will develop international collaborative centers of research excellence outside Japan. Moreover, through international interorganizational partnerships, international joint research, and networking of our overseas activity bases, we will extend the opportunities for members of the university to pursue their activities internationally, and strengthen outside Japan the dissemination of our research results, our information-gathering, and our social collaboration activities. These initiatives will elevate UTokyo's international presence and reputation, cementing our key position in global academic networks in each academic area.

### **III. Specific Action Plans**

# Establishing Management Capacity for Autonomous and Creative Activity 🖗

#### 0-1. Develop an Autonomous and Creative University Model

#### Objective

We will establish a model of management specific to universities—a new university model—that expands the autonomous and sustained creative activities of all members of the university and provides a foundation for serving the global public through the pursuit of truth and the creation of knowledge based on academic freedom. We will enhance our risk governance in areas including financial affairs, legal affairs, and university-industry collaboration, as well as develop systems for accumulating, referencing, and sharing achievements in research, education, and social collaboration from across the university. We will thereby build a model that optimizes the collective activities of the university as an organization that serves the public in the context of its relationships with the wider society.

### *Plan 1. Construct a new university model, and establish and manage a Financial Management Headquarters (tentative title)*

Through dialogue both within the university community and with external stakeholders, including all members of the university, we will continuously pursue reforms necessary for the establishment of a model of management specific to universities—a new university model—that expands the autonomous and sustained creative activities of all members of the university. We will establish a Financial Management Headquarters (tentative title) to conduct analysis of the financial management of the university corporation and the associated risks in light of the growing diversity of revenue sources and to make more sound investment decisions for expansion of the university's functions. The Headquarters will be responsible for tasks that include the formulation and ongoing adjustment of medium- to long-term financial management forecasts; cash flow management; quarterly managerial accounting of specific strategic initiatives; setting of Objectives and Key Results (OKRs), evaluation of progress towards them, and proposals for improvement; establishment and implementation of risk management processes in financial affairs; and stakeholder management.

Monitoring indicators	Establishment of Financial Management Headquarters (tentative title)
	Status of deliberations on establishment of strategic initiative units,
	formulation of medium- to long-term financial management forecasts, etc.

#### Plan 2. Legal management: Develop a robust legal management framework

We will build and strengthen university-wide systems to respond appropriately and strategically to newly emerging legal challenges, while avoiding increasing the legal risks that accompany expansion of the university's functions, including the dramatic expansion of our collaborations with partners in industry and the wider society both within Japan and across the world and the issuance of university bonds.

Monitoring indicators	Progress on improving and expanding specialized governance systems in
	legal affairs

# Plan 3. Risk management: Pursue risk governance to support the advancement of co-creation with industry and international collaboration

We will establish risk governance systems to underpin the research integrity functions essential for the advancement of co-creation with industry and international collaboration, such as management of intellectual property agreements in industry-academia partnerships, management of conflicts of interest, management of trade secrets, data-driven industry-academia collaborations, and security export control (including economic security measures).

Monitoring indicators	Establishment of a system for production of quarterly integrity management
	reports

#### Plan 4. Data-driven management: Enhance decision-making based on institutional research (IR)

In order to support autonomous and creative management, including in the new Financial Management Headquarters (tentative title), we will enhance decision-making processes by utilizing information on research, education, and social engagement performance and resource allocation accumulated through institutional research (IR). We will also aim to improve analysis functions and apply the results of analysis toward improvements not only in management but also in the research and education activities undertaken in each part of the university organization.

Monitoring indicators	Number of times the IR Data Office provides data for the purpose of assessing		
	management performance for major university divisions and for the university		
	as a whole		
	Dissemination of information through integrated reports		

#### Plan 5. Cultivate corporate management personnel

In order to enable the university corporation to be managed in the spirit of the University of Tokyo Charter and in accordance with the university's codes of conduct, we will strategically and systematically cultivate individuals to handle corporate management into the future.

Monitoring indicators	Utilization of training and other initiatives for cultivating Executive Vice
	Presidents and other managerial personnel for the university corporation

### 0-2. Formulate a Sustainable Management Strategy and Expand the Functions of the University

Objective

We will develop management mechanisms that enable the university's growth as an organization that serves the public good. By doing so, we will enhance the attraction of talent, the acquisition of funding, and the provision of adequate time for research so as to support UTokyo's value creation activities, including the liberal-arts education and innovation in science and technology that are necessary for the production of nextgeneration knowledge, the cultivation of diversified human resources, and the solution of humanity's challenges. In order to expand the functions required of the university in response to societal needs, we will secure financial resources for upfront investments of a considerable scale, through means including the establishment of new endowments and the agile and effective issuance of university bonds.

#### Plan 1. Establish a Statutory Endowment (tentative title)

We will lobby the national government to institute changes necessary for the establishment of a Statutory Endowment (tentative title) system that enables universities to retain financial reserves for future investments and utilize them on the basis of management decisions formulated with a greater degree of freedom. Premised on the establishment of this new system, as a medium-term goal we will aim to establish a Statutory Endowment on the order of 100 billion yen through proactive procurement and effective utilization of assets and funds. Under the newly-established Financial Management Headquarters (tentative title), we will make timely and appropriate investment decisions and use the Statutory Endowment (tentative title) efficiently and effectively in alignment with changes in the environment and dialogue with wider society, as well as issue university bonds strategically and utilize them agilely.

Monitoring indicators	Value	of	Statutory	Endowment	(tentative	title)	(contingent	on	the
	establis	shme	ent of such	a system)					

#### Plan 2. Expand the financial base through diversification of financing

In order to advance projects in areas where university functions are expanding, we will establish systems in areas such as sponsored research. Moreover, we will develop and deploy a diverse range of methods for procuring funds, including revenue from startup investments and intellectual property-related income arising from these, and expand the financial foundations for the university's enterprises.

Monitoring indicators	Value of operating profit from expanded functions as reported in the
	Statement of Financial Performance (an original form of financial report
	corresponding to a profit and loss statement)

# *Plan 3. Implement intellectual property IR through the development of a portfolio of intellectual property that contributes to management*

We will establish systems for the use of managerial accounting methods to connect effectively with decisions regarding domestic applications, intermediate processing, international applications, and transfer of patents and other rights. These decisions will extend beyond judgments hinging on technology transfer potential and the commercialization intentions of the co-owners of such rights, and take into account commercialization strategies including the creation of UTokyo venture businesses. Furthermore, we will develop methods for the strategic management of intellectual property where synergies with university activities are anticipated, and consider methods for disclosure of intellectual property as intangible assets of the university. We will also establish initiatives in intellectual property IR.

Monitoring indicators Implementation of intellectual property IR through disclosure of patents, etc.

#### Plan 4. Pursue liaison activities that foster empathy and dialogue with society

We will bolster our team of fundraising experts and promote effective liaison activities that foster empathy and dialogue with society, discharging our obligations of accountability and building robust relationships of trust with donors. Through these activities we will increase the value of donations and the number of co-creative activities with industry. By the end of the 2026 fiscal year we will attain a balance of 20 billion yen in non-earmarked donations within the UTokyo Foundation.

Monitoring indicators	Revenue in the UTokyo Foundation and value of non-earmarked funds within
	it

#### Plan 5. Strengthen support for startups

We will investigate options for strengthening our support for startups, such as direct investments led by UTokyo to the value of around 10 billion yen (including LP investment [limited liability investment] and in-kind contributions). We will also consider the use of trusts and other arrangements, with the aim of establishing a new fund on the order of 60 billion yen over the next ten years, including public sector capital.

Monitoring indicators	Value of UTokyo-led investments to support startups
	Size of newly established fund

#### 0-3. Cultivate Support and Appreciation for the University's Roles

Objective

We will gain the trust of wider society through multidimensional dialogue, including visible demonstrations of UTokyo's research outcomes and educational appeal, communication of our new vision, two-way community engagement, strengthening of alumni networks, and timely exchange of ideas with international experts. These activities will raise our international reputation and foster greater support and appreciation for the roles performed by UTokyo, both within Japan and across the world.

### Plan 1. Promote awareness of UTokyo Compass and build our brand reputation as one of the world's leading universities

We will work to promote awareness of UTokyo Compass through strengthening communication of the university's vision, and enhance our presence as a leading university by engaging with audiences both within Japan and internationally through foundational communication activities, hosting of public events, and collaboration with media outlets. In order to showcase our cutting-edge research capabilities, comprehensive learning environments, and educational attractions, we will bolster our teams responsible for producing and managing our news site UTokyo FOCUS, press releases, video content, and the like, and raise our capacity to disseminate information within Japan and internationally.

Monitoring indicators	Assessment of public penetration of UTokyo Compass, brand reputation, and
	the outcomes thereof through social surveys, etc.
	Number of external communications (press releases, published articles, video
	productions, social media posts)

#### Plan 2. Develop a management system toward the establishment of a new UTokyo brand

Through accessible verbal and visual communication of the University of Tokyo Charter and UTokyo Compass, we will seek to establish a new UTokyo brand that differs from the image of the university currently shared within Japan. To do so, we will develop and implement mechanisms for UTokyo brand management at the university level, including the creation of a communications team and the formulation of guidelines. We will ascertain current conditions using social surveys of a wide variety of people both within and outside Japan. We will also develop systems for actively obtaining advice from international experts and exchanging ideas with them at appropriate junctures.

Monitoring indicators	Accessible verbal and visual communication of the University of Tokyo
	Charter and UTokyo Compass
	Development of systems for obtaining advice from international experts

# Plan 3. Strengthen communication activities in the areas of donations, industrial co-creation, and startup support

We will strengthen communications using events, media, digital technologies, CRM (customer relationship management) approaches, and the like to expand donations and UTokyo Foundation activities as well as activities for co-creation with industry and industry-academia partnerships.

#### Plan 4. Pursue networking with alumni

We will consolidate and expand our alumni network in the course of developing a wider-ranging UTokyo community encompassing alumni and other associates of the university. In conjunction with these efforts, we will expand the range of events targeting alumni and the opportunities for alumni to pursue learning tailored to different age groups and goals. We will connect current students with alumni through initiatives such as career development support utilizing alumni experiences in wider society and opportunities to collaborate on university projects. We will use these activities to build a next-generation community that fuels the circulation of talent and funds. In light of the fact that overseas experience programs run by alumni based outside Japan already serve as valuable opportunities for both those alumni and for current students, we will expand our international alumni organizations and support collaboration among international alumni themselves. As we move toward UTokyo's 150th anniversary, we will consider strategies for directing stakeholders' attention to the university, such as events that bring people together through sports. One specific objective is to strengthen the UTokyo New York Office's functions in disseminating research findings by holding events around three times annually.

Monitoring	Number of members of TFT (UTokyo Online Community for alumni)
indicators	Number of events held in the UTokyo New York Office



#### **1-1. Seek Solutions to Global Problems**

#### Objective

We will mobilize knowledge across all disciplines at UTokyo to seek solutions to global problems that confront human society in areas including health, economic disparity, gender equality, conflict and division, energy, resource circulation, and climate change.

#### Plan 1. Manage global systems responsibly

We will lead an international green transformation in collaboration with industry, local government, and other partners, informed by scientific expertise that mobilizes the knowledge generated in UTokyo. Specifically, we will strengthen and steadily implement the Global Commons Stewardship Initiative, an international collaborative project that aims to develop mechanisms for better management of stable global systems as the shared property of all humankind (global commons). Moreover, we will convene the ETC-CGC (Energy Transitions Initiative - Center for Global Commons) as an industry-academia collaborative platform to discuss pathways and policies for Japan to decarbonize (effectively achieve zero greenhouse gas emissions) by the middle of this century, and contribute from a scholarly perspective to the transformation of Japanese society.

Monitoring indicators	Number of countries evaluated using the Global Commons Stewardship Index
	Establishment of ETI-CGC

#### Plan 2. Decarbonize the activities of the UTokyo organization

We will aim to decarbonize the activities of the entire UTokyo organization. Specifically, we will formulate a roadmap toward the goal of halving the university's effective  $CO_2$  emissions by 2030 as against the 2006 figure, and clarify the systems and policy measures required to achieve this goal. We will also collaborate with international society by participating as an institution in the international Race to Zero campaign that promotes action to reach effectively zero greenhouse gas emissions by 2050. In order to advance these initiatives effectively across the university, we will create a Green Transformation Initiative (tentative title) as an organization based on collaboration across academic and administrative staff.

Monitoring indicators	brs Establishment of Green Transformation Initiative				
	Volume of CO <sub>2</sub> emissions in university activities				
	Number of research projects contributing to decarbonization				

#### Plan 3. Promote digital transformation for the realization of a better society

Toward the creation of a data-driven society, we will promote initiatives in data utilization both within and beyond the university, and disseminate them throughout society. In doing so we will also give consideration to the potential negative effects of digital society, such as tyranny of data, social fragmentation, and exacerbation of  $CO_2$  emissions. We will utilize the Science Information Network SINET, the mdx: a platform for the data-

driven future, and other information and communications infrastructure to generate new methods for collecting, analyzing, and utilizing data related to healthcare, weather, society, materials, and the like. We will also develop data utilization platforms that contribute to the resolution of problems in society, such as the use of simulations to support natural disaster prediction and mitigation strategies. By accelerating this digital transformation, we will render visible the effects of our initiatives in research, education, and carbon reduction, and achieve data-driven efficiency gains. We will also use strengthening programs to accelerate faculty, administrative staff, and students' contributions to society through digital transformation, as well as advance this transformation in cocreative activities with communities within and outside Japan, including the effective use of cyberspace and AI technologies along with evidence-based information disclosure.

#### Monitoring indicators Number of projects registered for data platform initiatives

#### Plan 4. Pursue research on diversity

We will establish an Institute for Diversity Research and Education Promotion (tentative title) to synchronize with international research in gender studies, multicultural coexistence, social inclusion, and barrier-free initiatives and to create both academic and practice-oriented knowledge. We will disseminate research findings through means including book publications and public symposia, contributing to the application of these findings within UTokyo and facilitating change throughout Japanese society.

Monitoring indicators	Establishment of Institute for Diversity Research and Education Promotion (tentative title)
	Number of events held by this Institute

#### 1-2. Promote Diverse Scholarship

#### Objective

We will extend the scholarly accomplishments handed down to us through our long history, as well as nurture the seeds of novel research founded on free thinking. For these purposes, we will build a stronger foundation for our support for the diversity of scholarship and of the researchers who pursue it, promote further research in the humanities and social sciences, and raise awareness of our research by encouraging people to share and utilize research findings.

#### Plan 1. Strengthen the research base

With the involvement of Research Administrators (URA), we will develop systems for smooth implementation of academic research surveys and analysis, planning and proposal, and administration and management, to support the procurement of foundational research funding for individual researchers. In order to equip joint-use facilities with highly versatile, cutting-edge infrastructure and develop environments for their utilization, we will share models of leading-edge practice within the university and deploy them across the university organization. We will promote the utilization of academic materials by strengthening library information provision systems and academic resource archiving, as well as the capability to store, register, manage, and facilitate analysis of large volumes of data acquired by museums and research institutes and generated by IoT, satellite observations, and the like.

Monitoring indicators	Number of commissioned research projects and their value
	Number of Grants-in-Aid for Scientific Research (Kakenhi) projects funded
	Number of research papers
	Institutional FWCI (Field Weighted Citation Impact)

# Plan 2. Stimulate humanities and social sciences research taking into account regional and linguistic diversity across the world

We will promote further development of the humanities and social sciences in ways that respect the distinctive scholarly accomplishments and academic cultures of different linguistic communities. In light of UTokyo's history and characteristics, we will also bear in mind the importance of research focusing on Asia and adopting Asian perspectives. We will continue our projects for publication in English to enable scholarly outputs to be shared more widely, as well as support initiatives such as book conferences (pre-publication review meetings) related to English-language publications. We will also support the acquisition of languages other than English and promote publication in a variety of languages. We will investigate ways of building a system for the ongoing, organized translation of research output from Japanese into English. Moreover, we will support the establishment and development of internal collections and databases of historical materials related to Asia, and the pursuit and presentation of research that makes use of such materials.

Monitoring indicators	Number of foreign language publications/translations produced through
	projects within the university
	Number of items registered in UTokyo BiblioPlaza

#### Plan 3. Promote collaboration across humanities, social sciences, and natural sciences

We will promote cross-disciplinary collaborations that make use of insights accumulated in the humanities, social sciences, and natural sciences to address the various problems arising from progress in science and technology and changes in society. For this purpose, we will apply humanities and social science perspectives to the evaluation, gathering, and preservation of internal and external academic assets in the natural sciences, and vice versa. We will advance the collection, assessment, preservation, indexing, digital archiving and online publication, and exhibition of academic assets to aid collaboration across the humanities, social sciences, and natural sciences, developing hubs for collaborative cross-disciplinary research. We will support groundbreaking disciplinary practices in the organization of data and historical and other materials and the development of resource collections and databases for them, and especially in the pursuit and presentation of research that utilizes these materials from interdisciplinary perspectives.

Monitoring indicators Listing of papers, books, objects, and other materials

#### Plan 4. Promote researcher diversity to drive the creation of new knowledge

We will recruit a diverse range of outstanding research talent both within Japan and internationally with an emphasis on gender balance and inclusivity, and thereby promote the creation of new academic knowledge through dialogue among researchers with differing perspectives. Specifically, we will use the provision of incentives to the major university divisions, the allocation of positions from university headquarters, personnel cost assistance schemes (acceleration programs), and the like to enable the employment of more women, non-Japanese nationals, and people with disabilities as researchers. We will also consider a variety of programs and support schemes to expand the diversity of researchers, including the creation of posts earmarked for women and members of minority groups, the proactive use of cross-appointment systems, and the introduction of employment systems attuned to family and household circumstances. We will ensure that at least 30% of newly appointed researchers are women.

Monitoring indicators	Number of researchers who are non-Japanese nationals
_	Number of researchers with disabilities
	Number of new research appointments by gender

#### 1-3. Generate Excellent Academic Knowledge

#### Objective

We will further strengthen our world-class research facilities as hubs for linking different types of knowledge, promoting research of the highest global standards, and generating new academic knowledge through cocreation across disciplines.

#### Plan 1. Strengthen research hubs for international excellence

We will promote the activities of leading world-class research hubs such as the University of Tokyo Institutes for Advanced Study—the Institute for the Physics and Mathematics of the Universe (Kavli IPMU), the International Research Center for Neurointelligence (IRCN), and Tokyo College—and turn the IRCN and other organizations into permanent entities. We will also take the initiative to attract visiting researchers and early career researchers from institutions outside Japan. One specific objective is to welcome 600 researchers from institutions outside Japan to the above-mentioned three hubs each year.

Monitoring indicators	Number of researchers from institutions outside Japan invited by the Institutes for Advanced Study
	Number of international co-authored papers produced in the Institutes for Advanced Study

#### Plan 2. Strengthen and develop research hubs to tackle societal issues

We will strengthen the activities of research hubs tackling issues in society such as disaster preparedness and the aging population. We will also establish new research hubs in the areas of infectious disease control and vaccine development. We will clarify the differentiation of functions across various parts of the university and systems for their cooperation, and give shape to systems that can yield solutions to societal challenges promptly and appropriately. In the areas of infectious disease control and vaccine development, these functions range from the use of sophisticated genome analysis and simulation technologies to identify causal factors, to the search for preventative methods and potential therapies, the implementation of preclinical testing, the development of prevention and treatment methods through clinical testing, and their application in real life. In the areas of disaster preparedness and assistance, they similarly include collection of data essential for mitigating disasters and supporting responses to them, analyzing these data, running simulations, making concrete proposals, and applying them in real life. We will also develop systems enabling the use of social surveys and behavioral analysis to ascertain levels of public understanding and acceptance of policies related to infectious disease and disaster preparedness and assistance.

Monitoring indicators	Establishment	of	new	hubs	for	infectious	disease	control	and	vaccine
	development									

#### Plan 3. Develop joint use/joint research hubs

We will pursue research and education activities that leverage the strengths and characteristics of our international joint use and joint research hubs and affiliated research institutes. We will contribute to the construction of new knowledge through the joint use of a wide variety of facilities and equipment, including the TAO infrared-optimized telescope and the KAGRA gravitational wave detector, the Intergrative Medical Genomics, the MegaGauss Science, the Attosecond Laser and the Spintronics Research Infrastructure as well as steadily advance the Hyper-Kamiokande project.

Monitoring indicators	Progress	and	achievements	toward	the	construction	and	research
	implemen	tation	of the Hyper-Ka	amiokand	le			
	Number of	of pro	jects and users	of MEX	Г-арр	roved joint us	e/joint	t research
	facilities,	and n	umber of papers	published	dout	of these project	ts	

#### 1-4. Generate Value through Co-creation with Industry

#### Objective

We will bolster our co-creative activities with industry using academic knowledge to generate value in a variety of forms, as well as ensure the sustained growth of that value generation. We will strengthen the university's functions as a gateway for joint research across industry and the private sector, academia, government and the public sector, and society as a whole, in cutting-edge fields such as artificial intelligence, quantum technology, next-generation semiconductor technology, and next-generation cyber infrastructure. We will also pursue comprehensive partnerships and generate innovation across borders based on a shared overarching vision that incorporates perspectives from the humanities and social sciences.

#### Plan 1. Strengthen systems for co-creation with industry

We will promote co-creation with industry to yield solutions to societal problems, sharing our vision and collaborating comprehensively based on top-level inter-organizational agreements. We will train at least 20 coordinators with the expertise to evaluate and judge both the business and research facets of co-creative activities, as well as strengthen systems for advancing co-creation with industry by fostering administrative

staff fully versed in the specific issues these activities address. We will generate at least 20 billion yen annually in joint research across the university, at least 20% of which will be derived from co-creative projects with society.

Monitoring indicators	Overall value of joint research with industry
	Overall value of inter-organizational co-creative research

#### Plan 2. Pursue co-creation with industry in frontier research fields

We will promote strategic, frontier research fields contributing to green transformation and digital transformation (including quantum sciences, artificial intelligence, neuromorphic computing, semiconductors, communications infrastructure, finance, mathematics, urban design, medicine, biosciences, and materials), and interdivisional co-creation with industry through interdisciplinary integration of these fields.

#### Plan 3. Promote projects in the Institute for Open Innovation

We will develop the Institute for Open Innovation based on an autonomous management model, enabling widespread deployment of the capabilities the Institute has fostered in contracting for industry-academia collaborative projects, management of outputs, and innovation design. The Institute will expand in scale and build systems for industry-academia collaboration by promoting efficient contractual negotiations on joint research projects with high commercial potential and network-style collaborations involving UTokyo and multiple corporate partners in the creation of industrial ecosystems. Specifically, the Institute will aim to generate industry-academia joint research projects valued on the order of 2 billion yen annually.

Monitoring indicators	Value of industry-academia joint research projects supported by the Institute
	for Open Innovation

#### 1-5. Promote Responsible Research

Objective

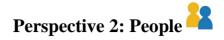
We will promote Responsible Research and Innovation (RRI) through dialogue with the wider society, taking into account the societal impacts of science and technology.

#### Plan 1. Promote responsible research and innovation

We will pursue research dialogue with the wider society in light of the major impacts that science and technology have on society. We will create a database of research ethics seminars held at UTokyo (including dialogues with society), and hold seminars that incorporate Responsible Research and Innovation (RRI) and Ethical, Legal, and Social Issues (ELSI). Moreover, we will carry out our institutional responsibilities by raising the legitimacy, validity, and transparency of research processes, giving consideration to ELSI, and working collaboratively with

social actors (members of the public, policymakers, industry, and NPOs and other third sector entities) in research and innovation processes.

Monitoring indicators	Rate of participation in research ethics education
	Number of research ethics seminars incorporating RRI and ELSI perspectives



#### 2-1. Nurture Inclusiveness and Capacity for Creative Dialogue

#### Objective

We will establish educational programs that foster the inclusiveness and advanced capacity for dialogue and action that are crucial in today's increasingly complex society. These programs, which will be designed for undergraduate students and deployed for graduate students as well, will entail a wide range of learning in areas including diversity and inclusion, global commons, data science, and digital applications. Moreover, we will present students with a variety of role models and furnish practical space for them to develop a capacity for creative dialogue, as well as enhance our support for faculty engaging in this type of education. We will also promote extracurricular activities as opportunities to foster students' independent creativity.

#### Plan 1. Develop educational programs to underpin capacity for dialogue in contemporary society

We will develop and organize interdivisional content and programs relating to diversity and inclusion education, information literacy, global commons, and other related educational areas as university-wide foundational education programs, to be implemented for undergraduate students by the 2023 academic year. We will also request that data science education be included in curricula offered in all of the university's educational divisions. We will deploy the new programs at the graduate school level wherever possible and extend them across the entire university.

Monitoring indicators	Number of courses offered and students enrolled overall in courses related to
	education programs that underpin the capacity for dialogue in contemporary
	society

#### Plan 2. Cultivate capacity for dialogue and support career development in inclusive contexts

We will raise the diversity of the faculty and administrative staff and provide a variety of role models for female students, international students, and students with disabilities, as well as furnish practical learning opportunities for dialogue that transcends differences of culture and background. A specific objective will be to raise the proportion of female faculty members (including special fixed-term faculty) to at least 25%. We will also operate annual programs for students with disabilities to visit and observe researchers' offices and labs. We will enhance the provision of career development support in both university headquarters and major university divisions to enable each student to apply their personal characteristics and traits to formulate an image of their future. In implementing this support, we will collaborate with alumni and make use of the UTokyo Campus Management System (UTokyo One), a highly personalizable learning support system.

Monitoring indicators	Proportion of female faculty members (including special fixed-term faculty)
	Number of non-Japanese faculty members
	Number of researcher visit programs for students with disabilities
	Number of career development support programs and number of students
	participating in them

Plan 3. Support faculty members' educational activities to foster capacity for creative dialogue

We will support the educational activities of faculty members in order to advance interactive teaching and learning and other practices that foster capacity for creative dialogue. Specifically, we will train educational support personnel to assist in areas such as curriculum management and admissions, as well as conduct faculty development programs that make use of in-house expertise in educational methodologies. We will also consider ways of revising the allocation and evaluation of education and research workloads.

Monitoring indicators	Number of structured workshops and related programs in the UTokyo Future
	Faculty Program (FFP) and number of participants therein

#### Plan 4. Develop activities to foster students' independent creativity

We will explicitly position extracurricular activities, experiential learning, on-campus jobs, volunteer activities, entrepreneurship education, and the like as opportunities to foster students' independent creativity, and work to reinvigorate such activities, including by publicizing them outside the university. We will clarify approaches to the development of university facilities for extracurricular activities, the management of safety during activities, and the roles of faculty advisors and instructors.

Monitoring indicators	Tabulated management of the development of extracurricular activity
	facilities and their planned upgrading
	Number of announcements of extracurricular activities disseminated via the
	UTokyo website, PR publications, etc.

#### 2-2. Nurture an International Outlook

Objective

We will foster a new generation of individuals equipped with a wealth of experience in engaging with diverse value systems, with an international outlook, and with a capacity for empathy. We will promote a variety of learning and other activities beyond Japan and provide students, including international students and other peers of highly diverse backgrounds, spaces to learn together, thereby fostering individuals capable of pursuing active careers as leaders in international society.

#### Plan 1. Develop university-wide educational support systems to help nurture globally capable individuals

The Division for Global Campus Initiatives has thus far planned and implemented university-wide short-term outbound and inbound study abroad programs and provided support for international students and UTokyo students studying abroad. We will restructure this Division to create an organization that also offers classes taught in languages other than Japanese that equip students with the practical knowledge and capacity for dialogue required of globally capable individuals, as well as support the operation of classes taught in languages other than Japanese within each undergraduate faculty. We will also bolster systems and expand courses in order to address the demand for education in Japanese as a second language.

Monitoring indicators Development of organization to provide classes taught in foreign languages

#### Plan 2. Use the Go Global Gateway program to foster an international outlook

We will fully establish Go Global Gateway (GGG), a program designed to encourage undergraduate students to participate in international learning and exchange opportunities and acquire the capacity to live and work together with a wide variety of people from around the world. Specifically, by systematizing the GGG program, we will aim to have all undergraduate students registered for it and have 30% of students obtain GGG certification by the time they graduate.

Monitoring indicators	All undergraduate students registered for GGG
	Proportion of graduating students with GGG certification

#### Plan 3. Increase students' international mobility

We will expand inbound and outbound short-term and ultra-short-term study abroad programs in order to increase the international mobility of students. To achieve this, we will enhance our various international exchange programs including USTEP (University-wide Student Exchange Program), the global leadership program GLP-GEfIL, the ultra-short-term inbound mobility program UTokyo GUC (Global Unit Courses), ultra-short-term outbound mobility programs, and international experiential activities. Ultimately, we will aim to have 3,000 outbound students—1.5 times the number in the 2019 academic year—and 2,000 inbound students—twice the 2019 number—including participants in online programs. We will develop UTokyo GUC mainly for students from outside Japan through a combination of face-to-face and online delivery, and aim to offer at least 30 courses in this program each academic year.

Monitoring indicators	Number of outbound and inbound students (undergraduate and graduate) participating in short-term and ultra-short-term international exchanges
	Number of courses offered under UTokyo GUC

#### Plan 4. Promote cooperation and partnerships with institutions outside Japan

We will promote educational cooperation and partnerships, including through the use of online technologies, with institutions and talent beyond Japan that are known for their research excellence. We will consider ways to encourage and support the involvement of researchers affiliated with overseas institutions in examination committees for degree conferral. We will promote collaborative education programs, including double degree programs, with educational institutions outside Japan.

Monitoring indicators	Number of research supervisions involving supervisors from outside Japan Number of doctoral thesis examination committee members appointed from
	outside Japan

# 2-3. Undergraduate Education: Cultivate Disciplinary Expertise, Wide-ranging Knowledge, and High Ethical Standards

#### Objective

In the undergraduate curriculum, we will offer liberal-arts education in the Junior Division to equip students with wide-ranging knowledge, as well as specialized education in their disciplines that fully leverages our strengths as a comprehensive research university. Additionally, we will provide students with more opportunities to develop a deeper understanding of other fields, and we will enable them to think holistically from a broad perspective and to possess high ethical standards. To realize these goals, we will design flexible educational systems informed by a long-term academic vision that transcends the barriers between the humanities and sciences.

#### Plan 1: Enhance undergraduate education under a long-term academic vision

In conjunction with the discussion and formulation of a long-term academic vision, we will strengthen undergraduate education that transcends the barriers between the humanities and sciences, including PEAK (English-medium programs in the College of Arts and Sciences). We will also enhance advanced education aligned with disciplinary characteristics, and education on ELSI in leading-edge science and technology. We will also strengthen liberal arts education in the Senior Division and Graduate Schools and interdivisional education programs, providing opportunities for students to sustain and advance their interests and learning in other fields while pursuing specialized education and research in the later years of their undergraduate studies.

Monitoring indicators	Number of students completing interdivisional education programs
	Number of ELSI-related courses offered
	Number of students taking later-stage liberal arts education courses offered
	outside their home faculties

#### Plan 2. Render educational outcomes visible

We will develop and deploy the UTokyo One system to collect data on each individual student's achievements and outcomes in learning and other activities, render it in visible form, and establish educational support tools that students can take the initiative to utilize for themselves. Through this process, we will also seek to build a cyclical approach to improving education. We will adopt UTokyo One in PEAK (English-medium courses in the College of Arts and Sciences) in the 2022 academic year, and launch it throughout the College of Arts and Sciences by the end of the 2024 academic year. We will draw on these experiences as we prepare for a rollout across all of the university's undergraduate programs. We will also involve students in the development and operation of the system through on-campus jobs and teaching assistant (TA) programs.

Monitoring indicators	Adoption of UTokyo One
	Number of UTokyo One users and number of accesses

#### Plan 3. Expand experiential activity programs

We will increase the number of participants in experiential activity programs by creatively developing and promoting more attractive offerings, including programs (internships) with other organizations such as cocreation partner companies, international organizations, NGOs, NPOs, and local government authorities. We will modify the system to enable graduate students to participate in some of these programs, with the aim of having at least 500 undergraduate and graduate student participate annually. We will also develop forums for collaboration with partner companies, venture businesses, and the like, enabling interaction with students and the provision of entrepreneurship education.

Monitoring indicators Number of participants in experiential activity programs

### 2-4. Graduate Education: Cultivate Advanced Disciplinary Expertise and Practical Capabilities to Tackle Next-Generation Problems

Objective

In the graduate schools, we will nurture public-spirited individuals with multidisciplinary outlooks and a strong sense of inclusivity, as well as advanced disciplinary expertise and practical capabilities. Our graduate education will also be responsive to our social mission of fostering outstanding researchers to serve the creation of new knowledge and contribute to society through excellent scholarship.

Plan 1. Develop the World-leading Innovative Graduate Study Program and other cross-disciplinary programs In order to raise the academic level of graduate students who will become the academic leaders of the future, we will make graduate education even more diverse, multi-track, and international, and promote self-directed, creative research by graduate students. We will fully establish the World-leading Innovative Graduate Study Program (WINGS), in which multiple university divisions cooperate to train outstanding graduate students in integrated Master's-Doctoral (or Bachelor-Master's-Doctoral) curricula, and prepare opportunities for outstanding graduate students to pursue activities outside Japan and in industry settings. We will implement cross-graduate-school, cross-disciplinary and interdisciplinary education programs that build on the achievements of programs such as WINGS, as well as programs to train students in doctoral programs as advanced professionals to lead the green transformation. Through these programs, and utilizing the functions of our distinctive research institutes, we will foster individuals equipped with both deep specialist expertise and broad, cross-disciplinary vision to drive the creation of new academic endeavors and scientific knowledge. Specifically, we will have at least 350 students completing cross-disciplinary education programs.

Monitoring indicators	Number of students completing cross-disciplinary education programs such
_	as the World-leading Innovative Graduate Study Program (WINGS) and
	Support for Pioneering Research Initiated by the Next Generation
	Number of cross-disciplinary education programs

#### Plan 2. Enhance career support for doctoral students

We will support the active participation and deployment of advanced doctoral talent across a wide range of fields in society. We will lobby the national government, industry, and other stakeholders to expand the opportunities for doctoral degree holders to utilize their expertise, as well as create and establish diverse career pathways such as URAs and international organizations, thereby furnishing an environment that enables students completing doctoral degrees to expand their career options. Furthermore, we will provide students with

career support through a variety of events offered by the Career Support Office, the Future Faculty Program operated by the Center for Research and Development of Higher Education, long-term company internships, and entrepreneurship education.

Monitoring indicators	Number of seminars and other doctoral student support events offered by the
	Career Support Office
	Job placement rate and employers of students completing doctoral degrees

#### Plan 3. Enhance financial support for doctoral students

To advance the cultivation of high-level doctoral talent, we will recruit a greater diversity of candidates with high academic abilities and research proficiency, increasing the overall number of graduate school applicants including working adults and non-Japanese nationals, as well as ensure that at least 30% of UTokyo master's students continue on to doctoral programs. To this end, we will enhance the financial support offered to doctoral students, improve recruitment practices, and clarify career paths tailored to a diverse range of candidates for admission. We will raise the proportion of doctoral students receiving financial support to 50%<sup>1</sup> at an early stage.

Monitoring indicators	Number of doctoral students receiving financial support of 150,000 yen or
	more monthly
	Number of doctoral students (excluding those on leave of absence)
	Proportion of master's students continuing to doctoral programs

#### 2-5. Support Early-Career Researchers

#### Objective

We will develop appealing environments that attract up-and-coming researchers both domestically and internationally and enable them to pursue their research freely and to the full, and we will foster exceptional early-career researchers to contribute to the creation of next-generation knowledge. We will generate a virtuous cycle in which these researchers become accessible role models who inspire talented, motivated students to pursue careers in research.

#### Plan 1. Recruit talented early-career researchers

We will encourage the major divisions of the university to consider adopting tenure-track systems, and strengthen support and mentoring for newly recruited early-career researchers and faculty members. We will attract early-career talent through international open application processes and nurture outstanding early-career researchers, including by making appropriate provision for various life events. Our medium- to long-term objective will be to have at least 1,200 non-fixed-term faculty members aged under 40 years.

Monitoring indicators	Number of non-fixed-term faculty members and new appointments aged
	under 40 years

<sup>&</sup>lt;sup>1</sup> The 6th Science, Technology, and Innovation Basic Plan (approved by Cabinet in March 2021) set a target of around 70% of students continuing from master's programs, which equates to around 30% of doctoral students overall.

#### Plan 2. Enhance research and career support for early-career researchers

We will furnish attractive environments for promising early-career researchers from across the world to gather and pursue their research freely and without interruption. We will enhance systems for parenting leave and assistance to return to work, and develop advanced facilities for shared use. We will also support the major divisions of the university in establishing writing centers and consulting centers for statistics, measurement, computing, programming, and the like, and deploy these across the whole university. In disciplines that use the research lab system, we will encourage outstanding early-career researchers to take up roles as heads of their own research labs.

Monitoring indicators	Listings of common-use advanced facilities
	Research output of researchers under 40 years of age (articles [incl. Top 10%
	etc.], books, etc.)

#### Plan 3. Cultivate the international capabilities of early-career researchers

We will support early-career researchers in their international activities. Using agreements with leading institutions outside Japan, we will further stimulate the free and flexible mobility of early-career researchers. We will establish a "junior sabbatical" system requiring overseas travel. We will continue operating the Global Activity Support Program for Young Researchers as a UTokyo initiative to support medium- to long-term fieldwork overseas, the hosting of international conferences, and the like. We will also encourage researchers seeking to pursue careers outside Japan.

Monitoring indicators	Number of grants under the Global Activity Support Program for Young
	Researchers

#### 2-6. Cultivate Administrative Staff with Advanced Expertise and a Creative Mindset

#### Objective

The work expected of UTokyo's administrative staff will inevitably change and grow more complex in line with societal changes such as internationalization and digitalization and with the extension of the university's functions. We will develop systems responsive to these changing expectations and expand opportunities for administrative staff members to acquire advanced expertise and planning abilities.

# Plan 1. Expand educational opportunities for administrative staff and build systems that empower highly specialized staff

We will expand educational opportunities to enable administrative staff to acquire advanced expertise and capacity to make proposals in areas such as industry-academia-government collaborative activities, promotion of digital transformation, and provision of support for faculty and students who are not proficient in Japanese. Moreover, we will develop an administrative personnel system that properly evaluates individual abilities and performance, and consider mechanisms to enable highly specialized personnel employed at the divisional level to contribute to the university at large.

Monitoring indicators	Number of administrative staff training programs in areas such as
	international liaison, digital technologies, and research administration, and
	number of participants therein

#### 2-7. Connect the University and Society through Bidirectional Recurrent Education

Objective

In order to engage with a complex and rapidly changing society, we will implement bidirectional recurrent education that positions the university as a place of exchange, both providing knowledge to society and learning about society's problems.

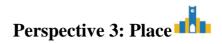
*Plan 1. Gather information on recurrent education programs, render it visible, and develop information systems* We will build a comprehensive database of information gathered on recurrent education programs, including those implemented by the major divisions of the university and by members of the university community, and those operated in collaboration between UTokyo and corporate associates. We will also look into ways of making the gathered data more visible and build a portal site that provides essential information to audiences both within and outside the university. We will develop systems in order to raise the effectiveness of these programs overall.

Monitoring indicators	Construction of recurrent education database and portal site
	Recurrent education database and portal site access statistics

#### Plan 2. Create new recurrent education programs

We will support the creation and fostering of new bidirectional recurrent education programs and generate a recurrent education program ecosystem for members of the local community and working adults—including teachers in primary and secondary education—and use it as a venue for exchange that makes UTokyo more attuned to social issues. We will also utilize frameworks for co-creation with a wide variety of stakeholders to design interdisciplinary recurrent education programs based on collaboration between major divisions of the university. This will require mechanisms enabling the provision of resources to support the implementation of recurrent education programs, including personnel, equipment, technologies, venues, funds, and know-how. Moreover, in line with the growth of online education, we will plan and deliver unique UTokyo programs that involve researchers in distant locations, including outside Japan, and provide recurrent education to a wider range of learners.

Monitoring indicators	Creation of new recurrent education programs and number of participants in
	them



# **3-1. Create a Supportive and Empowering Campus that Anyone in the World Would Want to Join** Objective

We will create an attractive and inclusive campus where people of diverse origins and backgrounds contribute to the creation of new value as they expand their horizons through interaction and dialogue with one another. For this purpose, we will increase the diversity of our membership and the plurality of our communities, while at the same time establishing a culture that fosters mutual trust through the pursuit of dialogue and developing our employment systems, advisory services, and other aspects of the human and physical environment to ensure that everyone at UTokyo feels comfortable to learn, work, and pursue their activities, regardless of who they are.

#### Plan 1. Form a university culture that fosters and applies a capacity for dialogue and empathy

In order to complete our profile as a university that places emphasis on dialogue and is open to all people, we will draw up and disseminate a declaration on diversity and inclusion. We will clarify and promote support for sex and gender diversity. We will pursue initiatives such as formulating plans and establishing committees for the advancement of gender equality in each major division of the university, and strengthen systems for collaboration between departments and headquarters. We will promote the elimination of fixed gender role expectations and unconscious bias as well as changes in awareness and behavior in consideration for minority groups and the vulnerable, through initiatives such as barrier-free design. To do so we will conduct awareness-raising activities for all faculty and administrative staff members, including university-wide faculty and staff training programs. We will foster the capacity for dialogue essential for individuals to contribute meaningfully to society, and transform the consciousness of UTokyo as a whole in the course of interaction among diverse faculty, staff, and students, and through their engagement with wider society.

Monitoring indicators	Establishment of a declaration on diversity and inclusion
	Number of events and programs for faculty/staff awareness-raising and
	number of participants therein

#### Plan 2. Establish a university-wide organization to realize an inclusive campus

We will constructively integrate a number of related units currently spread across the university with the Office for Gender Equality, creating a new Inclusive Campus Promotion Initiative (tentative title) that will pursue improvements in diversity and inclusion more actively. We will consider ways of providing spaces where members of the UTokyo community can interact freely regardless of differences such as nationality, culture, gender, and ability status.

Monitoring indicators	Establishment of the Inclusive Campus Promotion Initiative (tentative title)
	Number of events held by the Initiative and number of participants therein

#### Plan 3. Raise the proportion of female students

In order to raise the proportion of women within the student body, we will strengthen our outreach activities to female junior and senior high school students, their teachers, and their parents and guardians. We will continue providing housing support to female students, as well as strengthen a range of support in other areas including development of interpersonal networks, with the aim of having women account for 30% of the student population overall.

Monitoring indicators	Number and proportion of female undergraduate students
	Number and proportion of female graduate students

#### Plan 4. Develop personnel systems that enable diverse work styles

We will promote diverse working styles and furnish environments allowing administrative staff to use their abilities to the fullest, through measures such as a new system allowing staff members to allocate up to 20% of their time to other projects (20% rule) and the establishment of work styles that combine commuting and home-based work.

#### Monitoring indicators Introduction of the 20% rule and number of staff members using it

#### Plan 5. Create friendly work environments attuned to gender equality

We will enhance our various assistance programs to support work/life balance, and create gender-equal, workerfriendly environments. We will improve working conditions for female faculty and administrative staff by increasing the number of women in managerial and professorial positions. Specifically, we will aim to raise the proportion of female faculty and administrative staff in managerial positions to at least 25%.

Monitoring indicators	Number of users of parenting and care leave systems by gender
_	Number of people supported under research supporter allocation subsidies by
	gender
	Proportion of women in managerial positions

#### Plan 6. Support accessibility initiatives

Led by the Disability Services Office, we will promote the development of accessible facilities by applying relevant research findings in practical campus settings, and eliminate both institutional and psychological barriers to accessibility. We will focus especially on the development of fundamental infrastructure and provision of reasonable accommodations in laboratory facilities and practicum programs. Our specific objectives will be to make ten facilities accessible each year, and to perform annual updates of digital campus accessibility maps that feature audio instruction in multiple languages. We will institute a variety of initiatives in order to create workplaces that empower faculty and administrative staff members with disabilities, such as exploring ways of supporting people with midlife disabilities to return to work, creating jobs and fields of work suited specifically for people with disabilities, designing jobs that can be performed from home, and expanding employment of faculty/staff with disabilities that make commuting difficult. Moreover, we will engage students

and faculty/staff without disabilities in the task of creating campuses where all members of the UTokyo community can play an active role, through initiatives including appointment of support staff for people with disabilities, periodic campus assessments, and campus design competitions.

Monitoring indicators	Number of facilities made accessible
	Frequency of updates to digital accessibility maps of campus with
	multilingual audio content

#### Plan 7. Development of support and consultation systems for diverse individuals

We will develop consultation and support systems as the basis for dialogue and empathy among all members of the UTokyo community. We will build and strengthen physical spaces and staffing for this purpose, as well as expand our outreach activities such as peer support and awareness-raising programs. By promoting dialogue and mutual assistance among diverse individuals, we will lead the creation of inclusive campuses that make full use of the abundant resources and distinctive strengths of the UTokyo community.

Monitoring indicators	Number of faculty and administrative staff working with foreign languages
	and environmental preparation services
	Number of faculty and administrative staff involved in consultation services
	for diverse students, faculty, and administrative staff

#### Plan 8. Practice dialogue that fosters empathy within the university community

We will implement President dialogues through training and other programs that promote dialogue between faculty, administrative staff, and students, and the President and other members of the university executive. For this purpose, we will build systems (platforms) that utilize digital technologies. We will explore ways of organizing faculty and administrative staff teams and improving team capabilities using dialogue and empathy among diverse individuals.

Monitoring indicators	Number of training programs with opportunities for dialogue with the President and executive officers
	Number of participants in President dialogues

#### 3-2. Support Education and Research Activities

#### Objective

In order to develop an environment that enables people to focus on their education and research activities, we will promote the use of digital technologies and collaboration between the academic and administrative staff, as well as enhance our research support services and the university's overall organizational capabilities. We will expand access to on-campus jobs that allow students with specialized skills and advanced knowledge to participate in a variety of activities within the university. We will also design organizational systems befitting a university that is expanding its functions, enabling the more effective deployment of education, research, and value creation activities.

#### Plan 1. Create an environment that allows faculty to focus on their research

We will encourage faculty to take sabbaticals and increase the number of sabbaticals taken to 50 per year. We will reduce the volume of work for faculty members in areas outside education and research by making the purposes of meetings clear and using digital tools to convey information, as well as expand research support staff such as URAs in order to alleviate the burden on faculty and create an environment in which they can concentrate fully on their education and research activities.

Monitoring indicators	Number of faculty taking sabbaticals (under the university-wide system)
	Ratio of administrative staff to faculty members (excluding university hospital and affiliated schools)
	nospital and armated schools)

#### Plan 2. Develop more efficient and sophisticated administrative functions

We will increase the number and capabilities of administrative and technical staff, and pursue greater efficiency through further digitalization system enhancement in administrative functions. We will strengthen internal administrative systems for internationalization through initiatives such as raising the number of administrative staff proficient in English and providing more opportunities for staff to undertake foreign language training, as well as provide various forms of assistance for non-Japanese-speaking faculty members.

Monitoring indicators	Number of overtime hours worked and days of days of Annual Paid Leave
	taken by regular administrative staff
	Proportion of announcements on UTokyo Portal provided in English
	Ongoing implementation of business reform proposal system

#### Plan 3. Expand on-campus jobs

On-campus jobs enable students to make use of their specialized skills and advanced knowledge and become involved in a variety of activities at UTokyo, not only raising the value of the university but also giving students greater pride in being a member of our university community. We will further establish and expand our system of on-campus jobs. Specifically, we will aim to have 30% of students engaged in on-campus jobs.

Monitoring indicators Number of students engaged in on-campus jobs

#### 3-3. Expand the Campus in Cyberspace

#### Objective

We will develop systems for the comprehensive advancement of UTokyo's digital transformation. We will utilize our physical and cyber campuses multidimensionally to make UTokyo a university that anyone in the world would want to join, as well as develop an environment that enables research exchanges to be pursued internationally without the need for physical mobility. Moreover, we will use the digital transformation of our research, education, and management activities to promote dialogue among both internal and external stakeholders and to build learner-centered educational systems.

#### Plan 1. Build systems to advance UTokyo's digital transformation

We will establish a Digital Transformation Initiative (tentative title) that brings together individuals involved in digital transformation across the university. The Digital Transformation Initiative will be actively involved in the formulation of systems related to the promotion of key initiatives in areas such as diversity and inclusion, green transformation, and corporate transformation, and will ensure that these systems are properly attuned to digitalization.

Monitoring indicators	Establishment of Digital Transformation Initiative (tentative title)
	Formulation of digital transformation indicators for the university

#### Plan 2. Develop new educational systems and methodologies that utilize digital technologies

We will proactively adopt teaching methods that leverage the advantages of online teaching. As a further initiative in the use of online teaching, we will work to develop systems that enable the adoption of on-demand classes and integration of on-demand teaching materials, and use these for purposes such as cultivating students' international capabilities. In order to implement online classes more effectively, we will promote faculty development activities and support systems, and improve campus infrastructure including Wi-Fi and power outlets. We will also develop and implement new educational methodologies that make use of digital technologies such as virtual reality (VR) and augmented reality (AR).

Monitoring indicators Number of classes utilizing VR/AR

#### 3-4. Extend Our Place into Wider Society

#### Objective

With the aim of achieving a knowledge-intensive, circulatory society, the start-up ecosystem that is currently being formed around the Hongo Campus will be developed into a global hub, tentatively called the "Hongo Intelligence Hill." We will also strengthen and internationalize the networks connecting UTokyo with investors, start-ups, large corporations, and accelerators. Moreover, we will leverage the strengths of each of our campuses and specialized facilities, including the university hospitals and affiliated schools, to form partnerships with communities throughout Japan, as we aim to create new values of inclusion and harmony with the global environment.

#### Plan 1. Create a startup ecosystem with an eye to global deployment

We will strategically advance co-creation with industry through initiatives including the formation of knowledge industry clusters around campus, the development of startup support systems in collaboration with overseas offices and external organizations with an eye to global markets, and the enhancement of support for fields and technologies in which UTokyo has particular strengths. In line with directions in green transformation and digital transformation, we will raise UTokyo's next-generation startup ecosystem to the world standard, building systems that maximize the development potential of the ecosystem utilizing the university's own capital. A specific objective is for a cumulative total of 700 UTokyo-related startups to have been created by 2030.

Monitoring indicators	Cumulative total of UTokyo-related startup companies and cumulative total
	of companies using UTokyo intellectual property
	Cumulative total of companies using incubation services

*Plan 2. Strengthen networks connecting UTokyo with investors, startups, large corporations, and accelerators* We will strengthen and internationalize the networks connecting UTokyo with investors, startups, major corporations, and accelerators, and promote the productive circulation of knowledge, talent, and funds centered on UTokyo. We will also expand our networks of people both within Japan and internationally by supporting both startups and large corporations through matching services, collaborative projects, and training for intrepreneurs (in-house startup leaders) and entrepreneurs and promoting exchanges between startups and large corporations.

Monitoring indicators Number of large corporations and startups in the uTIE membership program

#### Plan 3. Pursue co-creation with local communities toward green transformation

We will work on green transformation initiatives with local governments, residents, companies, and whole communities in the areas home to UTokyo's campuses and facilities, which occupy around 0.1% of Japan's total land mass. Specifically, we will collaborate with at least seven local government authorities on green transformation, including the provision of support for the development of decarbonization action plans. We will also disseminate models of community collaboration toward green transformation to serve as reference points for other universities and communities.

Monitoring indicators	Number of local government authorities collaborating with UTokyo on green
	transformation

#### Plan 4. Contribute to local activities through dialogue with communities adjacent to campus

We will contribute proactively to campus precincts as innovation special zones by opening up UTokyo resources and activities to people living and working close to campus. We will establish a working group for long-term campus planning, launch organizations for development of community visions involving people inside the university and stakeholders in surrounding areas, advance collaborations with local residents and public authorities, and discuss plans for the future of both our campuses and the communities in which they are located.

Monitoring indicators	Strengthening collaboration with local communities
	Formulation of future plans in collaboration with local communities

#### Plan 5. Tackle local challenges

We will apply the combined knowledge of UTokyo to tackle a variety of local challenges in areas including low birthrate and aging population, disaster prevention and recovery, infectious diseases in livestock, and industrial revitalization, pursuing ongoing dialogue with local governments and residents and achieving workable solutions.

#### Monitoring indicators Number of Future Society Initiative projects related to local challenges

#### Plan 6. Contribute to society through the university hospital

We will pursue sophisticated, cutting-edge healthcare under a rigorous safety management regime in fields such as medical transplantation, multimodal cancer therapies, and genomic medicine, as well as build a sustainable healthcare system by reducing the burden on healthcare professionals through the use of task sharing and shifting. We will strategically promote translational research and develop hubs for co-creation among partners in industry, academia, government, and civil society, actively supporting the exploration, research, and development of diverse and outstanding ideas, and creating innovative medical technologies and products. We will also nurture advanced healthcare professionals who can contribute to high-quality multidisciplinary team-based healthcare and play pivotal roles in various fields of medicine.

Monitoring indicators	Number of organ transplants, hematopoietic stem cell transplants, and cancer
	gene panel tests performed
	Status of support for translational research and product development
	Introduction of new education programs to promote task shifting and task
	sharing

#### **3-5. Extend Our Place Internationally**

Objective

We will develop international collaborative centers of research excellence outside Japan. Moreover, through international interorganizational partnerships, international joint research, and networking of our overseas activity bases, we will extend the opportunities for members of the university to pursue their activities internationally, and strengthen outside Japan the dissemination of our research results, our information-gathering, and our social collaboration activities. These initiatives will elevate UTokyo's international presence and reputation, cementing our key position in global academic networks in each academic area.

#### Plan 1. Develop and strengthen bases for international collaborative research

We will formulate a comprehensive international strategy to raise UTokyo's capabilities in education and research and contribute to the resolution of global-scale problems. At the same time, we will reassess our relationships with partner universities and organizations outside Japan, our various international relations projects, and overseas offices, and implement distinctive, strategic approaches to collaboration. In the Strategic Partnerships Project, we will take into account the exchange activities pursued thus far as we work to contribute to the improvement of UTokyo's capabilities in both education and research, adopting more effective and progressive approaches that leverage the respective strengths of face-to-face and online formats, including the expansion of collaborative education programs. As part of this process, we will build international collaborative research centers of excellence outside Japan that will serve as places for the internationalization of research, collaboration toward solutions to global-scale problems, and the training of early-career researchers.

Monitor	ing indicators	Establishment of an international strategy
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Number of newly established research activity bases outside Japan
Number of international co-authored papers