



**Headquarters for
International Industry-University Collaboration,
University of Tsukuba**



筑波大学

University of Tsukuba

The Headquarters for International Industry-University Collaboration (IIUC), University of Tsukuba has established in April 2014 to promote international university-industry-government collaborations. We strive the promotions and achieve the missions in below.

1. Industry-government-university collaboration is a mission for Univ. Tsukuba. Through the technology transfer of the university's research findings, we make innovations and contribute to the society.
2. The management of intellectual property is the core for technology transfer. The managers of the Headquarters for IIUC act as connoisseur. We evaluate the value, protect, and transfer the intellectual properties Univ. of Tsukuba have, not only for domestic but also for international industries.
3. We foster joint research with industrial companies. The managers of the Headquarters for IIUC will apply and implement the university's seeds into the society.
4. We encourage faculty members and students to engage their research achievements to the society. We provide entrepreneurial education to faculty members and students, incubation supports, foster Univ. of Tsukuba start-ups, and contribute to the society.
5. Univ. of Tsukuba is a core university located in Tsukuba Science City. We promote collaboration with governmental and corporate research institutes and neighboring universities in this area. We also foster collaborative research and contribution with Ibaraki Prefecture, Tsukuba City, and local communities.
6. The excellences of research activities should be feed backed and contribute through the society. With the regard on this, we provide extension programs organized by faculty members to the society.
7. Univ. of Tsukuba is internationally inclusive and contributing university. We'll keep expanding our activities and contribute to the global community.

Univ. of Tsukuba is founded as an unique university with the spirit for promoting interdisciplinary research. The Headquarters for IIUC will keep sharing our university's values with society and make significant contributions to the society.

NAKAUCHI, Yasushi

Director General of Headquarters for
International Industry-University Collaboration and
Vice President for Collaborative Research, University of Tsukuba





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Organizational structure

Structure of the Headquarters for International Industry-University Collaboration



Initiatives of the Headquarters for International Industry-University Collaboration

- Special Joint Research projects, Joint Research, Commissioned Research, Academic Consulting
- Intellectual property management
- Support for social implementation and entrepreneurship
 - Social implementation support programs
 - Entrepreneurship education
 - University of Tsukuba Start-Ups Business Acceleration Support Action
 - Open Innovation Strategy Organization
 - Organization for Human Smart City Connection
- Research & Development (R&D) Center
- Start-ups from University of Tsukuba
- Domestic collaboration (Industry-University Collaboration platform)
- Oversea activities
- Extension Program



Special Joint Research projects, Joint Research, Commissioned Research, Academic Consulting

Special Joint Research projects

In this Special Joint Research unique to the University of Tsukuba, faculty members from the University and researchers from companies will share issues and conduct joint research for 2 to 5 years. The researchers from companies who are qualified in examination of appointment will be employed as faculty members to promote large-scale joint research. They will have an opportunity to engage in university education subject to agreements with their companies.

Expenses to be borne by the companies, etc. (*)

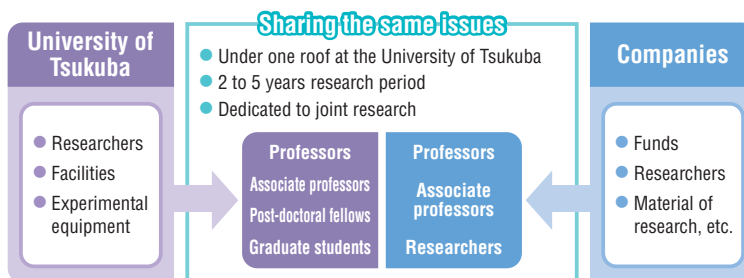
Direct costs + Indirect costs + Research costs

Direct costs: Expenses that are directly required for the implementation of the research

Indirect costs: Equivalent to 30% of the direct costs

Research materials: Costs required for a researcher from a company, etc., to conduct research at the University while still employed by their company

To establish the functions of the basic industrial research institute on campus



Joint Research

These are joint research projects conducted in collaboration between a university and a company, etc., on an equal footing. The University receives research funding and researchers from the company, etc., and the University and the company, etc., share the responsibility for the research.

Expenses to be borne by the companies, etc. (*)

Direct costs + Indirect costs + Research costs

Direct costs: Expenses that are directly required for the implementation of the research

Indirect costs: Equivalent to 30% of the direct costs

Research materials: Costs required for a researcher from a company, etc., to conduct research at the University while still employed by their company

Commissioned Research

This is research that is commissioned by a company, etc., for which the university receives research funds or equipment, and conducts research on a specific subject as part of the university's duties. The results of the research will be reported to the company, etc., that commissioned the research.

Expenses to be borne by the companies, etc.

Direct costs + Indirect costs

Direct costs: Expenses that are directly required for the implementation of the research

Indirect costs: Equivalent to 30% of the direct costs

Academic Consulting

This is the provision of instruction and advice etc. by faculty members regarding particular issues commissioned by corporations and conducted as university work in accordance with their specialist knowledge in education, research and technology.

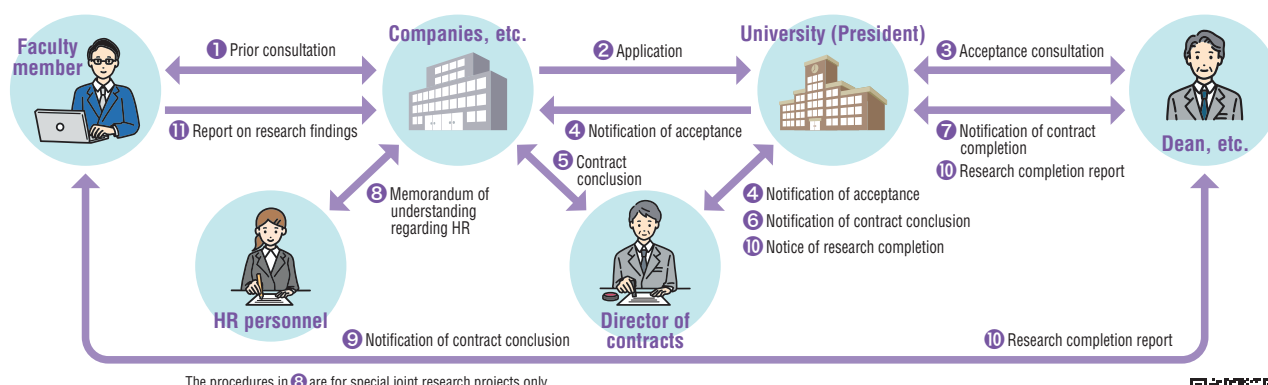
Expenses to be borne by the companies, etc.

Direct costs + Indirect costs

Direct costs: Expenses directly required to implement the guidance

Indirect costs: Equivalent to 10% of the direct costs

Implementation flow



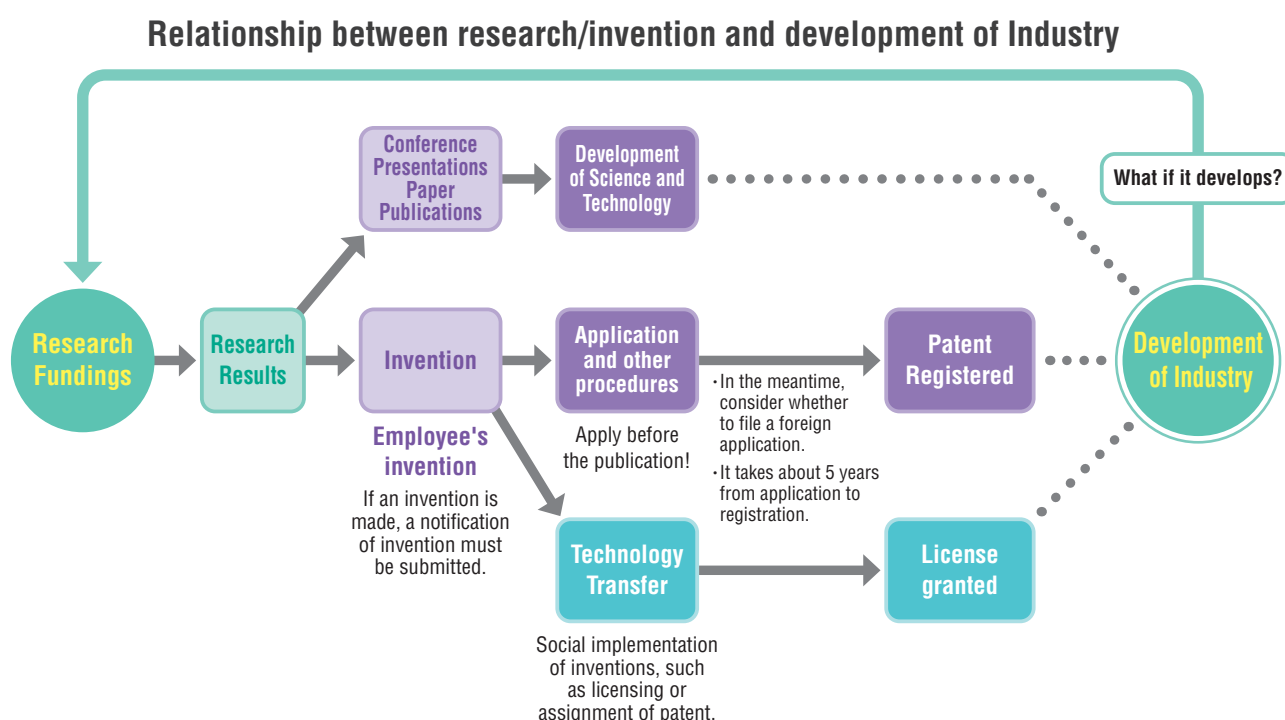
https://www.sanrenhonbu.tsukuba.ac.jp/en/jointresearch/for_company_jointresearch/



Intellectual property management

Intellectual property policy

University of Tsukuba have traditionally contributed to society through the implementation of higher education and academic research, but as the problems facing society and humanity have become increasingly serious in recent years, expectations for the intellectual property rights of the university have increased. In order to meet this social need, it is important for the university to give consideration to commercialization through the exercise of intellectual property rights in addition to publishing their research findings in academic papers as they have done in the past. At the same time, establishing ways to manage the university's intellectual property rights will make the relationship between the university and companies more transparent and understandable to those on the outside and clarify the basis for individual compensation.



Licensing policy

(1) Emphasizes the realization of the social implementation of technology through licensing

The acquisition of remuneration is a side effect, and the true purpose of licensing is the social implementation of the university's research results.

(2) Gives consideration to the development of university start-ups and local businesses

In addition to encouraging university-originated entrepreneurship, the University places importance on cooperation with local companies, and will give consideration to various licensing conditions from the primary perspective of fostering university start-ups and local companies.

(3) Pays attention to the social reputation of the licensee

It is important that the social implementation of research results is done in a socially appropriate way. Licensing should be conducted in a manner in which the results ensure the maintenance of public order, morality, and legal compliance.

(4) Respects the independence of education and research

Education and research are the core business of the university, and the licensing of intellectual property rights should be in accordance with this premise.

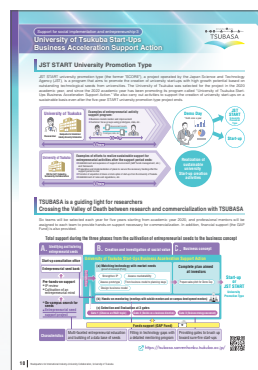
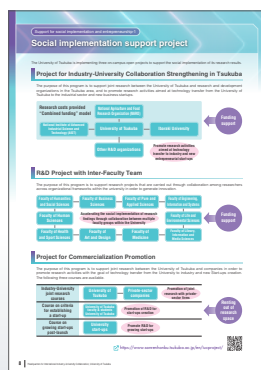
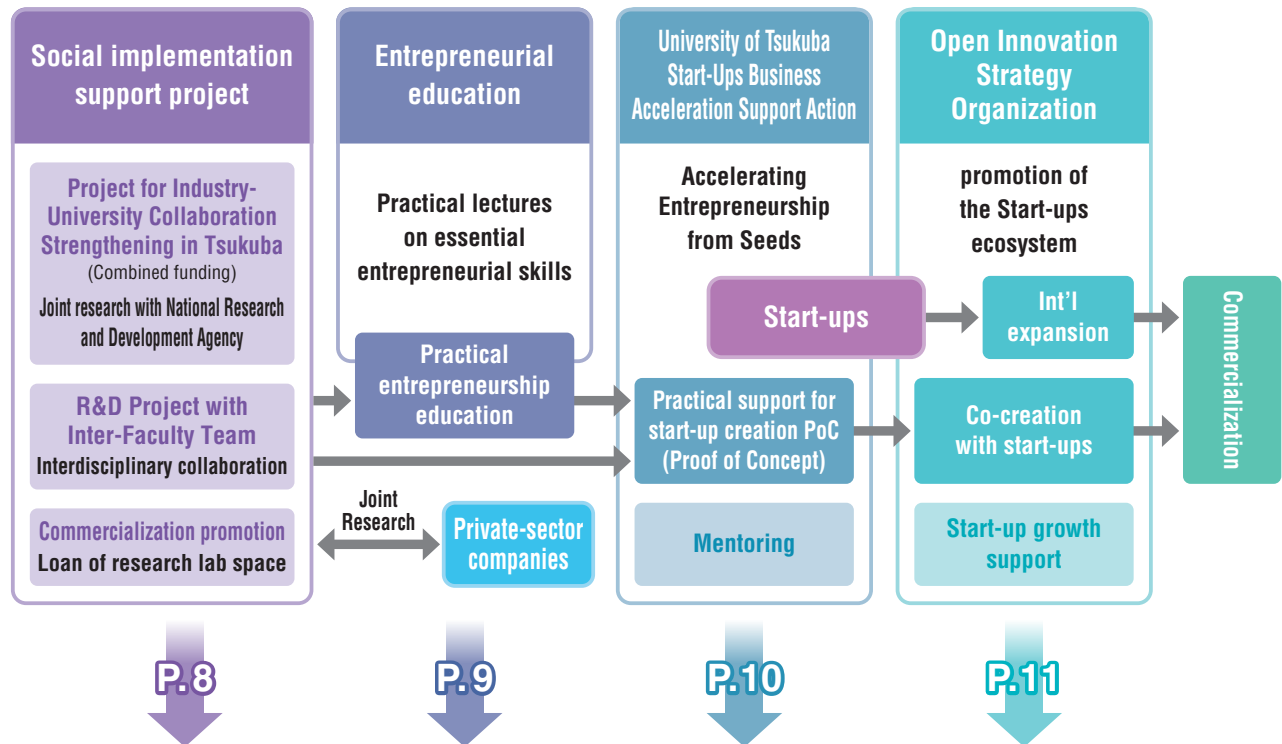
(5) The intellectual creation cycle

We seek to maintain balance in the cycle of creation (creating inventions), protection (filing patents and obtaining rights), and utilization (licensing).

Overview of support for social implementation and entrepreneurship

Integrated support for social implementation and entrepreneurship

The University of Tsukuba supports the social implementation of research results and entrepreneurship through its “Social Implementation Support Project,” on-campus open competition program, “Entrepreneurial Education” for students and researchers, the University of Tsukuba Start-Ups Business Acceleration Support Action (JST START (University Promotion Type)), an internal program to promote the creation of university start-ups, and the “Open Innovation Strategy Organization”, a management system designed to promote large-scale joint research by industry and academia.

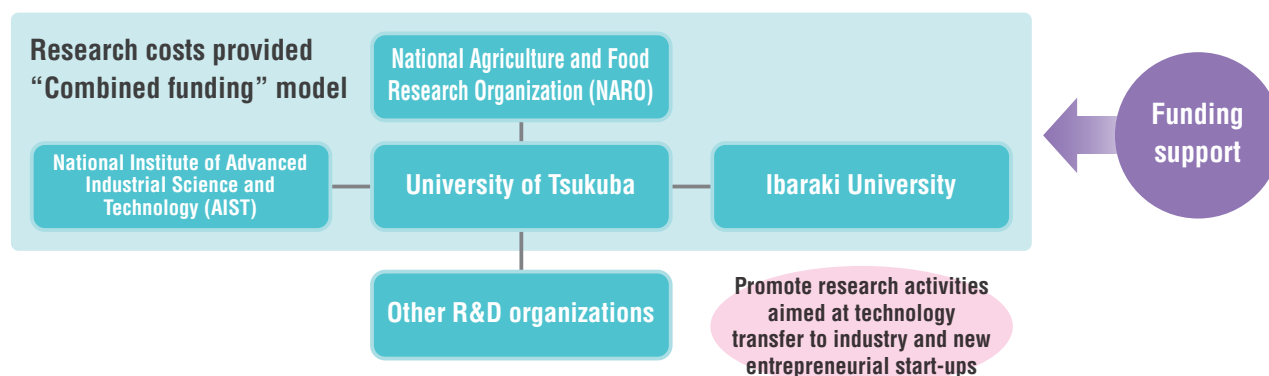


Social implementation support project

The University of Tsukuba is implementing three on-campus open projects to support the social implementation of its research results.

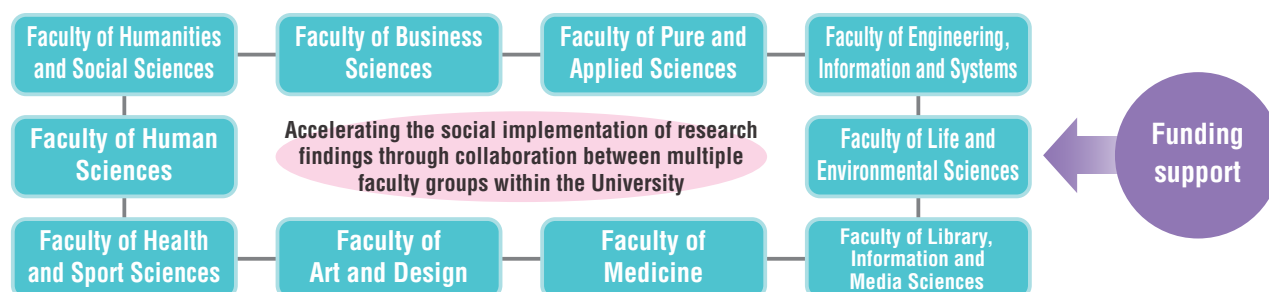
Project for Industry-University Collaboration Strengthening in Tsukuba

The purpose of this program is to support joint research between the University of Tsukuba and research and development organizations in the Tsukuba area, and to promote research activities aimed at technology transfer from the University of Tsukuba to the industrial sector and new business startups.



R&D Project with Inter-Faculty Team

The purpose of this program is to support research projects that are carried out through collaboration among researchers across organizational frameworks within the university in order to generate innovation.



Project for Commercialization Promotion

The purpose of this program is to support joint research between the University of Tsukuba and companies in order to promote research activities with the goal of technology transfer from the University to industry and new Start-ups creation. The following three courses are available.

Industry-University joint research courses	University of Tsukuba	Private-sector companies	Promotion of joint research with private-sector firms
Course on criteria for establishing a start-up	University of Tsukuba faculty & students University of Tsukuba	Promotion of R&D for start-ups creation	Renting out of research space
Course on growing start-ups post-launch	University start-ups	Promote R&D for growing start-ups	



Entrepreneurial education

Courses in entrepreneurship

Entrepreneurial education at the University of Tsukuba is conducted through class courses in the undergraduate and graduate schools, Tsukuba Generation Entrepreneur Development Program, for entrepreneurship and literacy education, and practical education.

	Entrepreneurship and literacy education	Practical training
For students	Course subjects <ul style="list-style-type: none"> Next Generation Entrepreneur Training Course Essential knowledge of management and intellectual property for entrepreneurs Tsukuba Creative Camp Basic Tsukuba Creative Camp Advanced 	
For researchers	Training program <ul style="list-style-type: none"> For researchers in school Entrepreneurial course to build up skills for creating start-ups 	<ul style="list-style-type: none"> For researchers (including outside organizations) Tsukuba Entrepreneur Development Program

In addition to the above courses, we started to offer an entrepreneurial education course for high school students in FY 2023.

Achievements in entrepreneurial education

We are accelerating the creation of university start-ups through the fostering of entrepreneurial spirit and practical education.

Overview of courses

Next Generation Entrepreneur Training Course Learn about entrepreneurship to solve social problems	
Essential knowledge of management and intellectual property for entrepreneurs Learn how to avoid failure when launching a start-up	
Tsukuba Creative Camp <ul style="list-style-type: none"> Basic Learn how to construct a business model and gain practical entrepreneurial knowhow Advanced Aspiring entrepreneurs create realistic plans for starting up businesses 	
Entrepreneurial course to build up skills for creating start-ups Researchers with research seeds learn the basic knowledge for creating start-ups	
Tsukuba Entrepreneur Development Program The program enables researchers acquire essential skills, transforming research seeds into an investible business plan	
Overseas training Improving English sales pitch skills and understanding overseas markets	

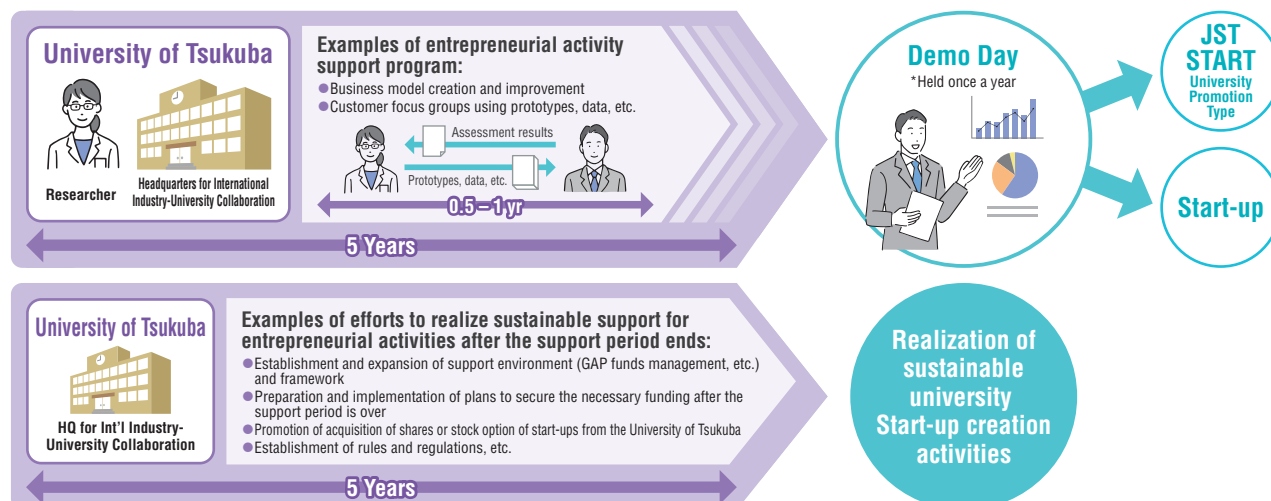


University of Tsukuba Start-Ups Business Acceleration Support Action



JST START University Promotion Type

JST START university promotion type (the former "SCORE"), a project operated by the Japan Science and Technology Agency (JST), is a program that aims to promote the creation of university start-ups with high growth potential based on outstanding technological seeds from universities. The University of Tsukuba was selected for the project in the 2020 academic year, and since the 2022 academic year has been promoting its program called "University of Tsukuba Start-Ups Business Acceleration Support Action." We also carry out activities to support the creation of university start-ups on a sustainable basis even after the five-year START university promotion type project ends.

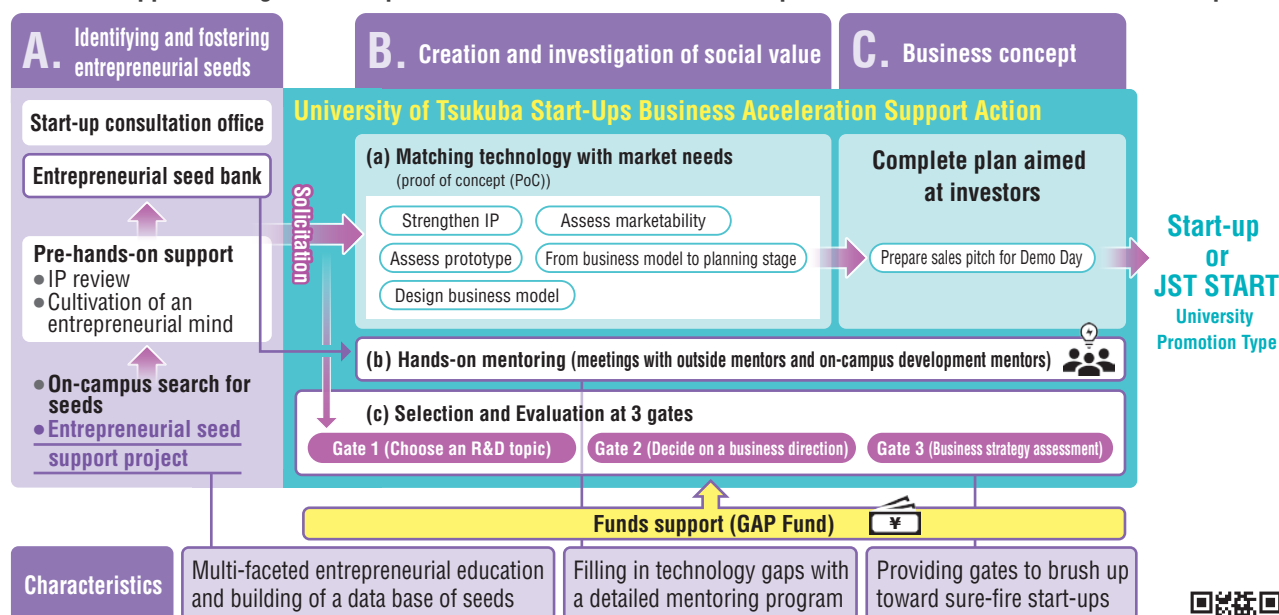


TSUBASA is a guiding light for researchers

Crossing the Valley of Death between research and commercialization with TSUBASA

Six teams will be selected each year for five years starting from academic year 2020, and professional mentors will be assigned to each team to provide hands-on support necessary for commercialization. In addition, financial support (the GAP Fund) is also provided.

Total support during the three phases from the cultivation of entrepreneurial seeds to the business concept



Open Innovation Strategy Organization



Program overview

The Open Innovation Strategy Organization (OISO) was founded in 2019 to develop large-scale joint research projects between the University of Tsukuba and companies and to promote the expansion of international industry-government-university collaboration. The OISO facilitates industry-university collaboration by matching corporate needs with the University's superior research capabilities to make innovations that can be implemented in society. To achieve this, we bring together people with experience in a broad range of fields and are committed to the following activities on an ongoing basis.

Plan to increase external funding through needs-driven joint research	Optimal group of faculty members to meet joint research needs of companies <ul style="list-style-type: none"> ■ Build faculty teams based on the Faculty Database by industrial area ■ Workshops to develop joint research topics 	Unique system for medium- to long-term large-scale joint research <ul style="list-style-type: none"> ■ R&D Centers: Externally funded ■ Special joint research projects: Company representatives hired as faculty members
International expansion of open innovation	Establishment of the International Center for Industry-University Collaboration and Start-up Development <ul style="list-style-type: none"> ■ Inter-organizational collaboration with overseas firms ■ Funding raising from overseas investors 	Global collaborative activities utilizing the University of Tsukuba's U.S. bases. <p>① Silicon Valley ② Boston ③ San Diego</p>
Strengthening the Start-up Ecosystem	Commercialization of research findings by university start-ups <p>[Change in indicators] No. of projects → Amt. of funds raised → Market capitalization → Sales</p>	Strengthen the start-up ecosystem <ul style="list-style-type: none"> ■ Joint research ■ Donations ■ Stock option ■ Education
Compliance framework	Promotion through collaboration between four subcommittees and specialized teams <ul style="list-style-type: none"> ■ Subcommittees: Security Export Control, Conflicts of Interest, Information Security, Competition Policy ■ Teams of experts: University of Tsukuba Office of Conflicts of Interest and Security Export Control, Information Technology Promotion Agency (IPA) 	

Project overview

The Open Innovation Strategy Organization is currently promoting projects in six different fields (agriculture, medical biotechnology, services, smart cities, environmental energy, and digital innovation).

Project : Agri-food peer

Agriculture

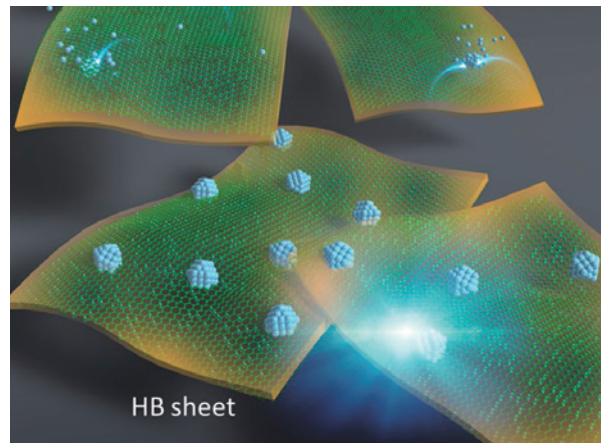
A world first, this project uses genome-editing technology (CRISPR/Cas9) to develop tomatoes that are rich in GABA (gamma aminobutyric acid). Notification to government agencies has been completed, and product marketing began in May 2021.



Project : Materials Science for Carbon Neutrality

Environmental energy

This project involves the development of new materials with high potential for application in hydrogen production and storage, carbon dioxide adsorption, and fuel conversion, such as hydrogen boride nanosheets, to meet the needs of industry for carbon neutrality by 2050.



Organization for Human Smart City Connection

Outline of Initiatives

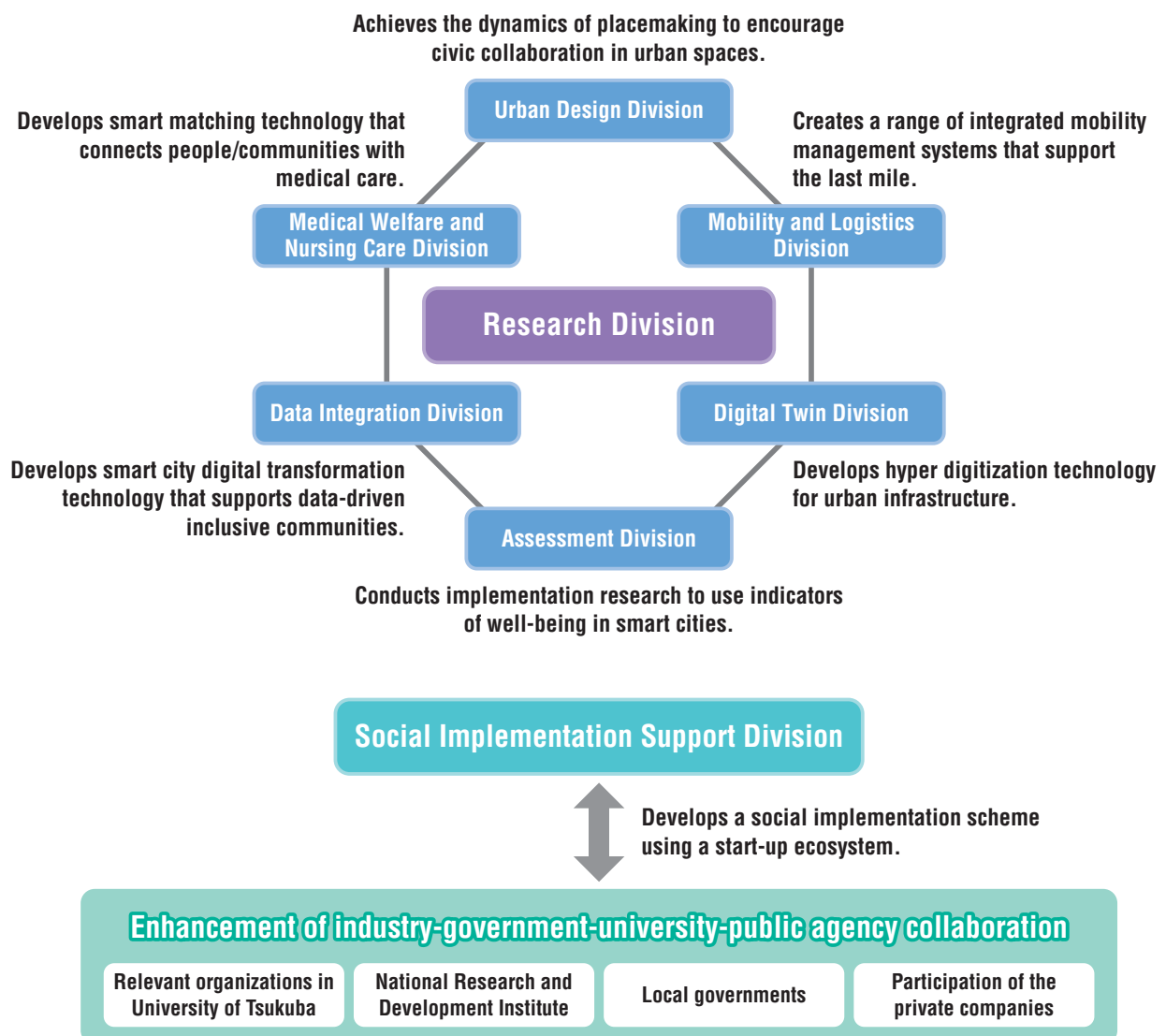
Japan needs to create an inclusive society where each and every one of its citizens can enjoy diverse forms of happiness and well-being as the country faces a declining birthrate and longer life expectancy. That is why we established the Organization for Human Smart City Connection in November 2023 with the aim of creating a people-centric society.

Led by University of Tsukuba, the Organization works with the industry and local governments to conduct cross-disciplinary research, identify real issues faced by urban areas with scientific techniques, and feed the identified issues back to fundamental research to develop a spiral structure where regional challenges are specified, business plans are made, and state-of-art technology is effectively utilized. In addition, the Organization engages in implementation research on the use of indicators of well-being in smart cities.

The Organization's goal is to roll out the Tsukuba Model developed in this program both nationally and internationally as a pioneering model in order to successfully deal with the issues faced by many urban areas, contribute to regional development, provide solutions to global issues, and achieve the SDGs.

Research to social implementation

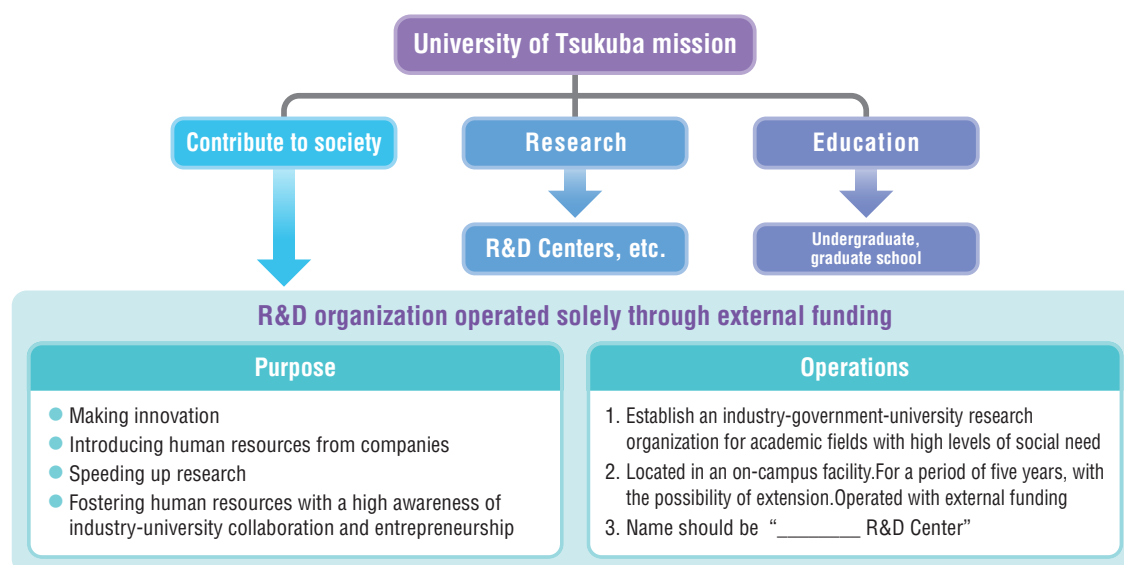
The Organization consists of the following six research divisions, each of which pursues relevant smart city research. "Social Implementation Support Division" has been established simultaneously to support the divisions in their efforts to apply their research findings to society for the creation of a smart city.



Research & Development (R&D) Center

Outline of Initiatives

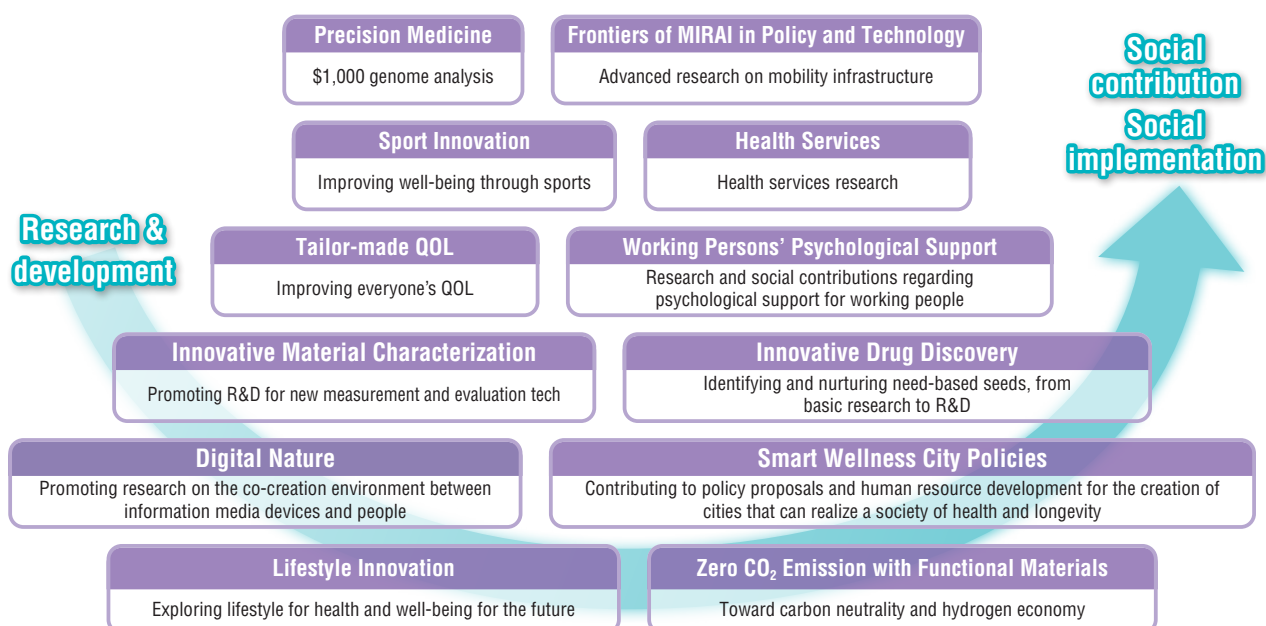
R&D Centers are organizations that operate solely through external funding. They have been established sequentially under the Headquarters for International Industry-University Collaboration from July 1, 2015. The purpose of the Centers is to create joint industry-government-university research systems in academic fields with high levels of social demand. The duration of the Centers is five years and may be extended depending on their evaluation results.



R&D centers will accelerate development research that contributes to society

Twelve R&D centers are promoting their activities currently. ※ Cumulative total of 14 centers established.

The Centers engage in joint R&D programs with the private companies in a broad range of research fields and actively share their research findings with society.



For more information on the research activities of each center, please refer to the introductory videos and pamphlets available at the following URL.

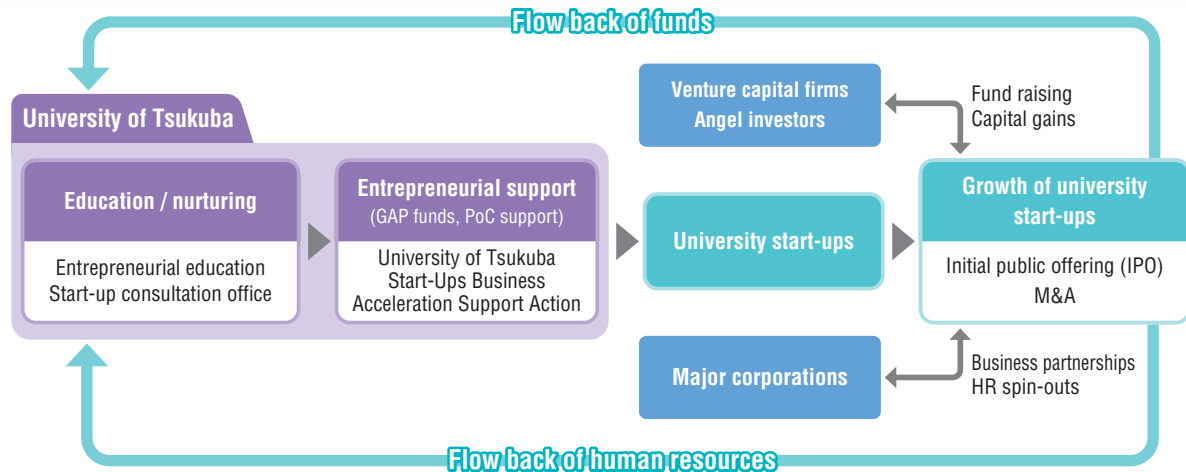
<https://www.sanrenhonbu.tsukuba.ac.jp/en/2017rd/>



Start-ups from University of Tsukuba

The University of Tsukuba's Start-up ecosystem

In order to continuously and autonomously realize the social implementation of research results and the supply of entrepreneurial human resources to society, we are working on the following areas, from entrepreneur education to entrepreneurship itself.



Support for the creation of start-ups

The University of Tsukuba's support for the creation of start-ups consists of:

(1) comprehensive coordination, (2) funding and space allocation, (3) entrepreneurial education, and (4) University of Tsukuba Start-Ups Business Acceleration Support Action.



Initiatives to create start-ups in the Tsukuba region

Tsukuba Science City is a treasure trove of large-scale tech seeds and is home to about 20,000 researchers. As a hub for education and research, the University of Tsukuba promotes the discovery of entrepreneurial seeds and the creation of Start-ups in the Tsukuba region by providing financial support and entrepreneurial education.

Tsukuba Science City

- 29 national and other research and educational institutions and about 150 research institutions including private research institutions
- About 20,000 researchers



University of Tsukuba

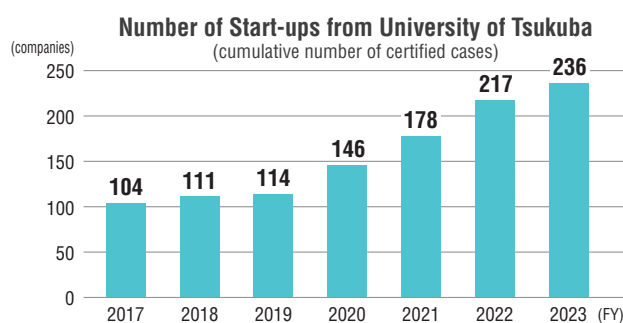
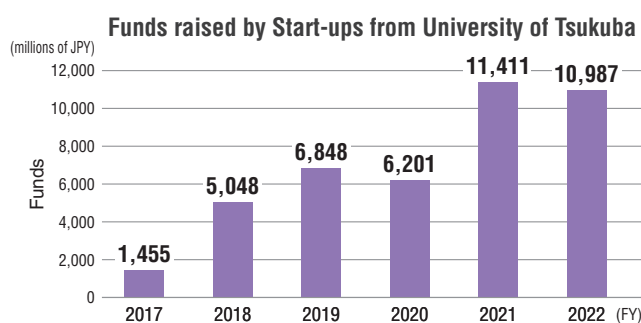
Funding support (public projects)
Project for Industry-University Collaboration
Strengthening in Tsukuba

+

Entrepreneurship education
Tsukuba Entrepreneur Development Program

Data on Start-ups from the University of Tsukuba

The University of Tsukuba has one of the best track records of start-up establishment among universities in Japan.



(From the report on the Ministry of Economy, Trade & Industry Field Survey on University-Sponsored Start-ups)

Number of university start-ups (ranking)

	2017	2018	2019	2020	2021	2022	2023
Univ. of Tokyo	268 (1)	271 (1)	268 (1)	323 (1)	329 (1)	370 (1)	420 (1)
Keio Univ.	69 (11)	81 (8)	85 (8)	90 (10)	175 (5)	236 (3)	291 (2)
Kyoto Univ.	154 (2)	164 (2)	191 (2)	222 (2)	242 (2)	264 (2)	273 (3)
Osaka Univ.	102 (4)	106 (4)	141 (3)	168 (3)	180 (3)	191 (5)	252 (4)
Univ. of Tsukuba	104 (3)	111 (3)	114 (6)	146 (4)	178 (4)	217 (4)	236 (5)
Tohoku Univ.	86 (8)	104 (5)	121 (4)	145 (5)	157 (6)	179 (6)	199 (6)

(From the report on the Ministry of Economy, Trade & Industry Field Survey on University-Sponsored Start-ups)

https://www.sanrenhonbu.tsukuba.ac.jp/en/spin_offs/year/



Domestic collaboration (Industry-University Collaboration platform)

What is the Industry-University Collaboration platform?

The Industry-University Collaboration platform provides “a place for co-creation” where companies and participating institutions can collaborate. Anyone can browse the research seeds, and inquiries about the seeds are handled free of charge, while consultations from companies and other organizations are forwarded to participating institutions by the University of Tsukuba. We also offer infographic video clips about patent information that explain patents in an easily understandable way.

Searching for technology data

We publish on research seeds in six fields.



Health & medical equipment



Food



Environment/energy



IoT/robots



Next-generation automobiles



Manufacturing (monozukuri)



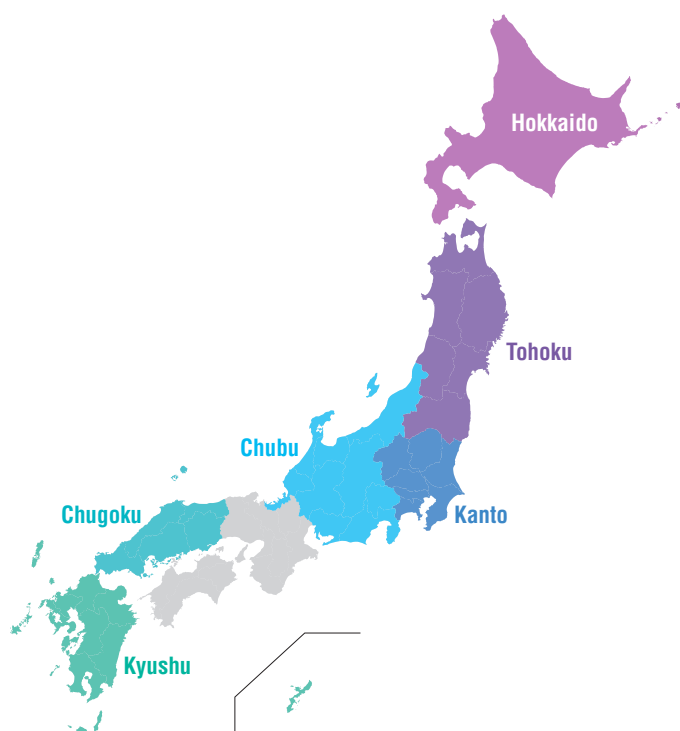
<https://sme-univ-coop.jp/>

Participating organizations (17 universities, 5 national research institutions, 1 technical college)

The Industry-University Collaboration platform is operated by the University of Tsukuba and publishes the research seeds of participating organizations.

Twenty-three institutions have joined the platform, which has now published more than 900 research seeds on its website (as of April 1st, 2024).

Hokkaido	Obihiro Univ. of Agric. and Veterinary Medicine, Muroran Inst. of Technology, Otaru Univ. of Commerce
Tohoku	Fukushima Univ.
Kanto	Univ. of Tsukuba, Tsukuba Univ. of Technology, Chiba Univ., Ibaraki Univ., National Agriculture & Food Research Organization, Gunma Univ., Chuo Univ., Japan Atomic Energy Agency, National Inst. of Technology Tokyo College, National Inst. for Quantum Science & Technology, Tokyo Metropolitan Univ., Tokyo Univ. of Agriculture & Technology, Japan Agency for Marine-Earth Science and Technology, National Institute for Environmental Studies
Chubu	Japan Advanced Inst. of Science & Technology, Nagoya Inst. of Technology
Chugoku	Hiroshima Univ.
Kyushu	Kyushu Univ., Kyushu Inst. of Technology



<https://sme-univ-coop.jp/>



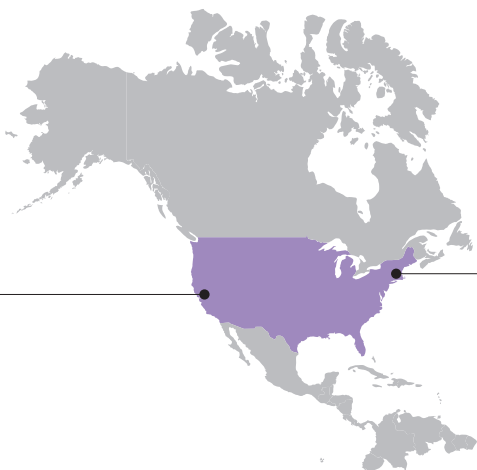
Overseas activities

Establishing overseas locations

We have offices at the Laboratory of Intellectual Innovation (LII) in Silicon Valley, USA, while at the Cambridge Innovation Center (CIC) in Boston, USA, we organize an event titled “University of Tsukuba Night” where we showcase our university start-ups. We also plan to further expand international operations to Europe and Asia, with the use of the Campus-in-Campus Initiative framework, which is designed to foster educational and research exchanges between the University of Tsukuba and its overseas partner universities, and through the University’s branch campus in Malaysia.



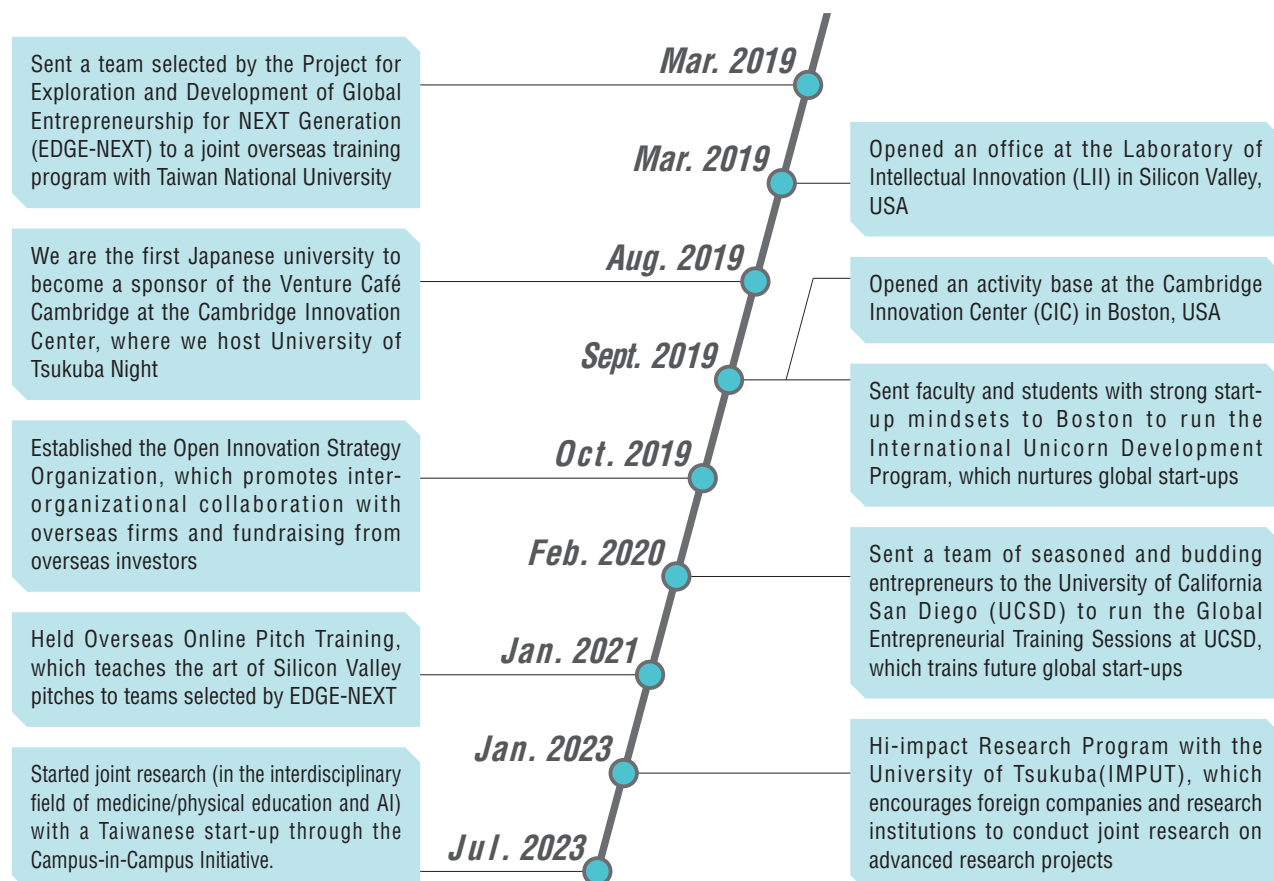
Laboratory of Intellectual Innovation (LII)



Cambridge Innovation Center (CIC)

Recent initiatives in international expansion

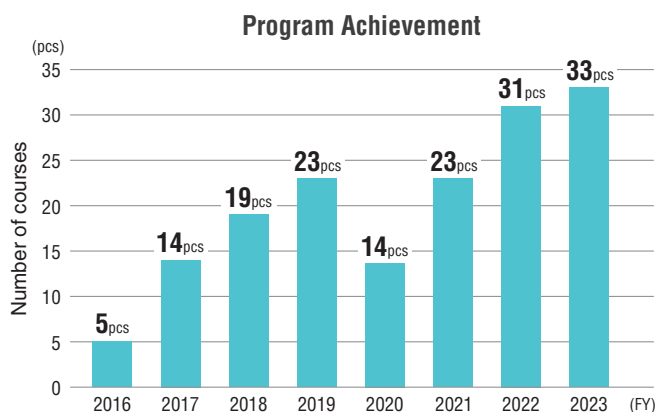
The Headquarters for International Industry-University Collaboration promotes the international development of industry-government-university collaborative activities and entrepreneurial development.



Extension program

Program overview

Since 2016, the University of Tsukuba has been offering programs to improve the development of the knowledge and skills that are needed by both working professionals and the general public by disseminating and spreading the University's academic research findings, including specialized research results for which there are high levels of social and corporate need, with the aim of contributing to the cultivation of the knowledge and skills that are needed in work and day-to-day living.



On-demand course

We offer on-demand courses that feature videos of the latest educational programs taught by the University. As the name “on-demand” suggests, participants can view the content at any time that is suitable for them. Furthermore, participants can view the content as many times as needed for a fixed period, all for a flat rate, and learn at their own pace. Therefore, they can expect to solidify learning through repetition. The course content provides explanations that are given in plain and clear language to answer questions participants may have.

**At any time that suits you and
anywhere of your choice**



Tailor-made training services

Businesses, governments, and organizations face specific management challenges and various concerns. Our training courses are tailored to meet their needs by bringing together the latest research knowledge from the University and providing an evidence-based academic approach. Unlike other training courses, our courses are designed to suit participants' levels, jobs, and challenges, and they can expect to learn more effectively. If you have any questions, please do not hesitate to contact us. We offer advice free of charge.



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

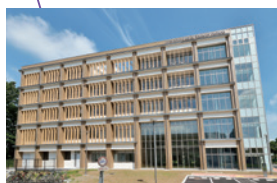


Access, list of Websites and Social Media Channels

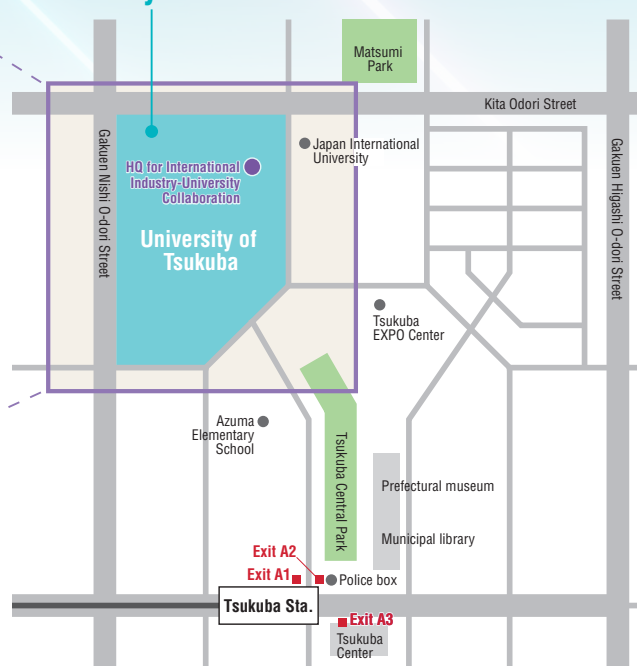


Headquarters for International Industry-University Collaboration

(Innovation Medical Research Institute)



University of Tsukuba Tsukuba Campus Kasuga Area



How to get to the Headquarters for International Industry-University Collaboration from Tsukuba Station

Please take Exit A1 or A2 of Tsukuba Station (TX-20 Tsukuba Express Line) and walk for 10 minutes. Alternatively, You can take a bus or taxi from Tsukuba Station (Exit A3).

● Bus

At the Tsukuba Center Bus Terminal,

- Take the Tsukuba Univ. Hospital bus (#22, 32A, 42A)
- Take the Tsukuba Univ. Junkan (Circular route) bus (#C10) Clockwise (右回り) to the Tsukuba Univ. Kasuga Area Front (筑波大学春日エリア前) stop.

● Taxi

Take the taxi to Tsukuba Univ. Kasuga Campus (E115) 筑波大学春日キャンパス.
Address: Innovation Medical Research Institute, 1-2 Kasuga, Tsukuba, Ibaraki
(茨城県つくば市春日1-2 高細精医療イノベーション棟)

<https://www.sanrenhonbu.tsukuba.ac.jp/access/>



Websites

Headquarters for International Industry-University Collaboration

<https://www.sanrenhonbu.tsukuba.ac.jp/en/>



Industry-University Collaboration Platform

<https://sme-univ-coop.jp/>



Extension Program

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



Open Innovation Strategy Organization (OISO)

<https://oiso.tsukuba.ac.jp/en/>



University of Tsukuba Start-Ups Business Acceleration Support Action (TSUBASA)

<https://tsubasa.sanrenhonbu.tsukuba.ac.jp/>



Social Media Channels

X (former name: Twitter)

<http://x.com/innovation298/>



Facebook

<https://www.facebook.com/innovation298/>



YouTube

<https://www.youtube.com/c/sanrenutsukuba/>



Giving to the University of Tsukuba

We would appreciate your support on industry-university collaboration activities of the University of Tsukuba. If you could consider making a donation to the University of Tsukuba, please contact us with the following email address.

sangaku-toku-katsu@un.tsukuba.ac.jp



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