

**Opened in Tsukuba City, Ibaraki Prefecture !**

**New business site for  
semiconductor-related R&D companies**

# **Cutting-edge Research Park**



**Ibaraki Prefectural Government.**



# Located near "TSMC Japan 3DIC R&D Center" "Cutting-edge Research Park" opened in Tsukuba City.

Land area of approx. 9ha,  
within walking distance of "Kenkyū-gakuen" Station of the Tsukuba Express Line.



## Tsukuba City provides a favorable environment to accelerate R&D of cutting-edge semiconductors. One of the best research environments in Japan with human resources securement and comfortable access.

In June 2022, a major Taiwanese semiconductor contract manufacturer TSMC opened its first overseas R&D base with clean room facilities, "TSMC Japan 3DIC R&D Center" in the National Institute of Advanced Industrial Science and Technology (AIST) Tsukuba Central located in Tsukuba City, Ibaraki Prefecture.

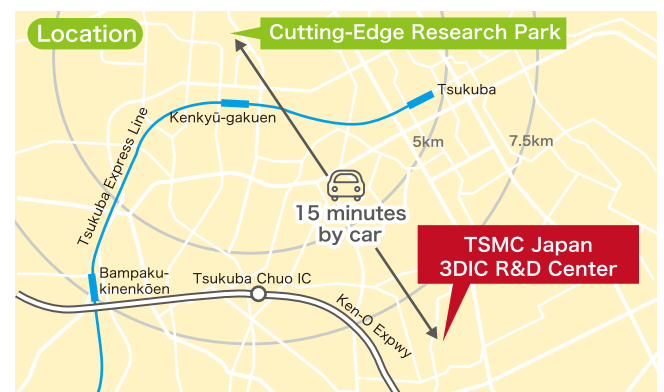
As the limit of semiconductor miniaturization is approaching, this center has decided to conduct joint research with Japanese material manufacturers, equipment manufacturers, and research institutes to develop technologies that allow mass production of 3D package technologies in the back-end process.

In time with the opening of TSMC's new R&D base in Tsukuba City, Ibaraki Prefecture has established the "Cutting-edge Research Park" to be a hub for state-of-the-art semiconductor R&D bases.

Besides a number of material and equipment manufacturers in the semiconductor field located in Ibaraki Prefecture, Tsukuba City is home to various research institutes and universities. Its proximity to the Tokyo metropolitan area and its excellent transportation access make Tsukuba the ideal location for research and development.



TSMC Japan 3DIC R&D Center opened in June 2022



Location of TSMC Japan 3DIC R&D Center



# National Institute of Advanced Industrial Science and Technology

## Leading National Semiconductor Strategy

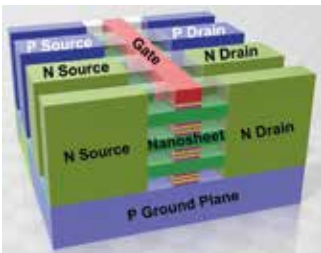


Tsukuba Centre, AIST (© AIST)

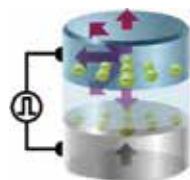
### Wide range of joint research and collaboration with companies; approximately 3,000 joint research agreements and 2,000 technical consultations in a year

Along with RIKEN and NIMS, the National Institute of Advanced Industrial Science and Technology (AIST) is a designated "National Research and Development Agency" and is one of the largest public research institutes in Japan that conducts R&D with the mission of solving social problems and strengthening industrial competitiveness. In the electronics and manufacturing field, which is one of AIST's 7 research fields, AIST promotes the social implementation of semiconductor-related technologies in collaboration with industrial sectors through the development of hardware technologies that form the basis of cyber-physical systems\* and the establishment of prototype lines in shared clean room facilities.

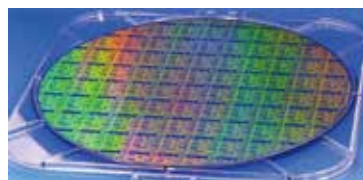
\* Cyber-physical system is a mechanism that processes a large amount of real-world generated diverse data in cyberspace with low power consumption and feeds them back to the real world without delay to improve business value and realize comfortable lifestyles.



Next-generation transistor technology



Spintronics Technology



Integrated Optical Device Technology



Shared cleanroom facility for 300mm wafer



Concept of Cyber-physical Systems



# Land Overview of the Cutting-Edge Research Park

Location	2-12-3, Gakuen-no-mori, Tsukuba City, Ibaraki
Land Area	Approx. 9 hectares
	Phase 1 Application area : approx. 3.1 ha
	Phase 2 Application area : approx. 5.9 ha
Land Use	Semi-industrial area
Building Coverage Ratio	60%
Floor Area Ratio	200%
District Plan	Attracting Facilities A District
Infrastructure	
Water supply	Tsukuba City provides water supply and groundwater intake (in compliance with prefectural regulations)
Water drainage	Each company should purify wastewater to below standard level before discharging it into the public sewerage system.
Rainwater drainage	Should be connected to Rainwater Storage and Infiltration Facility before discharging.
Electricity	Extra-high voltage power (66kV), Consultation with TEPCO required, Underground electrical wiring installation
Other	Lifeline facilities : Not installed

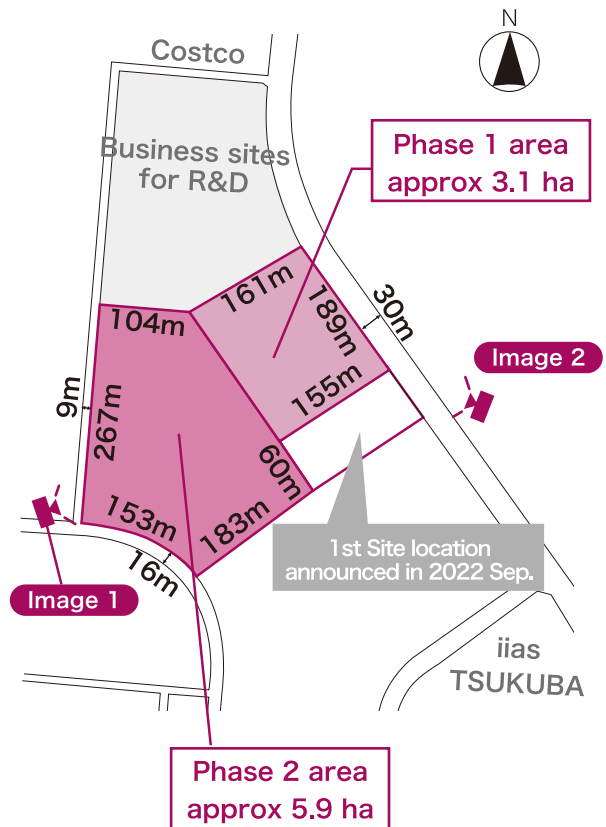


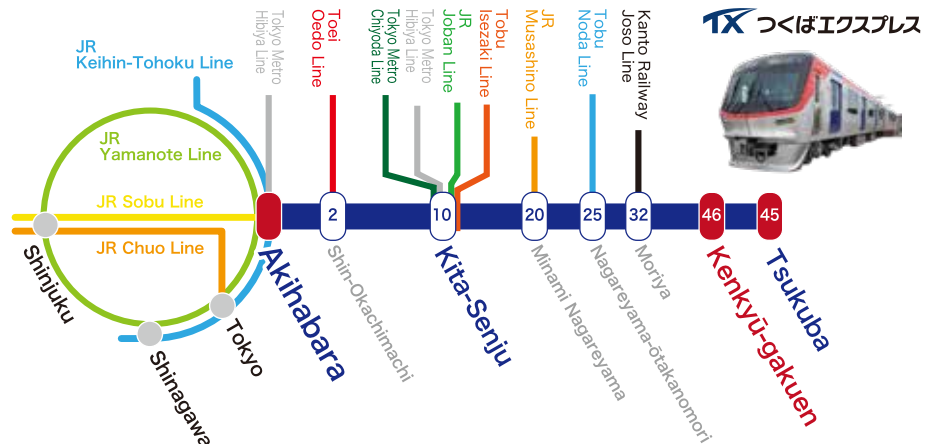
Image 1



Image 2



- 13 minute-walk to the nearest station, Kenkyū-gakuen Station (Tsukuba Express (TX) Line)
- 46 minute-train ride to central Tokyo from Kenkyū-gakuen Station.
- 2 nearest interchanges for highways (Joban Expressway and Ken-O Expressway)



\* Take Rapid Train to Tsukuba Station and then transfer to Commuter Rapid Train to Kenkyū-gakuen Station.  
The time required does not include transfers or waiting time. It may vary slightly depending on the time of day.

# Map around the Cutting-Edge Research Park



## Cutting-Edge Research Park

### Kenkyu-gakuen Station

**Usage Guide**

Commercial/business facilities	Road
Attracting Facilities	River/Waterway
Park	Retention pond
Pedestrian road	Enforcement district boundary



● Tsukuba, Police Station

● Tsukuba city Gakuen no Mori School

● COSTCO

● Japan Post

● Tsukuba University of Technology

● University of Tsukuba Tsukuba Campus West Area

● University of Tsukuba Hospital

● Tsukuba city Kasuga Gakuen Elementary-Junior High School

● Katsuragi Park

● iias TSUKUBA

● Kenkyu Gakuen police box

● Tsukuba City Hall

● Tsukuba City Kenkyu Gakuen Elementary Junior High School

● Gakuen minami Park

● Japan Automobile Research Institute (JARI)

● Kenkyu-gakuen Station Park

● CYBERDYNE

● Japan Automobile Research Institute (JARI) Robot Safety Test Center

● Katsuragi Childcare Support Center

● Tsukuba City Katsuragi Elementary School

● GRAN STAGE TSUKUBA

To Akihabara

To Tsukuba

To Yatabe IC

To Tsukuba Ushiku IC

Hasunuma River

BLANDE

Gakuen no Mori Park



## Tsukuba City, a world-leading research hub, is home to 30% of national and other research institutes and is an innovative environment built through collaborative research

Tsukuba City is home to 29 research institutes, which account for about 30% of all national research and educational institutions in Japan, as well as many research facilities of private companies, making it the largest science and technology city in Japan.

For research institutes, universities, companies to collaborate and improve the quality of R&D, Tsukuba is creating an environment that facilitates the birth of innovation, such as matching needs and fostering ventures through the Tsukuba Global Innovation Promotion Agency (TGI), which promotes sharing of research facilities and research findings.

### ■ Major research institutes:

- National Institute of Advanced Industrial Science and Technology (AIST)
- Japan Aerospace Exploration Agency (JAXA)
- High Energy Accelerator Research Organization (KEK)
- National Institute for Materials Science (NIMS)
- National Research Institute for Earth Science and Disaster Resilience (NIED)
- Public Works Research Institute (PWRI)
- National Institute for Environmental Studies (NIES)
- Japan Automobile Research Institute (JARI)



A technology feat is underway to allow mobile robots to drive autonomously in real-world environments such as promenades.

## A variety of large-scale commercial facilities and a comfortable living environment suitable for child rearing providing some of the best education in Japan

Located in front of Kenkyū-gakuen Station, iias Tsukuba is a shopping center with 200 stores, including specialty stores, restaurants, supermarkets, and cultural facilities, as well as daycare centers, banks, and hospitals. In addition to a wide variety of commercial and cultural facilities, there are also parks, nurseries, kindergartens and an integrated elementary and junior high school which create the ideal environment for raising children.





# Tsukuba, Creating the Future

18 years have passed since the opening of the Tsukuba Express. There is a reason why so many companies are moving into the Ibaraki area. For business development, growth, and reliable operation, there are many advantages to locating your company in the Tsukuba Express Ibaraki area.

## Human Resources

### Tsukuba City has a growing population projected until 2035, which is good for securing labor force

The population of Tsukuba City is predicted to grow until 2035 and it has the highest population growth rate in Japan. As the average age of residents in the 3 cities (Tsukuba, Tsukubamirai, Moriya) along the TX line is in their early 40s, much younger than the national and prefectural average, this is expected to lead to a large talented workforce. In addition, there are approximately 12,000 foreign residents from 144 countries, and the vast majority of them have "research" or "study abroad" status.

## Living Environment

### Top of the "Best Cities to Live In" ranking with further housing development planned in the area

Tsukuba City is always at the top of the "Best Cities to Live In" rankings conducted by various companies. In Toyo Keizai's "Ranking of Livability by Municipality 2023", Tsukuba City ranked 1st in Ibaraki Prefecture and 7th in Japan. Tsukuba City offers various support to the child-rearing generation through its high-level educational environment and good transportation access to central Tokyo.



Street view of Kenkyu Gakuen Area

## Transportation Infrastructure

### Good location near the Tokyo metropolitan area with plans for the Ken-O Expressway to become a four lane highway

Many companies have located their office in TX Ibaraki area in part owing to its proximity to the Tokyo metropolitan area. As the Ken-O Expressway (Ibaraki section) is scheduled to expand to four lanes, it is predicted that there will be a further increase in demand for office space in Tsukuba. Even for commuting, Tsukuba Express provides comfortable access from Akihabara Station to Kenkyū-gakuen Station in as little as 46 minutes.

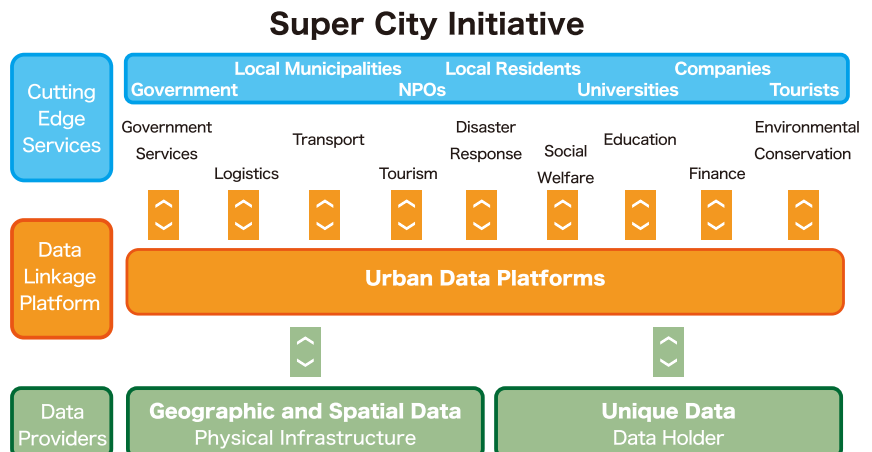


Ken-O Expressway ©JOSOKOKUDO

## Going Forward

### Designated as a "Super City National Strategic Special Zone" ; further promotion of collaboration between companies and public institutions with planned development of advanced services

In March 2022, Tsukuba City was designated as a "Super City National Strategic Special Zone" Super City is an initiative to promote the utilization of AI and Big Data, as well as regulatory and institutional reforms to implement various cutting-edge services in the community to support people's lives. Aiming to build a Super City through collaborations between universities and national research institutes, Tsukuba City has high expectations for the development of new services that will support the society of the future.



Source) Cabinet Office, Government of Japan, Secretariat for Promotion of Regional Revitalization 「Super City Initiative」



# Top-level subsidies for attracting companies as many companies locate in Ibaraki from other prefectures

To help revitalize industrial activities, Ibaraki Prefecture offers subsidies for attracting top-level head office functions and preferential treatment for businesses that establish or expand business offices as part of an industrial promotion initiative. Additionally, Ibaraki Prefecture is highly acclaimed for its location and environment, ranking top in Japan\* in terms of the number of out-of-prefecture companies locating in the prefecture.

\* According to a 2022 Survey of Factory Location Trends

## Incentives for National and Prefectural Taxes and more

National tax incentives for strengthening local business facilities / Prefectural tax incentives for relocation and expansion of head office functions	
Subsidy Eligibility	Transfer of all or part of the head office functions to Ibaraki Prefecture, expansion of head office functions in the prefecture, and establishment of a new business.
Details	[National tax] Special depreciation or tax credits for facility development, tax credits for increased employment [Prefectural tax] 3-year tax exemption for real estate acquisition tax & corporate business tax
Eligible Areas	[National Tax] Areas excluding suburban development zones (10 municipalities) based on Capital Region Improvement Act [Prefectural tax] All regions in prefecture (the rate of exemption differs in the case of relocation to a suburban development zone)

\* Other preferential treatment of each municipality may apply. For details, please contact each municipality.

## Prefectural Tax Exemption

Ibaraki Prefecture offers tax exemptions of prefectural taxes to stimulate industrial activities and create job opportunities.

Real Estate Acquisition Tax	
Eligible Areas	All regions in Ibaraki Prefecture
Eligibility Requirements	Corporations that have newly established or expanded their office or business facility in Ibaraki Prefecture, and have increased the number of employees by 5 or more in principle. *If the new or expanded office or facility is located in an industrial park or other area developed by a public organization such as Ibaraki Prefecture, the corporation is eligible for the tax exemption even with less than 5 new employees. *Scope of employees: employees insured under Employment Insurance Act (excluding day laborers and short-term employees, etc.)
Target Businesses	Manufacturing, information and communication, information and communications technology, transportation, wholesale, academic, R&D institutes, electricity, gas, heat supply, hotel, large-scale retail stores, plant factories, sales of agricultural, forestry and fishery products.
Details of preferential measures	Exemption of Real Estate Acquisition Tax on a group of land including a building and its site related to a new or additional business establishment, etc. *The land is exempted only when the construction of a building is started on the land within one year from the date of acquisition and the building qualifies for the tax exemption.
Ineligible from tax exemption	Corporations with delinquent payment of prefectural taxes, new establishments but relocation of business offices in the prefecture (those exceeding the area before the relocation are eligible)
Application Period	New or additional business facilities built by March 31, 2024
Tax Exemption Application	When submitting a Real Estate Acquisition Tax return (within 60 days after acquisition), a tax exemption application form must also be submitted. Application form can be downloaded from the following URL. <a href="https://www.pref.ibaraki.jp/yoshiki/kurashi/tax/index.html">https://www.pref.ibaraki.jp/yoshiki/kurashi/tax/index.html</a>

\* Applications for tax exemption must be made to each prefectural tax office. For details, please contact the prefectural tax office or the Tax Division, Department of General Affairs, Ibaraki Prefectural Government (TEL: 029-301-2424).

## Subsidies for Relocation of head office functions and Development of production bases

We offer Japan's top-level subsidy system for companies in growing industries (semiconductors, next-generation automobile industries, etc.) for relocating head office functions and developing production bases.

Subsidies	Outline
Subsidy for relocation of head office functions	Subsidies for building construction, equipment purchase, employment, etc. for headquarters functions in growing industries (semiconductors, next-generation automobile-related industries, etc.)
Subsidy for projects to strengthen next-generation industrial clusters and carbon neutrality	Subsidies for building construction and equipment purchase for production bases in growing industries (semiconductors, next-generation automobile-related industries, etc.) * Land acquisition is required

\* For more information on the subsidy system, please contact the Industrial Estate Promotion Division, Department of Industrial Estate Promotion, Ibaraki Prefectural Government (TEL: 029-301-2036).

For inquiries in foreign languages, please contact us using the inquiry form on our website.

Land Management and Sales Division  
Department of Industrial Estate Promotion  
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Click here for the  
Cutting-Edge Research Park website

Ibaraki Research Park

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