



**Asia-Pacific  
Economic Cooperation**

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**2021/CTI/CONF1/010**

## **Tsukuba Science City**

Submitted by: Japan



**Conference on Promoting Smart Cities  
Through Quality Infrastructure Investment  
in Rapidly Urbanizing APEC Region  
15 September 2021**



**Conference on Promoting Smart Cities through Quality Infrastructure Investment  
in Rapid Urbanizing APEC Region**

**Tsukuba Science City**

**Dr Yusuke Mori**

Director General

Policy Innovation Department

City of Tsukuba

15 September 2021

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# City Profile

## Outline of Tsukuba City

- 245,000 residents (3,500 residents increasing per year)
- 20,000 engage in research (8,000 PhD holders)
- 10,000 Foreign residents (from 140 economies)
- 4 Nobel-Prize winners
- 150 Research Institutes and Universities



## City Vision: Tsukuba Future Plan 2020-2050

“A city with Science and Technology for citizens”

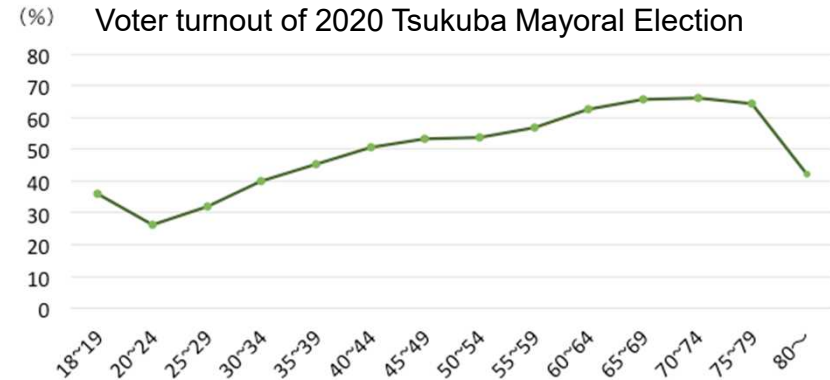
# Mobility

- Selected for a “Smart City Model Project” by Government of Japan
- Tested self-driving electric carts on public streets for the first time in Japan
- Promoting demonstration test of utilizing face recognition technology linked to bus boarding/exit and payment
- Aiming to provide safe, secure and user-friendly transportation services for citizens, including the elderly and other vulnerable road users



# Internet Voting

- Collaboration with startups, Vote For Inc, and xID Inc
- Online voting through smartphones using “My Number Card” (Individual Number Card) and biometric identification technology
- It might contribute to increase the turnout of elections ('00: 64.7%; '20: 51.6%) as well as avoidance of crowd at polls.



# Digitalization of Health Management at Schools

- Collaboration with LEBER Inc, a startup in Tsukuba.
- Parents record their child's body temperature in the app every morning, then school teachers can monitor students' health condition.
- 90% of the families who have G1-G9 child (out of 15,000) uses the app.
- Telemedicine consultations with doctors are also possible through the app.
- It also enables school to analyze trends of disease for public health purpose.



児童・生徒の  
健康を守る。  
LEBER for School

# Tsukuba Super Science City

～Provide new options by science, provide diverse well-being for citizens～



In the spirit of “Leave No One Behind”, the city will

- Connect between citizens and government,
- Bring out each person’s diversified abilities,
- Combine knowledge of world-class science and technology and



Mayor  
Dr Tatsuo  
Igarashi



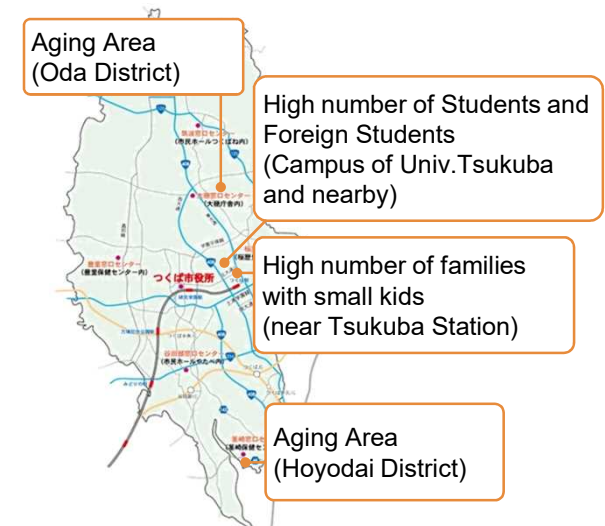
Architect  
Dr Kenji  
Suzuki  
(Prof. Univ.  
Tsukuba)

**Become a super city for all citizens to solve social problems**

## Cutting Edge Services

<b>Government</b> 	Internet Voting, Multi-language Portal App, DX of Paper Work at City Hall, Promotion of EBPM with Citizens Voice, Utilization of Government Big Data
<b>Mobility</b> 	Introduction of Regional Community Mobility, Introduction of Complex-MaaS in the City Center
<b>Delivery</b> 	Convenient Shopping with Auto-delivery Robots and Drones, Improvement of Moving Supermarket
<b>Medicine, Welfare</b> 	Promotion of Healthy Life by Medical and Daily-Life Information, Improvement of Emergency Treatment by Medical and Daily-Life Information, Comprehensive Health Services with Clinic, Care Home, and Pharmacy, Returning Personal Medical Records with Identification Card
<b>Safety, Resilience, Infrastructure</b> 	System for Management of Infrastructure, Live Visualization of Disaster, Regional Anti-Crime Information Network

## Area



# Ethical Principles for Tsukuba Smart City

10 October 2019

## Respect for autonomy

- Provide multiple choices to citizens.
- Transparency is guaranteed, and citizens can make decisions upon understanding the mechanism.

## Nonmaleficence

- Citizens shall not be exposed to physical, mental or economic harms.

## Beneficence

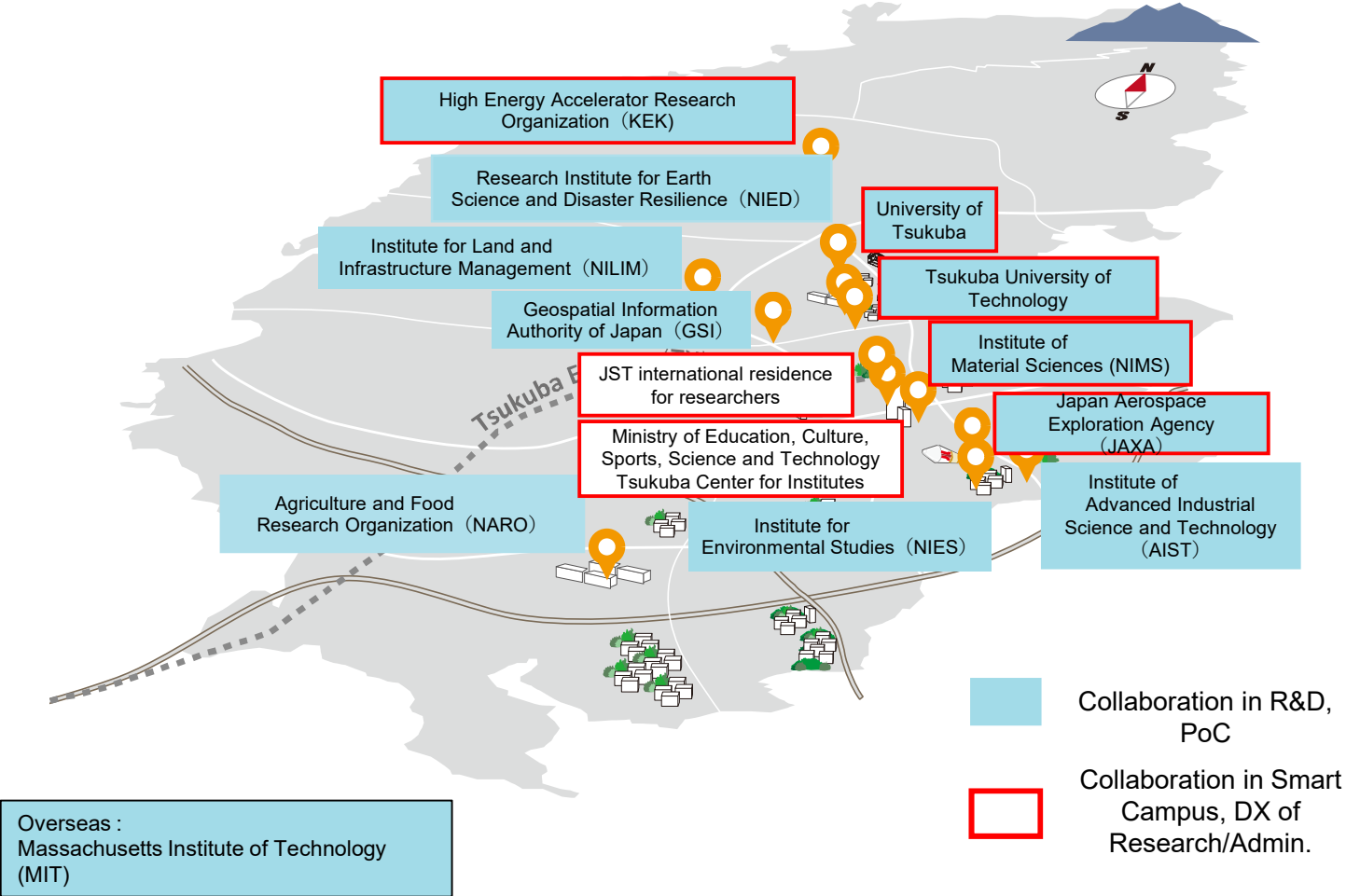
- Provide benefits to society and citizens.
- Benefits shall always outweigh unavoidable losses.

## Justice

- All residents shall be treated fairly and impartially regardless of their age, gender, race, religion, ideology, economic circumstances, etc.
- Disparity between citizens shall not increase due to smart city development.



# Realize “Tsukuba Super Science City” by Collaborative Work among Universities and Research Institutions



*Exploring  
Tomorrow.*  
TSUKUBA