



Kaga City



加賀市は、
スマートSDGsへ。

Smart City KAGA

“Digital” x Regional Development

January 14, 2022

Kaga City, achieving smart SDGs
through public-private co-creation.

Miyamoto Riku,
Mayor of Kaga City

Overview of Kaga City

**Location: Southwestern part of Ishikawa Prefecture,
on the border with Fukui Prefecture**

Area: 306 km²

Population: 64,377

(As of December 1, 2021)



**1 hour and 30 minutes
from Tokyo by plane**

**3 hours and 30 minutes
from Tokyo by the
Hokuriku Shinkansen**

Manufacturing Industry

- ▶ Parts manufacturers are at the heart of the manufacturing industry
- ▶ Chain and souvenir confection production is also thriving

Agriculture and Fishing

- ▶ Ruby Roman (Japan's best grapes), fresh crab, sweet shrimp, etc.

Traditional Crafts

- ▶ Kutani ware colored porcelain that represents Japan
- ▶ Yamanaka lacquerware of the highest production value in Japan



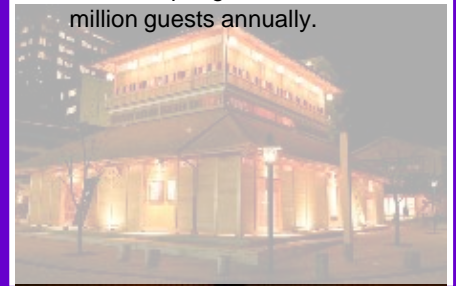
**Yamanaka
lacquerware**

History

- ▶ Streetscape of Choryutei Villa and the Yamanoshita Temples Area in Daishoji, the castle town of the Daishoji Domain
- ▶ Kitamaebune shipowners village in Kaga Hashitate, registered as a Japanese heritage site

Hot Springs

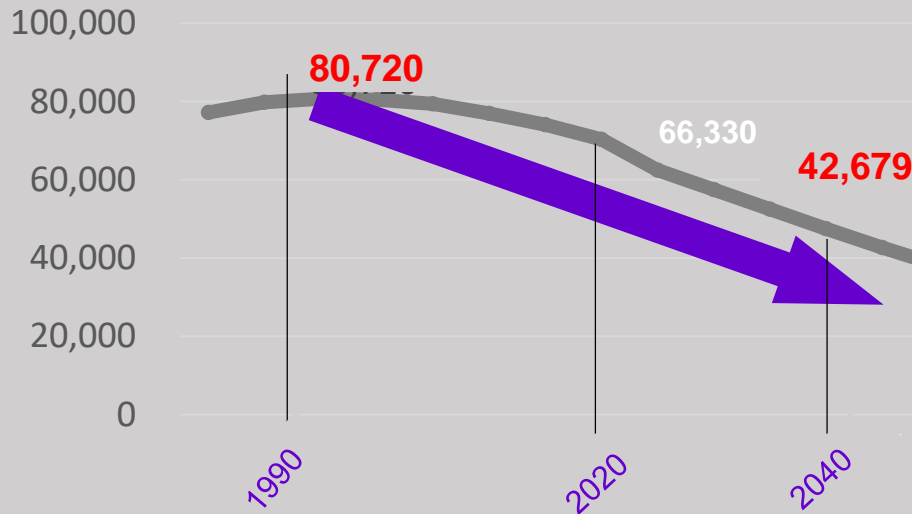
- ▶ The three unique hot springs of Yamashiro, Yamanaka, and Katayamazu. The hot springs attracts 1.8 million guests annually.



The Hokuriku Shinkansen Kaga Hot Springs Station is scheduled to open in spring 2024.

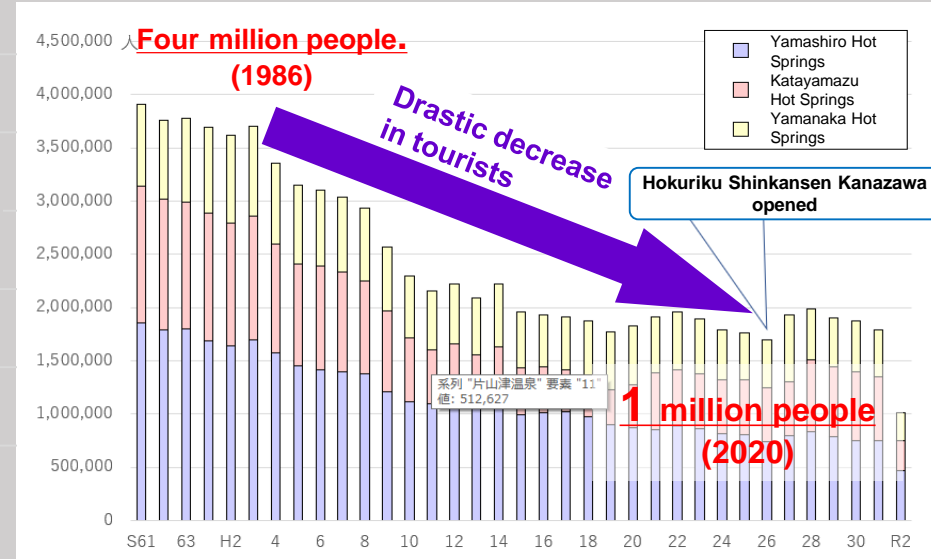
The City's Difficult Situation

Population at risk of halving by **2040**



Resident Population and (March 2018) National Institute of Population and Social Security Research

Decrease in tourist arrivals



In 2014, the city was identified as one of the
"cities at risk of disappearing."

(Out of 1,799 municipalities nationwide, 896 organizations were identified as being at risk.)

**"Cities at risk of disappearing"....Identified by the Japan Policy Council in 2014. These are municipalities where the population of young women aged 20-39 will decrease by 50% or more between 2010 and 2040.

History of Innovation Policies in Anticipation of the Fourth Industrial Revolution

2016

Ministry of Economy, Trade and Industry
Selected for the 1st Local IOT Promotion
Lab

Adoption of "Grant for the Promotion of
Regional Development"
Smart Kaga IOT Promotion Project



Two pillars of Kaga City's growth strategy

● Introduction of advanced
technology

● Development of human
resources

Strengthening the productivity and technological development
capabilities of companies in the city through human resources
capable of utilizing cutting-edge technologies such as IOT



**Aiming to create a vibrant city with a concentration of industries as a
demonstration field**

Cooperation Agreements and Declarations with Innovation-Related Companies (26 Items)

March 2018 SMARTVALUE Co., Ltd.	"Blockchain City Declaration"
July 2018 Smart Inclusion Innovation Consortium	"Smart Inclusion Promotion Declaration"
October 2018 Code for Everyone	"Promoting Programming Education"
January 2019 Kagashi Sougou Service CO., LTD.	"Promoting New Municipal Power for RE100"
May 2019 D&I, Inc.	"Promoting Telework for People with Disabilities"
May 2019 ANA HOLDINGS INC.	"Using Avatars"
July 2019 Trajectory Ltd.	"Using Drones"
July 2019 MONET Technologies. Inc.	"Promoting MaaS"
August 2019 DMM.com Group	"Creating New Business Models with 3D Printers"
August 2019 Japan Research Institute, Limited	"Building a Smart City"
Nov 2019 NTT DOCOMO Hokuriku Branch	"Using 5G"
Dec. 2019 blockhive, Ltd. (now xID, Ltd.)	"Promoting the Digitalization of Government Services"
January 2020 Graduate School of Medicine, Kyoto University / Health, Clinic, and Education Information Evaluation Institute / Real World Data, Co., Ltd.	"Digitalization of Health Information"
February 2020 MaaS Tech Japan and 9 other companies	"Establishment of the Kaga MaaS Consortium"
March 2020 Kaga City	"Kaga City Smart City Declaration"
November 2020 Shizuoka University / The Society of Citizen Informatics for Human Cognitive Disorder	"Creating a Community of Health and Longevity Using AI to Support Independent Coexistence"
December 2020 xID / LayerX	"Make Electronic Voting a Reality."
December 2020 Spectee Inc.	"Strengthening Disaster Prevention and Mitigation Governance through the Use of AI"
January 2021 Vacan, Inc.	"Providing Information on Evacuation Centers"
February 2021 Neo Career Co., Ltd.	"Promoting DX"
March 2021 DK-Power, LTD.,	"Promoting Regional Development Based on Renewable Energy"
June 2021 REXEV Inc.	"Effective Use of Kaga City's Version of RE100 and EVs for Official Use"
July 2021 University of Tokyo / DK-Power, LTD., / FELISSIMO Corporation	"Creating a Cacao Forest"
August 2021 btrax, Inc.	"Human Resource Development and Innovation Creation through Entrepreneurship Development Projects"
November 2021 MaaS Tech Japan /Val Laboratory Corporation	"Realization of EBPM for Transportation and Mobility Services for Residents Using MaaS"
December 2021 Kanematsu Corporation	"Regional Development Using Flying Cars and Drones"

Smart Cities Strategically Promoted with Citizens

Public-Private Partnership Council for Smart City Promotion

(March 2020)

- Established in August 2019 to build consensus with citizens.
- Organized by 25 organizations including industrial groups and citizens' groups



December 10, 2020
Lecture by Estonian Ambassador Reinart

Smart City Concept / Smart City Declaration

“Five Management Principles for Smart City Kaga”

(Coordinated with the World Economic Forum)

1. **Transparent** urban development
2. Urban development with an emphasis on **fairness and diversity**
3. Open, agile, and flexible urban development that ensures **interoperability**
4. Urban development that ensures **business continuity**
5. **Safe, secure, and resilient** urban development



March 2020 "Kaga City Smart City Declaration"

DX Human Resource Development

Robotics Education Program Originating in the U.S.

Holding of the Kaga RoboRave International Competition

Global competitions held annually since 2015



Participants from countries around the world, including the United States, China, Taiwan, and Singapore



Supporters: Ministry of Internal Affairs and Communications; Ministry of Economy, Trade and Industry; Ministry of Education, Culture, Sports, Science and Technology; JAXA; Tezuka Productions

In Cooperation With: NASA

Lead for Innovation and Technical Partnerships

Mr. Joseph Minafra
Manager, Sharp Research Laboratory
Diagnostics and Prognostics Group
Intelligent Systems Division

Mr. George Gorospe
Ames Research Institute, Technology Transfer
Office

Software Release Authority

Ms. Kimberly Minafra

This year's event will be held from **November 27 (Sat.) - 28 (Sun.)** for domestic participants only.



Base Facilities for Human Resource Development and Industrial Creation Establishment of Kaga City's Innovation Center

(April 2018)

Free office rental for start-up
companies, etc.
(10 out of 11 rooms occupied as of 2021)



Holding of seminars and other
events to develop human
resources for the use of advanced
technologies

A manufacturing lab where you can
experience cutting-edge technology



Digital haunted house at Chokushi Elementary
School using sensors

Computer Clubhouse Kaga

(May 2019)



Anyone between the ages of
10 and 18 can join!

First in the
nation



Originating in the U.S. in cooperation with
the Massachusetts Institute of Technology,
the program is designed to develop hidden
talents through exposure to technology.

Kick Off for the Opening of a Digital University to Attract Young People

“Digital College Kaga (DCK)” aims to develop world-class digital human resources and promote the digitalization of companies in the city.



Held a symposium with Naruke Makoto for the opening of Digital College Kaga

From Silicon Valley, USA Launch of Entrepreneurship Development Program

(Start Up)



A total of five days of seminars are scheduled to be held in November and December 2021. Plans to hold the event next year and beyond are underway.

START UP 加賀
~加賀発→世界行き~
シリコンバレーへの
挑戦権を勝ち取る!!

下記セミナーを実施する予定です。
① 加賀市起業家育成事業の概要、加賀市から世界へ
② 加賀市から世界へ発信するためのマーケティング戦略
③ 加賀市から世界へ発信するためのマーケティング戦略
④ 加賀市から世界へ発信するためのマーケティング戦略

日程	内容	講師
11月12日 18:00-20:00	加賀市から世界へ発信するためのマーケティング戦略	加賀市
11月13日 18:00-20:00	加賀市から世界へ発信するためのマーケティング戦略	加賀市
11月14日 18:00-20:00	加賀市から世界へ発信するためのマーケティング戦略	加賀市
11月15日 18:00-20:00	加賀市から世界へ発信するためのマーケティング戦略	加賀市

加賀市 加賀市起業家育成事業 事務局
加賀市起業家育成事業 事務局



Kaga City plans to expand university programs in the digital field (including for recurrent education).



Toward Regional Implementation of Advanced Technology

Drone Demonstration Project Using AI Control Platform with 3D Map

Delivery of Pharmaceuticals

- **Pharmaceutical delivery** demonstration with a view to social implementation for **level 4 flights beyond the visual line of sight** in peopled areas



Examining the challenges for level 4 flights

(Approx. 3 km from JR Kaga Onsen Station to Kaga City Municipal Lyceum)

Information Collection During Disasters

- Disaster information gathering training using drones was conducted as part of the Kaga City Comprehensive Disaster Prevention Drill.



Achieving “Kaga City’s Version of RE100”!

November 2018

Signed the Global
Covenant of Mayors



Press Conference with the
Secretariat of the Covenant of
Mayors JAPAN

February 2020

"Zero-Carbon City"
Declaration

Announced that the
city will reduce
greenhouse gas (CO2)
emissions to
essentially zero by
2050

Start of “sharing service” as part of
the “Kaga City’s Version of RE100”



Share EVs

Kaga City Hall

Used as official
vehicles on weekdays

Residents, Tourists, etc.

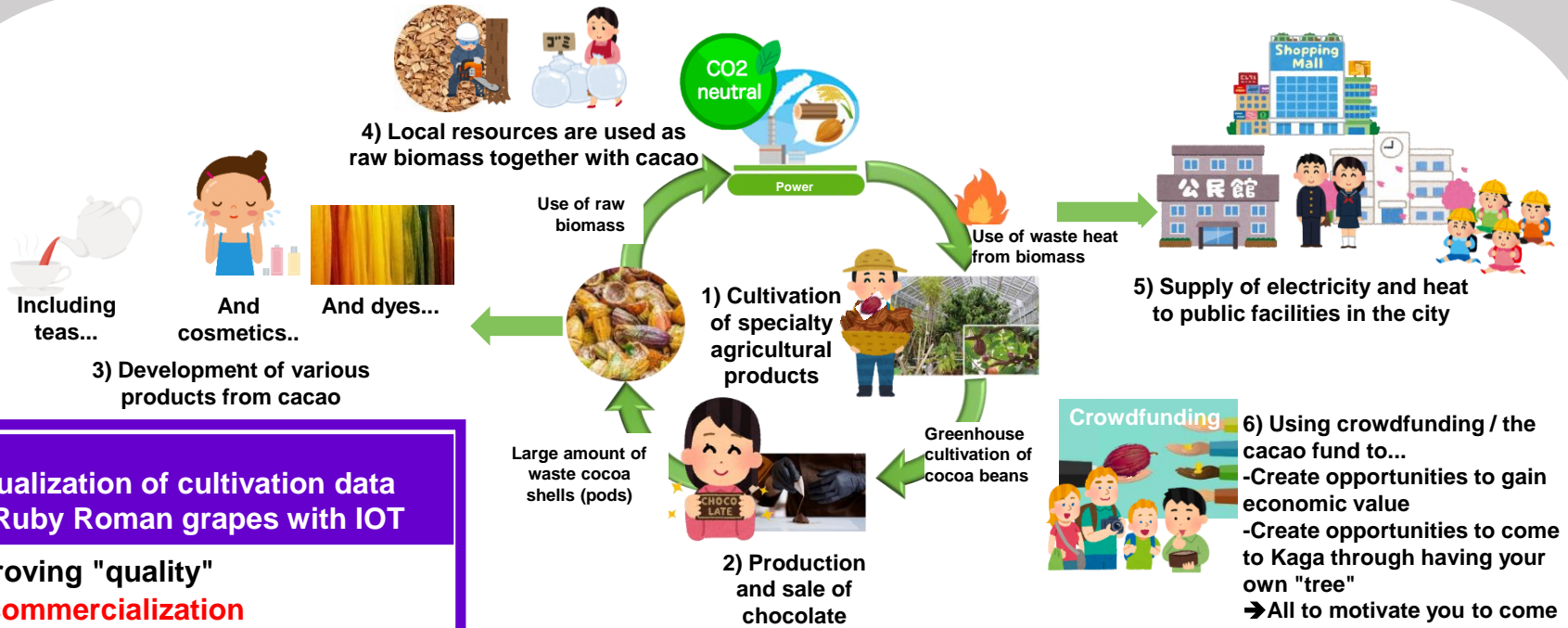
Use EVs on nights,
weekends, and holidays

**Used as an emergency power source
in times of disaster**



Regional Development Using Cocoa Beans

Toward a Regional Economic Circulatory Service with Renewable Energy at Its Core

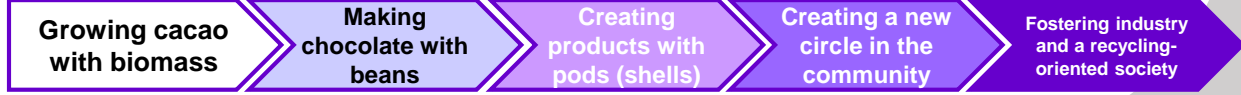


Visualization of cultivation data for Ruby Roman grapes with IOT

- Improving "quality" and "**commercialization rate**" by utilizing data (increased from about 50% to **about 70%**)
- 1.4 million yen per bunch** for the highest priced sale

Cocoa also used as a hook for...

- Co-creation with many universities in and outside the region:** Illustration of a university building.
- Co-creation with overseas municipalities and research institutions:** Illustration of a globe with hot air balloons.
- Collaboration with overseas companies:** Illustration of two men shaking hands over a globe.
- Utilizing local specialty products as a substitute for sugar to connect with the "sixth-order industrialization" of local agricultural products:** Illustration of a bag of specialty sugar and a glass of coffee.



Promotion of Governmental DX

Promoting Digitalized Government Services

Personal authentication with a smartphone using a "My Number Card"

Introducing the most advanced technology from the digitalized nation of Estonia!

1st in Japan
(Municipal Districts)

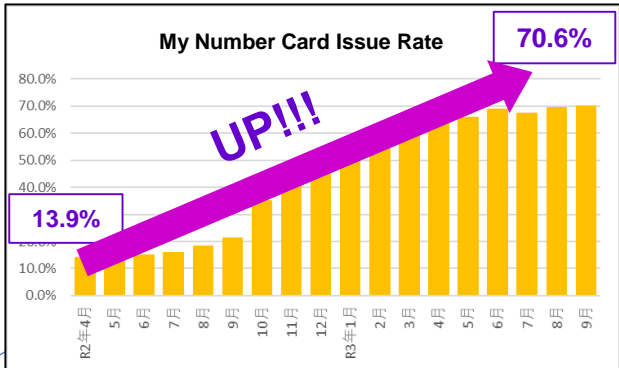
Application Rate for My
Number Cards Among Kaga
Residents

79.9%

My Number Card Issue Rate

70.6%

As of October 31, 2021



- Introduction of electronic application for **172 types** of administrative procedures (as of December 3, 2021)
- Realization of electronic voting for city policies using blockchain technology

Efforts to Bridge the Digital Divide

Adopted 2020 Ministry of Internal Affairs and Communications' Community Demonstration Project

- Held a consultation session on how to use digital devices (especially smartphones) for elderly people in the city (4 sessions total with 66 total attendees)



Session	Date Held	Capacity (Number of Participants)	Details	Notes
1st	11/27	15	Basic Smartphone Use	For those who do not own a smartphone (equipment loans)
2nd	12/18	19	Use of Smartphones (LINE)	Targeted at smartphone owners and non-owners
3rd	1/22	16	Electronic applications using My Number Card	Targeting smartphone owners
4th	2/10	16	Basic Smartphone Use	Additional event due to popular demand

Held smartphone classes at the Kaga City Innovation Center and at cooperating businesses in the city



Citizens teaching

Recognizing digital ambassadors

Carried out assistance for the purchase of smartphones that can be used with My Number Cards

For Kaga residents aged 65 and over **5,000** yen / person (upper limit)



Kaga City



Thank you for listening.



We have received the Minister's Award for the Promotion of a Digital Society.

Received an electronic commendation from Digital Minister Makishima.
(October 15, 2021)