



# Initiatives for Smart City Aizuwakamatsu

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# Outline of Aizuwakamatsu City



(As of April 1, 2019)  
Population on Basic Resident Register: 118,518  
Number of households: 51,453

## Geography

Aizuwakamatsu is located in the western part of Fukushima Prefecture in the Tohoku region.

The city is surrounded by beautiful nature, including Mt. Bandai and Lake Inawashiro.

There is also a good ski resort nearby.

## Industries

Japan's leading tourism industry (with Tsuruga Castle, Byakkotai, and others).

Agriculture centering on rice cultivation and local industries, including sake and lacquerware industries.

Creation of cutting-edge IC-related industries.

## Sake

Fukushima Prefecture won the Gold Medal at the National Sake Appraisal for seven consecutive years.

More than half the 22 brands given Gold Awards are Sake from the Aizu region (13 brands).

## University of Aizu

A university dedicated to ICT Advanced software/hardware.

The purpose is to train scientists.

Characterized by computer-related education and English education.

## Challenge: Decrease in the working-age population

- ◆ Every year, the population decreases by about 1,000 people.  
In particular, the working-age population (15 to under 65) has been decreasing.
  - ◆ For example, 60% of students enrolled at the University of Aizu (a prefectural university) are from outside the prefecture, but 80% of graduates find employment outside the prefecture (e.g., the Tokyo metropolitan area).
- => In 2060, the population will decrease to about 65,000, and it will be difficult to maintain the functions as a local government.



## Characteristics and Strengths of Aizuwakamatsu City

1. Presence of the University of Aizu as a university dedicated to ICT
2. The scale of the city with a population of 120,000 is appropriate for conducting demonstration experiments
3. A city with plentiful natural energy centered on the primary industry
4. The area around Aizu is an area with issues, including declining birth rate, aging population, and depopulation



## Direction of Aizuwakamatsu City

### Promotion of Smart City Aizuwakamatsu

= Industry creation and human resource development using ICT in every field

=> **Aiming to become a model city with a demonstration area for regional revitalization and to be a good example that can be expanded to other areas.**

Promoting efforts using information and communications technology (ICT) in **every field**, including the fields of health and welfare, education, disaster prevention, energy, transportation, and environmental protection.

Various statistics of Aizuwakamatsu City	2008	Present	Rate of change
Population	129 thousand	120 thousand	- 7%
Production age population	79 thousand	69 thousand	- 12%
Number of employees in the manufacturing industry of electronic components*	3,967	1,605	- 60%
Electronic parts shipments*	103.2 billion yen	33.7 billion yen	- 67%

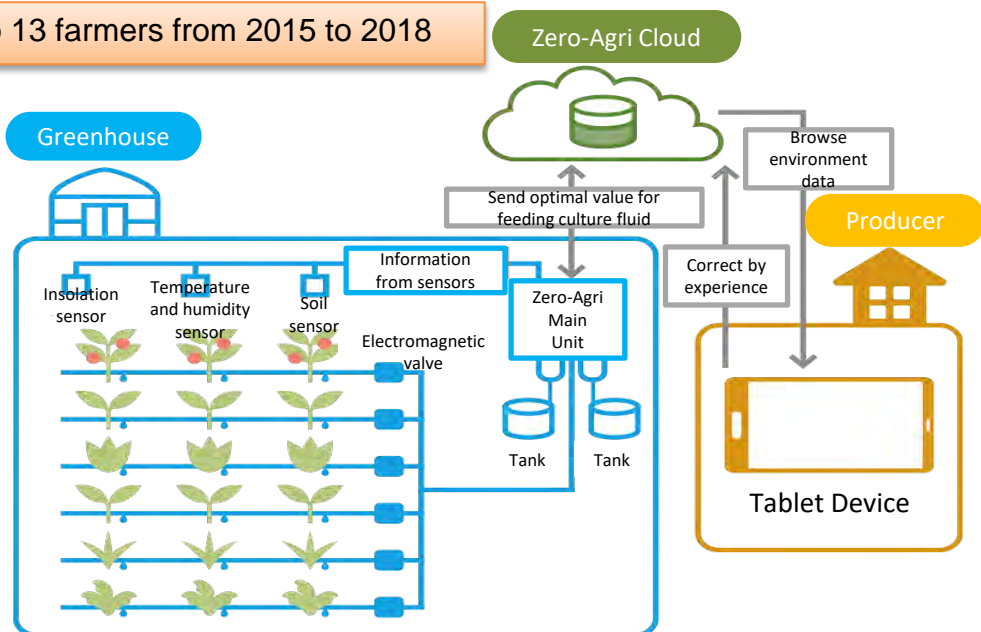
\*From the 2018 Statistical Survey of Industry (Ministry of Economy, Trade and Industry) (The "current" figures are as of June 2018)

\*The total population and working-age population are June 2018 values, combined with the above data.

## Hydroponic soil cultivation system

A system that uses sensors measuring the ground temperature, soil moisture, fertilizer concentration, etc., and automatically supplies optimum amounts of water and fertilizer based on the data.

Introduced to 13 farmers from 2015 to 2018



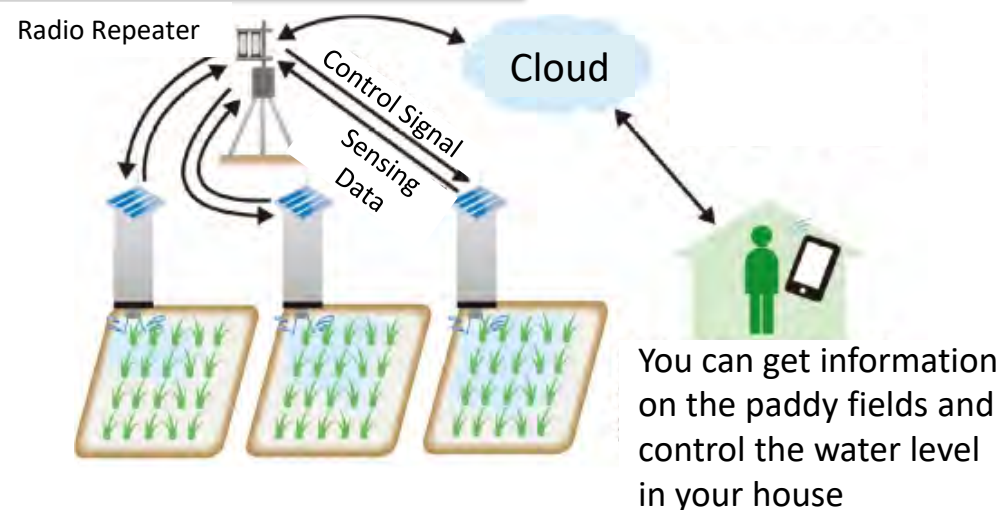
### Major achievements

- Improving the yield and quality of agricultural products
  - No need for experience or intuition
  - Reduction of working hours and costs
- => Average working hours: **Approx. 10% decrease**  
Average sales price: **Approximately 10% increase**

## Water management system of paddy fields

A system that automatically supplies water by setting a water level for each paddy field using a smartphone or tablet. The current water level and water temperature can also be checked.

In and after 2018: Introduced to 4 farmers



You can get information on the paddy fields and control the water level in your house

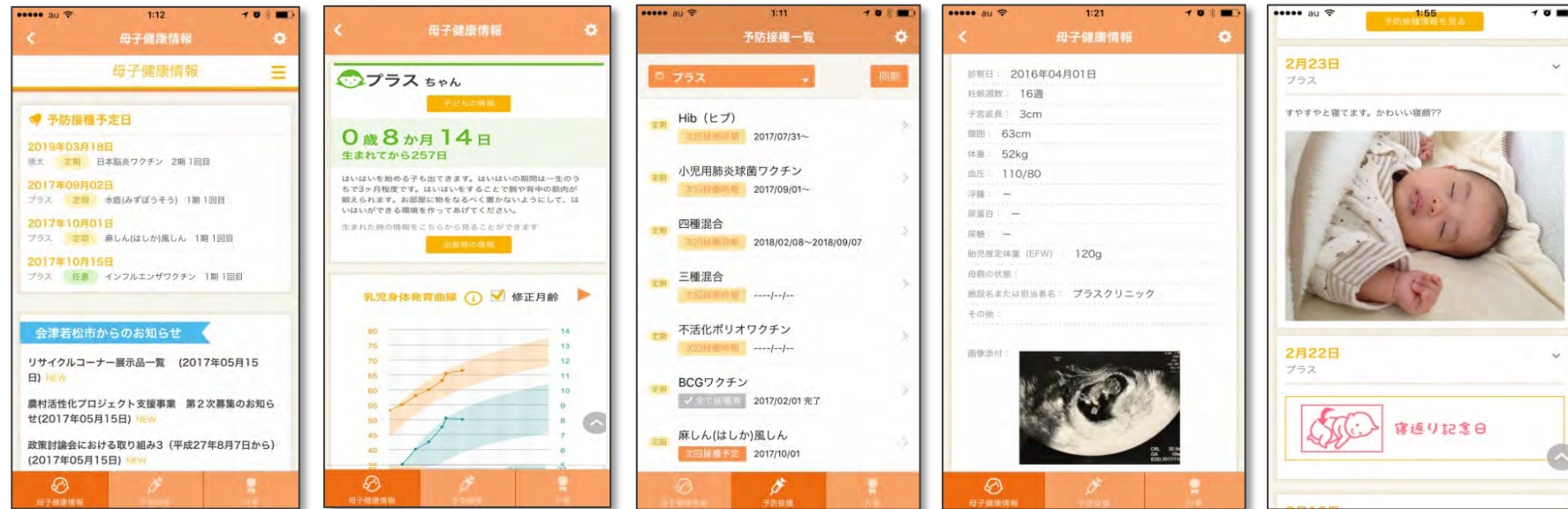
### Major achievements

- Reduction of working hours  
Direct working hours for water management (per 10 a)  
**164 min. => 41.6 min. (approx. 75% reduction)**
- Maintaining yield  
Yield (per 10 a)  
**580.6 kg => 581.7 kg** (Almost the same amount)

# Maternal and Child Health Information Service (Digitalization of Maternal and Child Handbook)

A service that provides citizens with childbirth and child-rearing information held by our city through the city-run website (Aizuwakamatsu Plus\*).

\*Recommendation-type information provision platform. Possible to register each user's individual attributes (e.g., the user's age, gender, family structure, and likes and dislikes) and pick up and display information that the user thinks necessary.



The top screen displays information, such as the scheduled date of vaccination and news from the city.

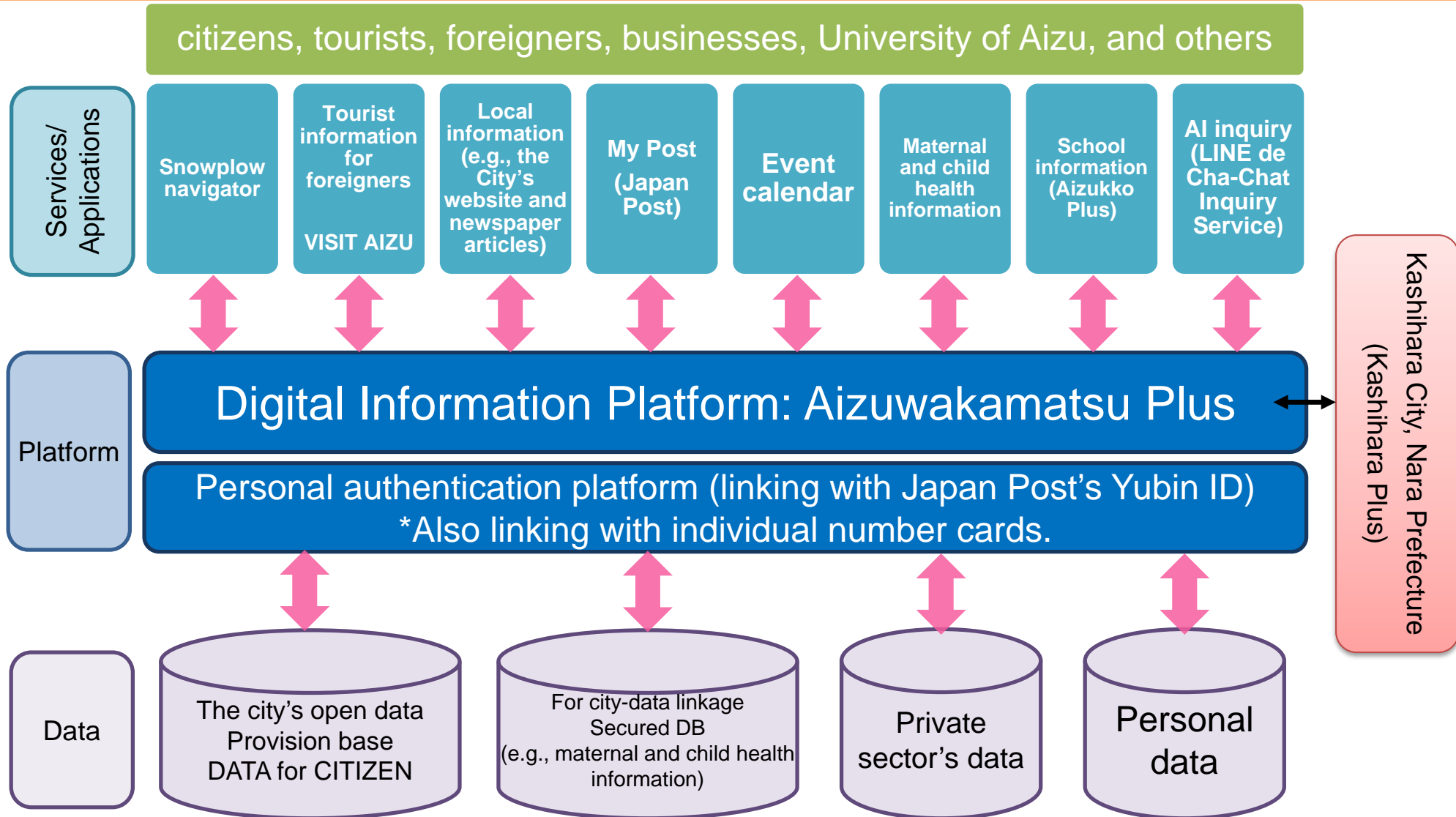
## Point!

- The height/weight growth curve and the status of vaccinations are linked with the city's data on infant medical examinations and vaccinations and displayed. Therefore, users do not need to enter them.
- Users can enter information on their pregnancy health checkups, echo photos, and daily growth records on their developing babies.



# Image of “the Digital Information Platform” of Aizuwakamatsu City

A digital platform that provides diverse types of information and services by linking with diverse types of data on the Internet and introducing a personal authentication infrastructure. This makes it possible to develop and expand diverse types of information-providing applications for citizens.



## Plotting of resident points

It is not possible to grasp the exact place of each citizen's residence by the address alone.

\*In old addresses and tenement houses, there are cases where the same addresses are used even though the buildings are different.

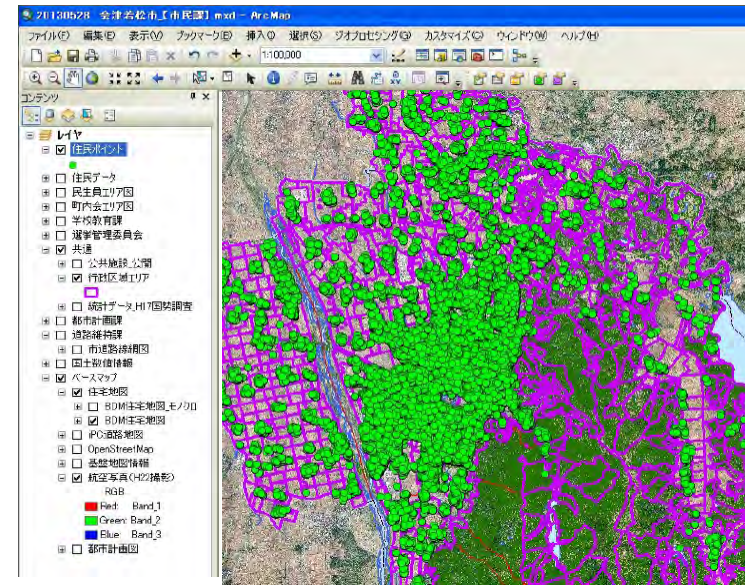
⇒ Where residents actually live (resident points) are checked when they move in + City officials update the database on a daily basis.



Developing and maintaining  
a complete residence database



When a resident moves in, the city official at the window asks where the resident is going to live while checking the map.



## Examples of data utilization

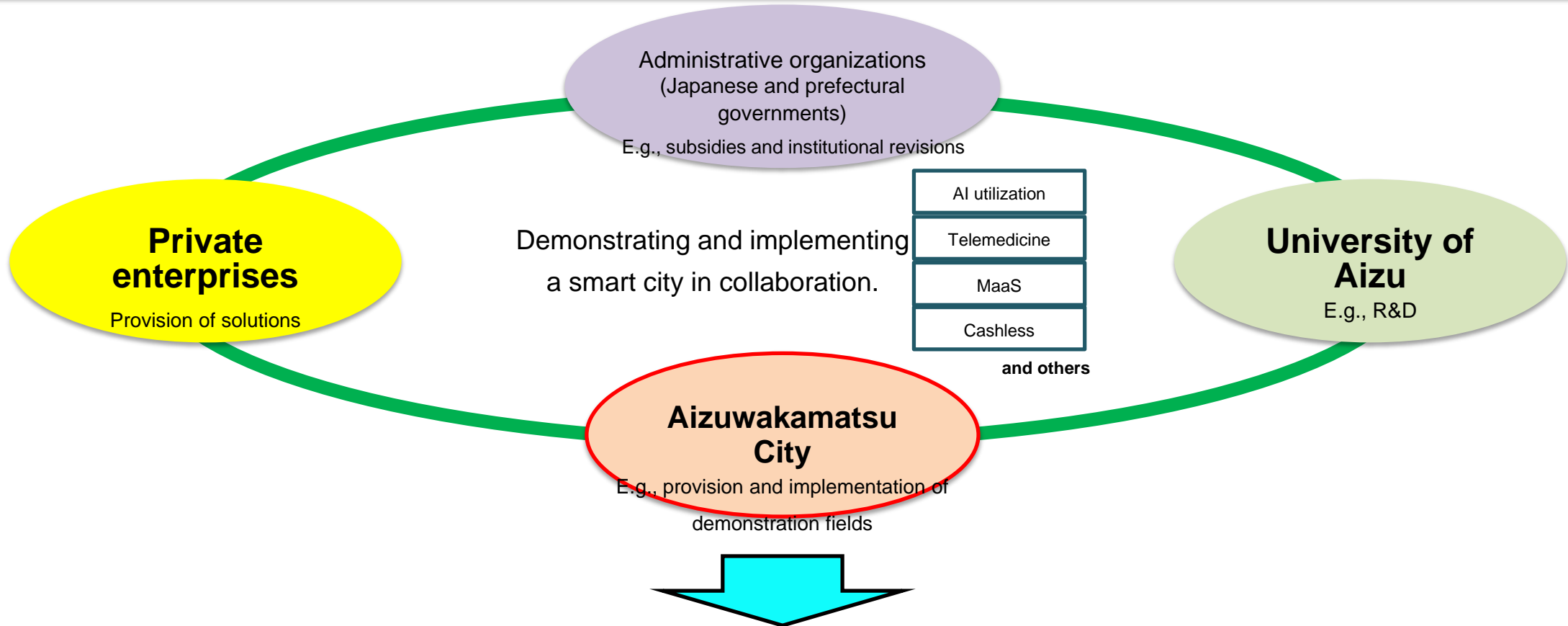
### ■ Utilization in the transportation field

City officials analyze data, including information on the population density of elderly people, and use such data to study bus routes

### ■ Utilization in the field of disaster prevention

Automatically capturing photos taken in times of disaster and visualizing them as points on a map

# Future Vision of Aizuwakamatsu City



Revitalizing the local community and improving residents' convenience

Aiming to lead Society 5.0 while accumulating excellent technologies, knowledge, and human resources  
=> Contributing to the achievement of the Sustainable Development Goals (SDGs).

