

# Guide to the EU Regions and Japanese Prefectures participating the programme

EU-Japan Region-to-Region Innovation Cooperation

August 2022

# EU-Japan Region-to-Region Innovation Cooperation since July 2022

## EU's Smart Specialisation Strategies

### EU regions

- **Région Auvergne-Rhône-Alpes** (France)
- **Basque Country (Euskadi)** (Spain)
- **Catalonia** (Spain)
- **Emilia-Romagna** (Italy)
- **Ljubljana Urban Region** (Slovenia)
- **Val d'Oise County (Paris Region)** (France)

**Green Transition:** Circular economy, clean energy, climate change, sustainable mobility---

**Industrial Transformation:** digitalisation, social innovation---

**Demographic Transition and competitiveness:** public services, infrastructure, depopulation and aging

## Regional Innovation, Revitalization and Competitiveness Policy

### Japanese Prefectures

- **Aichi Prefecture**
- **Kyoto Prefecture**
- **Osaka Prefecture**
- **Hiroshima Prefecture**
- **Oita Prefecture**

**Series of Webinars**

**Study Visits**

## Peer-level Knowledge Sharing

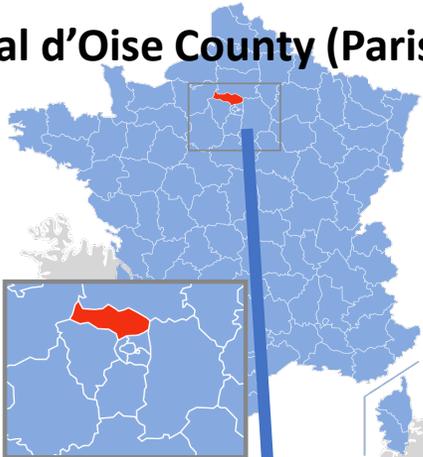
Engagement of stakeholders (Municipalities, Universities, Research Institutes, Companies / Business, Citizens)

# Six EU Regions participating the programme

EU-Japan Region-to-Region Innovation  
Cooperation

# The Six EU Regions

The Val d'Oise County (Paris Region)



La Région Auvergne-Rhône-Alpes



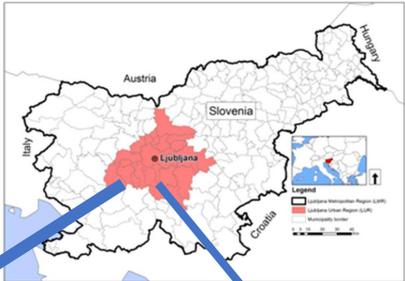
Basque Country (Euskadi)



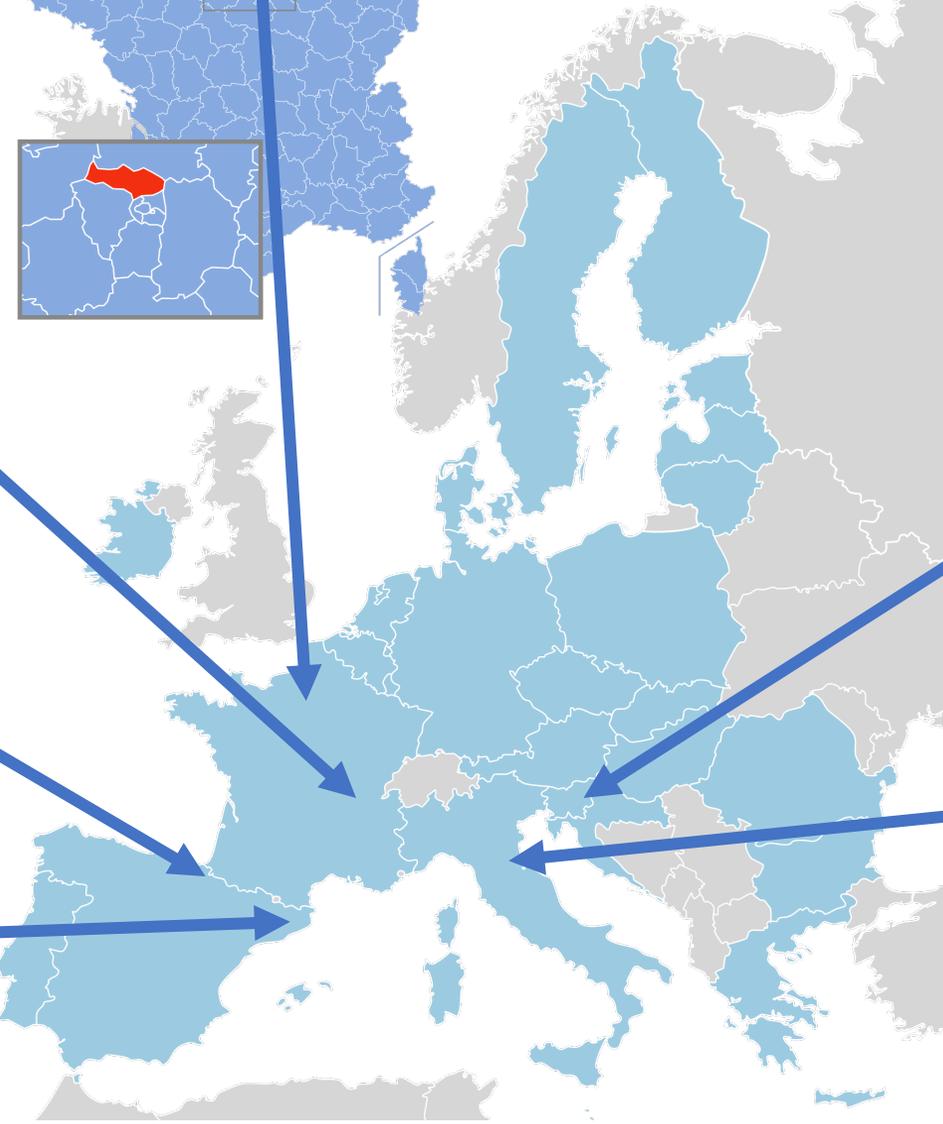
Catalonia



Ljubljana Urban Region



Emilia-Romagna

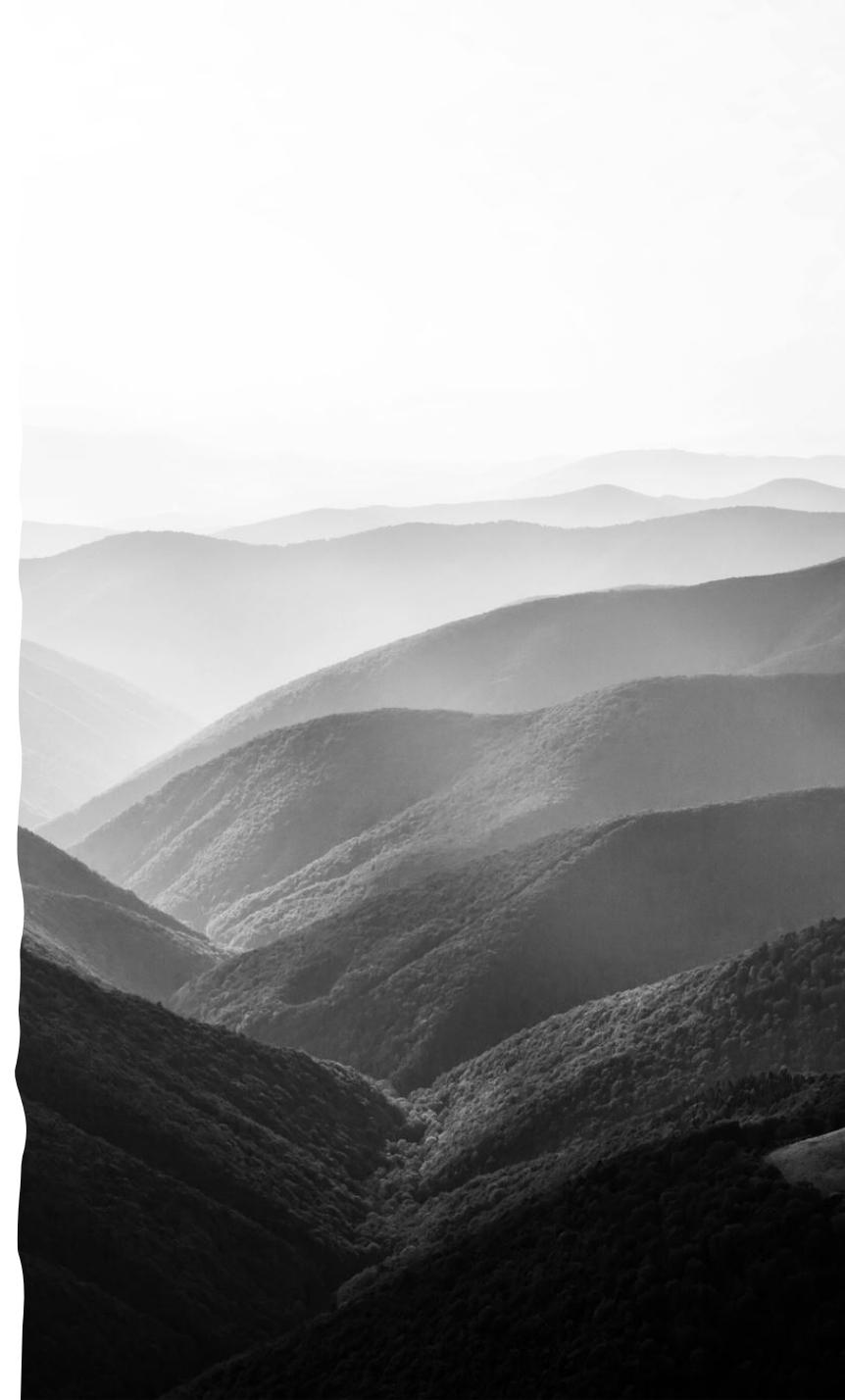


# La Région Auvergne-Rhône- Alpes

One of Europe's largest regions

Rich and stimulating regional ecosystem

Centres of excellence for Hydrogen industry, digital technology, etc.





# La Région

Auvergne-Rhône-Alpes



Key informations about one of Europe's  
largest regions

JULY, 2022





# La Région

Auvergne-Rhône-Alpes



## Contents

- › Key figures
- › A riche and stimulating regional ecosystem
- › A broad and qualified labour pool
- › Europe & International



# Key figures

A POPULATION OF

**8 MILLION**

58,000 new arrivals per year  
(24.6% of the population is under 20 years old)

**78%**

OF THE POPULATION lives in urban areas

**4,092**

MUNICIPALITIES



- **70 000 KM<sup>2</sup>**  
a surface area equivalent to Ireland, totalling 13% of mainland France
- **12 DEPARTMENTS**

- **4 METROPOLITAN CENTRES**  
Lyon, Saint-Étienne, Grenoble and Clermont-Ferrand
- **1st MOUNTAINOUS REGION**  
in France & in Europe

- **30 HIGH-SPEED RAIL STATIONS**
- **10 AIRPORTS & 120 DESTINATIONS**

-

# A rich and stimulating regional ecosystem

# Economy

- Auvergne-Rhône-Alpes provides **3.3 million jobs**, which is 13,6% of jobs in France.
- A distinguishing feature of the territory is the **strong presence of employment in industry**.
- Auvergne-Rhône-Alpes is **France's 2nd region** for foreign investment (over 4 500 plants are controlled by foreign capital)
- **2nd GDP in France**, after the Paris area, at more than 269 billion euros
- **over 70,000 businesses** created every year
- **2nd region in France** in terms of import and export: €55,618 M exported | €57,995 M imported in 2020



Auvergne-Rhône-Alpes is home to more than **692,000 businesses**

## • 8 spheres of excellence :



Industry of the future, and manufacturing production



Building and public works



Digital



Healthcare



Energy



Agriculture, agri-food, forestry



Mobility and intelligent transport systems



Sport, mountains, tourism

- **12 core industries:** traditional industry, aeronautics, mountain & outdoor, microelectronics, green energy, digital, automotive, agri-food, chemicals, industry 4.0, health, plastics processing and composite materials

# Focus on Hydrogen industry

## KEY FIGURES



**80% MAIN FRENCH PLAYERS IN HYDROGEN SECTOR** are in Auvergne-Rhône-Alpes



**67 PROJECTS LABELED BY TENERRDIS** and funded since 2005



**€219 BILLION IN H2 R&D**



**119 REGIONAL STAKEHOLDERS :** 55 Companies, 26 R&D laboratories et 8 local authorities

## ACTIVITIES IN THE SECTOR

### FIELDS OF APPLICATION

- Decarbonation of industry
- Dual-pressure hydrogen distribution stations
- Hydrogen valorization in gas transmission or distribution systems
- Development of H2 valleys
- Development of H2 mobility and transport (bus, train, ...)
- Integration of battery systems in new vehicles
- Integration of hydrogen technologies in self-consumption solutions for eco-construction
- Speeding up the transition to renewable hydrogen

## ECOSYSTEM

### CLUSTERS AND CENTRES OF EXCELLENCE

The Tenerrdis cluster brings together those centers of excellence and industry involved in the sector. Several other clusters and competitiveness centres contribute to its momentum: Axelera, Eco énergies, CARA

### LABORATORIES

Several laboratories drive and promote innovation in the sector such as INES (Institut National de l'Energie Solaire), CEALiten, Université Savoie Mont Blanc, Polytech, Technopolys, and more.

## FLAGSHIP COMPANIES



# Focus on Digital technology and digital content industry

## KEY FIGURES



€8.9 BILLION IN TURNOVER



NEARLY 70,000 JOBS

+19.5% between 2014 and 2018



#2 FRENCH REGION



3 « FRENCH TECH » TERRITORIES

## ACTIVITIES IN THE SECTOR

### 7 MAIN AREAS

Artificial intelligence

Software publishing

Connected objects / IoT

Cybersecurity

Digital imaging

Consultancy and services IT / Engineering

Digital networks and infrastructure

## ECOSYSTEM

### CLUSTERS AND CENTRES OF EXCELLENCE

Coboteam, Digital League and Minalogic facilitate the sector. In addition to these is a plethora of local players specialised per subject area (La Cuisine du Web, H7, Lyon AI, ...).

### RESEARCH LABORATORIES

Several big research laboratories working on digital and information technology are located in the region (List CEATech, INL, INRIA, Limos, Liris, LIG).

## FLAGSHIP COMPANIES



-

A broad and qualified labour  
pool

## Research & higher education

- **2<sup>nd</sup> French region for R&D Expenditure** (€ 7.5 billions Euros)
- **5<sup>th</sup> region in Europe for patents** (2 600 patents per year)
- **1<sup>st</sup> region in Europe in nanotechnologies**
- **23 000 jobs** divided between national research organizations and world-class research infrastructures
- **over 40,000 researchers** work in regional public and business research centres
- **more than 30** innovative and accredited **consortia**

### Excellence in education :

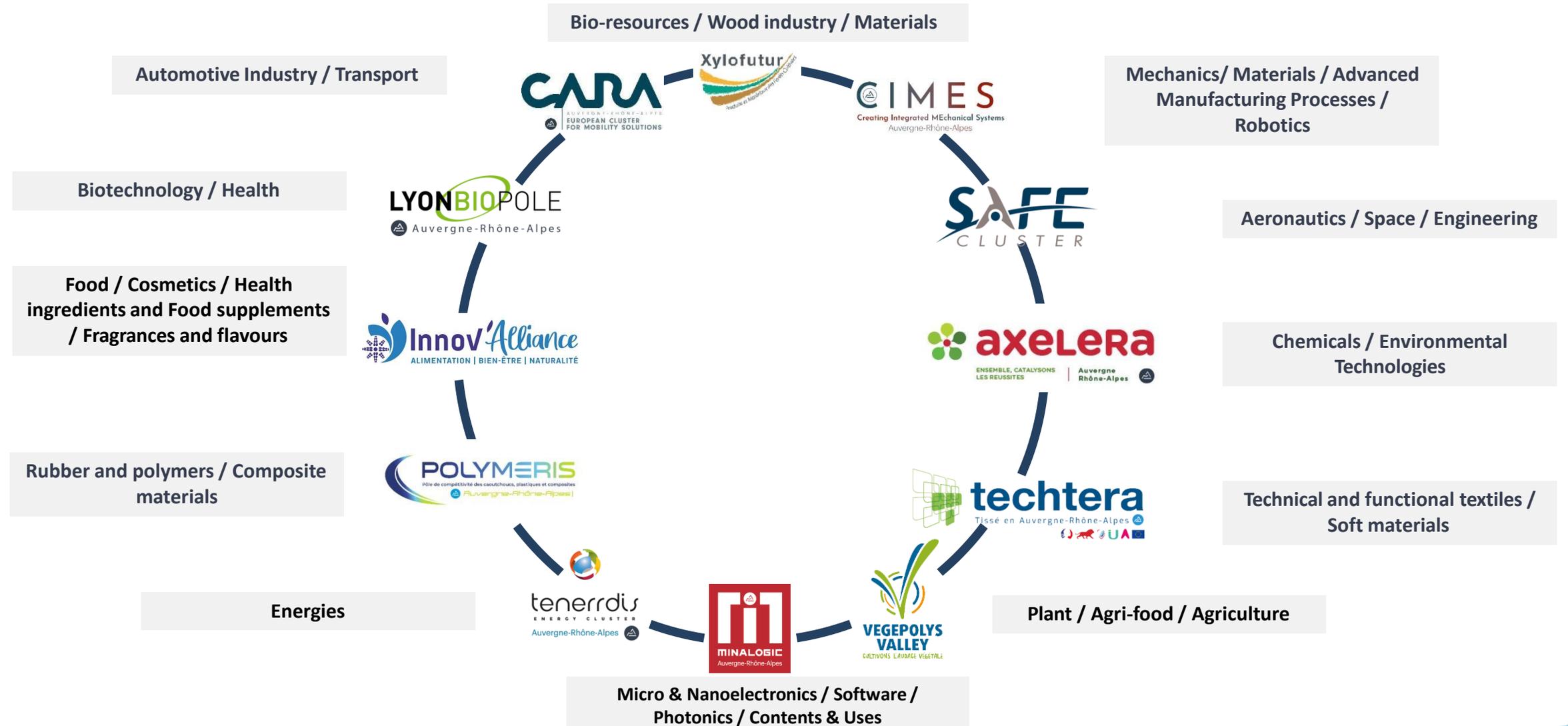
- **over 600 laboratories** (Inserm, Anses, CNRS, INES, NanoElec, CEA...)
- **8 universities, 50 business and specialized schools**
- **15% of French engineers** are trained in Auvergne-Rhône-Alpes
- **57 200 apprentices**
- **1 European digital campus:**

**CAMPUS**  
**RÉGION**   
**DU NUMÉRIQUE**



More than 351 070 students and  
10 200 doctoral candidates

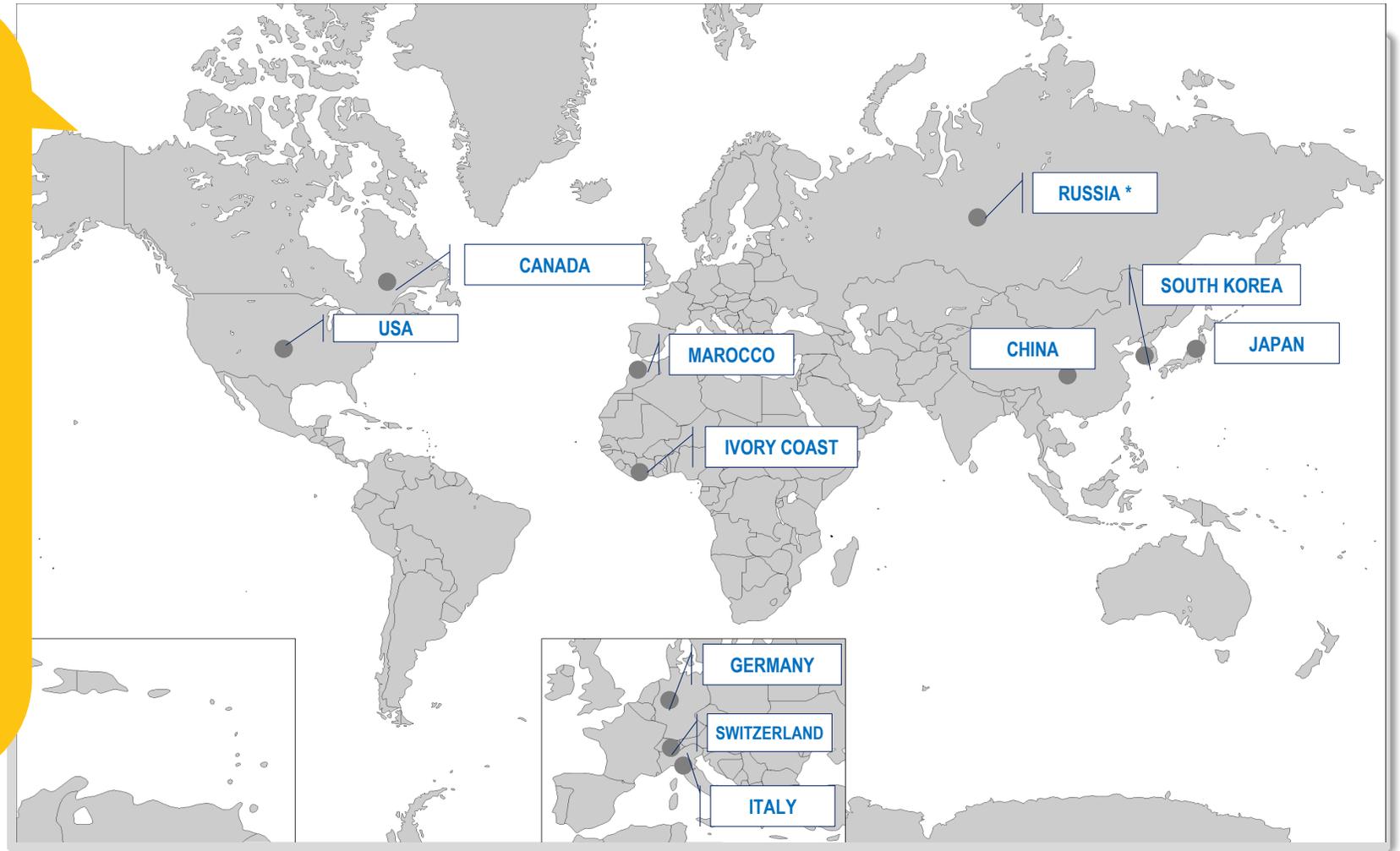
# 12 competitiveness centres



# Europe and International

### 3 STRATEGIC AXES

- Consolidating the position of the Region in the European Union to benefit fully EU Programmes and the single market ;
- Holding a more central position in the french-speaking world to boost its economic development ;
- Reinforcing the presence of the Region in areas of high potential in the economic, university, scientific, innovative and emerging sectors



**PRIORITY ECONOMIC ACTION AREAS**, without excluding any opportunity

*(\*) it is noted that partnership with Russia was suspended*

# Contact :

- › International Relations Department  
Nathalie COL  
Project manager for International Cooperation - Asia  
E-mail: [nathalie.col@auvergnerhonealpes.fr](mailto:nathalie.col@auvergnerhonealpes.fr)
  
- › Delegation of the Auvergne-Rhône-Alpes Region in Brussels  
Hortense LUTZ-HERMELLIN  
Chief Delegate  
E-mail: [hortense.lutz-hermellin@auvergnerhonealpes.fr](mailto:hortense.lutz-hermellin@auvergnerhonealpes.fr)



## The Auvergne-Rhône-Alpes Regional Council

### Lyon – Head Office

1 esplanade François Mitterrand  
CS 20033 – 69269  
Lyon Cedex 2  
Tel. (+33)04 26 73 40 00

### Clermont-Ferrand

59 Boulevard Léon Jouhaux  
CS 90706 – 63050  
Clermont-Ferrand Cedex 2  
Tel. (+33)04 73 31 85 85

  
[auvergnerhônealpes.fr](http://auvergnerhônealpes.fr)

# Basque Country

The region of “Auzolana” --- Working together for the common good”

Focus on scientific research in 4 flagship areas

Specialisation in Smart Industry, Cleaner Energies and Personalised Health

# EU-Japan Cooperation Programme Euskadi - Basque Country

*28 July 2022*

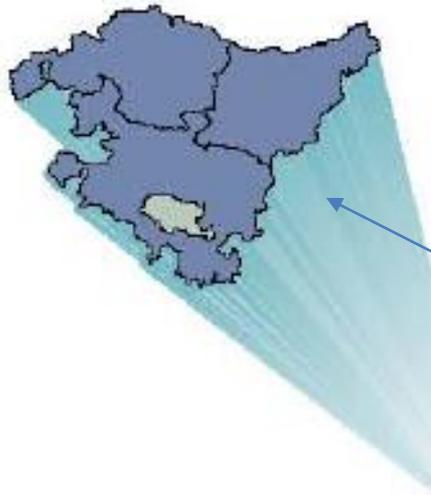
*Euskadi, auzolana, bien común*

EUSKO JAURLARITZA



GOBIERNO VASCO

# LOCATION OF THE BASQUE COUNTRY



**7,234 km<sup>2</sup>**  
Surface area

**2,180,449**  
inhabitants

**304/km<sup>2</sup>**  
Population density

**108 (EU-27 = 100)**  
GDP (PPS/inhabitant)



**EUSKADI**  
BASQUE COUNTRY

**24%**

**GDP from industry**  
**(almost 40%**  
**including advanced**  
**services)**

**+2,2%**

**GDP investment in**  
**R&D**  
**(leading region in**  
**Spain)**

**+2%**

**Active population**  
**in R&D (over**  
**21.000 researchers)**

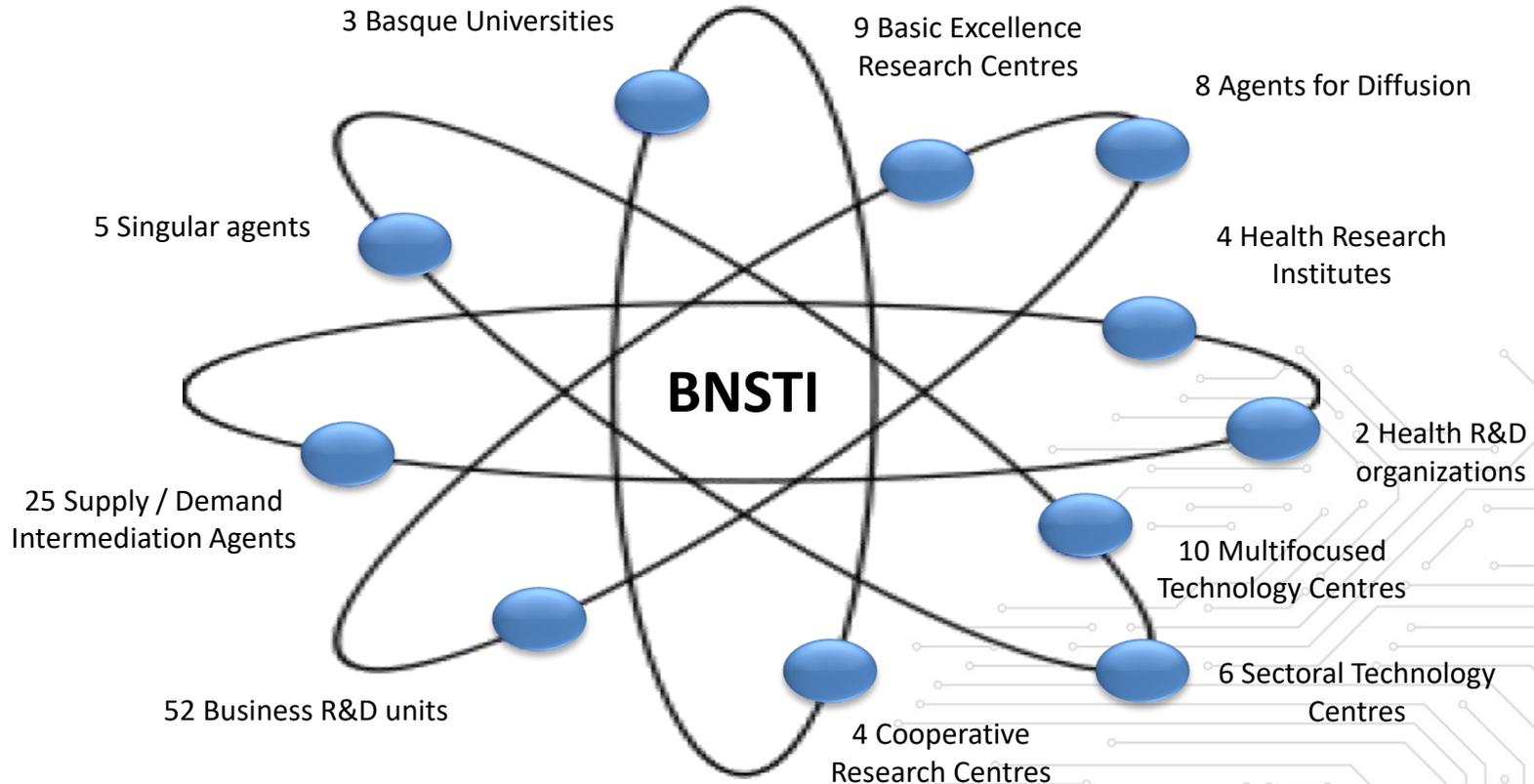
**Strong**  
**innovator**

**European Regional**  
**Innovation Index 2021**  
**(best innovation**  
**performance among all**  
**regions in Spain)**

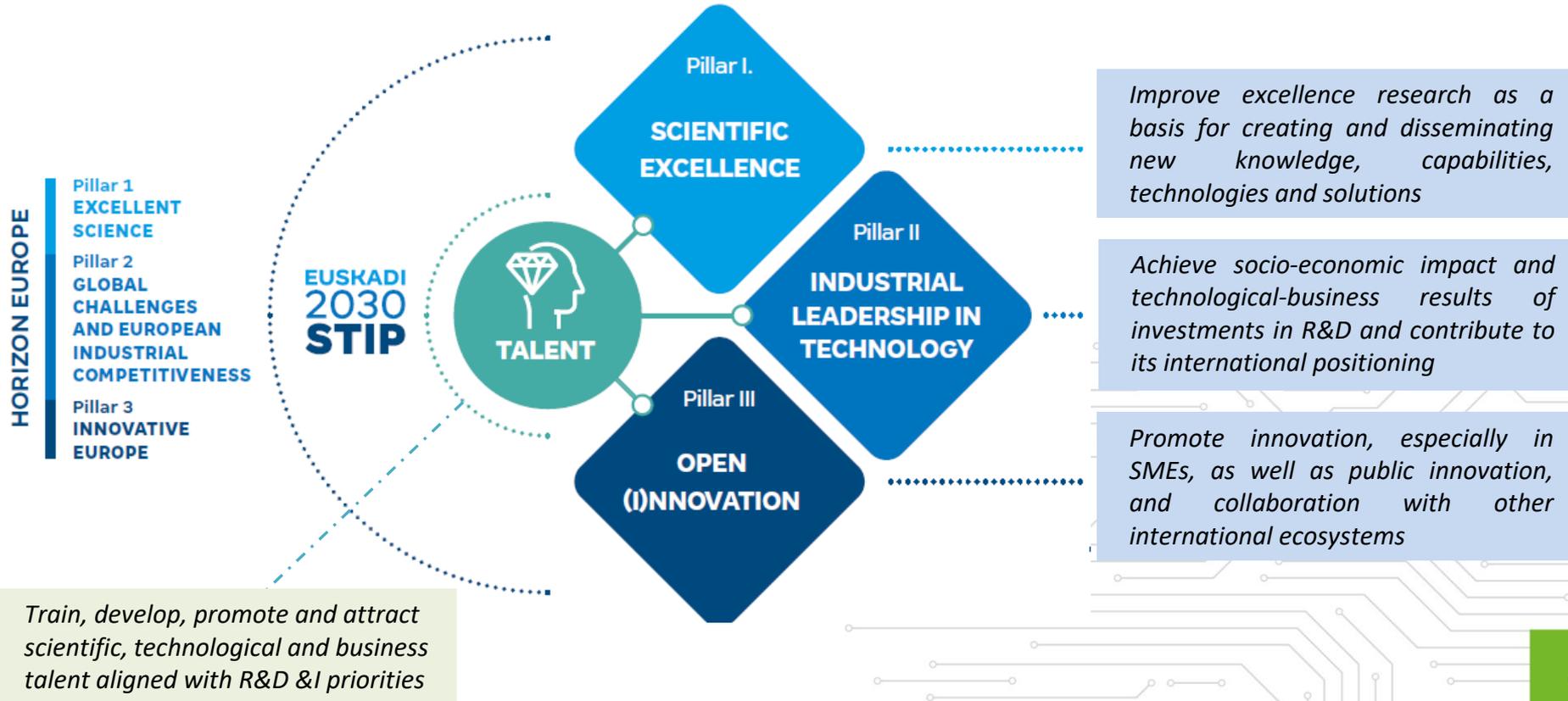
# Euskadi 2030 Science, Technology and Innovation Plan. Strategic priorities



# BASQUE NETWORK OF SCIENCE, TECHNOLOGY AND INNOVATION

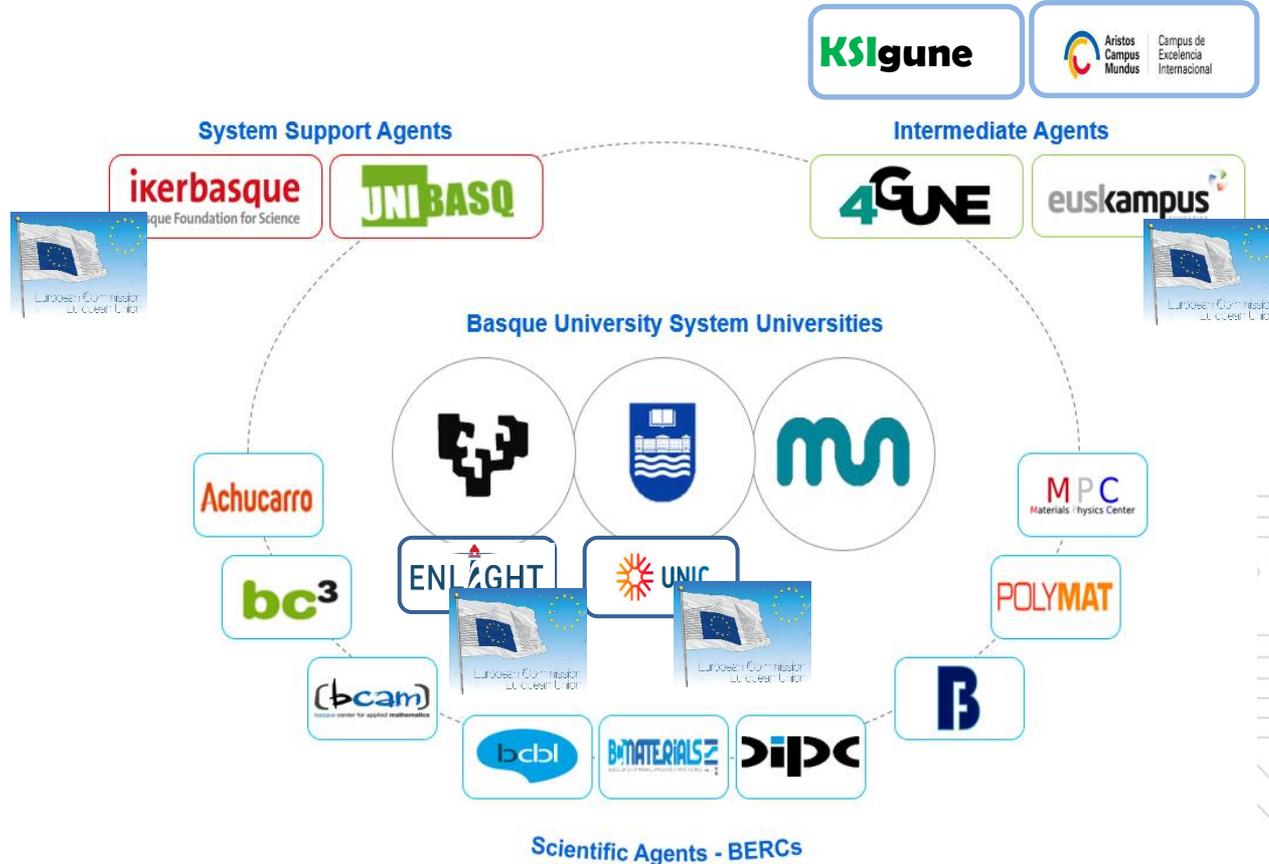


## 3 STRATEGIC PILLARS + 1 CENTRAL CORE



# Pillar 1. Scientific Excellence: BASQUE UNIVERSITY ECOSYSTEM

Euskadi 2030 Science, Technology and Innovation Plan



# P1. Scientific Excellence: IKUR STRATEGY

## 4 FLAGSHIP AREAS



### Neurobiosciences

bcbl  
BASQUE CENTER ON COGNITION, BRAIN AND LANGUAGE

B  
Basque Center for Mathematical Design and Engineering

Achucarro  
Basque Center for Applied Mathematics

BmZ  
Basque Center for Materials Design and Engineering

(bcam)  
Basque Center for Applied Mathematics

POLYMAT  
Basque Center for Materials Design and Engineering

MPC  
Materials - physics Center

dipc  
Basque Center for Applied Mathematics

bc<sup>3</sup>  
BASQUE CENTRE FOR CLIMATE CHANGE

### Quantum Technologies

MPC  
Materials - physics Center

dipc  
Basque Center for Applied Mathematics

BmZ  
Basque Center for Materials Design and Engineering

(bcam)  
Basque Center for Applied Mathematics

dipc  
Basque Center for Applied Mathematics

### NeutrOnics

dipc  
Basque Center for Applied Mathematics

MPC  
Materials - physics Center

BmZ  
Basque Center for Materials Design and Engineering

B  
Basque Center for Mathematical Design and Engineering

# IKUR

High Performance Computing & Artificial Intelligence

Healthy aging  
Innovative therapies  
Personalized medicine

Aerospace technology  
Finance, insurance, ...  
Communication technologies

Science industry  
Biomedical industry  
Energy and environment

Smart industry  
Personalized medicine  
Clean energies

Application sectors

## Pillar 2. Industrial Leadership in Technology: MAIN R&D and BUSINESS SUPPORT ORGANISATIONS

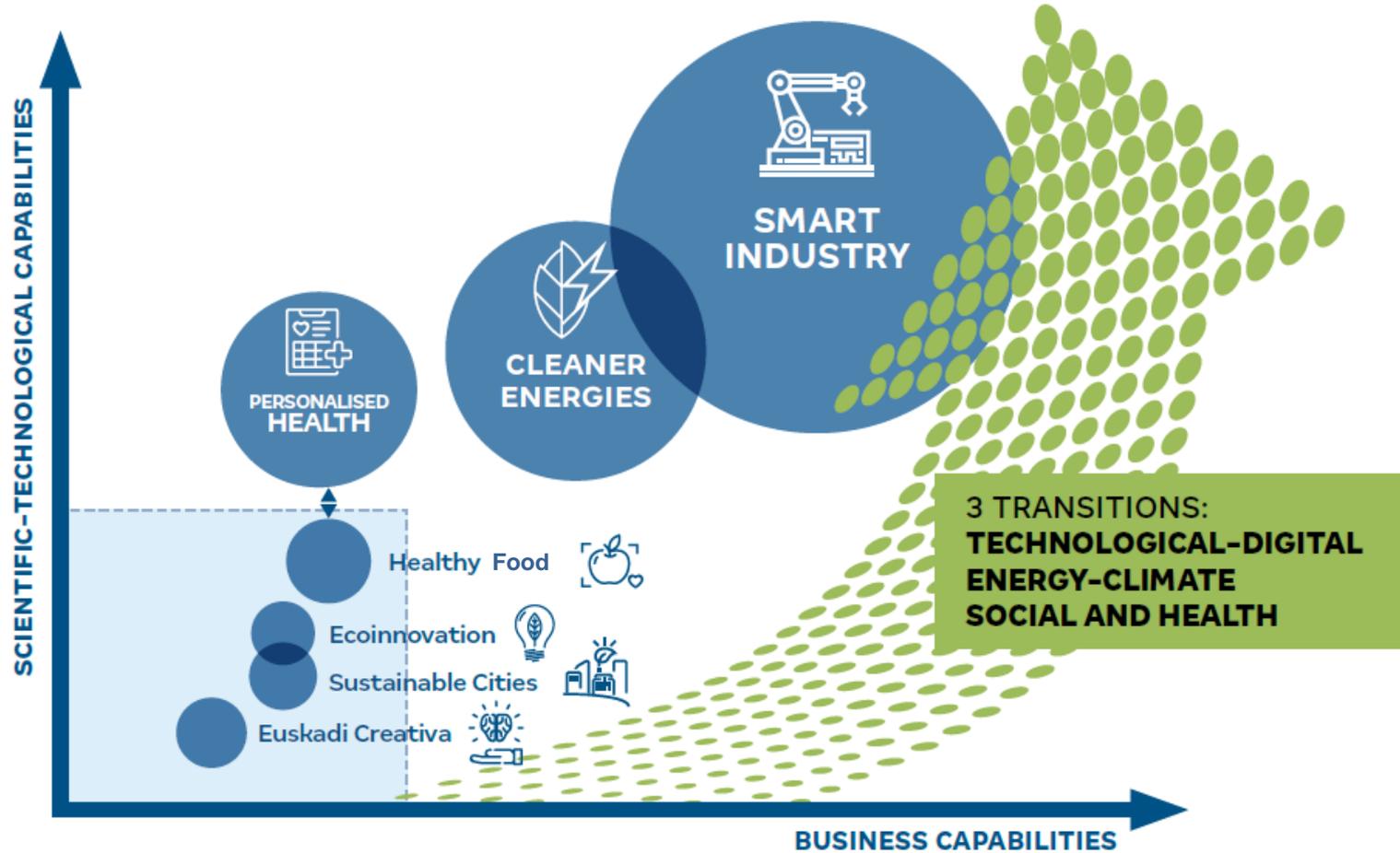


16 Technology  
Centers and  
Cooperative  
Research Centres

Basque Network of  
Clusters: 16 priority  
Cluster Support  
Associations



## SPECIALISATION AREAS (Basque S3)



## S3 Priorities: Strategic technologies and research areas

	Strategic technologies Areas	Working groups
<b>Smart Industries</b>	<p><u>Sustainable production technologies</u></p> <ul style="list-style-type: none"> <li>• Advanced Materials</li> <li>• Advanced Manufacturing Technologies</li> <li>• Mechatronic Systems</li> </ul>	<p><u>Digital technologies</u></p> <ul style="list-style-type: none"> <li>• <b>Artificial Intelligence and Data science</b></li> <li>• Connectivity and Cyberphysical Systems</li> <li>• <b>Smart Automation and Robotics</b></li> </ul> <p><u>Cross-cutting thematic groups:</u></p> <ul style="list-style-type: none"> <li>• Entrepreneur Ecosystem</li> <li>• <b>Industry decarbonisation</b></li> <li>• SME innovation</li> </ul> <p><u>Sectoral domains:</u></p> <ul style="list-style-type: none"> <li>• <b>Automotive</b></li> <li>• Aeronautics</li> <li>• Health</li> </ul>
<b>Cleaner Energies</b>	<p><u>Strategic areas</u></p> <ul style="list-style-type: none"> <li>• <b>Wave Energy</b></li> <li>• Wind</li> <li>• Solar</li> <li>• <b>Hydrogen</b></li> <li>• Gas</li> <li>• Electric Power Grids</li> <li>• Energy Efficiency</li> <li>• Electric Mobility</li> </ul>	<p><u>Enabling technologies</u></p> <ul style="list-style-type: none"> <li>• <b>Energy Storage</b></li> <li>• Power Electronics</li> <li>• Materials</li> <li>• Circular Economy</li> <li>• <b>Digitisation</b></li> </ul> <p><u>Cross-cutting thematic groups</u></p> <ul style="list-style-type: none"> <li>• <b>Floating offshore wind sector</b></li> <li>• Wind turbine data sharing</li> <li>• Network Technologies and Global Smart Grids Innovation Hub</li> </ul> <p><u>Sectoral fora</u></p> <ul style="list-style-type: none"> <li>• <b>Hydrogen</b></li> <li>• <b>Wave energy</b></li> </ul>



EUSKO JAURLARITZA  
GOBIERNO VASCO



STIP<sup>20</sup><sub>30</sub>  
RIS3EUSKADI

*Talentua garatuz, auzolana*



# Catalonia

Southern Europe's hub for knowledge, business and life

RIS3CAT promotes transformative, responsible research and innovation

Interest in Governance, Green Transition and Digital



# Catalonia-Barcelona

Southern Europe's hub for  
knowledge, business and life

A land where everything is possible

EU-Japan Region-to-Region Innovation Cooperation  
First Exchange Meeting of EU Regions and Japanese Prefectures  
13 July 2022

# Catalonia, a world-class business region



## Economy

- Area 32,108 sq km (2020)
- Population 7.7 million (2020)
- GDP € 224,125 million (2020)
  - 19.8% of GDP is industrial
  - GDP per capita €32,578
- 629,876 companies (2020)
  - 35,339 industrial companies
  - 99.8% SMEs



## Research & Innovation

- Total R&D expenditure (3,596.6 M€) (2019)
  - 1.52% of GDP dedicated to R&D
  - ▲ 2.4% R&D expenditure
- 1.05% of world's scientific production (2015)
- ▲ 5.1% high-tech jobs (2019)
- ▲ 3.4% high-tech exports (2020)

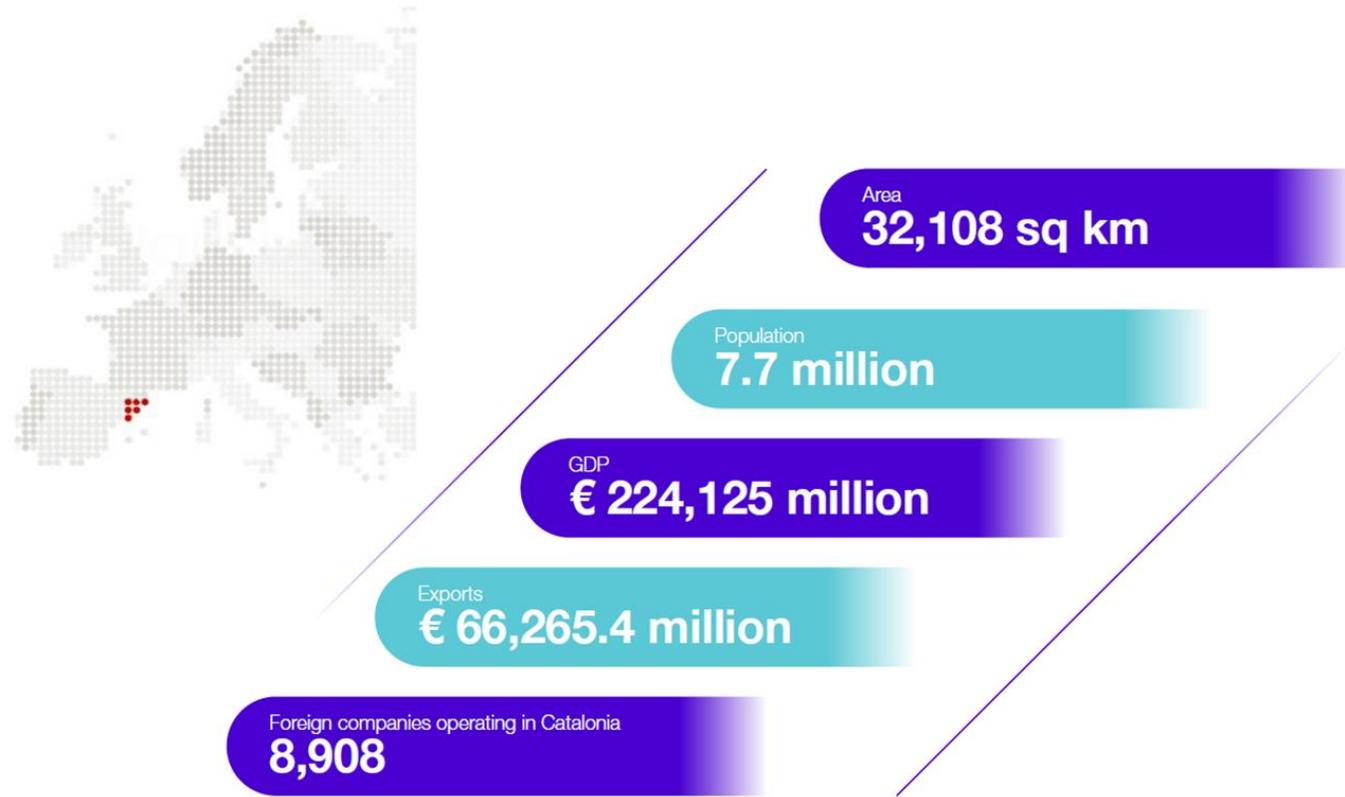


## Trade and Investment

- €75,680.5 million imports (2020)
- €66,265.4 million exports (2020)
- 16,811 regular exporting companies (2020)
- 8,129 Catalan companies in 128 foreign countries (2019)
- €22,835.1 million foreign investment (2016-2020)
  - 26.2% more than in the previous five years
- 8,908 Foreign companies operating in Catalonia (2019)

# Catalonia Main figures

2022



## The starting point:

- A strong R&D system of excellence highly internationalized
- A strong industrial tradition and industrial base, highly diversified and internationalized, with a strong cluster tradition.
- Commitment to quality of live (as a Mediterranean country) and to green economy (as the only path to sustainable growth).
- A very open economy.

## International business leaders choose Barcelona-Catalonia



Barcelona-Catalonia,  
**Southern Europe's hub  
for business and life**



Barcelona is the **3<sup>th</sup> best European city** and the **8<sup>th</sup> in the world** (World's Best cities 2021, Resonance Consulting, 2021).

**Barcelona** ranks among **the top 10 cities in the world to work abroad.** (Decoding Global Talent, Onsite and Virtual, Boston Consulting Group, **2020**).

Catalonia is the **best region for FDI in Southern Europe** (Financial Times, 2020).

Barcelona is the **8<sup>th</sup> most attractive global city** (Global Cities Investment Monitor, KPMG 2020).

Barcelona is the **5<sup>th</sup> most livable city in the world** (Institute for Urban Strategies The Mori Memorial Foundation, Global Power City Index, 2020).

# RIS3CAT 2030

Industrial Tradition

Quality of Life

Green Economy



RIS3CAT 2030 promotes transformative, responsible research and innovation with impact on the quality of life of people and the territory

## Enabling technologies

- Artificial intelligence
- Cybersecurity, connectivity and blockchain
- Microelectronics and nanoelectronics, photonics and quantum technologies
- Advanced and sustainable materials
- Biotechnology
- Advanced digital manufacturing

New digital- and technology-based industry

## Transformation of goods and services supply systems through shared agendas

- A sustainable, fair, equitable and healthy food system
- An environmentally-friendly, emissions-neutral energy and resource system
- A sustainable mobility and logistics system
- A universal, sustainable, resilient social and health care system
- A reflective, proactive, inclusive and responsive education and knowledge-generation system
- A sustainable, competitive industrial system
- A cultural system that integrates people, territory and history

Greener, more digital, more resilient and fairer socioeconomic model



**Governance:** exchanges of good practices on how to support the industry-academia-government collaboration to create innovation, research, development and business

- **RIS3 shared agendas for sustainability and social change: RIS3CAT communities**



**Green Transition:** discuss regional policies and practices towards renewable energy sources, transport modal shift transportation, enhancing resilience practices and incentives to reduce Greenhouse gas emissions.

- **Hydrogen Valley of Catalonia**



**Digital:** Benchmark and discuss common challenges related to artificial intelligence, 5G connectivity, robotics, photonics or super computation and how to bring these technologies to business, citizens and public administrations.

- **5G strategy of Catalonia**
- **The Digital Innovation Hub (DIH-CAT)**



**Ageing:** discuss themes such as territorial structures to cope with demographic and economic dynamics and to adapt the socioeconomic situation over the medium- to long-term period.

- BAGESS TicSalut/Innohealth

**Catalonia is Europe's densest pharma & biotech hub**



**Research and Innovation and Start-up**



Generalitat de Catalunya  
**Departament de Recerca i Universitats**

[xaldeguerm@gencat.cat](mailto:xaldeguerm@gencat.cat)



# Emilia-Romagna

No.1 R&D Expenditure in Italy

High capacity of research and education actors

Strong interfaces between sectors built in the regional ecosystem networks

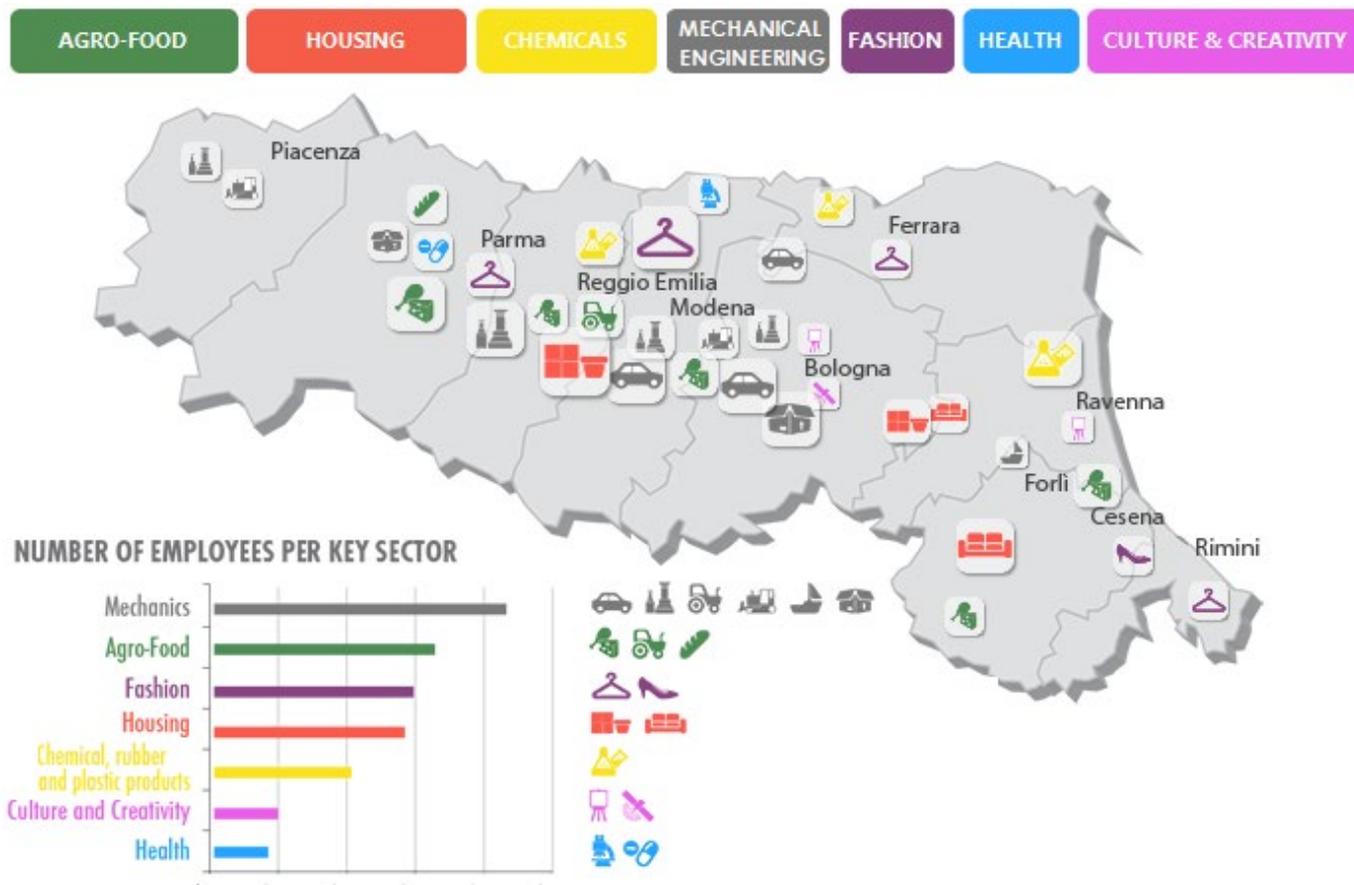
# EMILIA-ROMAGNA AT A GLANCE



- **Population:** 4,438,937 (2021), 7.5% of Italian pop.
- **N. Firms:** 400,680 (2021), 7.8% of Italian
- **N. Manufacturing firms:** 42,007 (2021), 9.0% (with 26.9% of total employees in manufacturing sectors, , being 20.7% the Italian average and 18.4% the European one)
- **GDP (million euro):** 149,361(2020), 9.0%, High GDP per capita (+13% than EU27 average in PPS)
- **GDP per Capita (euro):** 33,800 Emilia-Romagna; 29,900 EU27; 28,000 Italy (2020)
- **R&D expenditure (million euro):** 3,391 (2019), 12.9% Italy, 1<sup>st</sup> in Italy for intramural expenditure per inhabitant, 2% on GNP
- **Export (million euro):** 72,440 (2021), 14%, 1<sup>st</sup> Italian region for export per capita, +51% variation between 2011-2021
- **Import (million euro):** 42,483 (2021), +41.8% variation 2011-2021
- **Main exporting sectors (million euro):** Mechanical Engineering (38,950), Agri-food (11,235), Fashion (6,701), Building and Construction (6,266), Health and Wellness (4,546)

All key sectors have strong interfaces with sub-sectors throughout the entire value chain:

- Mechanical Engineering & Automotive
- Agro-food
- Fashion
- Housing and Construction
- Chemicals
- Culture & Creativity
- Health



## Regional University and Education System

### 7 Universities

400 courses (Three-year and master degrees)  
153 master  
126 Specialization Courses  
160 k students

### Education initiatives

- BBS Bologna Business School (Master/MBA)
- PhD and International Data Science Phds
- School of Advanced Studies in Food Safety
- MUNER (Motor vehicle University of E-R)
- *FOODER (Food Tech University of E-R)*
- 7 Higher Education Tech Institutes Foundations with 26 courses

### 4 Large Research Infrastructures:

Big Data Technopole  
INAF Radio Telescopes  
ENEA Brasimone  
CICLOPE Wind Tunnel

**47 Research infrastructures** (ESFRI domains)

### Industry 4.0:

BI-REX Competence Centre  
PID – Digital Info Points  
Digital Innovation HUBs  
IFAB – Big Data and AI for Human Development  
International Foundation

### 2 International Agencies:

European Food Safety Authority - EFSA  
European Centre for Medium-Range  
Weather Forecasts - ECMWF

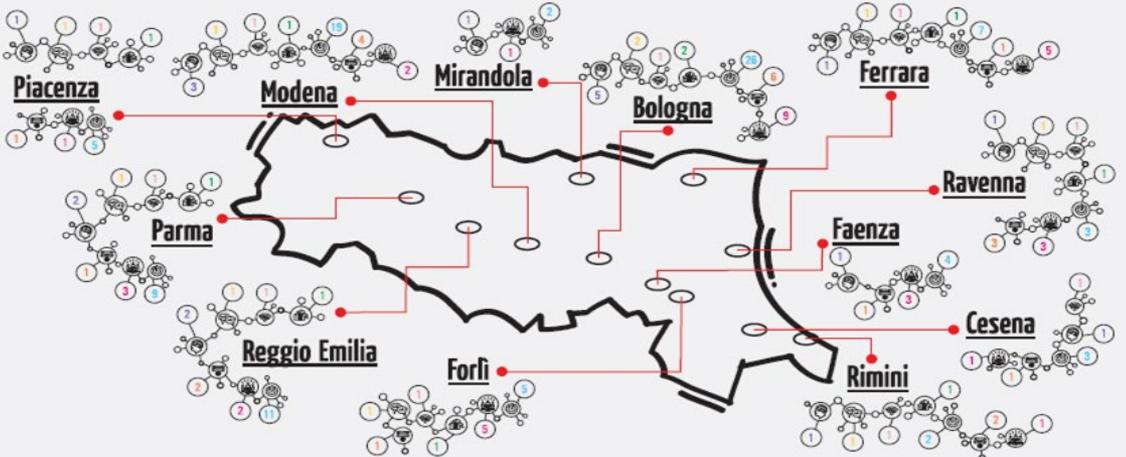


### National/International Research Centres:

CINECA, CNR - National Research Council, INFN - National Institute for Nuclear Physics, INAF - National Institute for Astrophysics, ENEA - National Agency for New Technologies, Energy and Sustainable Economic Development, CMCC - Centro Euro-Mediterraneo sui Cambiamenti Climatici, INGV - Istituto Nazionale di Geofisica e Vulcanologia

# The Regional Ecosystem Networks

-  **HIGH TECHNOLOGY NETWORK**  
82 Industrial Research Laboratories  
14 Innovation Centres
-  **TECHNOPOLES NETWORK**  
10 Infrastructures  
20 Locations
-  **INCUBATORS NETWORK**  
75 Public and Private organisations
-  **DIGITAL MANUFACTURING NETWORK MAK-ER**  
22 Fab Labs and Maker Spaces
-  **OPEN LABORATORIES NETWORK**  
10 Equipped Areas with hi-tech solutions
-  **LOCAL NETWORK "SPAZI AREA S3"**  
10 Offices located in the Technopoles to assist highly-skilled (young) people
-  **ITS NETWORK**  
7 Hi-Tech Schools









**CLUST-ER**  
**AGRIFOOD**  
AGROALIMENTARE

**CLUST-ER**  
**MECH**  
MECCATRONICA E MOTORISTICA

**CLUST-ER**  
**BUILD**  
EDILIZIA E COSTRUZIONI

**CLUST-ER**  
**INNOVATE**  
INNOVAZIONE NEI SERVIZI

**CLUST-ER**  
**GREENTECH**  
ENERGIA E SOSTENIBILITÀ

**CLUST-ER**  
**HEALTH**  
SALUTE E BENESSERE

**CLUST-ER**  
**CREATE**  
CULTURA E CREATIVITÀ

**RB**  
RESEARCH TO BUSINESS

# REGIONAL DEPARTMENT FOR INTERNATIONALISATION INNOVATION INVESTMENT



## **DIRECTOR:**

Ruben.Sacerdoti@Regione.Emilia-Romagna.it  
M. +39.335.7797.343

## **RESEARCH & INNOVATION**

Elisabetta.Maini@regione.emilia-romagna.it

## **FDI ATTRACTION:**

Paolo.Galloni@regione.emilia-romagna.it

## **BUSINESS INTERNATIONALIZATION**

Gianluca.Baldoni@regione.emilia-romagna.it

## **EXHIBITIONS:**

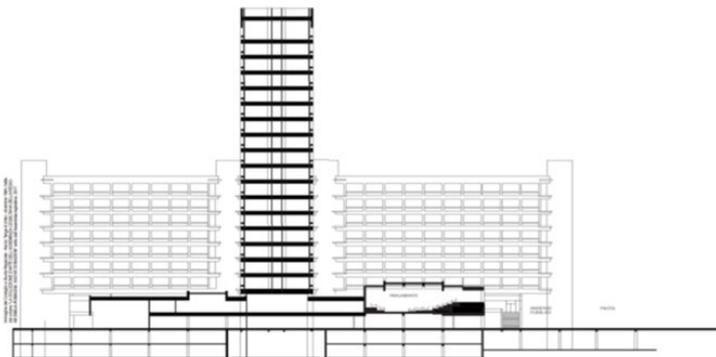
Francesco.Quagliariello@regione.emilia-romagna.it

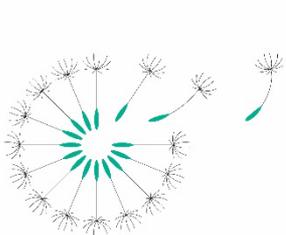
## **INTERNATIONAL RELATIONS:**

Christa.Collina@regione.emilia-romagna.it  
Tel . 051.527.8864

## **ADMINISTRATIVE OFFICE:**

Matteo Lunni  
Tel. +39.051.527.6420  
Mail: sportelloestero@regione.emilia-romagna.it





RRA LUR

regional development agency  
of ljubljana urban region



RCKE

regional creative  
economy centre



**REGIONAL DEVELOPMENT AGENCY OF THE LJUBLJANA URBAN REGION**

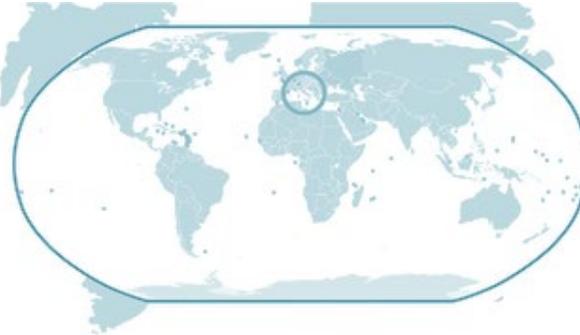


# Ljubljana Urban Region

The European Green Capital of 2016

Best EU Practice of Sustainable Urban mobility

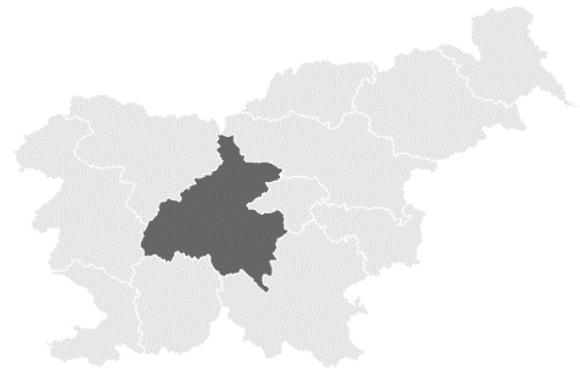
Circular economy, digital transformation, social innovation,  
etc.



TERRITORY 2,334 km<sup>2</sup>

MUNICIPALITIES	25
----------------	----

POPULATION 537,893



**LJUBLJANA URBAN REGION**



RRA LUR

## LJUBLJANA URBAN REGION

**68.736** number of companies  
(33% with regard to Slovenia)

**31,169 €** annual GDP per capita  
(one third of Slovenian GDP)

**238.468** employees

**20.782** self - employed

**16.680** unemployed

**147.292** n. of highly educated  
(34% with regard to Slovenia)



PHOTO/STO/D.WEDAM



## GENERAL DEVELOPMENT TASKS AT THE REGIONAL LEVEL

- **Regional development programme** – preparation, harmonization, monitoring and evaluation
- **Agreements on the region's development** – preparation
- **Projects** – preparation, management, consultancy, implementation (national, regional, EU, and international )
- **Professional support** to regional bodies
- **Financial schemes** – assistance in implementation
- **Promotion** of the region
- **Transfer of knowledge**



PHOTOS: D.WEDAM, PILICH



## ONGOING REGIONAL, EU AND INTERNATIONAL PROJECTS

SMART-MR	FAST TRACK	<b>OJP4DANUBE</b> TRIBUTE	PERIPHERIAL ACCESS	REGIONAL SCHOLARSHIP SCHEME
INTER CONNECT	SYMBI	LINKING ALPS	<b>FORTIS</b> SUMP PLUS	POLJUBA SPOT IP
<b>STAR CITIES</b> SOUSTURISMO	<b>CINEMA</b> COCO4CCI	<b>ROBUST</b> PERFECT	LOCAL ACTION GROUP	FOOD SELF - SUFFICIENCY IN PUBLIC INSTITUTIONS
SECAP	INNORENEW 2	FORHERITAGE	INTERNATIONAL URBAN AND REGIONAL COOPERATION	ENTERING THE BUSINESS WORLD IN A BUSINESS LIKE WAY





**14** PARK & RIDE UNITS AROUND LJUBLJANA  
**80** KM OF CYCLIC NETWORK AROUND THE REGION  
ESTABLISHED MOBILITY SYSTEM TO CONNECT RURAL AND URBAN AREAS  
DEVELOPMENT OF E – CYCLING NETWORK AROUND LJUBLJANA  
SUSTAINABLE URBAN MOBILITY PLAN LUR (BEST EU PRACTICE)





PAPIRO – LOGIA, CIRCULAR DESIGN FOR PAPER SOLUTIONS OF THE FUTURE



RRA LUR



SHARING ECONOMY SOLUTIONS, BUILDING THE COMMUNITY  
LIBRARY OF THINGS



RRA LUR



RRA LUR

regional development agency  
of ljubljana urban region



RCKE

regional creative  
economy centre



creative potential of new technologies



high share of creative professions in Ljubljana



creativity the added value of new industries



REGIONAL CREATIVE ECONOMY CENTRE



RRA LUR

# Ljubljana became the European Green Capital because ...



We succeeded at making the **most changes** in the right direction in the **shortest** time:

- More than **1800 projects** in over 10 years
- Sustainable mobility
- Closing of the City center
- Preservation of the city's green identity
- First in waste sorting in Europe

**A role model to inspire other cities!**

LJUBLJANA. **For you.**

[www.greenljubljana.com](http://www.greenljubljana.com)  
[www.ljubljana.si/en](http://www.ljubljana.si/en)



City of  
Ljubljana



LJUBLJANA GREEN CAPITAL OF EUROPE



RRA LUR

# Restore brownfield sites and transform them into green spaces



SUSTAINABLE DEVELOPMENT



RRA LUR

# Restore brownfield sites and transform them into green spaces



SUSTAINABLE DEVELOPMENT



RRA LUR

# The Regional Waste Management Centre upgrade is the largest EU cohesion and environmental project in Slovenia



LJUBLJANA. *For you.*  
[www.greenljubljana.com](http://www.greenljubljana.com)  
[www.ljubljana.si/en](http://www.ljubljana.si/en)



City of  
Ljubljana

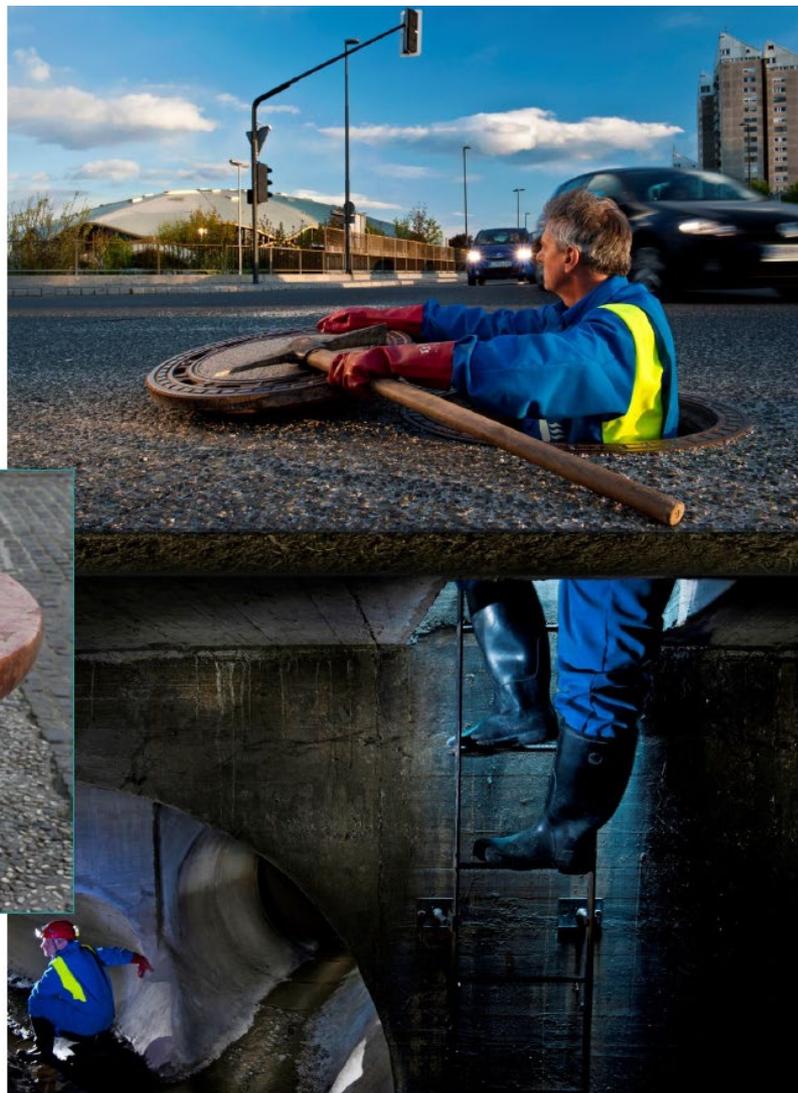


SUSTAINABLE DEVELOPMENT



RRA LUR

Ljubljana can boast  
potable tap water that is  
not treated with  
technological processes



LJUBLJANA. **For you.**  
[www.greenljubljana.com](http://www.greenljubljana.com)  
[www.ljubljana.si/en](http://www.ljubljana.si/en)

SUSTAINABLE DEVELOPMENT



RRA LUR

## DO YOU WANT TO PARTNER WITH US?

- To strengthen the institutional framework for the **circular economy** at the regional level, bring together key actors, raise awareness and capacity building on circular strategies and practices, to stimulate demand for sustainable products and services, to enable access to finance to promote circular strategies and practices.
- To enhance the **digital transformation** of the region.
- To form partnerships and set up models to foster **social innovation**.
- To empower the **cross-sectoral integration of Cultural and creative industries**.
- To promote **investments in the region**.
- To enhance **innovation processes** and promote related investments.
- To enhance the programs that deal with **human resources, skills, and competencies** to be able to respond to future labor markets.



## WE CAN OFFER YOU

Expertise in different fields:

- **Green transition** (especially sustainable mobility, energy efficiency, circular economy)
- **Policy planning** (preparation of strategic documents based on the participatory processes)
- **Innovation** (creative practices, business innovation, social innovation)
- **SME and Business Development** (specialized business support programs, investments)
- **Rural development** (short food supply chains)
- **International Cooperation** (also with non-EU members)





**We would be glad to start the cooperation with you.**

Lilijana Madjar, directress of RRA LUR,  
[lilijana.madjar@rralur.si](mailto:lilijana.madjar@rralur.si)



REGIONAL DEVELOPMENT AGENCY OF THE LJUBLJANA URBAN REGION



RRA LUR

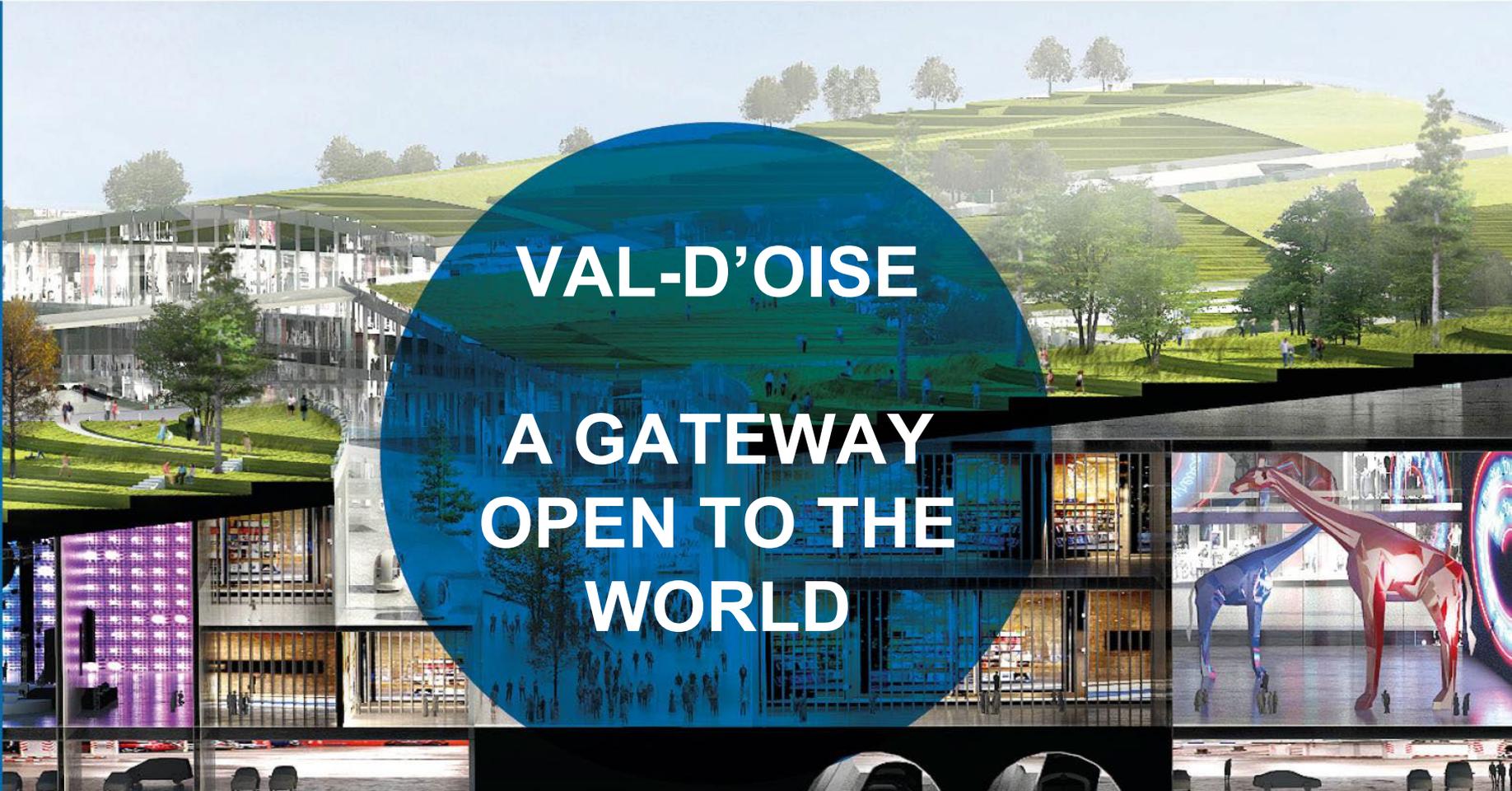


# Val d'Oise (Paris Region)

Engulfing the Paris region, the first economic region in France developed

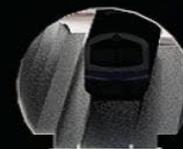
Charles de Gaulle Airport, security and risk management, hydrogen, urban mobility, etc.

Experimental center for food and nutrition



**VAL-D'OISE**

**A GATEWAY  
OPEN TO THE  
WORLD**



# An exceptional geographic location in Europe

- A few km north of Paris in the heart of the Ile-de-France – **the first economic region** in Europe
- **1,5 millions inhabitants**
- **3 airports:**
  - **Paris-Charles de Gaulle (CDG)** – The first airport in continental Europe with 800 destinations, world's number 7 airport for passengers and number 6 for freight
  - **Paris-Le Bourget** – The first business airport platform in Europe
  - **Pontoise-Cormeilles-en-Vexin** - a business airport for national and international destinations, general aviation platform for leisure and tourist activities, the first vertiport in Europe
- **CDG TGV airport railway station** offering direct connections to major French and European cities



# Economic and technological assets

- Economic fabric composed **mainly of SMEs and SMI**s
- **Considerable number of major companies** making a dynamic contribution to the local economy
- Big-name **HQs** and **Industrial Groups** already home to over 1,200 international businesses at 180 business parks with associated services, including:



# Exceptional Academic Fabric

- Amazing university - offering of more than 11 educational institutions with over 30,000 students
- **CY Cergy-Paris University** community offers 180 qualifications and 22 research centres
- Renowned engineering schools in areas of excellence (**ENSITECH, ENSAPC, EBI, ECAM-EPMI** etc.)
- Numerous premium **laboratories** and **research centres**
- The prestigious **ESSEC International Business School** - located in Val d'Oise since 1973



<sup>1</sup>(ENSEA, EISTI, ENSAPC, EBI, ISTOM, ECAM-EPMI); \*École Nationale Supérieure de l'Électronique et de ses Applications, École internationale des Sciences du Traitement de l'Information, École Nationale Supérieure d'Arts de Paris-Cergy, École de Biologie Industrielle, École Supérieure d'Agro-Développement International, École Supérieure d'Ingénieurs en Génie Électrique, Productique et Management Industriel.)

# Economic and technological assets

- Val d'Oise business sectors are renowned for their **areas of excellence**:
  - Aviation and airport services
  - Cosmetics
  - On-board electronic systems
  - Scientific and technical instrumentation
  - Security and risk management applications
  - Environmental technology
  - Transport and logistics
  - Automotive sector



# Emerging fields in Val d'Oise

## Advanced Air Mobility

First operating flying taxis for the Paris' Olympic and Paralympic games in 2024



- **The Paris Region Authority, Choose Paris Agency**, the urban transport operator-**Group RATP**, the manager of the Parisian airports - **Group Paris Airports** (Groupe ADP), launched on September 2020 the French sector of the Advanced Air Mobility
- The **airport of Pontoise** will welcome **the first vertiport** in **Europe**
- **First air taxis tests** launched on June 2021 with the major French and international companies, and academic institutes from the sector: **Airbus, Ascendance Flight Technologies, EHang, Volocopter, H3 Dynamics, Textron (Pipistrel), Safran Electronics and Defense, Vertical Aerospace, Zipline, Air France, CEA, Dassault Falcon Services, Helifirst, Hlipass, Green Motion, IDEMIA I&S, Leosphere, Skyports, Thales Six, M3 Systems, Envirosuite, ESTACA, CY Cergy-Paris University, ESSEC, Paris Polytechnical School, UC Berkeley Institute of Transportation Studies – Nextor.**

# Emerging fields in Val d'Oise

## Advanced Air Mobility

The **project** will cover collaborations for all the components of the advanced air mobility:



Identified **used cases**:

- **Passenger transport:** Air taxi, Airport shuttle, Air Ambulance, Emergency evacuation, Doctors visits to remote areas, Touristic routes...
- **Cargo transport:** Business-to-Business mail, Last-mile delivery in remote areas, Delivery of medical equipment, Delivery of test samples and Vaccines, Humanitarian aid...
- **Data collection:** Aerial support for firefighters, Agriculture monitoring, Support for scientific research...

# Emerging fields in Val-d'Oise

## Security, Safety and Risk Management

The first global security cluster in France

- **Experimental territory** for new technologies
- **Training Centers of Excellence** in global security (CMQ), **Educational programs and Research laboratories** in cybersecurity, criminal studies at CY Tech
- Presence of the **Institute for Criminal Research** of the **National Gendarmerie**
- **Major SME's** in the security sector : Atos, Safran, Idemia, Sophos, 3M, Airbus Helicopter, Autoliv...



The mission:

- **Anticipate** changes and bring to light the requirements, the doctrine and the references;
- **Raise** awareness and involve decision-makers and executives, employees and users;
- **Develop solutions and services by supporters**, based on the **Val d'Oise territory**, which has already been recognized as a **field of experiments** and **expertise**;
- **Support the industrial sector** by relying on start-ups and engineering SMEs in particular;
- **Guarantee access to specialized skills** and employment through adapted training.

# Emerging fields in Val-d'Oise

## Airport Hydrogen energy, Paris-Roissy Charles de Gaulle Airport

Paris Airports Group, Air Liquide, Airbus and the Paris Region Authority engaged for the decarbonization of the airport sector

Development of the hydrogen infrastructures to prepare the arrival of hydrogen-powered aircraft in 2035



- **Production, storage, transport and distribution** of hydrogen
- **Diversification of hydrogen** use cases in airports and in aeronautics
- **Circular economy** around hydrogen.

# Emerging projects in Val-d'Oise

## Agoralim project

**“From the land to the plate” for sustainable agriculture to face the food challenges in the Paris region**

**Led by Semmaris, the organizing authority of the Rungis International Market**

- **700 hectares** available, near the Paris Charles-de-Gaulle Airport
- **4 major sites** in Val-d'Oise: Gonesse, Goussainville, Roissy-en-France, Bonneuil-en-France
- **Investment** of 1,4 billion euros
- **5000 jobs** projection

### **3 main challenges:**

- **Consumer expectations for better food:** development of agroecology and short circuits, and the promotion of the entire agricultural chain, from the production to the distribution through processing.
- **The security of food supply in the Paris region** to face the increase in demand for fresh food products due to the strong population growth in the region, between now and 2035
- **The environmental challenge** linked to the logistics: traffic congestion by bringing certain flows closer to their destination



# Emerging projects in Val-d'Oise

## Agoralim project

**A strong and unprecedented ambition for the developing a new place for sustainable food**



**A multi-site project based in 7 fundamental principles:**

- **Contribute** to the development of the agriculture in the Paris region
- **Create** one or more local food processing-distribution platforms
- **Promoting** education around the benefits of a better diet
- **Create** jobs and training courses for the benefit of the territory
- **Integrate** a dynamic of innovation at all levels
- **Be exemplary** in environmental terms and aim for carbon neutrality
- **Co-build** the project with the territory and the players in the field

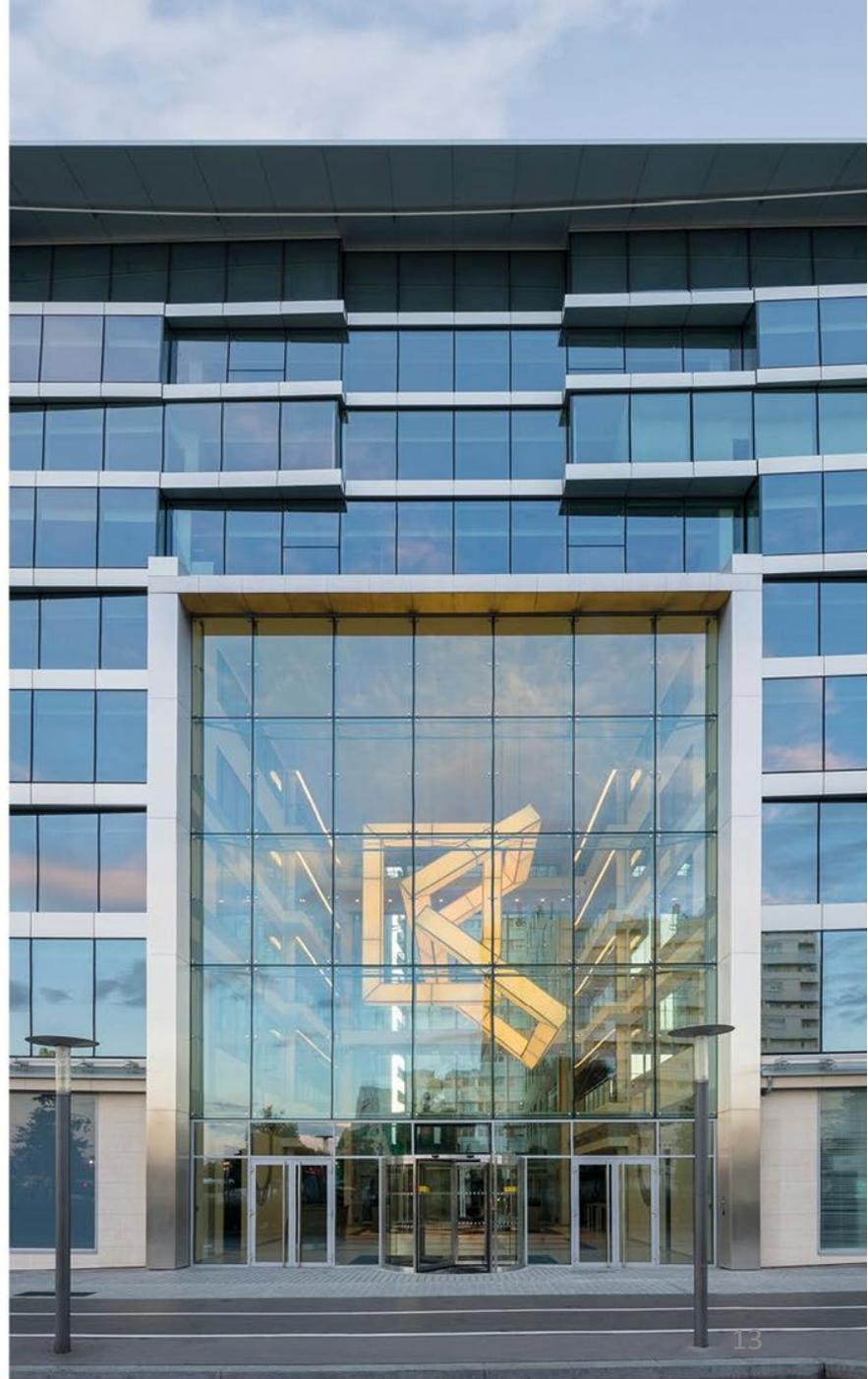


# The CEEVO

Promoting the  
attractiveness and  
accompany the economic  
development  
of the County

# Support for your business projects

- Founded in **1973** by the Val-d'Oise County Council, the **CEEVO (The Val-d'Oise Development and Attractiveness Agency)** is the Economic Development Agency working for the County's businesses, residents and elected officials
- **ISO 9001 certified**, the agency works in partnerships with representatives of the Paris region and the Val-d'Oise County to **develop the territory's offer**, **ensure the promotion**, and **provide customized service** to international companies and professionals
- **The CEEVO** is a catalyst for **business** and **innovation** that supports international companies in their development in Val-d'Oise. The Agency combines **market expertise** with a **strong local network**, helps to develop **technological and business partnerships** and to establish their **growth strategy** in the Paris area, for both newcomers and existing businesses



# Support for your business projects

## Identifying, communicating and presenting business location opportunities

- CEEVO's location:
  - **Head office** in Cergy-Pontoise
  - **Office at the heart of the Paris-Roissy CDG Airport**
  - **Office in Osaka** (Japan), since 1999
  - **Office in Shanghai** (China), since 2005
- The **CEEVO** has a strong relation with numerous **international territories** and **technological parks**
  - **Japan**: cooperation since 1987 (Prefectures of Osaka, Aichi (Nagoya), Mie (Tsu), Saga (Karatsu), the city of Sapporo...)
  - **China**: Shanghai Pudong, Zhejiang Region, since 1991
  - **USA**: Maryland (Greater Washington DC), Phoenix (Arizona), Atlanta (Georgia)
  - **Russia**: Skolkovo Foundation (Moscow) and Samara Region
  - **Central and Eastern Europe**: Serbia, Bulgaria, Romania, North Macedonia, Serb Republic of Bosnia
  - **Cuba, Africa**
  - CEEVO is a founder member of the **European Development Agencies Association- EURADA**



"Apéritifs Contacts" 2022 | Programme des Apéritifs Contacts organisés par le Comité d'Expansion Economique du Val d'Oise [Voir le programme](#)

## ACTUALITES

CEEVO - RÉPERTOIRE DES ENTREPRISES DU VAL-D'OISE - NOUVELLE ÉDITION 2022

1 août 2022



Le CEEVO, l'Agence de Développement et d'Attractivité des Territoires du Val d'Oise, vient de publier une nouvelle édition du Répertoire des entrepr...

ENTREPRISES - ÉCHANGES DU CEEVO AVEC ABDELILAH RAHLLOU, DIRIGEANT DE LA SOCIÉTÉ MOVFIG...

1 août 2022



Le CEEVO, l'Agence de Développement et d'Attractivité des Territoires du Val d'Oise, a accueilli, à Cergy, le 13 juillet dernier, Abdelilah Rahlou...

VAL-D'OISE / JAPON-DANS LE VAL-D'OISE. UNE CONNEXION JAPONAISE FLOISSANTE (ARTICLE L...)

1 août 2022



Source : Les Echos CES COMMUNAUTES ETRANGERES D'ILE-DE-FRANCE (5/6) - Démarrée au milieu des années 1980, la relation privilégiée entre les entrepris...

INNOVATION - ACCESSOIRES DE CINÉMA - CETTE JEUNE POUSSIE QUI VEUT AUTHENTIFIER LES OBJETS...

1 août 2022



Source : Les Echos L'ILE DE FRANCE A LA POINTE DU SEPTIEME ART (2/7). Cet été, Les Echos vous proposent de parcourir la région parisienne à la rencon...

# Thank you for your time



Comité d'Expansion Economique  
du Val d'Oise (CEEVO)  
2, avenue du Parc - CS 20201 Cergy  
95032 Cergy-Pontoise Cedex (France)  
www.ceevo95.fr  
Tél. : + 33 (0)1 34 25 32 42

 [ceevo@ceevo95.fr](mailto:ceevo@ceevo95.fr)  
 [@ceevo95](https://twitter.com/ceevo95)  
 [ceevo](https://www.facebook.com/ceevo)  
 [+Ceevo95Fr](https://plus.google.com/+Ceevo95Fr)

  
le département  
Comité d'expansion  
économique

 Région  
île de France

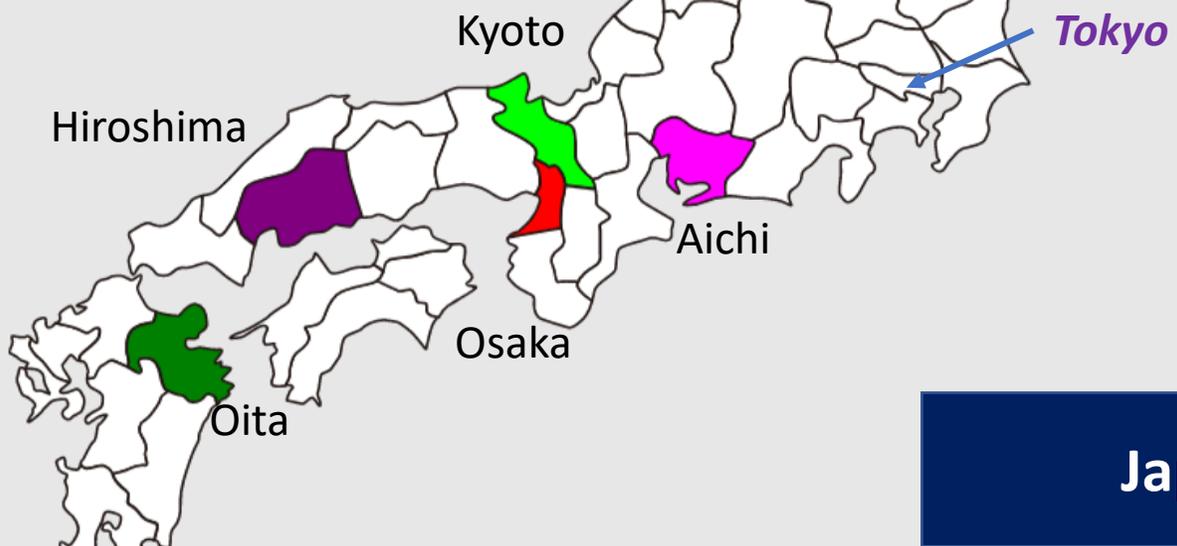
 PARIS  
REGION

# Five Japanese Prefectures participating the program

EU-Japan Region-to-Region  
Innovation Cooperation



Prefecture	Population (1,000 people)
Aichi	7,497
Kyoto	2,552
Osaka	8,784
Hiroshima	2,764
Oita	1,107



**Japanese Prefectures**

# Transportation: Bullet-train (Shinkansen) Network in Japan



- Tokyo-Nagoya (Aichi): 1h40m
- Tokyo-Osaka: 2h30m
- Tokyo-Hiroshima: 3h50m
- Tokyo-Oita (by air): 1h30m
- Nagoya-Kyoto: 34min
- Kyoto-Osaka: 18 min
- Osaka-Hiroshima: 1h40m

# Aichi Prefecture

Located in the central part of Japan

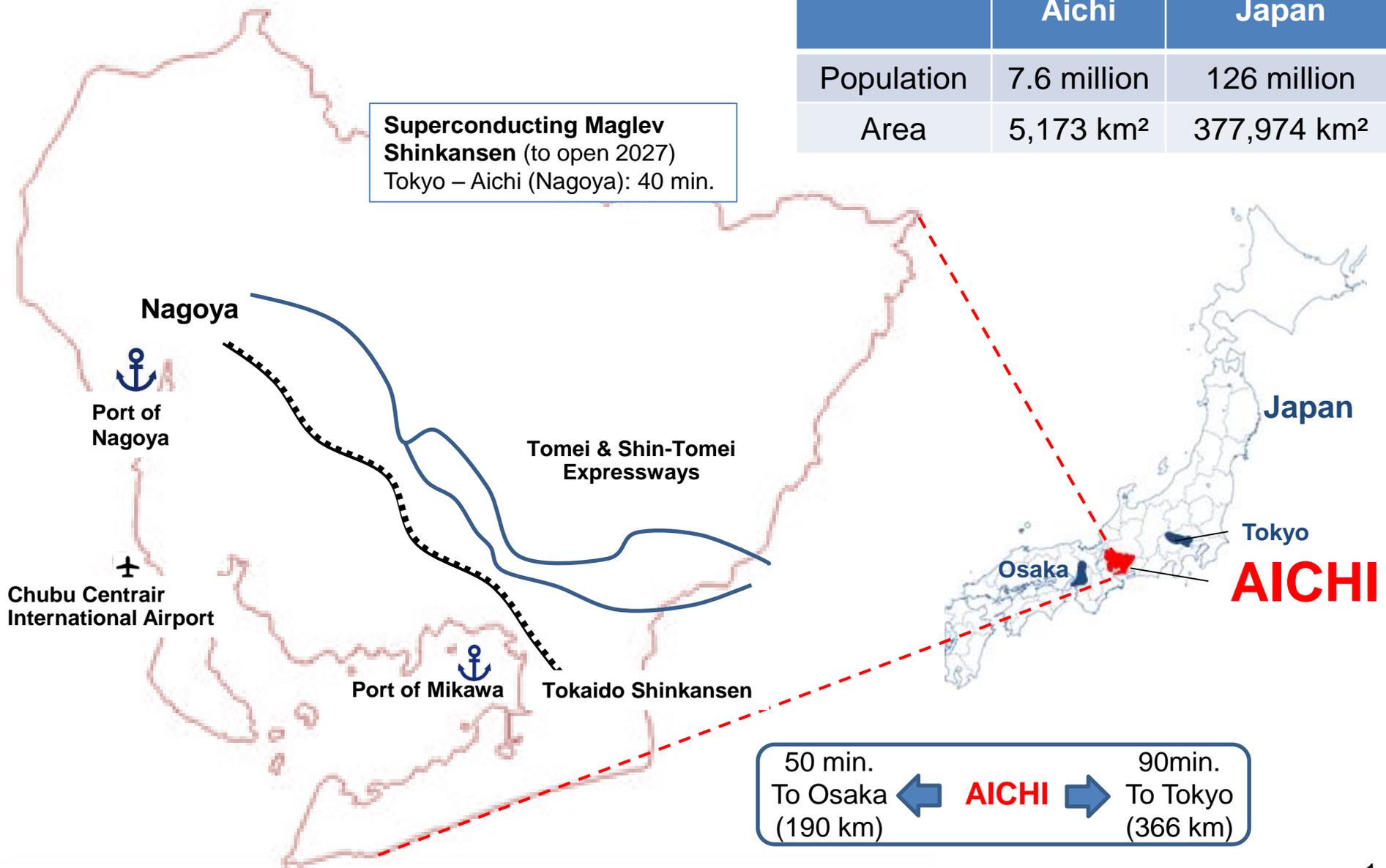
The number 1 prefecture for industrial shipment

# Aichi Innovation

**Aichi Prefectural Government**

# Heart of Japan

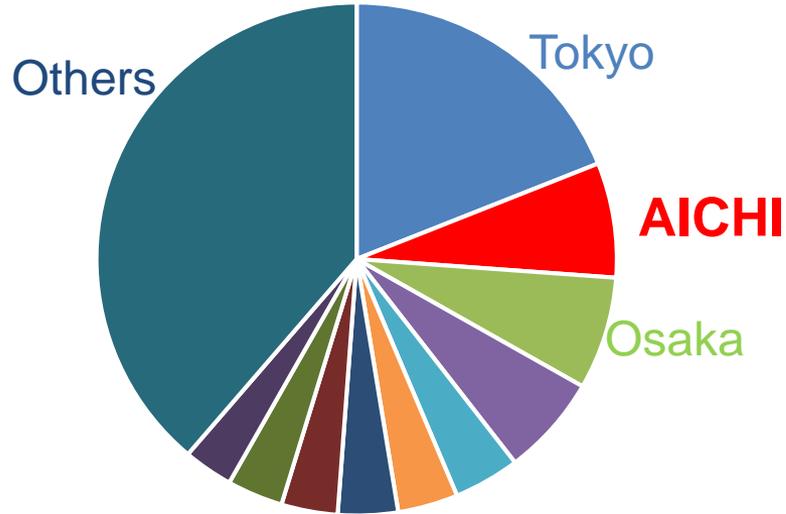
	Aichi	Japan
Population	7.6 million	126 million
Area	5,173 km <sup>2</sup>	377,974 km <sup>2</sup>



# Japan's No. 1 Industrial Cluster

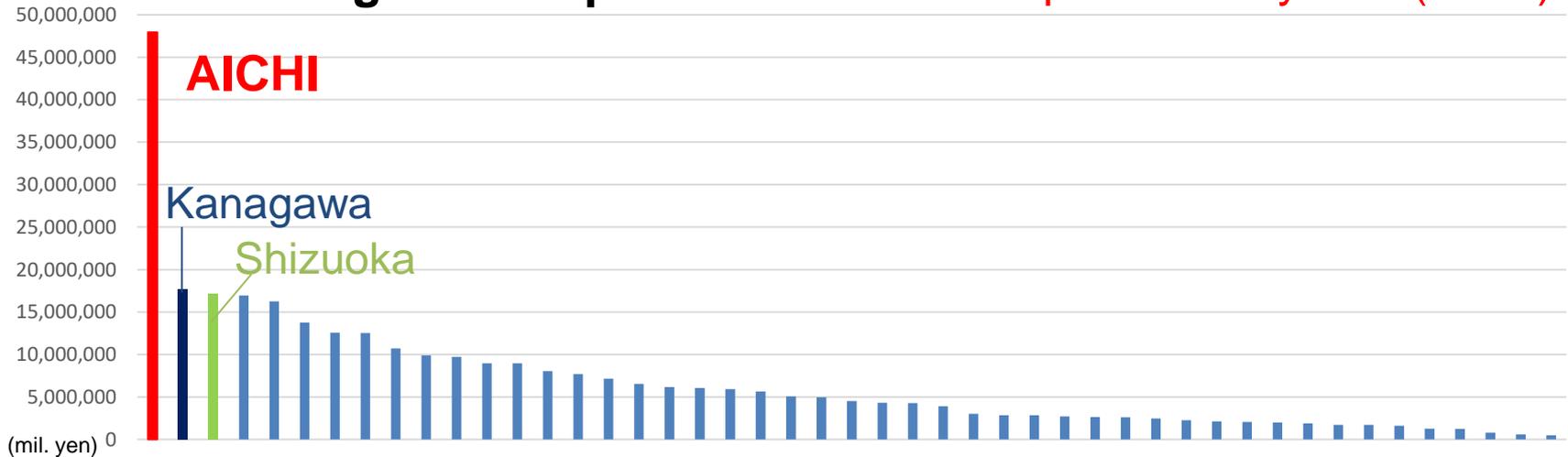
## Gross Regional Product

👉 2<sup>nd</sup> largest in Japan (2018)



## manufactured goods shipments

👉 1<sup>st</sup> in Japan for 43 years (2019)



# Aichi Innovation

## Hydrogen



## Startup



## Digital(5G)



## MEMORANDUM OF UNDERSTANDING ON FRIENDSHIP AND MUTUAL COOPERATION BETWEEN THE AUVERGNE-RHÔNE-ALPES REGION AND AICHI PREFECTURE



**MAY 19, 2022**

# The World's Leading Automotive Cluster

- A world-class production base for automobile manufacturers and major component makers
- The clear **No. 1** for manufactured goods shipments in the automobile industry, boasting **\$336 billion** in shipments and a **55.9%** domestic market share
- Home to **3,022** automotive industry establishments, **44.5%** of the national total

## Toyota Motor

12 plants

## Toyoda Gosei

7 plants

## Toyota Boshoku

15 plants

## DENSO

10 plants

## Aichi Steel

7 plants

## Suzuki Motor

4 plants

## Toyota Industries

10 plants

## Honda Motor

2 plants

## Aisin Seiki (incl. Aisin AW)

37 plants (6 plants)

## Mitsubishi Motors

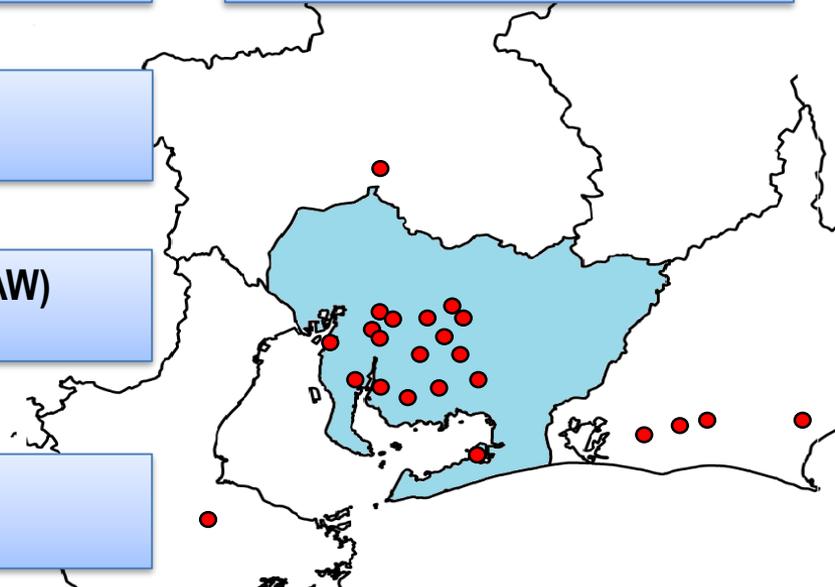
1 plant

## JTEKT

7 plants

## Toyota Auto Body

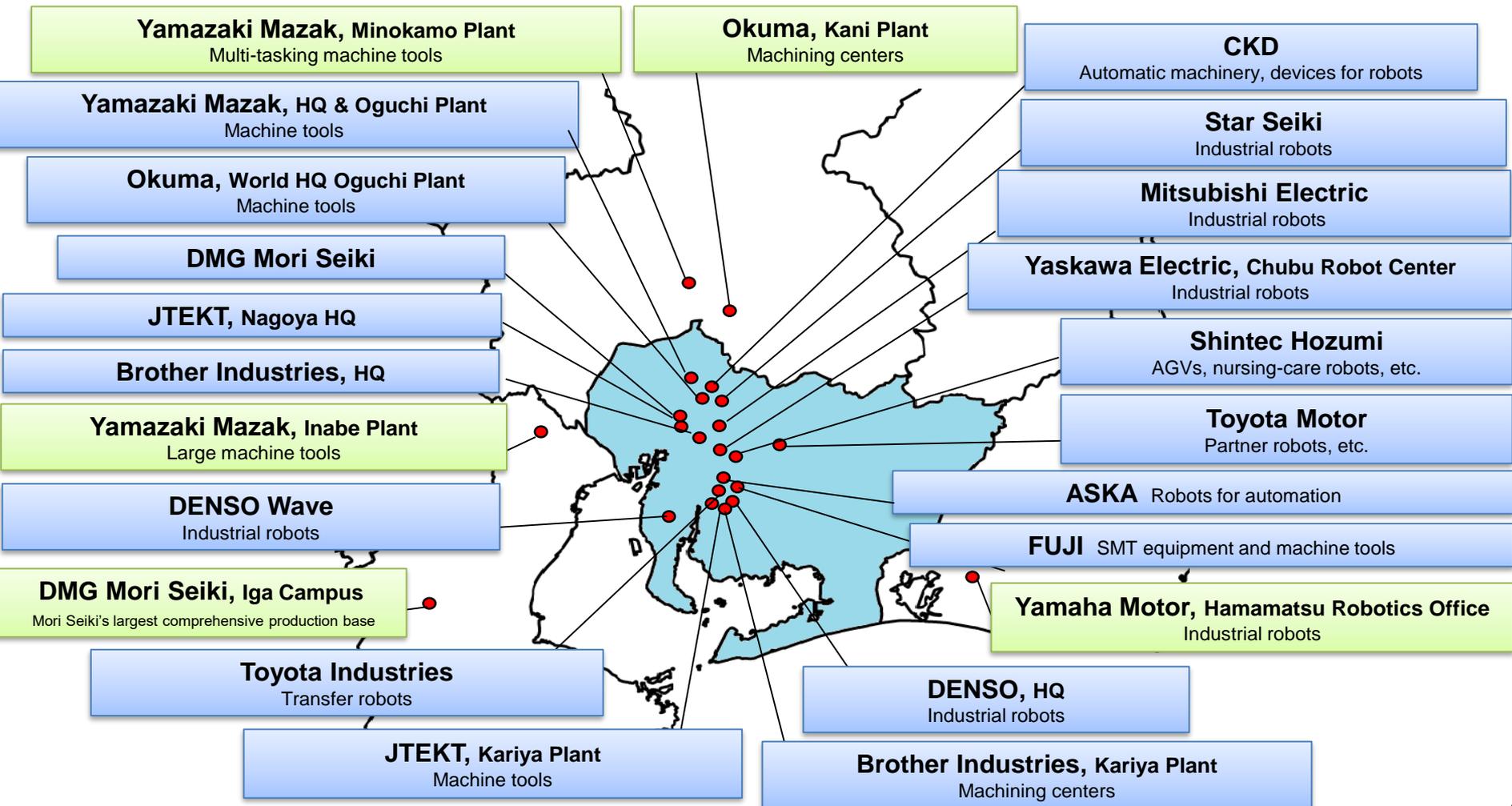
4 plants



# Robotics and Machine Tool Clusters

- A world-class production base with the world's top machine tool makers
- Home to **1589** metalworking machine establishments and **97** for robotics
- **41.3%** of the domestic market share by value of shipments for metalworking machines and **22.9%** for robotics

**Robotic Smart Home**  
 Promotion of R&D and commercialization of service robots



# Asia's No. 1 Aerospace Cluster

- A hub for makers of aircraft, spacecraft, and equipment for aircraft
- **223** aircraft-related establishments
- **45.5%** domestic market share for aircraft and parts, **68.5%** domestic market share for airframe parts
- **57.8%** of Japan's total export value for aircraft and aircraft parts

## Mitsubishi Heavy Industries Nagoya Aerospace Systems Works

Structural assembly of the SpaceJet, assembly of the H-IIA/H-IIB rockets and HTV



H-IIA Rocket



H-IIB Rocket



Mitsubishi SpaceJet

## Kawasaki Heavy Industries, Gifu Works

Boeing 767/777 fuselage panel parts, helicopters,  
H-IIA rocket payload fairings

## Mitsubishi Heavy Industries, Nagoya Guidance & Propulsion Systems Works and Mitsubishi Heavy Industries Aero Engines

Part of the SpaceJet engine, H-IIA rocket engine, reaction control systems for rockets and artificial satellites

## Nabtesco, Gifu Plant

Flight control actuation systems

## Tamagawa Seiki

Position/angle sensors, gyros, aircraft equipment/instruments,  
servomotors, actuators

## Kawasaki Heavy Industries Nagoya Works 1 & 2

Assembly of Boeing 767 and Boeing 777/777X  
fuselage panels, Boeing 787 forebodies

## Mitsubishi Heavy Industries Nagoya Aerospace Systems Works (Komaki South Plant)

Final assembly of the SpaceJet

## IHI Aerospace

Solid fuel for rockets

## Mitsubishi Aircraft

SpaceJet development, sales and customer support

## NOF

Solid fuel for rockets

## Mitsubishi Heavy Industries Nagoya Aerospace Systems Works (Oye Plant)

Assembly of Boeing 787 main wings, parts of the SpaceJet and  
other aircraft

## Mitsubishi Heavy Industries Matsusaka Plant

Assembly of the SpaceJet's tails, accessory parts

## Toray Industries, Nagoya Plant

Technological development of functional particles  
for prepreg used in aircraft and CFRP

## Toyota Boshoku Toyohashi-Higashi Plant

ANA's economy class seats for domestic flights  
(Boeing 767)

## Sinfonia Technology, Ise Plant

Power generators, control systems, electric motors, starter generators,  
relays, actuators

## Subaru, Handa & Handa West Plants

Assembly of Boeing 777/777X/787 center wings

50km



# Kyoto Prefecture

Located in Kansai Area

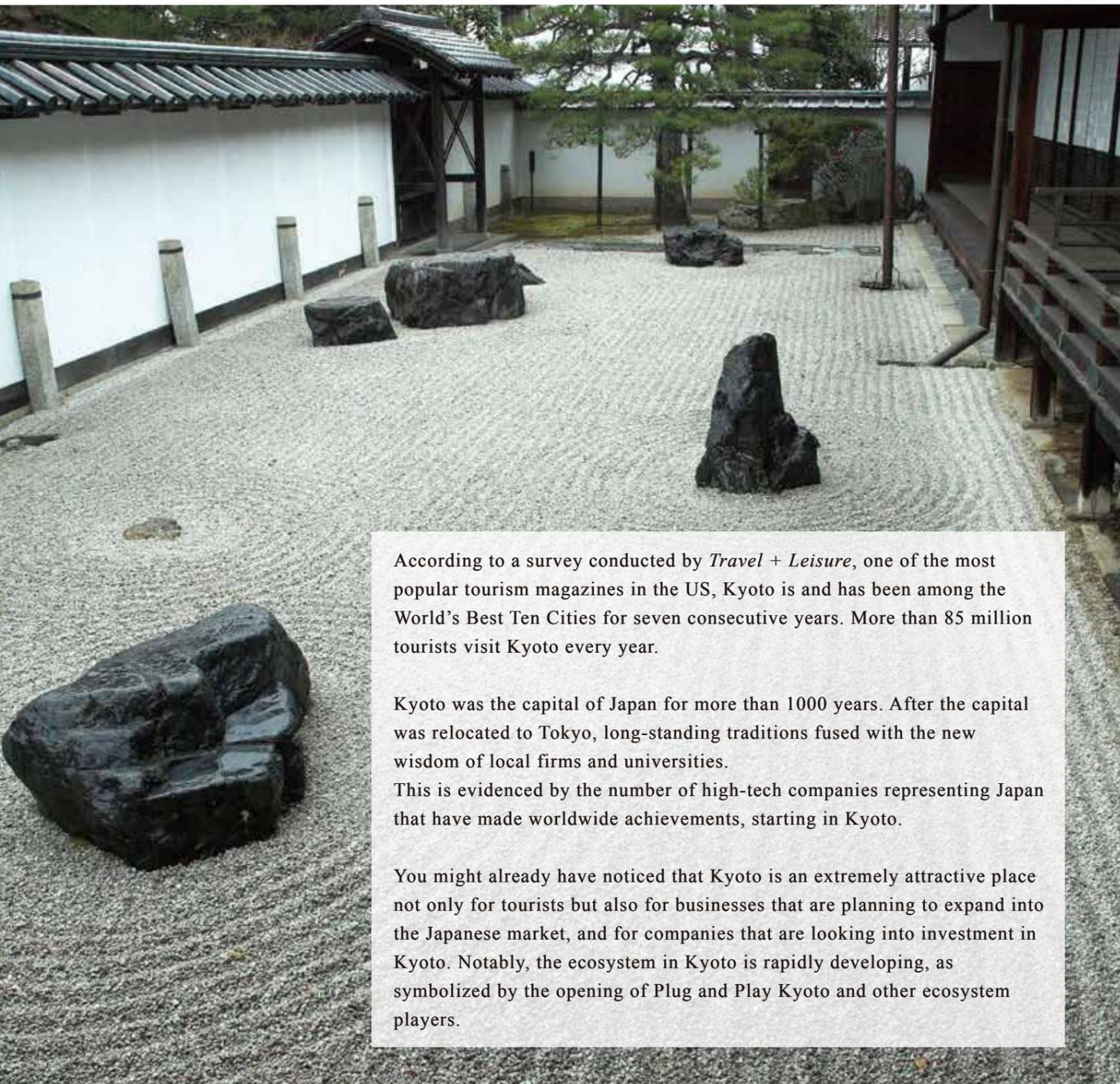
Place of History, Culture and Innovation

Keihanna Science City

# Welcome

What kind of image do you have of Kyoto?

Many people's image of Kyoto is one of an ancient capital of Japan that is now an international tourist destination with a large number of temples and shrines, including world heritage sites. However, Kyoto is not only a capital of history and tourism, but a capital of innovation.



According to a survey conducted by *Travel + Leisure*, one of the most popular tourism magazines in the US, Kyoto is and has been among the World's Best Ten Cities for seven consecutive years. More than 85 million tourists visit Kyoto every year.

Kyoto was the capital of Japan for more than 1000 years. After the capital was relocated to Tokyo, long-standing traditions fused with the new wisdom of local firms and universities.

This is evidenced by the number of high-tech companies representing Japan that have made worldwide achievements, starting in Kyoto.

You might already have noticed that Kyoto is an extremely attractive place not only for tourists but also for businesses that are planning to expand into the Japanese market, and for companies that are looking into investment in Kyoto. Notably, the ecosystem in Kyoto is rapidly developing, as symbolized by the opening of Plug and Play Kyoto and other ecosystem players.

tourist destination with a large number of temples and shrines, including world heritage sites.



## Index

- ◆ Welcome 1
- ◆ Three Strength 3
- ◆ Universities 5
- ◆ Global Player 7
- ◆ Tourism and Name Recognition 9
- ◆ Infrastructure 10
- ◆ Ecosystem Player
  - \* Plug and Play Kyoto 11
  - \* Phoenixi 12
  - \* Monozukuri Ventures 13
  - \* Keihanna Research Complex 14
- ◆ R&D 15
- ◆ Voice
  - \* Stroyly / BERTRAND 16
  - \* tmsuk / HACARUS 17
- ◆ Support
  - \* Startup Visa Supporting Program 18
  - \* Services with hospitality 19
- ◆ Event 20

Photos provided / with the cooperation of: Traditional Arts Super College Of Kyoto, Kyoto Institute of Technology, TAKARA HOLDINGS INC., Eirakuya co.,Ltd, KYOCERA Corporation, ROHM Co., Ltd., Nintendo Co., Ltd., The Kyoto Chamber of Commerce and Industry, Kyoto Research Park Corp., Kyodai Katsura Venture Plaza, City of Uji, Creation Core Kyoto Mikuruma, Advanced Chemical Technology Center in Kyoto (ACT Kyoto), Keihanna Open Innovation Center @ KYOTO (KICK), PLUG AND PLAY KYOTO, Phoenixi, Monozukuri Venture Co., Ltd., Public Foundation of Kansai Research Institute, Sansan, Inc., Stroyly Inc., Bertrand Co., tmsuk co.,Ltd., HACARUS INC.

Licensed by (in random order): Kenninji, Nanzen-ji, Kyoto University, Entrepreneurship club @Kyoto Uni., Kyoto University Medical Science and Business Liaison Organization, KYOTO Design Lab, Kyoto Institute of Technology, Kyoto Institute of Technology, Doshisha University, Organization for Small & Medium Enterprises and Regional Innovation, JAPAN(SME SUPPORT JAPAN), Ritsumeikan University, To-ji Temple, Money Forward, Inc., LINE Corporation, City of Kyoto, The Kyoto Chamber of Commerce and Industry, Public Interest Incorporated Foundation KYOTO Industrial Support Organization 21, Advanced Science, Technology & Management Research Institute of KYOTO (ASTEM), NPO Global Human Resources Development Center, Kiyomizu-dera Temple

# Three Strengths

**Kyoto has three strengths: "Tradition", "Wisdom", and "Innovation".**

Kyoto is far ahead of other cities in terms of its three strengths — Tradition, Wisdom, and Innovation — and continues, through the city's unique structural interrelationships, to create new value that is admired around the world.

## Tradition

Kyoto was the center of politics and culture in Japan for more than 1000 years, and still remains the cultural center of Japanese, and a major treasure-trove of Japanese traditional industries. The skills and spirit of Japanese craftsmanship have continued to be passed down to this day.

Tradition

Wisdom

Innovation

## Wisdom

Twenty-four Japanese have been awarded Nobel Prizes (as of fiscal year 2015), including twelve researchers related to Kyoto. Not only Kyoto University but 47 other universities are located in Kyoto, and the whole of the city is like a campus where Japanese wisdom is accumulated.

## Innovation

While Kyoto is a city with tradition, it has also introduced new things ahead of other cities, and imaginatively upgraded its innovations. Several global firms have started in Kyoto, and made worldwide achievements by upgrading traditional techniques into high-tech industries.

The people of Kyoto have nurtured their culture, lifestyle, and spirit for over 1200 years. Traditional craftsmanship and spirit had a significant role in producing Kyoto's unique and innovative products in combination with "knowledge" from Kyoto's high-ranking universities. This triangle of three strengths has maintained the right balance over time, and is further strengthened by the participation of supporting players such as accelerators and venture capital.



# Universities CITY of ACADEMIA

Kyoto is also the nation's college capital. One out of ten people in the city is a university student, which is the highest ratio in Japan. In addition to Kyoto University, which has produced many Nobel Prize laureates, Kyoto is home to a number of other high-level universities including Doshisha University, Ritsumeikan University, and Kyoto Institute of Technology, all of which provide incubation facilities to support startup companies. Kyoto University ranked number 1 for the ratio of increase in the number of university-originated ventures from 2016 to 2018. In the words of Mr. Akira Yoshino, 2019 Nobel Laureate and Honorary Fellow of Asahi Kasei Corporation, Kyoto has the basis to give birth to startups having the potential to become unicorns like GAFA. Of all places in Japan, Kyoto has the most similar features to Silicon Valley. This city clears all the conditions for creating innovation, such as the presence of local VCs, prominent universities that produce first-rate researchers and savants, and so on". (interview article in *Nikkei* on October 17, 2019)

"There are five conditions(\*) that caused innovation in Silicon Valley, and actually Kyoto has all of them."

Hon. Fellow Akira Yoshino of Asahi Kasei Co..

Interview with Governor Nishiwaki in the PR magazine of Kyoto Prefectural Government.

\* He mentioned on the following five conditions at the interview: (1) Wisdom, (2) Money, (3) Place where people talk and drink together, (4) Making new idea into illustration or visual images, and (5) Distance from the capital

## Each Universities offer various startup incubation programs



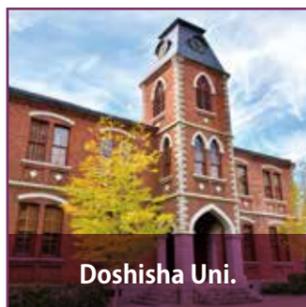
**Kyoto Uni.**

- Global Technology Entrepreneurship Program
- Entrepreneurship club @Kyoto Uni.
- ECC-iCAP




**Kyoto Institute of Technology**

- KYOTO Design Lab
- KYOTO Design Lab
- KS: Kyoto Startup Summer School



**Doshisha Uni.**

- D-egg




**Ritsumeikan Uni.**

- BKC Incubator
- EDGE+R (Program for the Cultivation of Innovation Architect) @Ritsumeikan



**Japan No.1**

Ratio of **universities to population** **10.02%**

One out of ten people in Kyoto City is a university student

Source: Fiscal Year 2019 Basic School Survey, number of Schools and Studens by City of Kyoto

38 colleges & Universities  
About 140,000 students  
About 9,000 students from overseas



**Japan No.1**

**Nobel Prize laureates** **15/28** related to Kyoto



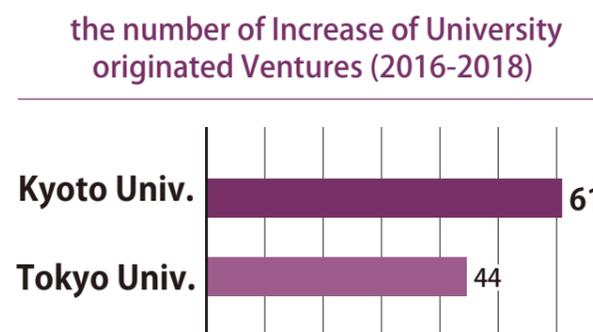
More than half of the 28 Japanese Nobel Prize laureates are related to Kyoto.

Prof. Yamanaka  
For iPS-Cell discovery

Prof. Honjo  
Cancer immunotherapy

Sr.Fellow Tanaka @ Shimadzu Corp.  
mass spectrometry of Biopolymer

**No.1 = KYOTO University** at ratio of increasing number of university originated ventures in 2016-2018  
**No.1 = Tokyo University** Total Number of Ventures in 2016-2018



Source: METI Survey in 2018/ Implementation of University originated Ventures etc.

Source: data from the references of Kyoto City government, HPs from Univ.

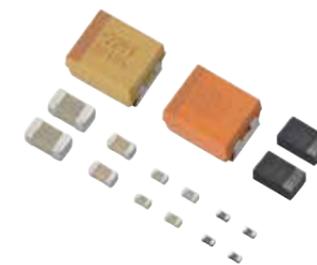
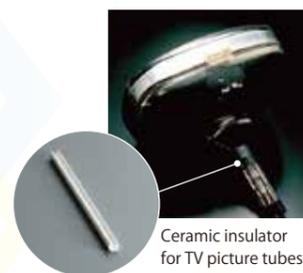
# Global Player

Global companies that started have been nourished by the

in Kyoto have, at their source, traditional industries which history and culture of Kyoto



The pottery industry called “Kyo-yaki” and “Kiyomizu-yaki” developed in Kyoto, which used to be the capital of Japan for a long time. Pottery has not only been used in commodities and art works, but has also been applied to diverse areas for its hardness, heat resistance, corrosion resistance, and high electric insulation qualities. Typical examples of applying pottery technology are ceramic capacitors and other electronic components. Kyocera and many other global electronic manufacturers are based in Kyoto, with this traditional pottery technology at their source.

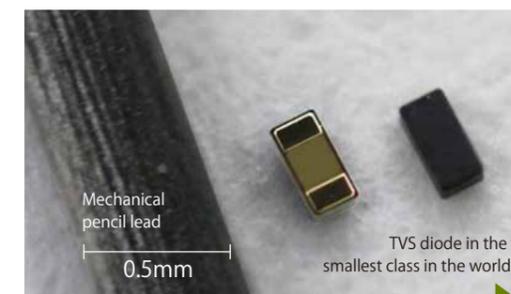


## Kiyomizu-yaki Ceramics

## Ceramic Condensers



Methods for dyeing the Japanese kimono with patterns, evolved from hand-painted “yuzen” to stencil dyeing, and then to mechanical dyeing, gradually expanding the scale of production. The technology of printing cloth with ink has been applied to printing diverse materials in different combinations. These printing technologies are also used in high-tech industries, including printed boards for electronic equipment and for more advanced semiconductor substrates. Rohm and other global manufacturers are headquartered in Kyoto.



## Fabric Printing

## Semiconductor, Printed Circuit Boards



The Fushimi area in southern Kyoto City is known as one of the major sake-producing centers in Japan. Approximately 20 major sake producers are located in this area, including Gekkeikan and Takara Shuzo. Japanese sake is made primarily from rice, rice malt and water, and requires advanced fermentation technology. The fermentation technology for sake production has led to advanced biotechnology. Takara Bio, a research & development company in biotechnology, was formed as the bio business division of Takara Shuzo.



## Sake Alcohol Brewing

## Biotechnology



Nintendo has been leading in video game world, but its history started when the company produced and marketed “Hanafuda”, a Japanese traditional card game in 1889. Nintendo is also known for producing playing cards for the first time in Japan. In the 1980s, Nintendo became a household name around the world for the success of “Game & Watch” and “Family Computer (Nintendo Entertainment System)”. It created new entertainment by introducing electronic technology as the basis for the production of toys.



©1980 Nintendo



## Playing Cards

## Computer Games

# Infrastructure

## Ideal environment for driving innovations “Kyoto Innovation Belt”

Kyoto has an accumulation of wisdom that represents Japan, and therefore is an extremely attractive city for private companies, because it offers potentially intensive impetus to the creation of new industries and new businesses, leveraging intellectual property that universities own.

To realize this impetus, industry-government-academia organizations in Kyoto have collaborated to establish an all-Kyoto system to back up innovations.

In particular, in the southern part of Kyoto prefecture, ranging from Kyoto City to the Kansai Cultural and Academic Research City (“Keihanna Science City”), many research facilities and organizations that support SMEs and startup businesses are located, along with a large number of global companies.

Proactive initiatives are in progress to link this area as a “Kyoto Innovation Belt” for the revitalization of the local economy through industry-government-academia collaboration.

**Kyoto Innovation Belt**

Kyoto Sangyo University ● Kyoto Institute of Technology

Kyoto Prefectural University ●

Ritsumeikan University, Kinugasa Campus ● Doshisha University, Imadegawa Campus ● Kyoto University, Yoshida Campus ●

**Creation Core Kyoto Mikuruma**

**Kyoto Keizai Center** ● Kyoto Prefectural University of Medicine ●

Kyoto University, Katsura Campus ●

**Kyoto Research Park** ● Ryukoku University ●

**Katsura Innovation Park** ●

**Rakunan Shinto**

Kyoto University, Uji Campus ●

**Kyoto Phoenix Park**

● Doshisha University, Kyotanabe Campus ●

● Kyoto Prefectural University, Seika Campus ●

**Keihanna Science City**

● Experimental Farm, Kyoto University ●

**Keihanna Open Innovation Center @ Kyoto**

**Kyoto Keizai Center**

**Creation Core Kyoto Mikuruma**

**Kyoto Research Park**

**Rakunan Shinto**

**Kyodai Katsura Venture Plaza**

**Kyoto Phoenix Park**

**Advanced Chemical Technology Center in Kyoto**

**Keihanna Open Innovation Center @ Kyoto**

---

# The Future Aspired by Keihanna Science City

~Keihanna Science City as a place for experimental study and implementation of advanced technologies for the realization of a next-generation smart city~

A city of innovation where new values and industries are continuously created

A city where anyone can live in safety and security

A city of sustainability where no one is left behind...

We are aiming for these realizations.

Keihanna Science City has been constructed and developed as a national project. Today, more than 30 years after its opening, it is home to over 150 research, educational, and cultural facilities. From information and communication to environment, energy, medicine, biotechnology and other fields, a wide variety of basic research is being conducted and utilized in society.

The city will further promote efforts to realize a smart city and create new smart lifestyles by utilizing historical and cultural resources and the rich natural environment, as well as smart technologies such as AI and IoT to solve social issues including urban mobility, healthcare, energy and disaster prevention.

Taking the opportunity of the upcoming "Expo 2025 Osaka-Kansai, Japan", the city aims to become "a world-class research and development open innovation hub" in order to fulfill its role in "contributing to the future of the world" and "creating knowledge and culture" as stated in the vision for the creation of a new city.



## Development of Culture and Academic Research

The research on the "future image of the world" through cross-cutting collaboration between natural sciences and humanities / social sciences is being developed. The academic research toward a sustainable society, including environment / energy, population / food / water issues and medical and brain science is also being developed.

We promote education and learning programs that allow people to enjoy various kinds of "wisdom", and have created an environment where culture, academia, and science can be considered familiar to daily life and work. Furthermore, by taking advantage of the concentration of various facilities, human resource development is being promoted through collaboration between research and educational institutions and companies.

The Kansai-kan of the National Diet Library provides a vast amount of information resources that support these cultural activities and, as a core institution that serves as the intellectual hub of Keihanna Science City, the International Institute for Advanced Studies carries out various exchange activities to widely disseminate and return research results and intellectual resources to society.

### International Institute for Advanced Studies

[Sustainable Society](#) [Interdisciplinary Studies](#) [Problem-Seeking Basic Research](#)  
[Human Resource Development](#) [Regional Cooperation](#)



Since its founding in 1984, the International Institute for Advanced Studies has been working under the basic principle to "conduct research what should be researched for the future and happiness of mankind." With the aim of realizing a sustainable society, we practice to identify what are the fundamental issues facing mankind, and to explore and present the direction of solutions to these issues. In addition to research aimed at contributing to the development of the science city area, we also conduct a variety of exchange programs in cooperation not only with academia but also with industry, local municipalities, and residents, contributing to the realization of a safe, secure, and prosperous society.



Research Group on "Specific Efforts to Develop the Keihanna Science City Area: Through the Improvement of Health Literacy" (beginning in 2019)



IIAS Academic Camp : Junior Seminar (2019 summer)

<https://www.iias.or.jp/en>

### Kansai-kan of the National Diet Library

[Research library](#) [Digital library](#)  
[Information on science and technology](#) [Information on Asia](#)



The Kansai-kan of the National Diet Library is a large-scale research library that makes available a wide range of information in support of innovation at Keihanna Science City.

Domestic and foreign books, magazines, newspapers, databases, and electronic journals are available for browsing in the large reading room and study room.

Patrons may also request copies of library materials or browse digital materials via the Internet.

[Photo and logo: Provided by the National Diet Library]

<https://www.ndl.go.jp/en/kansai/index.html>



Reading Room



National Diet Library Digital Collections

# Innovation Promotion

## A Place for Co-Creation and Innovation Promotion

Keihanna Science City aims to create a "world-class research and development-oriented open innovation hub" that will contribute to the realization of next-generation smart cities. Emphasis is placed on co-creation with global players of both inside and outside the city, and efforts are being made to promote the commercialization of research and development while utilizing the demonstration environment through industry-academia-government-residential collaboration.

## Keihanna R&D Innovation Consortium

To create new businesses and new industries, the RDMM (Research & Development for Monodzukuri through Marketing) Support Center promotes industry-government-academia and cross-industry collaboration projects based on the suppositions of future society and markets with open innovation as the key, and promotes the utilization of research and development results. To date, a total of 70 companies have participated in the four working groups (agriculture and food, health, mobility and energy, and new theme creation), creating new businesses and services.

Responsible for operations, the RDMM Support Center is promoting the following projects as a central organization for one-stop support of industry-academia-government collaboration from the initial stage of corporate research and development to commercialization.

### K-PeP(Keihanna Public Road Driving Demonstration Test Platform)

This is Japan's first corporate passenger and resident participation type public road driving demonstration test platform for new technologies such as autonomous driving and the establishment of next-generation intelligent transport systems.

We are contributing to the creation of new technologies and industries through the following core activities.

- Provision of facility equipment such as KICK.
- Provision of Keihanna public road driving demonstration test facilities.
- Application on behalf of government and police agencies.
- Acceleration of demonstration tests using "Club Keihanna".



### Club Keihanna

This is a resident-participation organization established in November 2016 aiming to reflect residents' opinions and ideas in the development of new services and products, urban development, etc., and currently has about 3,000 members from all over Japan. Based on requests from companies, universities, and other organizations in industry, government, and academia, we analyze the market through questionnaires and surveys of residents, consider ideas through resident-participation workshops, and promote demonstration experiments in collaboration with residents, contributing to the creation of new businesses and industries, urban development, and other activities.

<https://www.kri.or.jp/rdmm/club> (Information for members)

[https://www.kri.or.jp/conso/club\\_2/club.html](https://www.kri.or.jp/conso/club_2/club.html) (Information for companies)



### AIJ Platform(ASEAN, IORA and JAPAN Innovation Collaboration Platform)

We collaborate with science cities, research institutes, universities, and companies in ASEAN and IORA (Indian-Ocean Rim Association) countries to provide mechanisms for innovation and the creation of new businesses and industries (international human resource exchange programs, reciprocal use of research institutes, prototyping, and marketing facilities in each country). Additionally, in cooperation with JETRO and other partner organizations, we provide support for local collaboration projects of companies seeking to develop joint technologies and products with ASEAN and IORA countries.

<https://www.kri.or.jp/conso/global/global.index.html>



## Research Promotion Council of Keihanna Info-Communication Open Laboratory

The purpose of this council is to promote research and development through industry-academia-government collaboration in fields related to the NICT Keihanna Info-Communication Open Laboratory, to draw out the ICT potential of the Kansai region, and to promote the development of new technologies, human resources, and the creation of new industries. To promote and support research and development in the fields related to the Open Laboratory, the council plans research and development projects, supports the formation of consortiums, promotes the use of facilities, disseminates research and development results, and exchanges information with related organizations.

<https://www.khn-openlab.jp/>

## Keihanna Research Complex Promotion Council

The "Keihanna Research Complex (RC)" is an activity to create innovation by promoting R&D based on cross-field integration, human resource development, and commercialization support in an integrated manner through cooperation among institutions located in Keihanna Science City, and deepening of collaboration with institutions outside the region. With support from the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and the Japan Science and Technology Agency (JST) for three years and six months from October 2016 to March 2020, the council has built a platform to promote global open innovation, established seven new companies, obtained over 1.1 billion yen in investments, and established an experimental field with the participation of local residents, establishing the "Keihanna Global Innovation Ecosystem".

The Research Complex Promotion Council is working to further develop Keihanna Science City's unique global innovation ecosystem by utilizing its achievements in various projects, mainly the following.



### Support for Startup Businesses

KGAP+ (Keihanna Global Acceleration Program Plus) is a global startup support program in which domestic and foreign startup companies selected from innovation hubs around the world in partnership with domestic startup companies and the Advanced Telecommunications Research Institute International (ATR), collaborate with major Japanese companies to demonstrate products, services and concepts. During the three-month program, ATR, together with the Research Complex Promotion Council and other cooperating organizations and mentors, will support the participating companies by matching them for collaboration, utilizing the functions of the experiment city of Keihanna Science City and providing mentoring and seminars.



### Support for Open Innovation Promotion

"KOSAINN (Keihanna Open Global Service Platform for Accelerated Co-Innovation)" is a platform for global open innovation to implement demonstration projects for problem solving and business development of Japanese companies and other organizations.

ATR will support open innovation by utilizing its extensive domestic and international network to support team building involving startup companies and researchers with expertise that can enhance the pioneering nature of the project. Furthermore, in 2021, ATR collaborated with governmental innovation promotion agencies in Israel and Canada to launch "KOSAINN+", in which startup companies participate in demonstration projects with the support of both agencies.



### Human Resources Exchange Support

The "Keihanna International Internship Program (KIIP)", supported by ATR which has extensive experience in accepting foreign nationals, aids the recruitment and acceptance of interns from overseas universities and business schools to Japanese companies. The program supports the integration of young foreign talents and exchanges with overseas universities.

### Strengthening Startups and Ecosystems

A startup support system has been established in collaboration with leading overseas innovation institutions to further strengthen the startup ecosystem functions.

In July 2020, the "Osaka-Kyoto-Hyogo-Kobe Consortium", which includes Keihanna, was selected by the Japanese government as "a Global Hub City" under the "Startup Ecosystem Hub City program". The consortium will select promising entrepreneurs from Japan and abroad and produce startups that can be active on the global stage through mentoring, aiming to develop the entire Kansai region as a startup development hub.



## Functions and Facilities That Support Innovation Promotion

Not only large corporations, national research institutes and universities, but also to more than 100 small and medium-sized startup companies are located in Keihanna Science City.

Several incubation and support facilities have been set up to support new companies in their startup and growth.

### Keihanna Open Innovation Center @KYOTO (KICK)

Keihanna Robot Technology Center PoC (proof of concept) base  
Rental research space 5G base station Convention facility



The "Keihanna Open Innovation Center (KICK)" is an open innovation hub that supports advanced research and development in the fields of health and medicine, energy and ICT, agriculture, and culture and education, with the collaboration of KYOTO Industrial Support Organization 21 and Kyoto Prefecture.

<http://kick.kyoto/>



#### PoC (Proof of Concept) Center, KICK (PoC-K)

Using KICK's indoor Keihanna Robotics Engineering Center, outdoor sites such as the circular road, and 5G (5th generation) base stations, we provide comprehensive support for PoC (Proof of Concept) demonstrations through technology development and experiments with robots and drones, automated driving experiments, as well as the Meta-Comfort Lab (MC-Lab) and 3D printers, and Fab Space where laser cutting machines, etc. can be used.



#### Keihanna Robotics Engineering Center

Equipped with robots for research and development and positioning equipment, the Keihanna Robotics Engineering Center supports the development and introduction of various next-generation robot technologies that contribute to improving our lives and productivity, including autonomous robot systems, human-robot systems, and robot-robot coordinate systems.



#### 5G Base Stations

There are two 5G (5th generation) base stations located outdoors and one inside the Keihanna Robotics Engineering Center, enabling demonstration experiments for the development of products using 5G technology.



#### Meta-Comfort Lab (MC-Lab)

The MC-Lab is supplied with equipment that integrally controls information that affects the five senses, such as air conditioning (temperature and humidity), lighting, scenery from the windows, video, sound, and aroma, and enable data analysis of human psychological, behavioral, and biological information to support future commercialization.



#### Fab (Fabrication) Space

By renting out 3D printers, laser processing machines, CNC milling machines, etc., this space will serve as a hub for prototype production and development for manufacturing companies, and will also support the nurturing of a manufacturing culture by holding various events and seminars.



## Keihanna interaction Plaza・Keihanna Plaza Hotel

[Research Spaces and Labs](#) [Startup Support](#) [Conference Rooms](#) [Hotel](#) [Conventions](#)

Keihanna Plaza, a composite facility for promoting cultural/academic exchange and research, consists of leasing offices including for start-ups, a hall that can accommodate 1000 people, conference halls, and a hotel. We support the business of tenant companies, invite conventions concerning cultural and academic research, and hold events.

It can also be used for exhibitions, seminars, networking events, and accommodation trainings.

<https://www.keihanna-plaza.co.jp/english>

<https://hotel.keihanna-plaza.co.jp/>  
global online travel agencies available

けいはんなプラザ



## Advanced Telecommunications Research Institute International (ATR)

[Research and Business Development](#) [Global Collaboration](#)  
[Support and Entrepreneurship Support](#) [Open Innovation Promotion](#)

We are working to build a global innovation ecosystem in Keihanna Science City through brain imaging research support services including MRI imaging and consulting by ATR-Promotions; promoting research and business development by opening the wireless research environment to public and providing consulting services; support for accepting researchers and interns from other countries by leveraging our extensive experience and achievements; implementation of support programs for startups in Japan and overseas and support for project creation to solve challenges of companies and other entities through open innovation; operation of coworking spaces.

[https://www.atr.jp/index\\_e.html](https://www.atr.jp/index_e.html)



Anechoic Chamber



fMRI



KGAP+Batch1 Group Photo

## Doshisha Center for the Promotion of Venture Business

[entrepreneurship](#) [second founding](#) [industry-academia collaboration](#) [regional exchange](#)  
[manufacturing and engineer exchange space](#)

D-egg is an incubation facility operated by the Organization for Small & Medium Enterprises and Regional Innovation, Japan (SME) in cooperation with Kyoto Prefecture and Kyotanabe City at Doshisha University's Kyotanabe Campus. Residents of this facility will receive various subsidies from Kyotanabe City, as well as extensive support for overall management from the incubation manager stationed here.

<https://www.smrj.go.jp/incubation/d-egg/>



Kyotanabe  
Monozukuri Workshop D-fab

## Takayama Science Plaza

[Support for education and research](#) [Industry-academia collaboration](#)  
[Community activities](#) [Science](#) [Offices for rent](#)

This activity base is operated by the Foundation for Nara Institute of Science and Technology so as to provide assistance to NAIST, industry-academia cooperation and regional interactions. It also encourages children's curiosity for science through participating in "Science Experiment Class", "Science Land", etc.

<http://www.science-plaza.or.jp>



Children's Science Square

## Core Research Institutions

In Keihanna Science City, advanced research and development in various fields such as environment and energy, information and communication technology (ICT), bioscience, optical science, and robotics is being conducted.

### Advanced Telecommunications Research Institute International (ATR)

[Computational Neuroscience](#) [Deep Interaction Science](#) [Wireless and Communications](#)  
[Life Science](#) [Global Innovation Ecosystem](#)



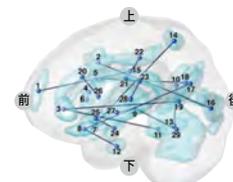
We aim to contribute to innovation from science and technology and regional revitalization by promoting pioneering and innovative research and development, social implementation of world-class results, and building of a global innovation ecosystem through close collaboration with industry, government, and academia both domestically and internationally. We are conducting research and development in the fields of brain information science to investigate brain functions and apply consequential results; deep interaction to deeply understand the interactions between

human-robots; wireless and communications to achieve highly reliable telecommunications technology and radio wave utilization; and life science to promote cross-disciplinary science, and are working to commercialize results through affiliated companies and "Keihanna ATR Fund".

[https://www.atr.jp/index\\_e.html](https://www.atr.jp/index_e.html)



Android for Daily Dialogue "ERICA"



a network decoded from fluctuations in brain activity

### National Institute of Information and Communications Technology (NICT)

Universal Communication Research Institute (UCRI)

[Information and Communication Technology](#) [Universal Communication](#)  
[Multi-language](#) [Dialogue](#) [Behavior Support](#)



UCRI is one of Japan's leading R&D centers in the field of AI and is engaged in social implementation and R&D related to multi-language, dialogue, behavior support support technologies aiming to achieve universal communication among the people of the world. We will contribute to solving social issues and creating new values by eliminating the barriers of language, knowledge, and data usage, in international business, elderly care, and environmental risk reduction, etc.

<https://ucri.nict.go.jp/en/>



Prototype simultaneous interpretation system



Web-based Knowledge Disseminating dialog Agent (WEKDA)

Predicting mobility risks by cross-data analysis

### Research Institute of Innovative Technology for the Earth

[Global warming](#) [CCUS](#) [Global warming mitigation scenarios](#)  
[Biorefinery](#) [Membrane reactors](#)



We are conducting research and development of innovative energy and environmental technologies as a COE for global warming countermeasure technology. These include developing CCS technology that captures CO2 from the exhaust gas of power plants and steel works and stores it in an underground aquifer, biorefinery technology to produce fuels and chemicals from non-food biomass, systematic study regarding policies and measures to mitigate global warming through the analysis and the evaluation of various countermeasures, and research on inorganic membranes that are expected to be applied to the separation and purification of hydrogen, which is essential for a hydrogen society.

<https://www.rite.or.jp/en/>



coryneform bacteria

Production of biofuels and chemicals from non-food biomass using microorganisms



Visualization of CO2 distribution in a sample rock using X-ray CT

## Nara National Research Institute for Cultural Properties

[research on cultural properties](#) [Nara Palace Site](#) [wooden tablet excavation survey](#) [immovable cultural property](#)

The institution is located in Nara City, adjacent to the Heijo Palace Site. This is an organization that comprehensively surveys and researches cultural properties, mainly ruins, buildings, gardens, and cultural landscapes, which are called real estate cultural properties. Activities extend not only to within Japan but also overseas including other Asian countries. Additionally, it provides training, cooperation and advice to officials in charge of cultural properties internally and externally.

<https://www.nabunken.go.jp/english/>



The Main Building of Nara National Research Institute for Cultural Properties



Remains were excavated and preserved during the construction of the government building

## RIKEN

[Disease modeling/Drug discovery research and Platform development/Disease-specific iPS cells](#)  
[Machine learning/Artificial Intelligence \(AI\)](#)  
[Computational theory of mind/Autonomous robot that can make people feel the "heart"](#)  
[Collaboration with industry and academia/Co-creation](#)

As Japan's sole comprehensive research institute in the natural sciences, RIKEN conducts research and development in a wide range of fields at many sites in Japan and overseas. With the goal to generate world-class research results, RIKEN has established a number of "science and technology hubs" that collaborate with industry and universities to bring about innovation. Research in Keihanna Science City is being conducted by teams from the Guardian Robot Project (GRP) and the RIKEN Center for Advanced Intelligence Project (AIP), as well as the iPSC-based Drug Discovery and Development Team at the RIKEN BioResource Research Center (BRC).

<https://www.kobe.riken.jp/en/about/map/keihanna/>



Human iPS cells and Drug discovery



Robot "Nikola"

## National Institutes for Quantum Science and Technology (QST)

Kansai Photon Science Institute

[Quantum Science and Technology](#) [High-Intensity Lasers](#) [Quantum Scalpel](#)  
[Industrial and Medical Applications](#) [The Kids' Science Museum of Photons](#)

Following the successful development of powerful lasers such as J-KAREN, an ultra-short pulse laser of the world's top class, we work on academic, medical, and industrial applications for high powered lasers, including development of a compact accelerator for use in particle beam cancer therapy, practical use of remote and non-contact methods to detect defects in concrete using lasers, and a palm-sized non-invasive blood glucose level sensor and more.

<https://www.qst.go.jp/site/kansai-english/>



World's top class ultra-short pulse high intensity laser J-KAREN

## Universities

Universities in Keihanna Science City are actively developing industry-academia collaborations with research institutions and companies. The universities also holds annual public lectures in collaboration with the National Diet Library under the keyword "Delivering wisdom from Keihanna".

### Osaka Electro-Communication University (Shijonawate Campus)



[Information Education](#) [Sports](#) [Games](#) [ICT](#) [Community Contribution](#)

The Faculty of Medical Science and Health-Promotion and the Faculty of Information Science and Arts are established at the Shijonawate Campus. The Faculty of Medical Science and Health-Promotion trains clinical engineers, physical therapists, and sports leaders. The Faculty of Information Science and Arts has the Department of Digital Games, the Department of Games and Media, and the Department of Computer Science. All of these departments are developing human resources who can play active roles in the coming community of Society 5.0.



<https://www.osakac.ac.jp/en/>

### Experimental Farm, Graduate School of Agriculture, Kyoto University



[‘Next-generation’ agricultural technology](#) [‘Green energy’ farm](#)

The Experimental farm of Kyoto University (Kizu Farmstead) with a site area of 24.6ha is equipped with the latest facilities and equipment, which are used to carry out agricultural education and research and to produce agricultural products. Also, as a base for the development and demonstration of the ‘Next-generation’ agricultural technology that creates a prosperous future, we aim to build an agricultural production model "Green Energy Farm" that simultaneously produces renewable energy and agricultural production.



<http://www.farm.kais.kyoto-u.ac.jp/>

### Kyoto Prefectural University (Seika Campus)

Faculty of Life and Environmental Sciences Farm / Industry-Academia-Government  
Collaboration Research Hub Facility



[Bioscience](#) [Regional contribution](#) [Industry-academia cooperation](#)

This site consists of two areas which include the "Industry-Academia-Government Collaboration Research Hub Facility Area", where research results are returned to the local community, prefectural residents, and the public, and the "Faculty of Life and Environmental Sciences Farm Area", where students learn about nature and practice farming. The total site area is approximately 16 hectares, which is about the size of 3.5 Tokyo Domes. The "Faculty of Life and Environmental Sciences Farm Area" promotes the advancement of education and research. As a new research center for industry-academia-government collaborations, the "Industry-Academia-Government Collaboration Research Hub Facility Area" is engaged in joint research on plants, the environment, and pharmaceuticals, as well as the creation of university-launched ventures and new industries, and the accumulation of enterprises.



Faculty of Life and Environmental Sciences Farm  
<http://cocktail.kpu.ac.jp/agricul/ufarm>



Industry-Academia-Government  
Collaboration Research Hub Facility  
[http://www.kpu.ac.jp/contents\\_detail.php?frmid=2649](http://www.kpu.ac.jp/contents_detail.php?frmid=2649)

### Doshisha Women's College of Liberal Arts



[Education](#) [Pharmacy and Nursing](#) [Social studies](#)

[Arts and Design](#) [Global communication](#)

Established in 1986, the Kyotanabe Campus has four faculties with approximately 4,000 students which include the Faculty of Liberal Arts, the Faculty of Contemporary Social Studies, the Faculty of Pharmaceutical Sciences, and the Faculty of Nursing. Together with the Imadegawa Campus located on the north side of the Kyoto Imperial Palace in Kyoto City, we aim for further development as a comprehensive university for women with 6 faculties, 11 departments, 1 major, and 5 graduate schools.

<https://www.doshisha.ac.jp/en/index.html>



The Symbol of Kyotanabe  
Campus, Yuwakan

# Osaka Prefecture

Located in Kansai Area

Birthplace of modern Japanese industry

Innovation led by global companies and SMEs

**We  
provide you  
with the  
best support**



< Contact Information >

International Business and Investment Division Growth Industry Promotion Office,  
Osaka Prefectural Government Department of Commerce, Industry and Labor

25F Osaka Prefectural Government Sakishima Cosmo Tower 1-14-16 Nanko kita, Suminoe-ku, Osaka 559-8555  
Tel.+81-6-6210-9406 · +81-6-6210-9482 / Fax.+81-6-6210-9296 / Email kokusai-yuchi@gbox.pref.osaka.lg.jp

A must-read guidance, Osaka 

Check us out on Facebook too.

Growth Industry Promotion Office, Osaka, facebook 

Accessible by smartphone or PC.

# Osaka Investment Guide

# Access to Osaka, Kansai International Airport



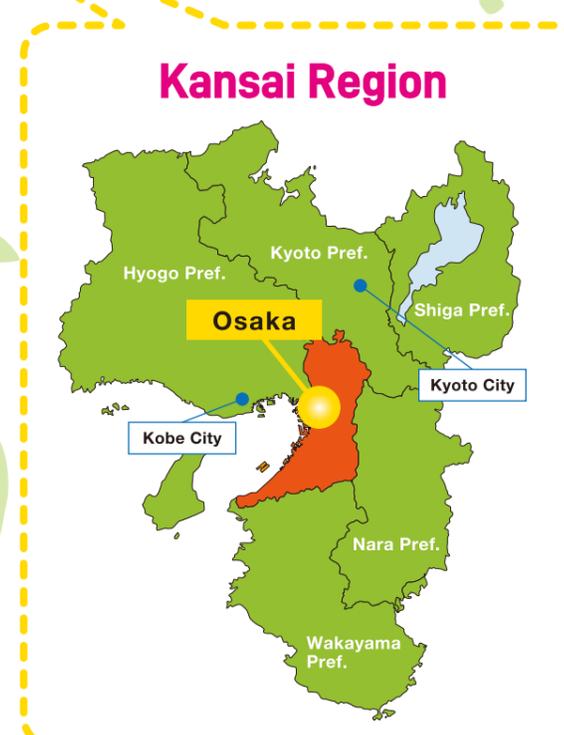
Short access to world major cities



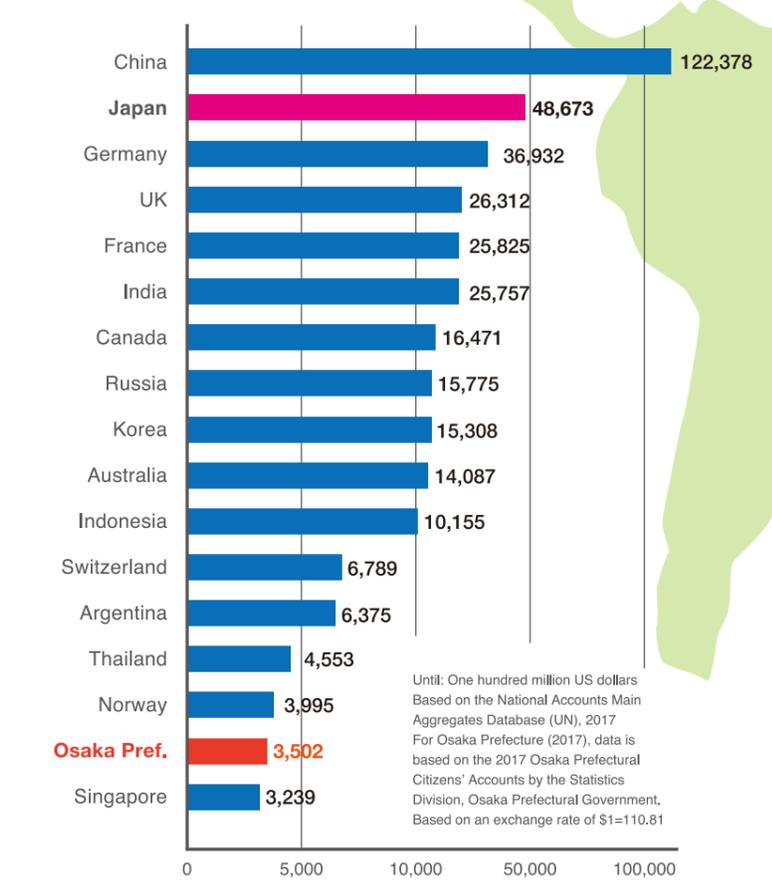
## Population (Year 2018) (Country/Region · City)

Country or Region	Population (a million)	City	Population (a thousand)
U.S.A.	327.1	Jakarta (Indonesia)	10,428
Japan	126.4	Seoul (South Korea)	9,776
Mexico	126.2	<b>Osaka Pref.</b>	<b>8,825</b>
Germany	83.1	New York (U.S.A)	8,538
Australia	24.9	Guangzhou (China)	8,525
<b>Osaka Pref.</b>	<b>8.8</b>	Bangkok (Thailand)	8,305

World Statistics 2020, Statistics Bureau, Ministry of Internal Affairs and Communications  
For Osaka, data is based on Osaka Prefectural Government (as of October 1, 2018)



## GDP (Year 2017) (Gross Domestic Product)



In the Special Zone,  
business opportunities are...

# Waiting for You!



## Kansai Innovation Comprehensive Global Strategic Special Zone

Integrating Industries and Functions – the Engines of Economic Growth. Making full use of the Kansai's potential in medical facilities, universities, and research centers, we have formed a hub for international competition in the new energy and life science industries.

## Special Zone for Growing Industries (Special Cluster Zone for Growing Industries)

Strengthening the initiatives of the Kansai Innovation Comprehensive Global Strategic Special Zone, we have established the Special Zone for Growing Industries. We support business enterprises in the new energy and life science fields!

## Kansai National Strategic Special Zone (All Area of Osaka, Hyogo, and Kyoto)

Forms a hub for international innovation in the medical fields, etc. We look to be an international city that maintains a solid business environment (including R&D and commercialization of the latest medical products/equipment) and attracts entrepreneurial talent.



## Hub for Pharmaceuticals, Medical Equipment and Regenerative Medicine Northern Osaka Area (Saito etc.)



This will become a center attracting facilities related to the life sciences. With a supportive network combining industry, academia, and government, this location is perfect as an R&D or business base for pharmaceutical and medical device industries.

## Hub of Global Trade and Environmental Technologies Yumeshima & Sakishima Area



In addition to the corporate headquarters, R&D / orientation locations, and government bodies available, this area offers full MICE functionality in the form of large-scale international trade show space, hotels and other spaces. An area suitable for environmental and new energy industries.

## Global Logistics Hub Hanshin Port Area



Made up of Osaka Port and Kobe Port, the Hanshin Port Area is the largest distribution point in West Japan, handling 1/4 of all cargo containers in the country. As a strategic port for international containers, this area is gathering high-order logistical functioning and can meet the needs of international distribution.

## A New Hub for the Health and Medical Fields Northern Osaka Health and Biomedical Innovation Town Zone (KENTO)



Taking advantage of the National Cerebral and Cardiovascular Center's location change, NohBIT continues to add functionality in the health and medical industries. Located in a close proximity to Umeda and Shin-Osaka stations and convenient access to transportation, we expect this area to develop into a new R&D center for the health and medical fields.

## Global Logistics Hub Kansai International Airport Area



With connections to major Japanese cities and approximately 90 cities abroad, this 24-hour airport with two long-distance runways provides world-class cold chain logistics.

## Hub for Industrialization of "Healthcare Innovation" The International Hub for Healthcare Innovation



(Source: A developer of the International Hub for Healthcare Innovation)

We aim to make the Nakanoshima 4-chome area an international hub for industrialization of healthcare innovation and to promote international contribution by offering healthcare innovation.

A station of the Naniwasuji Line (operations expected to start in 2031) is scheduled to open, which will make this area more accessible for both domestic and international visitors.

## Hub of 'Knowledge' Osaka Station North Area



Features excellent access to major cities in the Kansai region, and an assortment of the largest municipal functions in West Japan. With a variety of enterprises, universities and research centers collaborating with the general public, this knowledge capital is creating new intellectual value and is indeed a hub for the accumulation of knowledge.

Institute for Integrated Radiation and Nuclear Science, Kyoto University (Kumatori Town)

# Of course! Osaka!! Perfect home for your business!



## 5 Benefits of Doing Business in Osaka

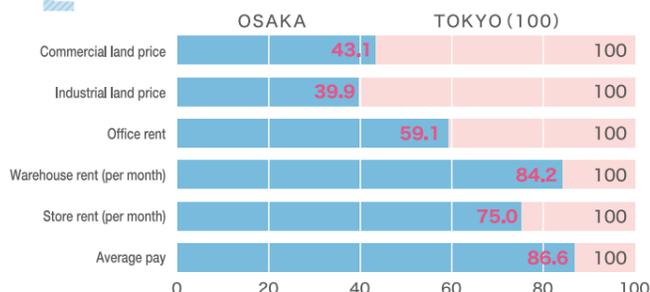
### 1 It's the fifth biggest market in G8 countries! The Osaka-Kyoto-Kobe metropolitan area.

		Population(K)	Area(km)
1	Tokyo-Yokohama	37,977	8,230
2	Jakarta	34,540	3,540
3	Delhi	29,617	2,232
4	Mumbai	23,355	944
5	Manila	23,088	1,873
6	Shanghai	22,120	4,068
7	Sao Paulo	22,046	3,116
8	Seoul	21,794	2,768
9	Mexico City	20,996	2,386
10	Guangzhou-Foshan	20,902	4,342
11	New York	20,870	12,093
12	Beijing	19,433	4,172
13	Cairo	19,372	2,010
14	Kolkata	17,560	1,351
15	Moscow	17,125	5,891
20	Los Angeles	15,402	6,351
23	Osaka-Kobe-Kyoto	14,977	3,019
33	Paris	11,020	2,509
34	London	10,979	1,739
40	Nagoya	9,113	3,704

Demographia

### 2 Business costs far lower than Tokyo

Comparative Cost of Business in Osaka and Tokyo (Index with Tokyo set as 100)



Source: INVEST OSAKA 2019-Osaka City.

### 4 Small / Mid-sized Enterprises (SME) Boasting Nationally Leading Technologies

Number of manufacturing companies : 42,680 2nd largest in Japan  
 Number of employees in manufacturing : 604,086 people 2nd largest in Japan  
 Shipment value : about 16.9 trillion yen 3rd largest in Japan  
 Number of international patent applications : 6,484-2nd in Japan



Artificial satellite  
Maito-1 satellite



Never loosens  
Anti-loosening Hard Lock Nut

Materials : "Economic Census" - Ministry of Internal Affairs and Communication (2016 - preliminary results)  
 "Japan Patent Office Annual Report" - Japan Patent Office (2019)

### 3 Accumulation of World-Class Companies Osaka is home to 8 of the world's top 500 companies!

- Panasonic Corporation
- Nippon Life Insurance Company
- Itochu Corporation
- Sumitomo Life Insurance Company
- The Kansai Electric Power Co., Inc.
- Sumitomo Electric Industries, Ltd
- Daiwa House Industries Co., Ltd
- Takeda Pharmaceutical Co., Ltd

2020 Fortune Global 500 (Ranking of World's Top 500 Companies) -Fortune magazine

### 5 Complete Business and Research Support

#### MOBIO (Monodzukuri Business Information-center Osaka)

Develop support and consultations services for manufacturing (monozukuri) in regards technology, intellectual property, market cultivation, and corporate management.

#### Osaka Research Institute of Industrial Science and Technology

Technological partner for SMEs in manufacturing.

We support product development and solutions for technological issues via technology consultation, request testing, device utilization and subcontracted research.

# Osaka Prefecture has been designated as a location for two types of Special Zones!



## National Support System

### Kansai Innovation Comprehensive Global Strategic Special Zone

#### 1.Special measures of the system and stipulations

Revision of laws, regulations, and ordinances, and special application of order-made measures is possible.

#### 2.Support measures for taxes

- (1) Special amortization: 34% of acquisition price for facilities, equipment. (17% for buildings, etc.)
  - (2) Investment tax exemption: 10% of acquisition price for facilities, equipment. (5% for buildings, etc.)
- \*Either (1) or (2) above is applicable.

#### 3.Support measures regarding finances

Comprehensive Special Zone Support Interest Subsidy Fund (Maximum of 0.7% interest subsidy for all financing from financial institutions)

#### 4.Financial and Governmental Support Measures

Support by utilizing Comprehensive Special Zone Promotion and Coordination budgets.

### Kansai National Strategic Special Zone

#### 1.Special measures of the system and stipulations

Break through the bedrock stipulations with integrated stipulation revision and focused promotion.

#### 2.Support measures for taxes

- (1) Special amortization: 45% of acquisition price for facilities, equipment. (23% for buildings, etc.)
  - (2) Investment tax exemption :14% of acquisition price for facilities, equipment. (7% for buildings, etc.)
  - (3) Income tax exemption: 20% of income earned by businesses where special measures play an important role, including medicine, international, agriculture, and certain IoT(Enterprises established less than 5 years prior are eligible.) etc.
- \*Either (1) or (2) above is applicable. For the fiscal year when either (1) or (2) is applied, (3) is not applicable.

#### 3.Support measures regarding finances

Comprehensive Special Zone Support Interest Subsidy Fund (Maximum of 0.7% interest subsidy for all financing from financial institutions)

# Osaka eSPECIALLY supports growing industries in the SPECIAL ZONE!



## Osaka's Unique Support System (Tax Incentive System for Special Zone for Growing Industries)

In Osaka, we have established Tax Incentive System for Special Cluster Zone for Growing Industries (Tax Incentive System for Special Zone for Growing Industries). We support business enterprises that will set up business in the new energy and life science fields!

Enterprises in the life science and new energy fields that are engaging in advanced business in the Special Zone for Growing Industries are eligible.

## Osaka Prefectural taxes (Real Estate Acquisition Tax, Corporate Prefectural Resident Tax, Corporate Enterprise Tax) can be reduced

### Benefit 1

Up to 100% reduction in taxes for acquisition of real estate. The larger investment, the larger the reduction

### Benefit 2

Reduction of prefectural corporate taxes and corporate enterprise taxes for up to 10 years

-A system linked with the tax reduction and subsidy incentive systems in local municipalities-

For companies newly establishing business in Osaka, the Osaka Prefectural taxes are ZERO yen.

For companies relocating from within Osaka Prefecture, the reduction is based on the percentage of increase of employees.

## Eligible Business

### New Energies

- Environmentally-friendly automobiles
- Solar/wind power, etc.
- Smart communities
- Storage battery - related
- Energy-conserving devices
- Hydrogen-related

### Life Sciences

- Pharmaceuticals/Medical devices
- Regenerative therapy, etc.
- Clinical trials and research
- Medical/care-giving robots
- Medical information systems
- Medical facilities/organization
- Health-related

## Comparing Effective Corporation Tax Rates

Comparing Effective Corporation Tax Rates for Osaka's Special Zone for Growing Industries

Through efficient use of the national tax incentives and Osaka's Special Zone for Growing Industries Tax Incentive System, Japan's relatively "high" effective corporate tax rate is reduced to the low rates found in East Asian nations!



Note: This is a maximum preferential tax rate which shall apply to the following situations.

When the beneficiary conducts a project eligible for tax incentives by the National Strategic Special Zone and the beneficiary is a company eligible for tax incentives by its home municipality which is designated as an Osaka's growth special zone as well as offering its own reduced tax rate.

\*Based on Ministry of Finance's "International Comparison of Effective Tax Rates for Corporate Earnings Taxation" (as of January 2020) etc.

# We support businesses in the storage battery fields!



## Main Initiatives in the New Energy Field 1

### One of the World's Biggest Testing and Evaluation Centers for Large Storage Batteries (NLAB) Completed in Sakishima Area, a Designated Special Zone.

Driving force to establish a New Industrial Cluster

- NITE\* has built the world's largest testing and evaluation facility.
- Testing and evaluation services started in July 2016. Osaka Prefectural Government is working together with NITE and the national government to promote and enhance the utilization and functions of the facility.
- We are aiming to establish an area in Osaka that provides necessary services for battery-related businesses in a one-stop location.

\*The National Institute of Technology and Evaluation

NLAB  
(National Laboratory for advanced energy storage technologies)



Source: provided by NITE

### Verification Projects using Reusable EV Batteries (Yumeshima Area)

Application example of National Special Zone System

- A variety of projects are on the move in the Yumeshima and Sakishima area where innovations (innovative products and services) in the environment and energy industries are being implemented.
- One good example is a project we have implemented since March 2014 to demonstrate the capabilities of a highly-economical large-scale power storage system constructed by connecting large quantities of discarded used batteries collected from electric vehicles (EV).
- It is expected that this project can be developed into a new energy management business which can contribute to building a low-carbon society by simultaneously realizing wider use of electric vehicles and expanding renewable energy use.



#### Demonstration 1

Suppression function to control photovoltaic (PV) output fluctuations on the demand side.

Cooperation of various demand side energy management systems. (peak cut, backup)

#### Demonstration 2

Application of the Feed in Tariff (FIT) solar system in an emergency.

Applying part of FIT solar system which stops in an emergency to supply power to battery.



### Storage Battery Projects are on the Move in the Yumeshima / Sakishima Areas of the Special Zone!

Osaka is the best place for storage battery business and demonstration!

## Battery Strategy Promotion Center

Looking to strengthen the international industry, we support new business projects for storage batteries, fuel cells

● Location: 25F Osaka Prefectural Government Sakishima Building 1-14-16 Nanko kita, Suminoe-ku, Osaka.

competitiveness of the Kansai battery creation and coordinate demonstration and solar cells.

● Contact: Tel. +81-6-6210-9269 Fax. +81-6-6210-9296

# We support businesses in the hydrogen and fuel cell fields!



## Main Initiatives in the New Energy Field 2

### Kansai International Airport (KIX) Hydrogen Grid Project (Kansai International Airport Area)

- As a first for an airport in Asia, the Kansai International Airport (KIX) built a hydrogen supply facility for industrial vehicles and fuel cell-powered forklifts have been introduced.
- Taking advantage of fuel cell forklifts' characteristics, we can increase operating efficiency, reduce CO2 emissions and improve working conditions.
- Hydrogen is also supplied to fuel cell vehicles at the nation's first Hydrogen Station.



Hydrogen supply facility for industrial vehicles (Opened in March 2017)



Iwatani Hydrogen Station in Kansai International Airport (Open in January 2016)

### Introducing Fuel Cells into Prefectural Facilities etc.

- On the premises of the Osaka Wholesale Market, a private enterprise installed the nation's first 1MW level fuel cell system for commercial use. It is expected that the system will contribute to the reduction of CO2 emission and the improvement of stability and reliability of power supply.
- The Market purchases generated power and utilizes it as emergency power supply.



Fuel cell system of 1.2 megawatt solid oxide fuel cell (or SOFC) The service started in March 2015

- Osaka Research Institute of Industrial Science and Technology or ORIST, in cooperation with a private enterprise, set up commercial and industrial fuel cells (Solid Oxide Fuel cell or SOFC) in its Izumi Center. And it has evaluated the safety and reliability of the SOFC power system through at least 4,000 hours of continuous operation, and confirmed the advantages of system installation.
- The center has implemented a demonstration test for commercialization until June 2020.



Commercial and Industrial Fuel Cell (Solid Oxide Fuel cell or SOFC)

Additionally, we are also working on how to verify new hydrogen-related technologies.

# Leading-Edge Environment for Health and Medical Fields in Osaka!



## Main Initiatives in the Life Sciences

### Forming a Life Science Cluster Saito

- **Saito Life Science Park**  
17 facilities including the National Institute of Biomedical Innovation, Health and Nutrition (NIBIOHN) and life science related enterprises are located.  
Incubation facilities for bio-ventures (in three buildings)
- For the other areas than Saito Life Science Park, we are aiming to attract life science related businesses.

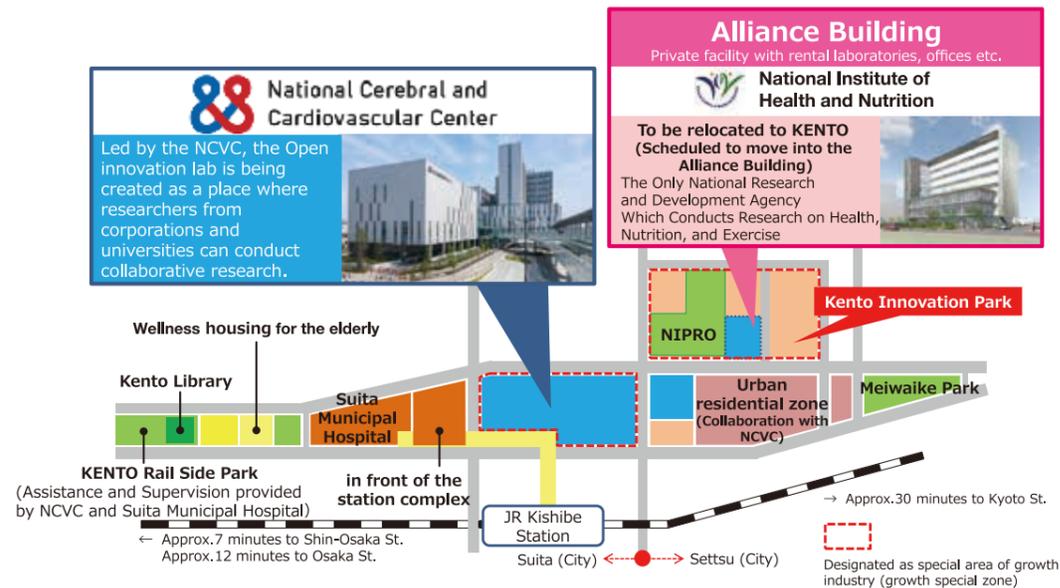


### Northern Osaka Health and Biomedical Innovation Town (NohBIT) nicknamed 'KENTO'

- Taking advantage of the National Cerebral and Cardiovascular Center's relocation to the KENTO or NohBIT, it continues to add diverse institutions and businesses based on its concept of "health and medical".
- JR Kishibe Station directly connected to KENTO offers convenient access.  
-12 minutes from Osaka Station  
-7 minutes from Shin-Osaka Station
- KENTO Innovation Park:  
The National Institute of Health and Nutrition will be relocated to the KENTO Innovation Park.  
We are also facilitating our efforts to bring together other health and medical care-related research and development facilities and corporations in this area.
- Please inquire about the incentives available.



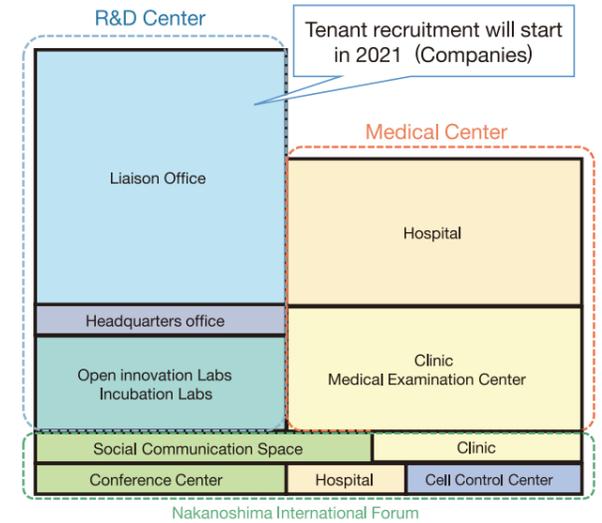
(provided by Suita City)



## The International Hub for Healthcare Innovation in Nakanoshima.

### <Development of the International Hub>

- We aim to open the International Hub for Healthcare Innovation\* in spring 2024.  
The Hub promotes practical applications and industrialization of healthcare innovation based on regenerative medicine.
  - Tenant recruitment is scheduled to start in 2021 for the Liaison Office space in the Healthcare Innovation R&D Center.
- \* The term "healthcare innovation" means leading advanced medical care that flexibly responds to future changes in the medical environment including changing medical needs, innovation in science and technology etc.



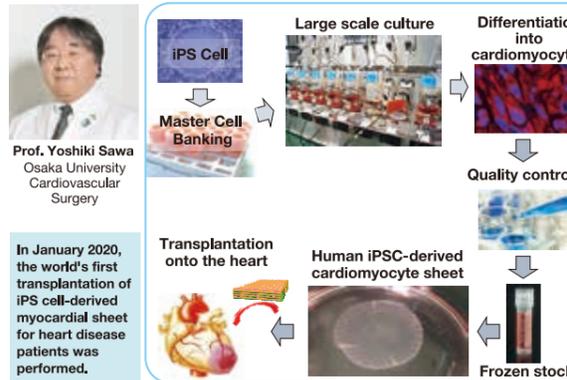
### <Organization for Advanced Healthcare Innovation>

- Along with private companies, Osaka Prefecture contributes to setting up an organization which will support the International Hub for Healthcare Innovation.
- An MOU has been concluded with the Japanese Society for Regenerative Medicine.

## Osaka's Seminal Initiatives!

### ● Leading the world iPS cell research

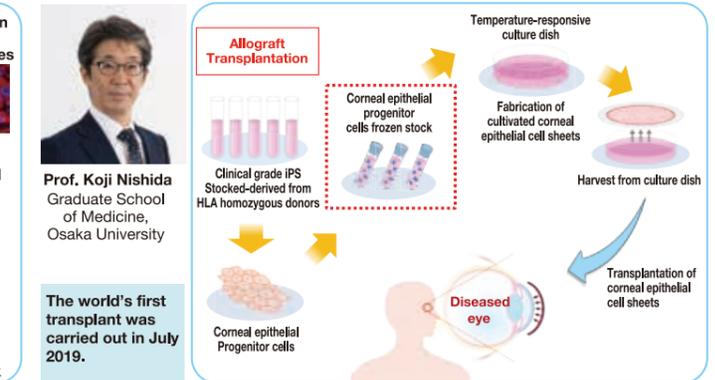
Myocardial regenerative medicine using iPS cell-derived cardiac cell sheet



Prof. Yoshiki Sawa  
Osaka University  
Cardiovascular Surgery

In January 2020, the world's first transplantation of iPS cell-derived myocardial sheet for heart disease patients was performed.

Corneal epithelial regenerative medicine using human iPS cells (allograft transplantation)

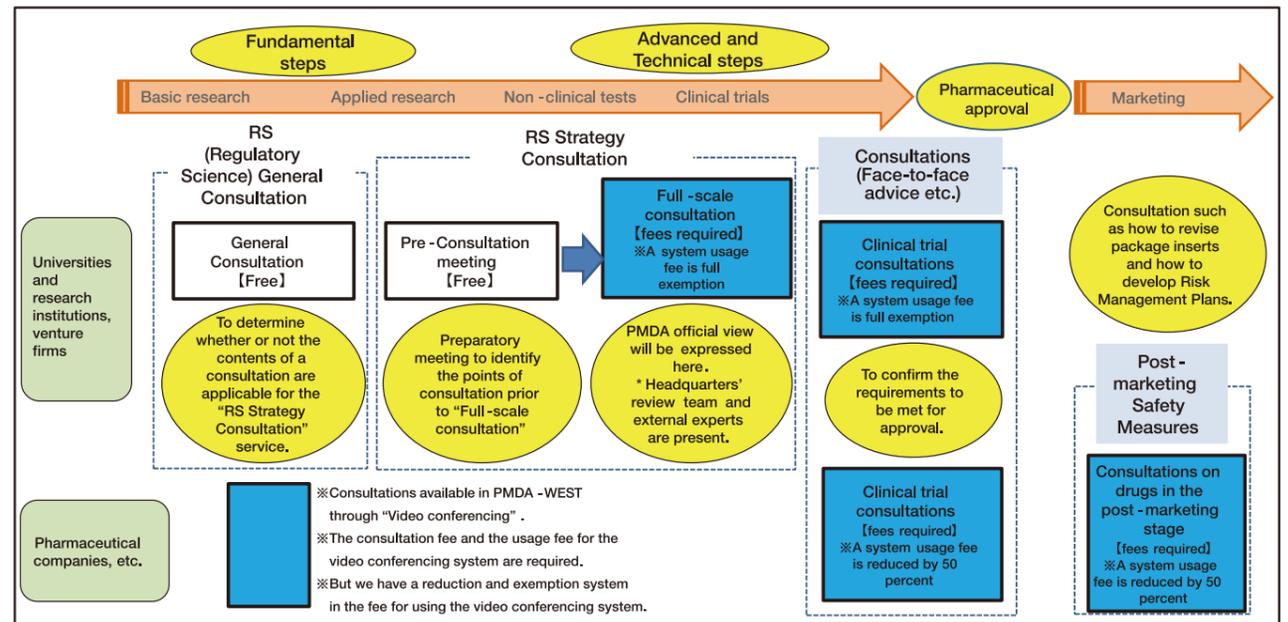


Prof. Koji Nishida  
Graduate School of Medicine,  
Osaka University

The world's first transplant was carried out in July 2019.

## PMDA-WEST (Pharmaceuticals and Medical Devices Agency - Kansai Branch) offers consultations on pharmaceuticals and medical devices.

- The video conferencing system allows a live video connection between the PMDA headquarters in Tokyo and the Kansai branch office.  
Osaka/Kansai can now respond to a comprehensive range of consultations from early to late pharmaceutical development stages including clinical trials and marketing stages, removing the need to visit Tokyo.



## Sightseeing (Osaka)



- One of three foreign tourists visit Osaka
- Foreign tourists visiting in Osaka : 12 million (2019)

Ranking	Prefecture	Visiting Rate(%)
1	Tokyo	47.2
2	Osaka	38.6
3	Chiba	35.1
4	Kyoto	27.8
5	Nara	11.7
6	Aichi	9.0
7	Fukuoka	8.7
8	Hokkaido	8.0
9	Kanagawa	7.8
10	Okinawa	6.1

[Source]  
Japan Tourism Agency, Ministry of Land,  
Infrastructure, Transport and Tourism  
Consumption Trend Survey for Foreigners  
Visiting Japan 2019



Tsutenkaku Tower



Osaka Castle



Osaka Aquarium Kaiyukan

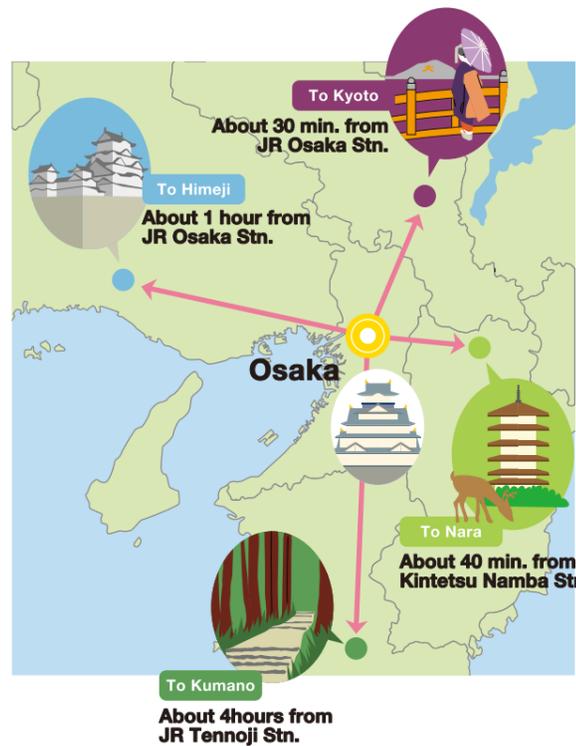


Abeno Harukas  
(Abenobashi Terminal Building)



Dotonbori

## Sightseeing (Kyoto, Nara, Hyogo, Wakayama)



Himeji Castle  
(Hyogo)



Kinkakuji Temple  
(Kyoto)

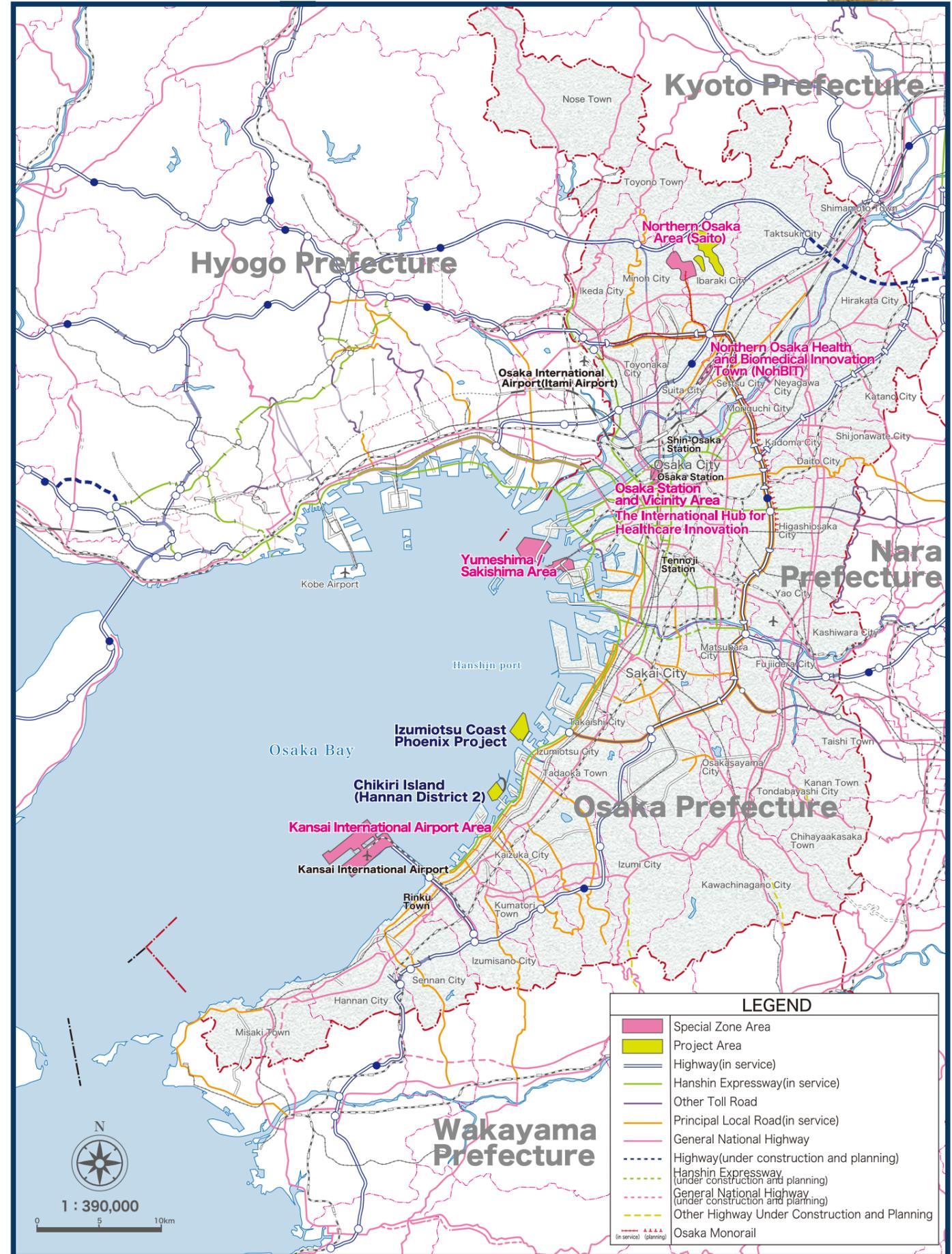


Nara Great Buddha  
(Nara)



Mt. Koya  
(Wakayama)

## Easy Access by Air, Land, or Sea!!!



# And there's more!! A Complete Support System!



## Incentives to Support Business

### Subsidy for Foreign-Affiliated Companies .....

- Eligible Recipients** Foreign-affiliated companies moving into Osaka to set up a head office.
- Eligibility** Office space of 250m<sup>2</sup> or greater and 25 or more regular employees
- Subsidy Rate** [Acquisition] 5% of costs related to building and machine equipment (up to 100 million yen)  
[Lease] 1/3 of rent (for 24 months - up to 60 million yen)

### Subsidy for Investment Promotion .....

- Eligible Recipients** Small and medium enterprises (SMEs) that are newly constructing / expanding their factories or R&D facilities.
- Subsidy Requirement** Over 100 million yen of investment, etc.
- Subsidy Rate / Limit** 5% of cost related to building and machine equipment (10% for companies that have head offices, etc. in Osaka Prefecture) (Limit is 30 million yen)
- Eligible Regions** Zones promoting the formation of industrial clusters, and municipalities that have plans of promoting investment in R&D facilities.  
\*After receiving approval for the subsidy above, the recipient may be eligible for a corporate enterprise tax subsidy (limited to 20 million yen) if certain requirements have been met.

### Tax Incentive for Industrial Cluster .....

- Eligible Recipients** Small and medium enterprises (SMEs) that are newly constructing/expanding factories or R&D facilities, or have acquired land for such purposes.
- Eligible Regions** Zones promoting formation of industrial clusters
- Special Measures Include** Reduction amounting to half of real estate acquisition tax owed upon acquisition of property. (Limited to 200 million yen.)

### Tax Incentive for Strengthening Local Business Facilities .....

- Eligible Recipients** Companies moving/expanding a HQ office (office, research institute, training center)
- Conditions for Approval** The enterprise is newly constructing/expanding HQ function, leasing, or modifying the use of its buildings and preparing facilities in a region listed in the Regional Revitalization Plan. The enterprise is adding 5 or more employees to their HQ. (2 employees for SMEs)
- Special Measures** Application of either a special refund or a tax exemption for corporate taxes etc. in regards to the acquired building asset.  
Application of tax exemption for corporate taxes etc. in regards to employees newly hired for work in the HQ.  
Loan guarantee from the Organization for Small & Medium Enterprises and Regional Innovation, JAPAN.

### Regional Future Investment Promotion Act .....

- Eligible Recipients** A company which has formulated a business plan of a project in the target areas under the prefectural basic plan for invigorating the regional economy and its business plan has been approved by the governor of Osaka.
- Conditions for Approval** The business plan shall comply with the basic plan and satisfy requirements including "taking advantage of the regional characteristics" "creating high added value" and "bringing about economic ripple effects to regional businesses" .
- Special Measures** Tax-based support : A tax reduction for investment in facilities and equipment needed for a project which satisfies eligible criteria set forth by the national government.  
Financial support : A preferential financing system by the Japan Finance Corporation (JFC) for small and medium sized enterprises.  
Etc.

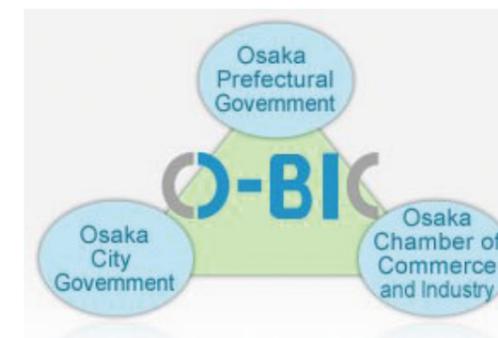
For more information, please visit our website [A must-read guidance, Osaka](#)

## Investment Support Services



### O-BIC(Osaka Business and Investment Center)

A detailed support system that targets your specific needs.



### Examples of the Wide Range of Supports

- General information on Osaka in English, Chinese, Korean, and Japanese
- Real estate information regarding office space, locations for warehouses and plants, and residential properties
- Advice on application procedures for company registration and status of residence
- Information regarding incentives measures provided by local governments etc., and coordination with related organizations and agencies
- Introductions to interpreters, translators, market researchers, attorneys, general and tax accountants, and other professionals
- Assistance in meeting potential business partners through websites, meetings, and seminars

### Support Program for Foreign Companies

- Subsidy for registration cost of establishing a new head office or branch: up to 100,000 yen per applicant
- Subsidy for cost of obtaining status of residence: up to 50,000 yen per applicant

TEL : +81-6-6944-6298

Email : o-bic@osaka.cci.or.jp

URL : <http://o-bic.net/>

### Temporary Offices

**IBPC Osaka and JETRO Osaka have set up free temporary offices for foreign companies considering investment in Osaka.**

#### IBPC (International Business Promotion Center) Osaka

TEL : +81-6-6615-7130

Email : [info@investosaka.jp](mailto:info@investosaka.jp)

URL : <https://www.investosaka.jp/eng/>

#### JETRO Osaka

TEL : +81-6-4705-8660 (Direct) -8603 (Representative)

Email : [OSD@jetro.go.jp](mailto:OSD@jetro.go.jp)

URL : <http://www.jetro.go.jp/en/invest>

# Hiroshima Prefecture

Located in the western part (Chugoku region) of Japan

Pursuing industrial transformation

Quadruple Helix approach led by Hiroshima University

# 「広島県の概要」

広島県は、本州の西南部、中国地方の中心に位置し、面積は8,479 km<sup>2</sup>、人口は約279万人、中国四国地方ではもっとも面積が大きく、人口の多い県です。地勢は、一般に山が多く、県北部を走る中国山地は標高1,000m以上の山々が連なり、なだらかな山容や清らかな渓谷とともに、春の新緑、秋の紅葉と美しい景観をくり広げています。また、南部は瀬戸内海に面し、大小無数の島々が点在し、息を飲むような多島美のパノラマを描きだしています。県内には23の市町があります。

## Overview of Hiroshima Prefecture

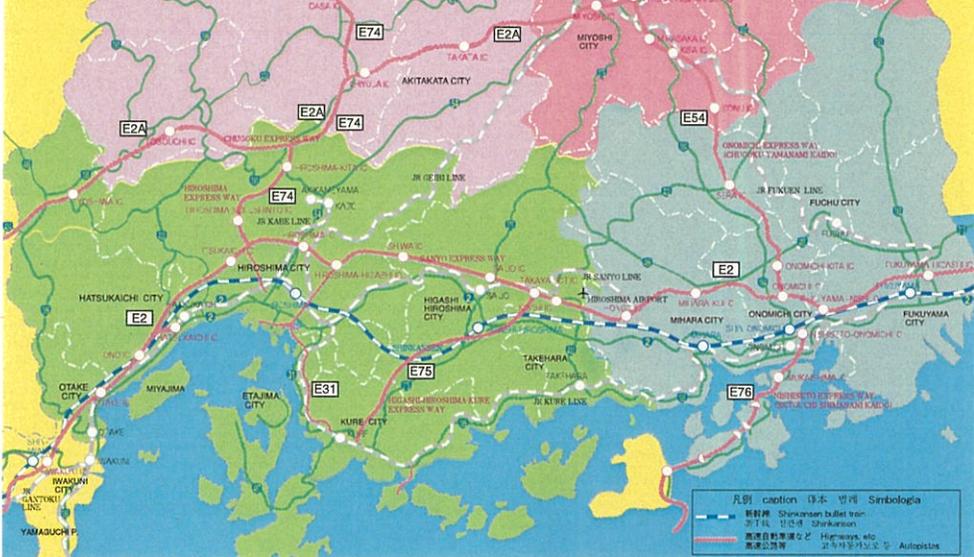
Hiroshima Prefecture is situated in the southwestern part of Japan's main island of Honshu with a total land area of 8,479km<sup>2</sup> and a population of about 2.79 million people. It is the prefecture with the largest land area and population in the Chugoku and Shikoku regions.

The prefecture's geography is generally mountainous. The Chugoku Mountain Range is comprised of a series of mountains at least 1,000 meters in elevation in the northern part of the prefecture. Additionally, pristine river-gorges, scenic new growth in the spring, and beautiful colorful foliage in the fall spread over a vast area. The south of the prefecture borders the Seto Inland Sea, an area dotted with countless islands, both large and small, creating a panorama of island beauty. There are a total of 23 towns and cities in the prefecture.

## 広島県の概要

広島県は本州西南部、中国地方の中心に位置し、面積が8,479平方キロメートル、人口は約279万人、中国及び四国地方では面積が最も大きく、人口が最も多い県です。貫穿する北部の中国山地、標高1,000メートル以上の群山綿延起伏、清冽の溪水、幽深い峡谷及び春の新緑、秋の紅葉を形成する美しい景観。南部は瀬戸内海に面し、海面上に散らばる大小無数の島々、描きだす美しい群島パノラマ。県内には23の市町。

## ■広島県 HIROSHIMA PREFECTURE



## 히로시마현의 개요

히로시마현은 혼슈의 남서부인 주고쿠지방의 중심에 위치하고 있습니다. 면적은 8,479km<sup>2</sup>로, 인구는 약 279만 명으로 주시코부지방에서 가장 면적이 넓고 인구가 많은 현입니다. 지세는 일반적으로 산이 많으며, 특히 현의 북부에 동서로 길게 뻗은 주고쿠산지는 높고 1,000m 이상의 산들로 이어져 있으며, 완만한 산세와 맑은 계곡과 더불어 봄의 신록, 가을의 단풍 등 매우 아름다운 경관을 볼 수 있습니다. 또 남부는 세토내해에 접해 있어 크고 작은 무수한 섬들이 어우러진 다도해의 파노라마를 연출합니다. 현 내에는 23개의 시초(市町·市초자치단체)가 있습니다.

## Datos sobre Hiroshima

La Prefectura de Hiroshima se localiza en el centro de la región japonesa de Chūgoku, al sur de la isla principal Honshū. Cuenta con una superficie de 8,479 Km<sup>2</sup> y una población de alrededor de 2 millones 790 mil habitantes. Es la prefectura con la mayor extensión y la más poblada de la región de Chūgoku. Su topografía está compuesta de muchas elevaciones, entre ellas, el Sistema Montañoso de Chūgoku que recorre la parte norte de la prefectura alcanza alturas de más de 1,000 m., con montañas y valles que ofrecen claros paisajes y una verde vegetación en primavera, así como rojos intensos en otoño. El sur de la prefectura se abre al mar de Seto Naikai, con una panorámica vista de incontables islas de diversos tamaños, que dejan sin aliento por su belleza. La Prefectura se compone de 23 ciudades.

# 「広島へのアクセス」

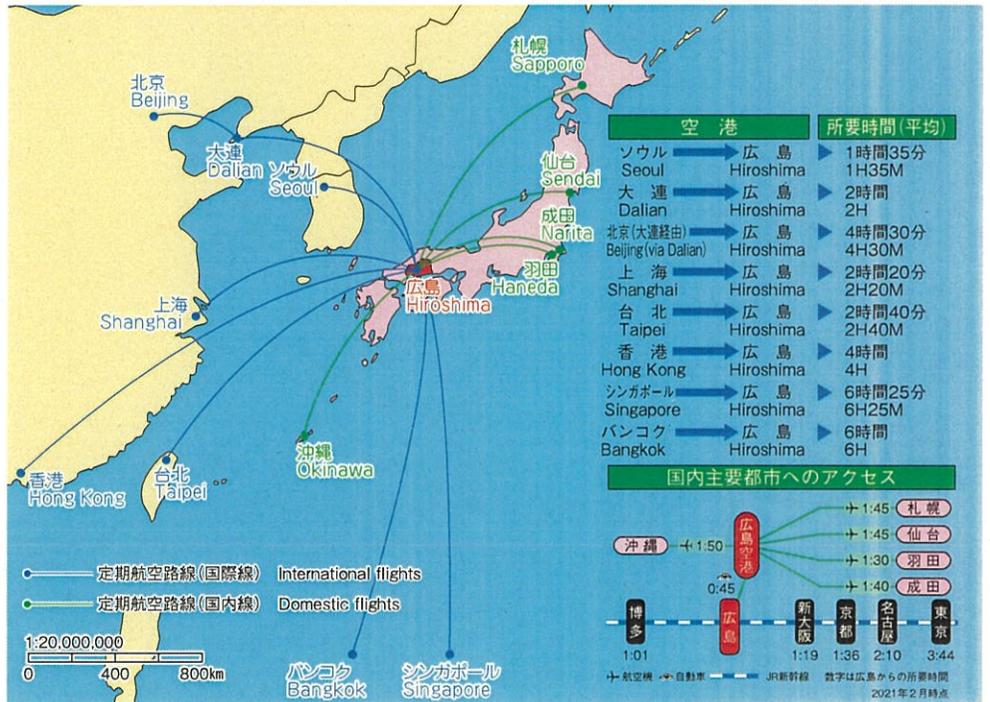
広島県は、交通の便に恵まれており、さまざまな交通機関を利用してアクセスできます。航空路では広島空港から海外8都市、国内5都市へ定期航空路線が就航しています。鉄道は、山陽新幹線、山陽本線、呉線、芸備線などが、高速道路は中国自動車道、山陽自動車道、浜田自動車道、瀬戸内しまなみ海道、中国やまなみ街道などが県内を走っています。

## Access to Hiroshima

Hiroshima Prefecture is conveniently located for transportation. The prefecture is served by a total of eight international destinations and five domestic destinations operating out of Hiroshima International Airport. It is crisscrossed by rail transportation, such as the Sanyo Shinkansen and the Sanyo Honsen lines. Highways wind throughout the prefecture, such as the Chugoku, Sanyo and Hamada Expressways, the Setouchi Shimanami Kaido and the Chugoku Yamanami Kaido.

## 至広島交通手段

広島県の交通非常便利，広島机场与海外的8个城市、国内的5个城市开通了定期



## 広島県のすがた Outline of Hiroshima Prefecture

人口 279万人 (2021年1月)
Population 2.79million (January, 2021)
面積 8,479km <sup>2</sup>
Land area 8,479km <sup>2</sup>
平均気温 Average temperatures
沿岸部 15℃ Coastal area 15℃
中国山地付近 10℃ Chugoku mountain area 10℃
留学生数 4,979人 (2019)
Number of foreign exchange students 4,979 (2019)

実質県内総生産 11兆 7,137億円 (2018)
Real total prefectural products 11.7137 trillion yen (2018)
一人当たり県民所得 311万円 (2018)
Actual gross prefectural product 3.11 million yen (2018)
大学数 21 (2020)
Number of universities 21 (2020)
在留外国人数 52,134 (2018)
Number of foreign residents 52,134 (2018)



県章  
Prefectural Symbol  
县徽  
현의 상징마크  
Símbolo de la Prefectura



県の鳥 アビ  
Prefectural Bird: Abi (red-throated loon)  
县鸟 红喉潜鸟  
현의 새 아비  
Ave de la Prefectura Abi



県の木 モミジ  
Prefectural Tree: Maple Tree  
县树 枫树  
현의 나무 단풍나무  
Árbol de la Prefectura Momiji (árbol de arce)



県の魚 カキ  
Prefectural Fish: Oyster  
县鱼 牡蛎  
현의 어(魚) 굴  
Pez de la Prefectura Ostión

# 「四季」

瀬戸内海と中国山地という自然に恵まれた広島県は、四季の風情も格別です。春(①)は桜や新緑が自然を彩り、各地で花祭りや田植えにちなんだお祭りが行われます。夏(②)は、山や海に自然とのふれあいを求めて家族連れや若者たちが繰り出し、夏祭りや花火大会が夏の気分を盛り上げます。秋(③)は、県花・県木のみみが鮮やかに紅葉し、豊作を祝う秋祭りが成勢よく開催されます。冬(④)は、県北地方が大勢のスキーヤーでにぎわいます。

## Seasonal Colors

Hiroshima Prefecture is blessed by nature, graced with both the Seto Inland Sea as well as the Chugoku Mountain Range. In spring(①), flowering cherry trees and new growth add color, with flower festivals and rice planting occurring throughout the prefecture. In summer(②), families and young people flock to the mountains and sea to be in nature, and summer festivals and fireworks displays contribute to the festive mood. In fall(③), with maple trees turning bright crimson, fall festivals celebrating the harvests are held. In winter(④), the northern part of the prefecture is bustling with skiers.

## 广岛县的四季

南临瀬戸内海，北依中国山地的广岛县，自然资源丰富，四季风情各异。春天(①)，樱花和新绿装点着大地，县内各地纷纷举行花节及插秧等庆祝活动。夏天(②)，群山和碧海被涌向大自然的人们点缀得热闹非凡，夏天的祭典(庙会)和烟花大会更将夏天的气氛推向高潮。秋天(③)，作为县花和县树的枫树，叶红似火，庆祝丰收的秋祭活动更为

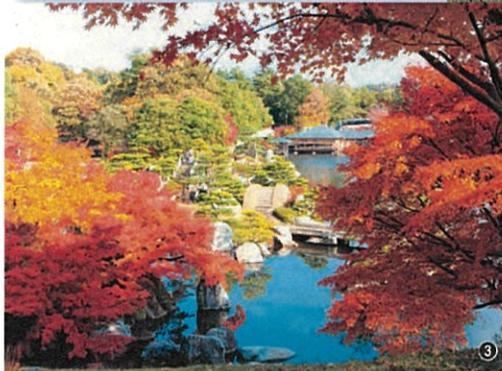
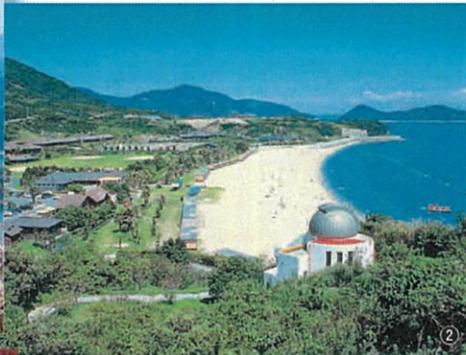
壮观。冬天(④)，众多的滑雪爱好者纷纷前往广岛县的北部进行各种滑雪活动。

## 사계절

세토내해와 주고쿠산지의 풍요로운 자연환경을 자랑하는 히로시마현은 사계절의 풍경도 특별합니다. 봄(①)에는 벚꽃과 신록이 자연을 물들이고 각지에서는 꽃축제와 모내기 관련된 축제가 열립니다. 여름(②)에는 산과 바다의 대자연을 즐기려는 사람들로 붐비며, 여름 축제와 불꽃놀이가 여름 분위기를 한껏 고조시킵니다. 가을(③)은 현을 상징하는 꽃·나무인 단풍나무가 아름답게 물들며, 풍작을 기원하는 가을 축제가 성황을 이룹니다. 겨울(④)은 현 북부지방 곳곳의 스키장에서 수많은 사람들이 스키를 즐깁니다.

## El paisaje estacional

La abundante naturaleza con la que cuenta la Prefectura de Hiroshima gracias al mar de Setonaikai y la cadena montañosa de Chūgoku, también permite apreciar excelentes paisajes estacionales. En primavera (foto ①) las flores de cerezo y los nuevos verdes de las hojas colorean los paisajes, junto con los festivales de las flores y plantaciones de arroz en cada una de las ciudades, propios de esta estación. En verano (foto ②) los viajes familiares y de grupos de jóvenes a la playa o a las montañas para estar en contacto con la naturaleza, así como los festivales de verano y los magnos eventos de fuegos artificiales nos sumergen plenamente en el ambiente veraniego. En otoño (foto ③) los momiji, que son el árbol y la flor de la prefectura, tienen sus hojas de carmesí, y se llevan a cabo con mucha energía los festivales de otoño para pedir por las abundantes cosechas. En invierno (foto ④), la parte norte de la prefectura recibe a una gran cantidad de esquiadores.



# 「世界遺産」

1996年12月，広島市の原爆ドームと宮島の厳島神社がユネスコの世界遺産に登録されました。厳島神社(①)は、12世紀に時の権力者・平清盛が造営，平安時代の貴族の邸宅である寝殿造りの様式を取り入れた社殿で，建築史の上からも貴重な価値をもっています。原爆ドーム(②)は，被爆時のままの状態では保存されている被爆建物で，1945年8月6日，原爆はこの建物のほぼ真上で炸裂しました。

## World Heritage

In December of 1996, Hiroshima City's Atomic Bomb Dome as well as Miyajima Island's Itsukushima Shrine (①) were registered as UNESCO World Heritage sites. The Atomic Bomb Dome(②), the building directly over which the atomic bomb exploded, has been accurately preserved since the aftermath of the explosion. Itsukushima Shrine, constructed in the Heian Era Shinden-style, is an artistic and technical masterpiece, appearing to float upon the surface of the sea at high tide.

## 世界遗产

1996年12月，広島市の原子弹爆炸遗址和宫岛的严岛神社被联合国教科文组织(UNESCO)列入为世界遗产。严岛神社(①)是12世纪，当时的统治者平清盛所建造。采用平安时代贵族住宅的建筑样式“寝殿造”，在建筑史上有着非常重要的价值。原子弹爆炸遗址(②)是保持着被原子弹爆炸时原状的被爆炸建筑物，1945年8月6日原子弹在此建筑物的正上空爆炸。

## 세계유산

1996년 12월 히로시마시의 '원폭돔' 과 미야지마의 '이즈쿠시마신사' 가 유네스코 세계문화유산으로 등록되었습니다. 이즈쿠시마신사(①)는 12세기의 권력자 다이랴노 기요모리가 헤이안시대의 귀족 지택의 건축 양식으로 건설한 신사로, 건축사적으로도 귀중한 가치를 지니고 있습니다. 원폭돔(②)은 피폭 당시의 상태 그대로 보존되어 있는 피폭 건물로, 1945년 8월 6일 이 건물 거의 바로 위에서 원폭이 작렬하였습니다.

## Patrimonio de la Humanidad

En diciembre de 1996, el Domo de la Bomba Atómica en la Ciudad de Hiroshima, y el Santuario de Itsukushima Jinja en Miyajima fueron declarados Patrimonio de la Humanidad por la UNESCO. El Santuario de Itsukushima Jinja (foto ①) fue construido por el poderoso líder del siglo XII Taira no Kiyomori, y tiene un alto valor arquitectónico e histórico, pues el ala principal del santuario fue construida con un estilo llamado Shinden, el cual era utilizado para las residencias de la Corte Imperial de la Era Heian. El Domo de la Bomba Atómica (foto ②) es un edificio que recibió casi directamente la explosión de la bomba aquel 6 de agosto de 1945, y se ha conservado en la misma condición desde ese momento.



# 「味・おみやげ」

Food・Souvenirs 美食・土特産品 음식·토산물 Manjares y souvenirs

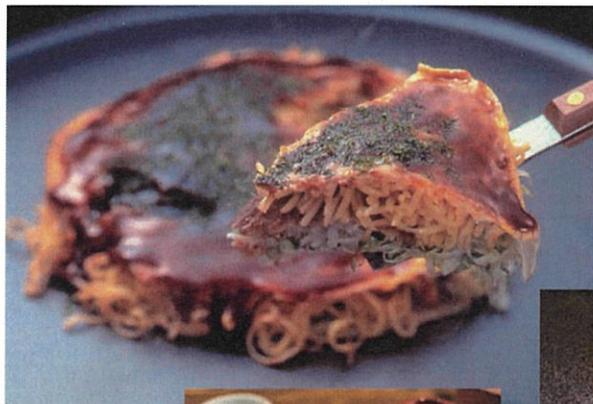
四季折々の新鮮な海の幸、山の幸を使った特色ある郷土料理が味わえます。化粧筆としても人気の高い熊野筆、木のぬくもりを大切にした宮島細工など、民芸品も多彩です。

Visitors can taste a plethora of characteristic local dishes, made with the varied seasonal bounties of both the sea and mountains. Folk crafts are also various and plentiful, from the highly popular Kumano makeup brushes to the warm and homely Miyajima wood works.

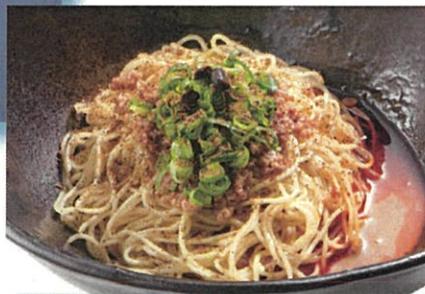
可以品尝到四季不同的山珍海味等地方风味。丰富多彩的纪念品，有作为化妆笔而深受喜爱的熊野笔，精致细腻的宫岛木雕等。

사계절 내내 산해진미를 이용한 특색있는 향토요리를 맛보실 수 있습니다. 또한, 여성들의 화장붓으로 큰 인기를 얻고 있는 구마노 붓과 나무의 온기를 소중히 여기는 미야지마 세공 등 다채로운 민예품도 있습니다.

Hay una gran variedad de platos característicos de cada región, que utilizan los manjares del mar y las montañas adecuándose a cada temporada. Asimismo, existe un amplio abanico de artesanías como los famosos pinceles y brochas de maquillaje de Kumano, o las delicadas obras de madera tallada de Miyajima.



お好み焼  
Okonomiyaki  
广岛烧  
오코노미야키  
Okonomiyaki



汁なし担担麺 Dandan Noodles (without soup)  
无汁担担面 시루나시 탄탄면(국물 없는 탄탄면)  
Tan-tan men (ramen picante casi sin caldo)



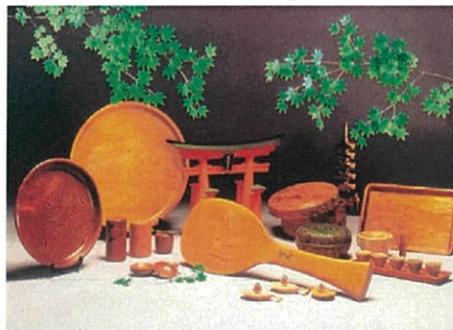
あなごめし  
Conger eel dishes  
星鱈飯  
붕강어 덮밥  
Anago-meshi



カキ Oysters  
牡蠣 殻  
Ostiones



レモン Lemons  
柠檬 레몬  
Limonas de Hiroshima



宮島細工 Traditional Miyajima Arts and Crafts  
宮島工芸품 미야지마 세공  
Artesanías de madera tallada de Miyajima



清酒 Sake  
清酒 청주  
Sake



熊野筆(化粧筆) Kumano Brushes (makeup brushes)  
熊野筆(化粧笔) 구마노 붓(화장붓)  
Pinceles de Kumano (brochas de maquillaje)



けん玉 Kendama  
劍玉 겐다마  
Kendama



もみじまんじゅう Momiji Manju Cake  
楓叶馒头 모미지 만주  
Momiji manju



レモンケーキ  
Lemon Cake  
柠檬蛋糕  
레몬 케이크  
Pancitos de limón

提供 有限会社みしまや  
Photo courtesy of Mishimaya Limited Liability Company

# Hiroshima Prefecture

広島県



**Proximity** between city and nature  
都市と自然の近接性

**Well-**dispersed, **Well-**concentrated  
『適散・適集』



# Hiroshima Prefecture

広島県



Car manufacturing has been the **driving force** of Hiroshima Prefecture's industry

自動車けん引してきた広島県の産業



There are many **top level/unique companies** in Hiroshima Prefecture

オンリーワン・ナンバーワン企業が多数集結

# Innovation-Driven Prefecture

イノベーション立県



Building upon strength in manufacturing, Hiroshima Prefecture is transforming itself into **“Innovation-Driven”** prefecture to ensure further growth.

「ものづくり」中心に成長を続けた広島県だが、「イノベーション立県」として更なる成長を求め、従来の枠に囚われない取組を支援する環境を自治体主導で提供



広島県

# INNOVATION-Driven Prefecture イノベーション立県

# Initiatives for “Innovation-Driven Prefecture”

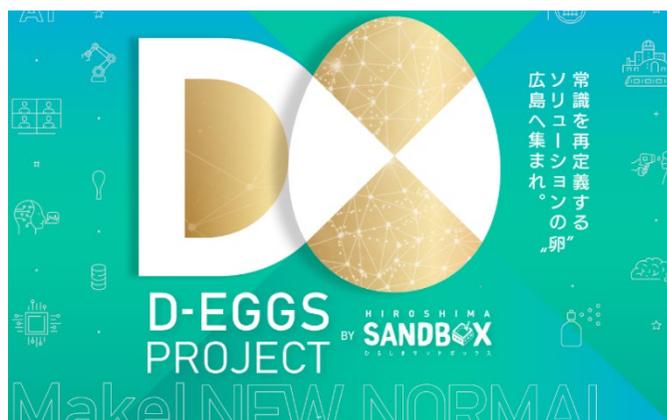
イノベーション立県に向けた取組

Open PoCs (Proof of Concept) that **create new value by solving social issues with digital technology**

デジタル技術で社会課題などを解決し、新たな価値を創出するオープンな実証実験の場



- 2018 - 2020  
Over 3 years implemented **9** projects with 1 billion yen  
2018~2020年  
3年間で10億円の予算を投入し、9件の実証実験を実施



- 2020 - 2021  
Out of **391** applications nationwide, **30** projects were adopted.  
2020~2021年  
全国から391件の応募があり、30件の実証アイデアを決定

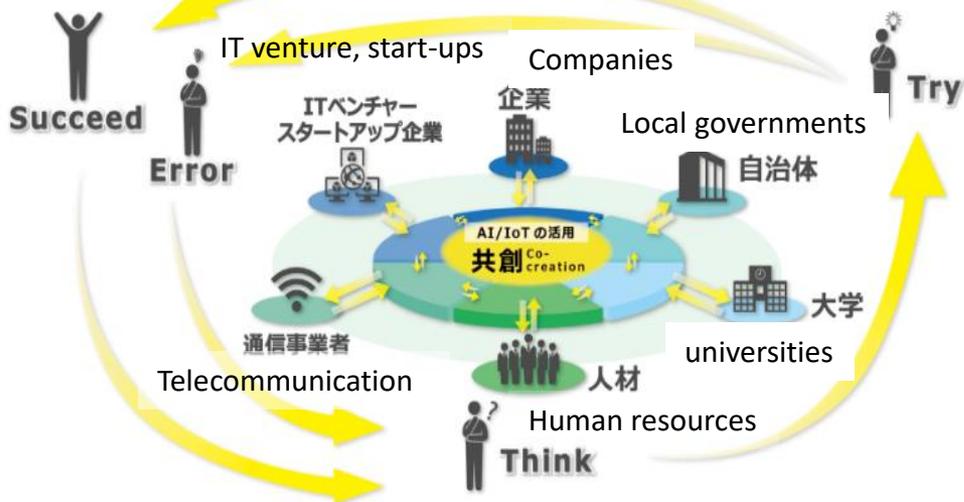
# The Hiroshima Sandbox initiative

Turn the whole of Hiroshima Prefecture into a demonstration field for digital technology!

SANDBOX  
 Promotion Council  
**2,489 members**  
 (as at end of R4,3)

By utilising the latest technologies such as AI, IoT and big data, companies in the prefecture can create new added value and improve production efficiency by attracting companies and human resources from within and outside the prefecture who possess the technology and know-how. Constructing a place for open demonstration and experimentation where trial and error can be conducted in co-creation on the theme of solving various industrial and regional problems.

Make and repeat, everyone gathers and repeats the creation.  
 'A place where you can try again and again, like in a sandpit'.



For members of the Hiroshima Sandbox Promotion Council.

- **Demonstration projects**
  - **Support menu**
- The 'Human Resource Development Menu'** is on its way!

**Demonstration projects**  
 (open-ended proposals)

**Demonstration projects**  
 (government-proposed)

**Support menu for members**

**Human resources development**  
 'Hiroshima Quest'.

01

Unicorns  
**Existing in regions**

ユニコーン企業が地域に存在

02

- **Stimulate** Industry
- **Create** New Value
- **Accumulate** of Companies and Human Resources

- ・産業への刺激
- ・新たな価値の創出
- ・企業や人材の集積

03

Impetus for  
the **Next Challenge**

次なる挑戦への着火剤

05

**Create** UNICORN company  
ユニコーン企業創出

04

Formation of  
**INNOVATON ECOSYSTEM**  
イノベーション・エコシステムの構築



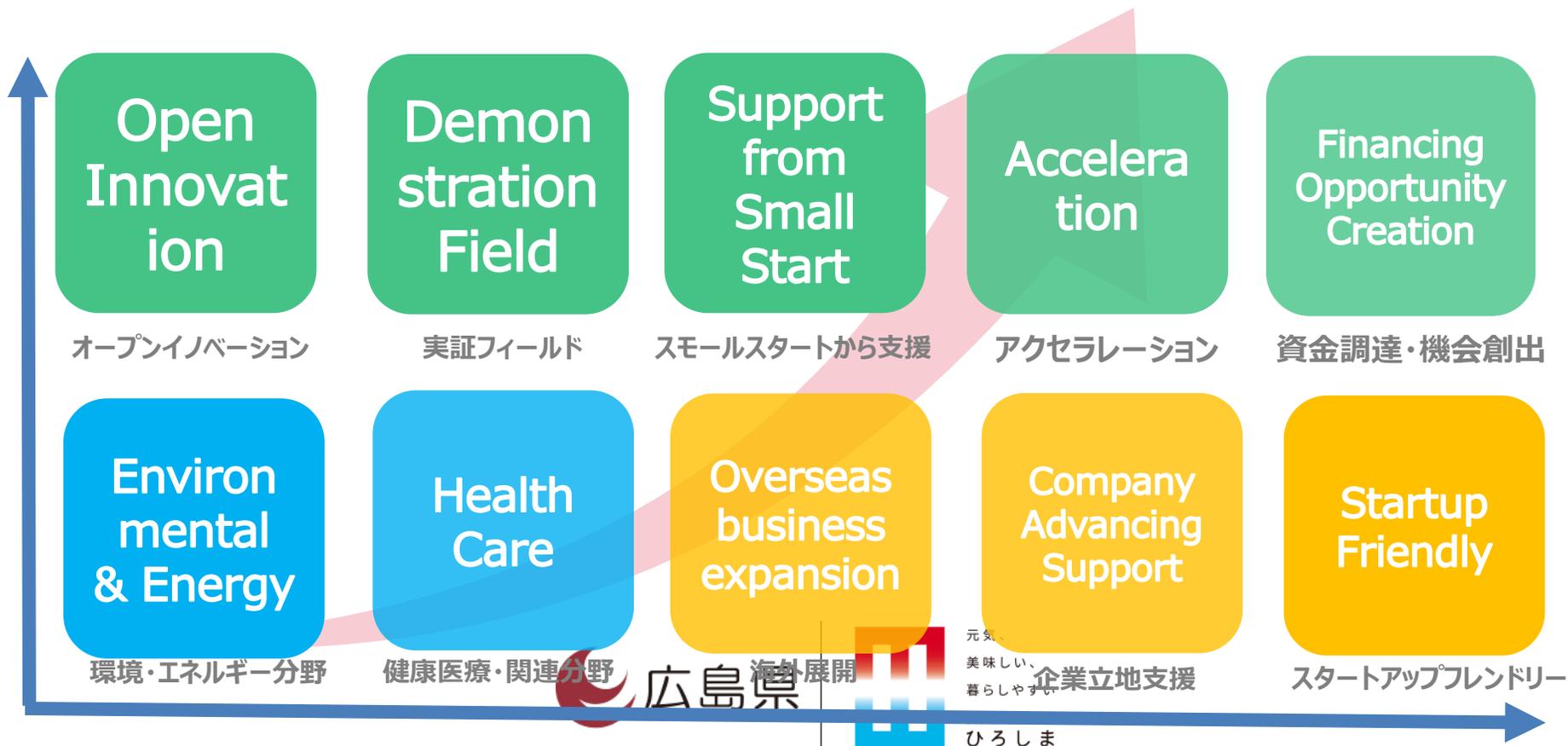


ユニコーンに匹敵する企業を10年で10社作りたい！

挑戦を支える上で、成長フェーズに合わせたアシストが必要である。アントレプレナー教育はもちろん、新規性や独自性を備え、世界市場獲得を狙える汎用性のあるビジネスモデルに挑戦していく企業に対してスケールアップ・アクセラレーションに向けた各種サポート、例えば、ベンチャーキャピタルなどの大口資金提供者へ繋げるためのネットワーク構築や、海外の市場を取り込むためのサポートを準備した。

10 supports for the growth phase!

成長フェーズに合わせた10のサポート！





# HIROSHIMA UNIVERSITY Town & Gown Model for Regional Innovation and Revitalization



## The local government (Town) and the university (Gown)

- Share a vision of sustainable future of the region
- Establish a close relationship and work together
- Integrate the administrative and research & education resources
- Develop a space of co-creation for the solution of regional challenges
- Achieve a co-evolution of the region and the academia

## Campus R&D Model: Digital Innovation and Its Diffusion to the Region

**ローカル5G 無線局設置免許取得 (広島県内初)**

2030年  
カーボンニュートラル×スマートキャンパス5.0宣言

自動運転と広大アプリ

民間提案太陽光PPA事業(10MW)

## Space of Co-creation: Smart City Consortium

地方の活性化のための新しい地方創生モデル

Town & Gown 構想の具現化によるDXとカーボンニュートラルの共創拠点

スマートシティ 包括連携協定

住友商事, SoftBank, FUJITA, DAIKIN, servicenow, 三井住友銀行, MONET, 東洋電機株式会社, 東洋電機, VOUTER, 株式会社エヌ・ティ・エス

## International Cooperation and Transfer of Digital Innovation Models

アリゾナ州立大学サンダーバードグローバル経営大学院広島大学グローバル校の設置

ASU Arizona State University THUNDERBIRD SCHOOL OF GLOBAL MANAGEMENT

ASU 広島大学 東広島市

・アリゾナモデルの移転  
・国境を越えた産官学連携

ASU

## Society 5.0 Global Digital Human Resources Development

スマートシティ、「Society 5.0」の国際展開を担うグローバル人材の輩出のための新たな地域共創拠点 (国際展開のためのひとつづくり)

民間企業、国際機関と連携したグローバルなデジタル人材育成拠点

住友商事北ハノイ スマートシティ事業

IDEC機構

国際ニーズに応じて柔軟な教育プログラムを展開する全学プラットフォーム

# Oita Prefecture

Innovation Base of Kyushu Island

Place where you find Pockets of Excellence

Nurtured by “One Village, One Product” movement

# Oita Prefecture

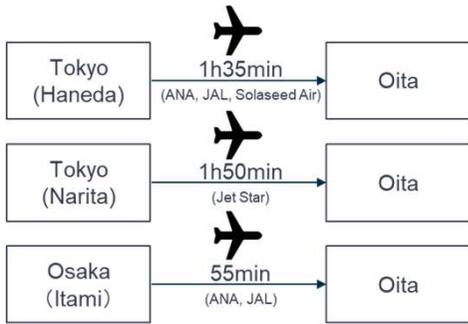




# Oita at a Glance

## 1. Where is Oita?

Oita Prefecture is located northeastern side of Kyushu Island.



## 2. Oita in Numbers

Residents - 1,122,482

Foreign Residents - 13,061

Surface Area - 6,340 km<sup>2</sup>

Municipalities - 18

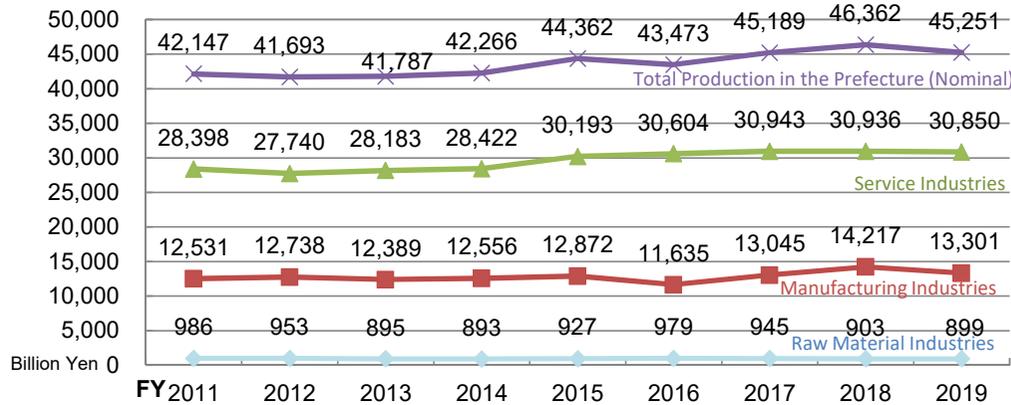
Prefectural Income - JPY2,696,000 (per person)

ONSEN hot spring sources – 5,088

Geothermal Power – 960,000 MWh

## 3. Industries in Oita

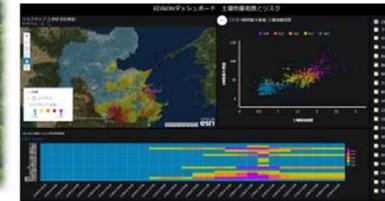
FY2019 Nominal Gross Production within Oita: **Approx. JPY4.5 trillion**



## 4. Technologies in Oita



Green Hydrogen



EDiSON  
Disaster  
Prevention  
Platform



Avatar  
telepresence  
robot



# Manufacturing in Oita

Oita Prefecture

- 1 Sumitomo Riko GROUP  
住友理工グループ
- 2 MARELLI Kyushu Co., Ltd.  
マレリ九州株式会社
- 3 Daihatsu Motor Kyushu Co., Ltd.  
ダイハツ九州(株)
- 4 TOTO GROUP  
TOTOグループ
- 5 Renesas Semiconductor Package & Test Solutions Co., Ltd.  
ルネサス セミコンダクタパッケージ & テストソリューションズ(株)
- 6 TDK Corporation  
TDK(株)
- 7 Sapporo Breweries Limited  
サッポロビール(株)
- 8 AUTOPOLIS Co., Ltd.  
(株)オートポリス
- 9 SB-KAWASUMI LABORATORIES, INC.  
SBカワスミ(株)
- 10 KOHJIN Life Sciences Co., Ltd.  
興人ライフサイエンス(株)
- 11 TAIHEIYO CEMENT CORPORATION  
太平洋セメント(株)
- 12 Japan Semiconductor  
(株)株式会社ジャパンセミコンダクター

Automobile Related Industrial Area  
自動車関連企業群

Oita Institute of Technology  
大分県立工科短期大学校

Ritsumeikan Asia Pacific University  
立命館アジア太平洋大学

Beppu University  
別府大学

Oita University of Nursing and Health Sciences  
大分県立看護科学大学

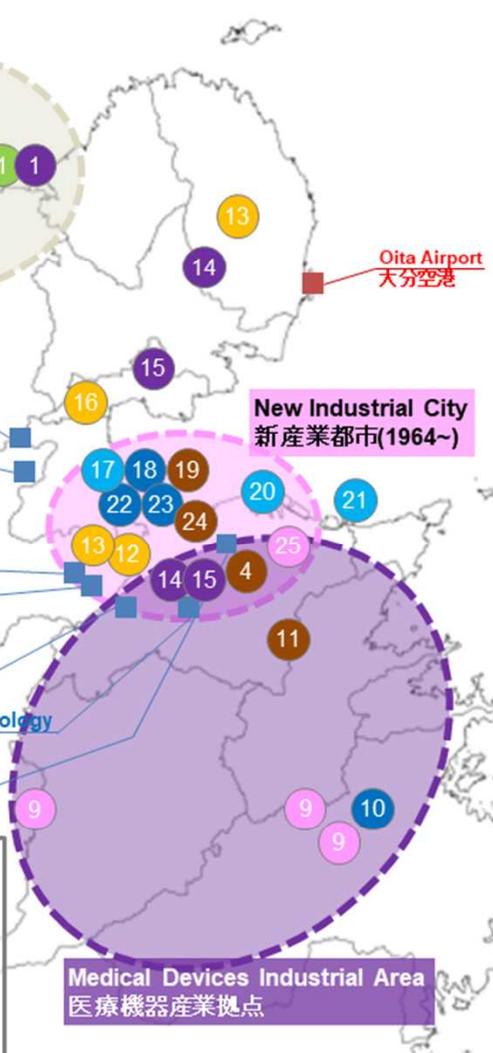
Oita University  
大分大学

Oita Industrial Research Institute  
大分県産業科学技術センター

Oita National College of Technology  
大分工業高等専門学校

Nippon Bunri University  
日本文理大学

- |                            |                          |
|----------------------------|--------------------------|
| Semiconductor<br>半導体       | Chemistry<br>化学          |
| Motorcar<br>自動車            | Medical device<br>医療関係機器 |
| Precision machines<br>精密機器 | Others<br>その他            |
| Metals & Materials<br>金属   |                          |



- 13 Sony Semiconductor Manufacturing  
ソニーセミコンダクタ  
マニュファクチャリング(株)
- 14 Canon  
大分キヤノン(株)
- 15 Canon  
大分キヤノンマテリアル(株)
- 16 Texas Instruments Japan Limited  
日本テキサス・インスツルメンツ(株)
- 17 Nippon Steel Corporation  
日本製鉄(株)
- 18 Showa Denko K.K.  
昭和電工(株)
- 19 ENEOS Corporation  
ENEOS(株)
- 20 Mistui E&S GROUP  
三井E&Sグループ
- 21 JX Nippon Mining & Metals Corporation  
JX金属製錬(株)
- 22 Sumitomo Chemical Company, Limited  
住友化学(株)
- 23 Dainippon Sumitomo Pharma Co., Ltd.  
大日本住友製薬(株)
- 24 Oji Materia Co., Ltd.  
王子マテリア(株)
- 25 Asahi Kasei GROUP  
旭化成グループ



# Green Hydrogen

Oita Prefecture

## Demonstration Plant for Hydrogen Production Using Renewable energy in OITA



The hydrogen produced in this demonstration plant is supplied to hydrogen fueling stations located in Kyushu, some demonstration sites using hydrogen as energy such as fuel cells, etc.

Hydrogen Engine-equipped Corolla (TOYOTA) at the five-hour-long Super Taikyu Race in Autopolis (Oita Prefecture, 2021)



## OBAYASHI CORPORATION

Green hydrogen production demonstration plant using Geothermal power generation in Kokonoe town  
2021.7.18 Launched

Geothermal Power Generation :125kW  
Hydrogen Production Capacity : 10Nm<sup>3</sup>/h

[https://www.obayashi.co.jp/news/detail/news20210718\\_1.html](https://www.obayashi.co.jp/news/detail/news20210718_1.html)

Akio Toyoda President,  
Member of the Board of  
Directors



# Green Hydrogen

Oita Prefecture

## Demonstration Plant for Hydrogen Production Using Renewable energy in OITA



©Shimizu Corporation

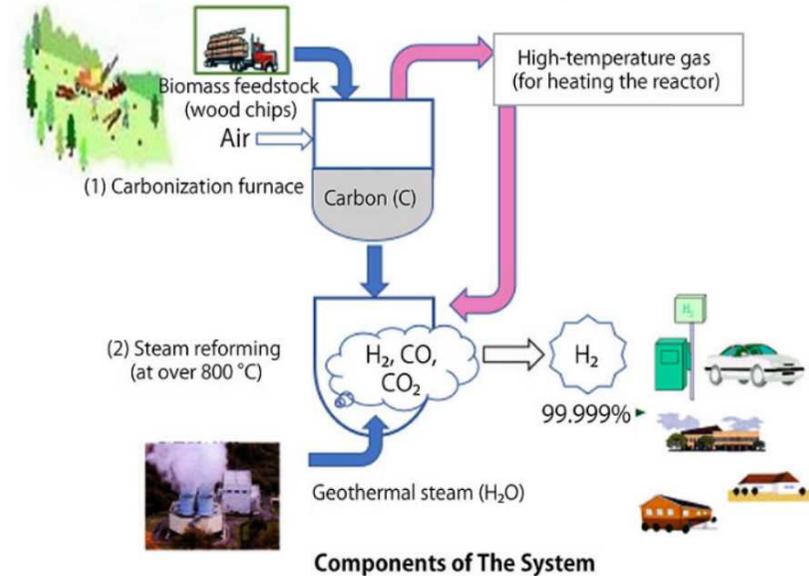
### SHIMIZU CORPORATION

Green hydrogen production demonstration plant using combination of geothermal and biomass energy in Kokonoe town

2022.7.28 Launched

Hydrogen Production Capacity : 50Nm<sup>3</sup>/h

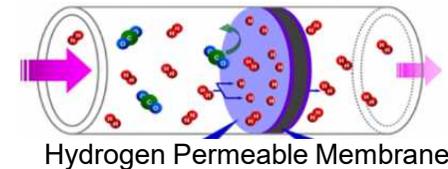
<https://www.shimz.co.jp/en/company/about/news-release/2021/2021051.html>



<https://www.shimz.co.jp/en/company/about/news-release/2021/2021051.html>

The project was selected by the Ministry of Environment as one of the Low Carbon Technology Research, Development and Demonstration Program in 2020.

“HYDRONEXT” -a startup company born in Oita- has technology to be able to purify Hydrogen (99.9999% or more), and the demonstration plant adopted this technology to one of the way to purify Hydrogen.





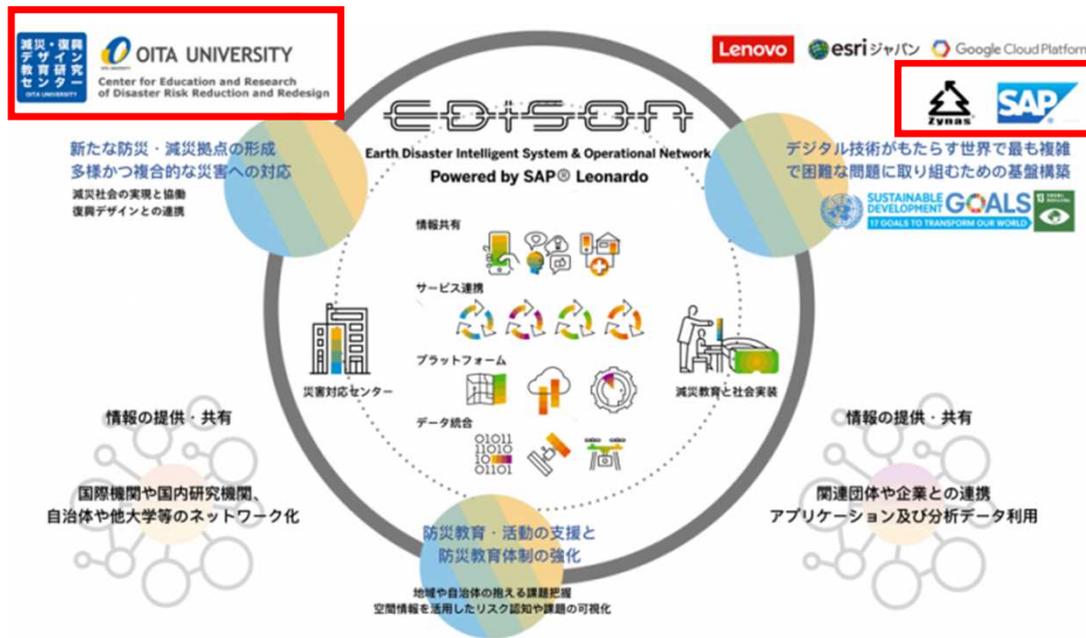
# Data Utilization – Disaster Information Platform “EDiSON”

Oita Prefecture

## EDiSON : Earth Disaster Intelligent System & Operational Network

<What is EDiSON?>

Oita’s original disaster prevention & reduction platform to be able to cope with various types of and combined disasters. Through industry-academia-government collaboration, the system aims to create new disaster prevention and reduction center in Oita by collecting variety of disaster information from each sector and digitally-processing such data with machine learning and AI.



### Information collected in EDiSON CORE (examples)

#### Central Government:

Land, meteorological, and traffic infrastructure info

#### Local Government:

History on public construction & disaster, population distribution, evacuation center locations

#### Private Sectors:

Infrastructure info, SNS streaming info

#### Others:

Water level data, drone data, satellite data, seismic data

### <EDiSON Consortium>

Center for Education and Research of Disaster Risk Reduction and Redesign, Oita University : Platform & system concept

zynas Corporation (iota) : System design, AI & machine learning structure

SAP Japan (Tokyo) : System (server) operation & visualization with dashboard



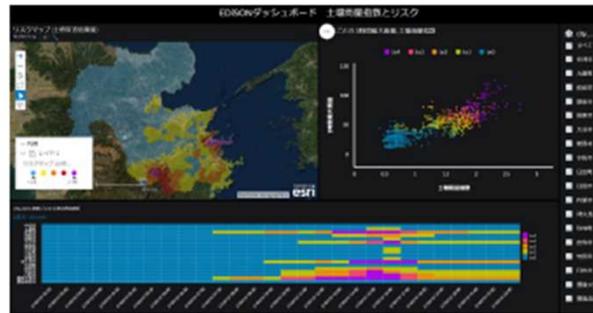
# Functions of EDiSON

## Oita Disaster Data Archive



Contains 5,000 disaster data in the past 1,300 years. Jointly developed with NHK Oita.

## Disaster Data Dashboard



Real-time analysis and visualization of disaster data interfacing with prefecture's disaster management and risk evaluation system.

## Disaster Risk Evaluation System



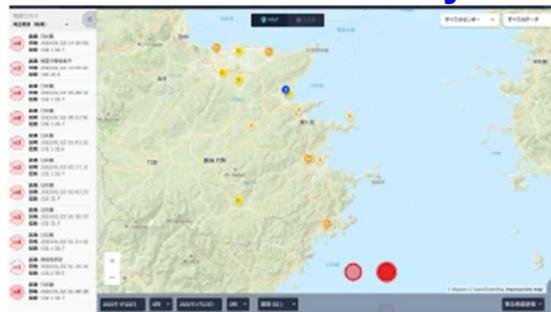
Based on rain data from Japan Meteorological Agency, conducts live disaster risk evaluation within 15h with 500m mesh.

## Drone Data Sharing System



Collects drone video data at disaster. Creates 3D info from the videos and utilizes LAS data. Interfaces with prefecture's disaster support system

## Evacuation Center Seismic Evaluation System



Evaluates seismic intensity and building status at evacuation centers in Oita (approx. 40 locations).

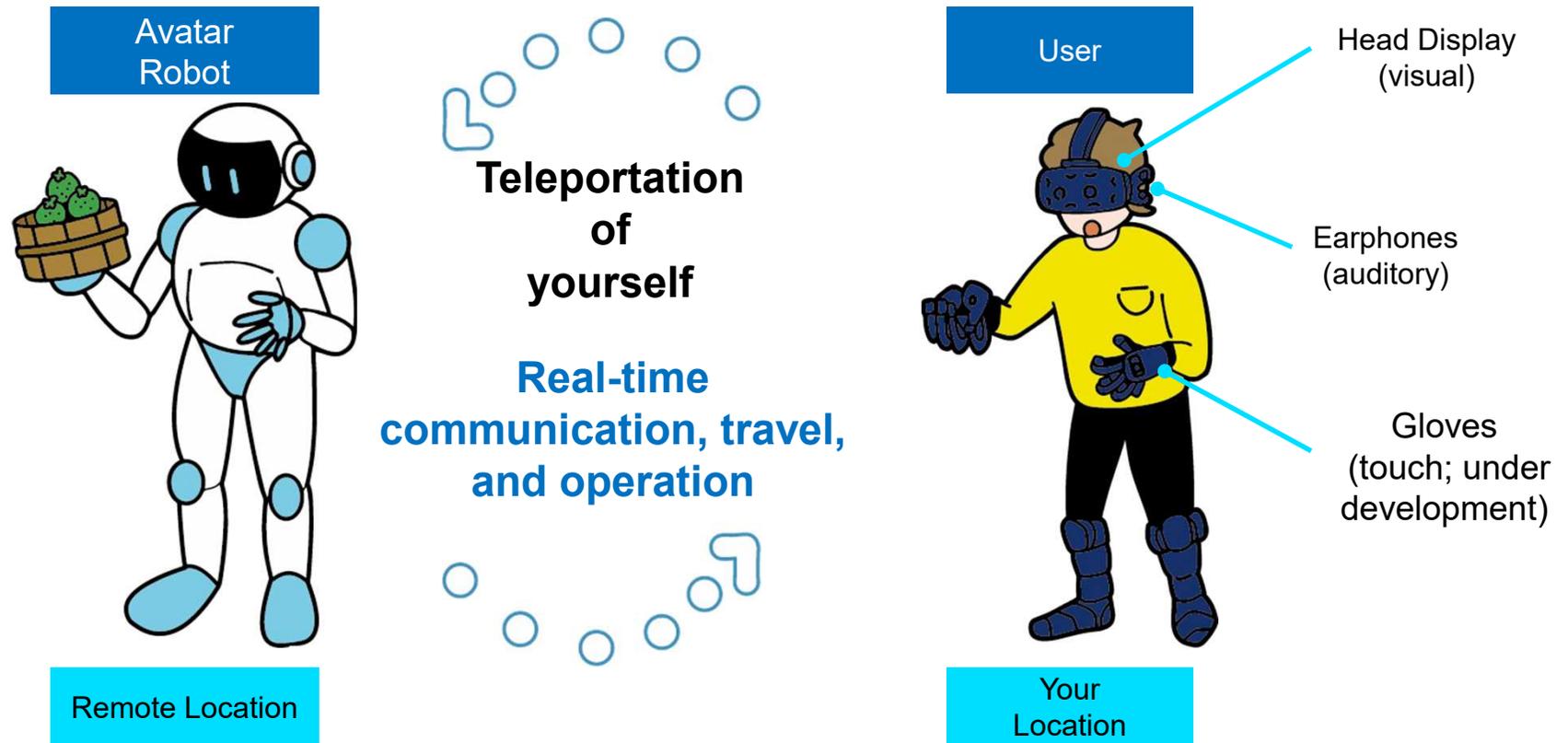
## River Water Level Forecasting System



Forecasts river water level at major rivers in the prefecture with AI.

# Avatar (Telepresence) Robot

Avatar (a.k.a. telepresence robot) enables you to be remote location in a second. It utilizes various technologies such as [sensors](#), [low-latency data communication](#), etc., and moves as if you are in the location. Oita Prefecture has islands and remoted areas, and thinks [this technology could help us solve the regional problem](#), thus offering cooperation to avatar service provider as [experimental field](#).





# Avatar (Telepresence) Robot Use Cases

Oita Prefecture

## 1. Remote Visits



Students at nursing collage remotely visited hospital



Patrolling and health meeting at disaster drill

## 2. Services



Avatar shopping (experimental)



Avatar funeral (experimental)

## 3. Education & Tourism



Avatar fishing experience (experimental)

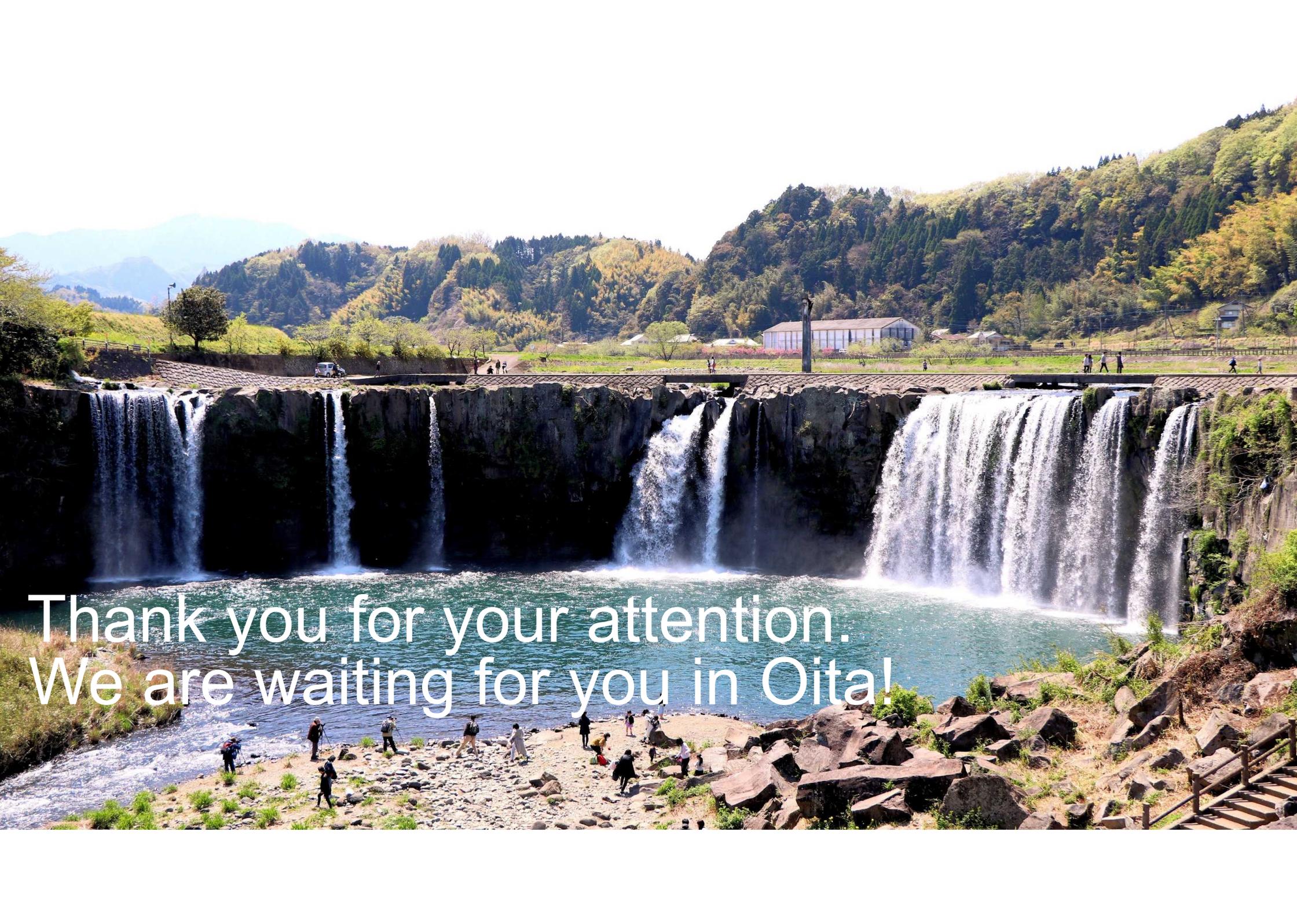
Schoolkids remote visit

## 4. Internal DX



Guest meeting & internal meeting with avatar





Thank you for your attention.  
We are waiting for you in Oita!