



*innovation
academy*

innovation academy

LIVING LAB

industry-academia-government-residents co-creation

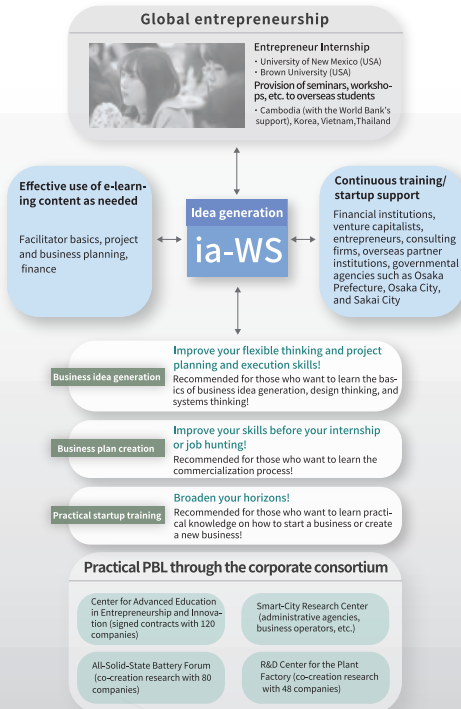


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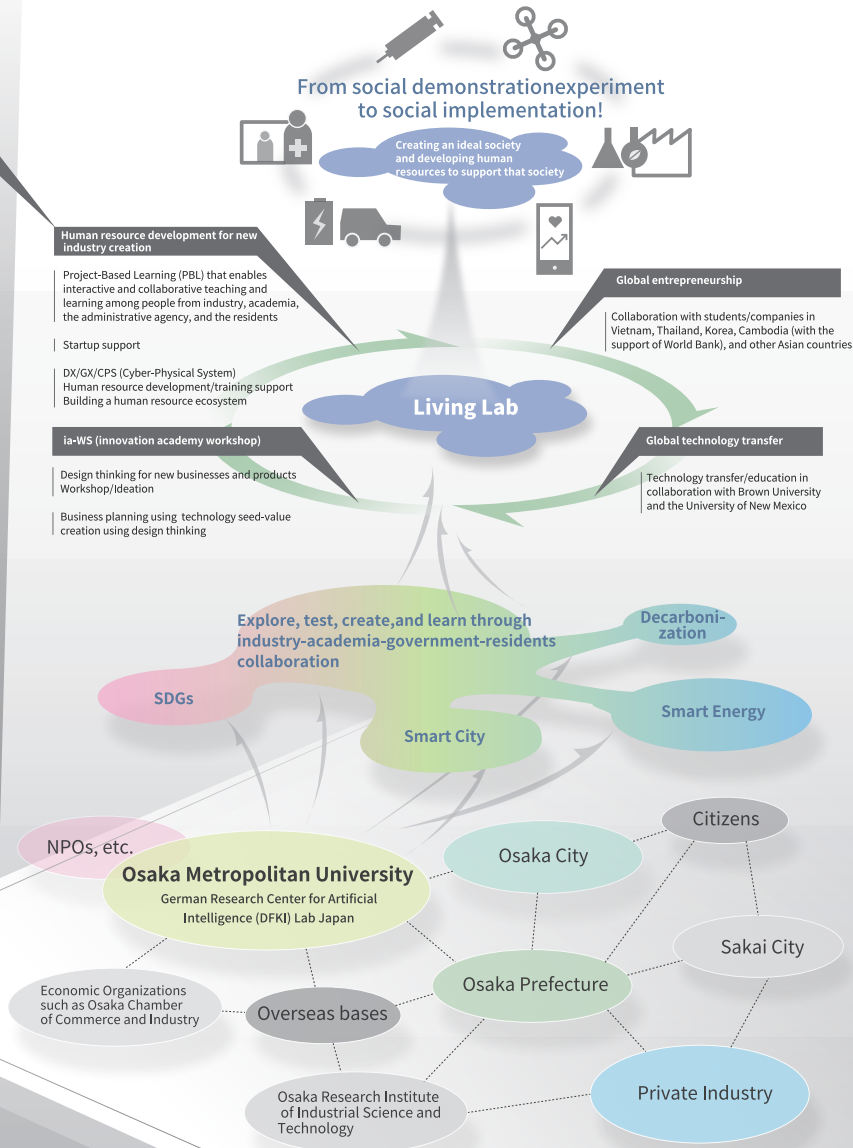
Solving social issues and creating a new society through industry-academia-government-residents co-creation

“Innovation Academy”

Entrepreneur and value creation education programs developed in collaboration with Brown University



z



social implementation

problem-solving

project design

observation and task setting

Creation of an Ideal Society through Social Implementation

Designing a new society using comprehensive knowledge, creating new value, and implementing it in a new society

Problem Solving

Industry-academia-government-residents co-creation “Living Lab” Demonstration experiment/social implementation

- Social demonstration experiments and development of elemental technologies at Nakamozu Hub
- Social demonstration experiments in collaboration with Osaka Smart City Partners Forum, NAKAMOZU Innovation Core Creation Consortium, etc.
- Seamless local government collaboration and social demonstration experiments to transform Morinomiya into a smart city
- Social demonstration experiments involving students and startups

Project Design

Design of project management for social implementation

- University-society collaboration using comprehensive knowledge, from a bird's-eye view
- Project design using systems thinking
- Project design involving students, overseas bases, and startups
- Startup support for project promotion
- Support for DX/CPS human resources development of companies
- Building an innovation ecosystem

Observation and Task Setting

Sharing of social issues and exploration of their essence by industry, academia, government, and the residents

Problem exploration and task setting through cross-organizational stakeholder collaboration

Providing space to tackle society's most difficult problems.
<Innovative solutions>

Demonstrating and integrating the strengths of all campuses and project sites

Deployment of the “University-wide Networked Innovation Ecosystem”



Rendering of Morinomiya Campus

Morinomiya Campus fully opens. “Morinomiya HQ” begins full-scale operation as the headquarters of Innovation Academy (ia).

※HQ:Head Quarters

- Headquarters function for the University-wide Networked Innovation Ecosystem
- Co-creation Living Lab for Smart University and Smart City development through industry-academia-government-residents collaboration
- Urban think tank function and technology incubation function
- Data management, application development, DX/GX/CPS human resources development
- Smart City demonstration and implementation using data collaboration platform and urban OS
- A base for transmitting youth culture and the hustle and bustle of the city using Living Lab data



Rendering of Morinomiya Campus

Morinomiya Campus opens. “Morinomiya HQ” starts functioning.

- A headquarters function for Innovation Academy
- EBPM (evidence-based policy making) using Living Lab

“Nakamozu Hub” facilities open.

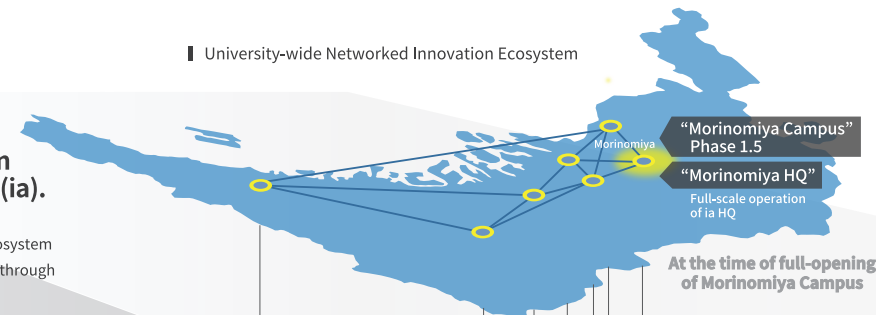
- A hub function for the industry-academia-government-residents co-creation innovation ecosystem
- Creation of elemental technologies for social implementation, and prototype development : Deployment to Morinomiya HQ
- Strengthening the competitiveness of Osaka industry and contributing to the SDGs through “decarbonization” and “drug discovery”
- Experiments for social implementation of next-generation agriculture using the “Smart Greenhouse” and genome editing
- Startup ecosystem base (entrepreneurship education)



Osaka Metropolitan University founded (2022) “Living Lab” opened.

- | | |
|---------------|---|
| Nakamozu Hub | Industry-academia-government-residents co-creation, leveraging strengths in engineering, environment, agriculture, and biotechnology |
| Sugimoto Wing | Urban Resilience Research Center (URc), Research Center for Artificial Photosynthesis (ReCAP), etc. |
| Abeno Wing | MedCity21 (Research and development of advanced preventive medicine), etc. |
| Umeda Wing | Data-driven open platform from Health Science Innovation Center, etc. |
| Namba Wing | Collaboration with Nankai Electric Railway, etc. with a focus on tourism, business startupsupport, etc. |
| Rinku Wing | Medicine-veterinary-engineering collaboration, promotion of international infectious disease research in collaboration with Asia and Africa, etc. |

University-wide Networked Innovation Ecosystem



Sugimoto Wing



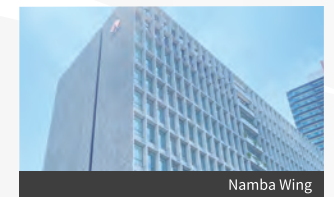
Abeno Wing



Rinku Wing

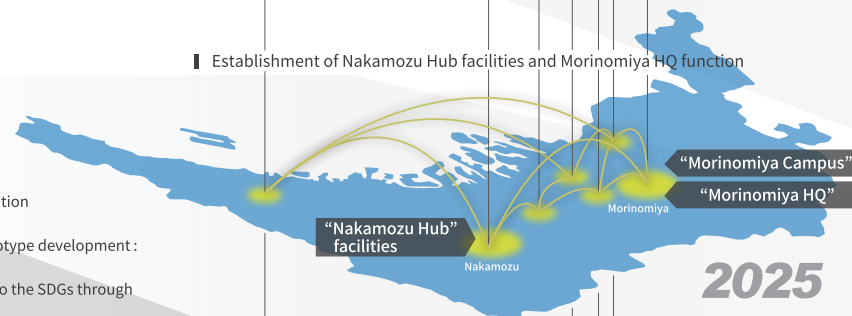


Umeda Wing

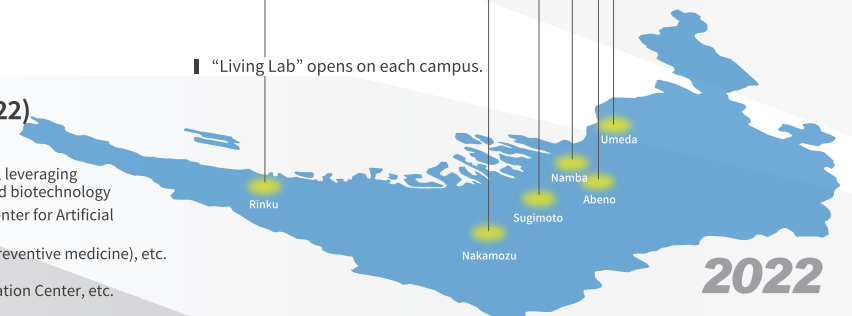


Namba Wing

Establishment of Nakamozu Hub facilities and Morinomiya HQ function



“Living Lab” opens on each campus.

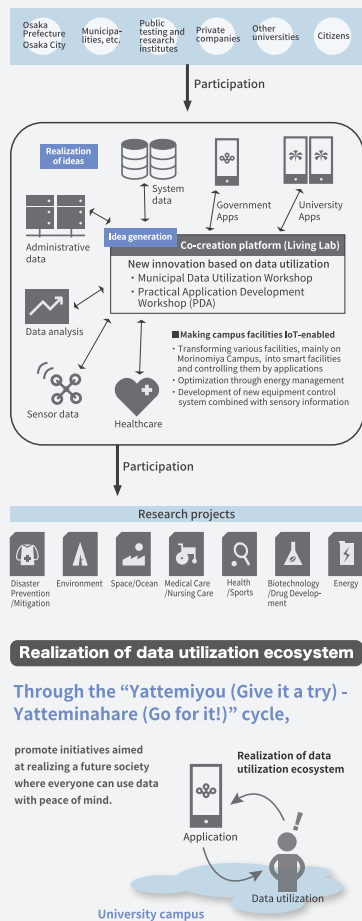


Five Co-creation Research Units+AI

5research unit+AI

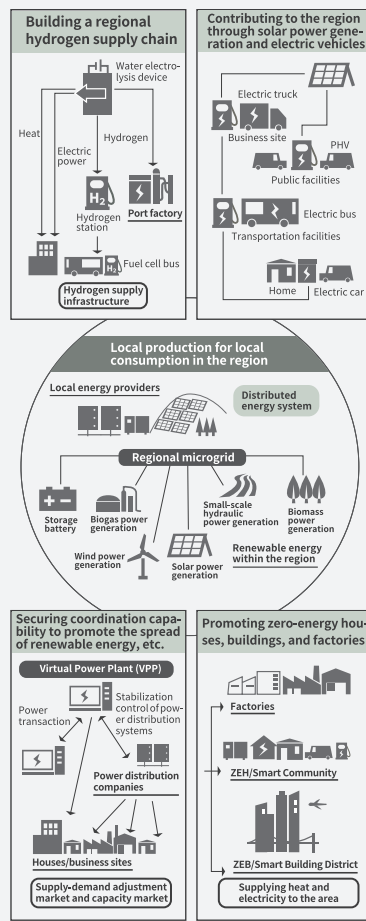
Smart City |

A living experimental field for the realization of a smart society



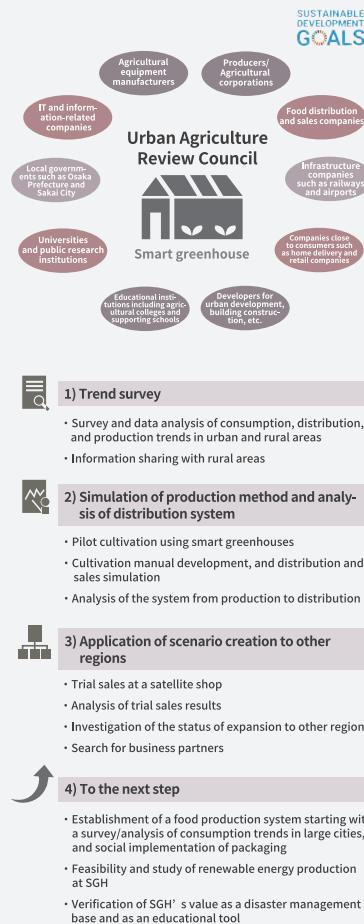
Smart Energy |

Human-centered next-generation energy network



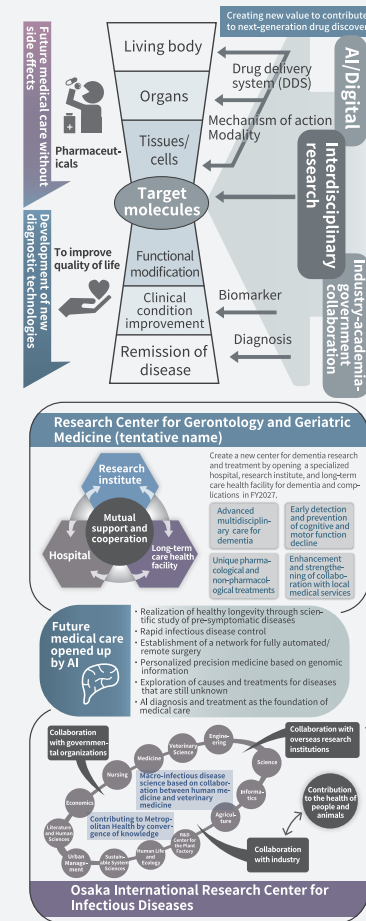
Smart Agriculture |

SDGs-driven urban agriculture



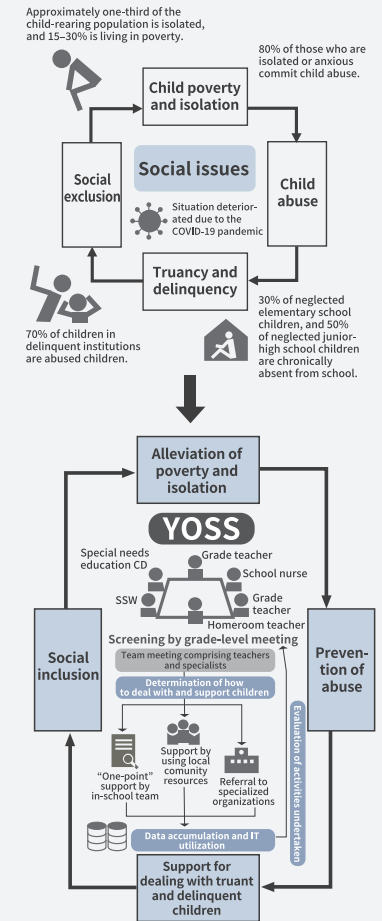
Smart Healthcare |

Contributing to future pharmaceuticals and healthcare through the collaborative development of products, services, and people



Future Society for Children |

Co-creation hub for building a future society where children can live healthy lives



AI (Artificial Intelligence)

Advanced information processing and analysis technology using the latest artificial intelligence, co-created by the Graduate School of Informatics and the German Research Center for Artificial Intelligence Lab Japan



Intelligent Sensing



Sentiment Analysis



Data analysis and Prediction



Digital Twin



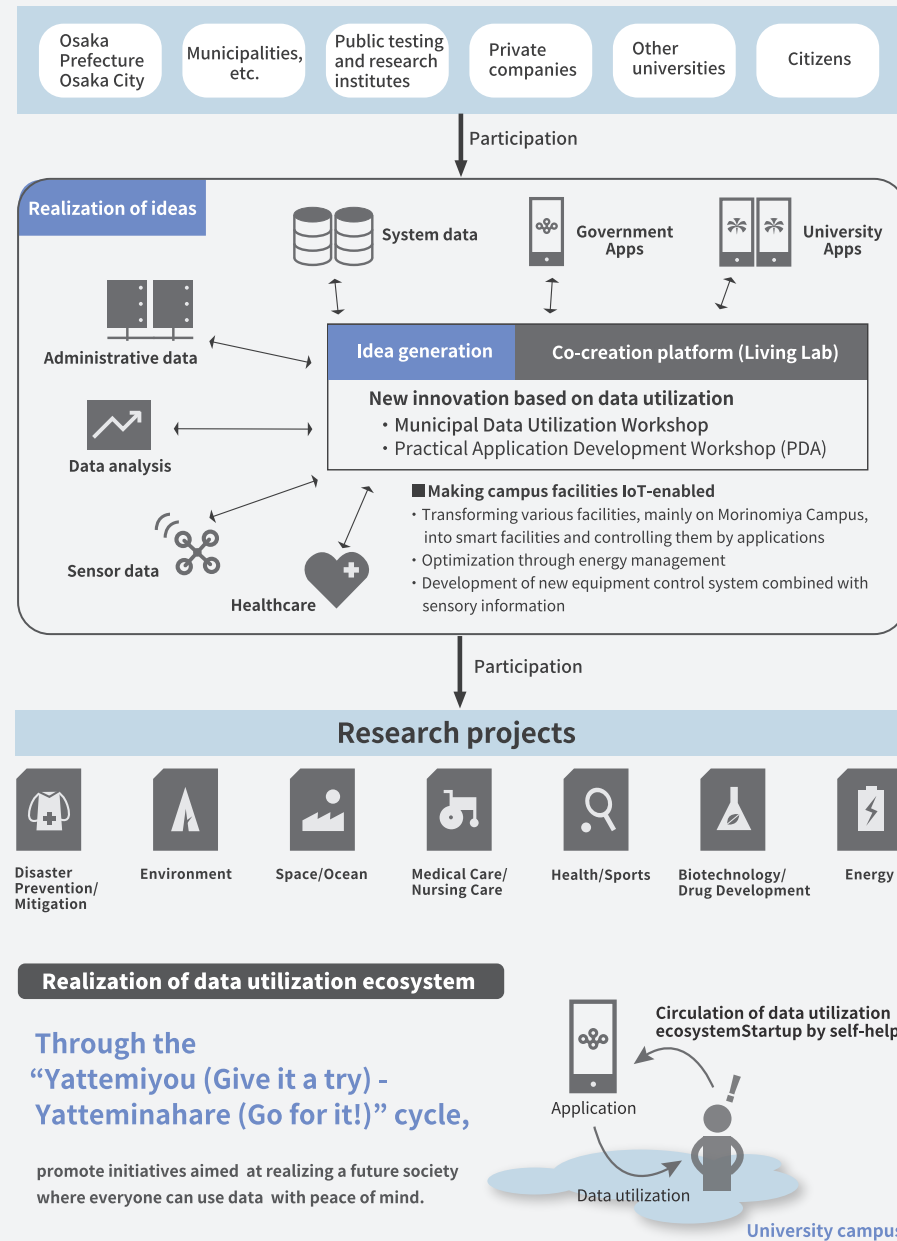
Nudging Strategy



Privacy protection

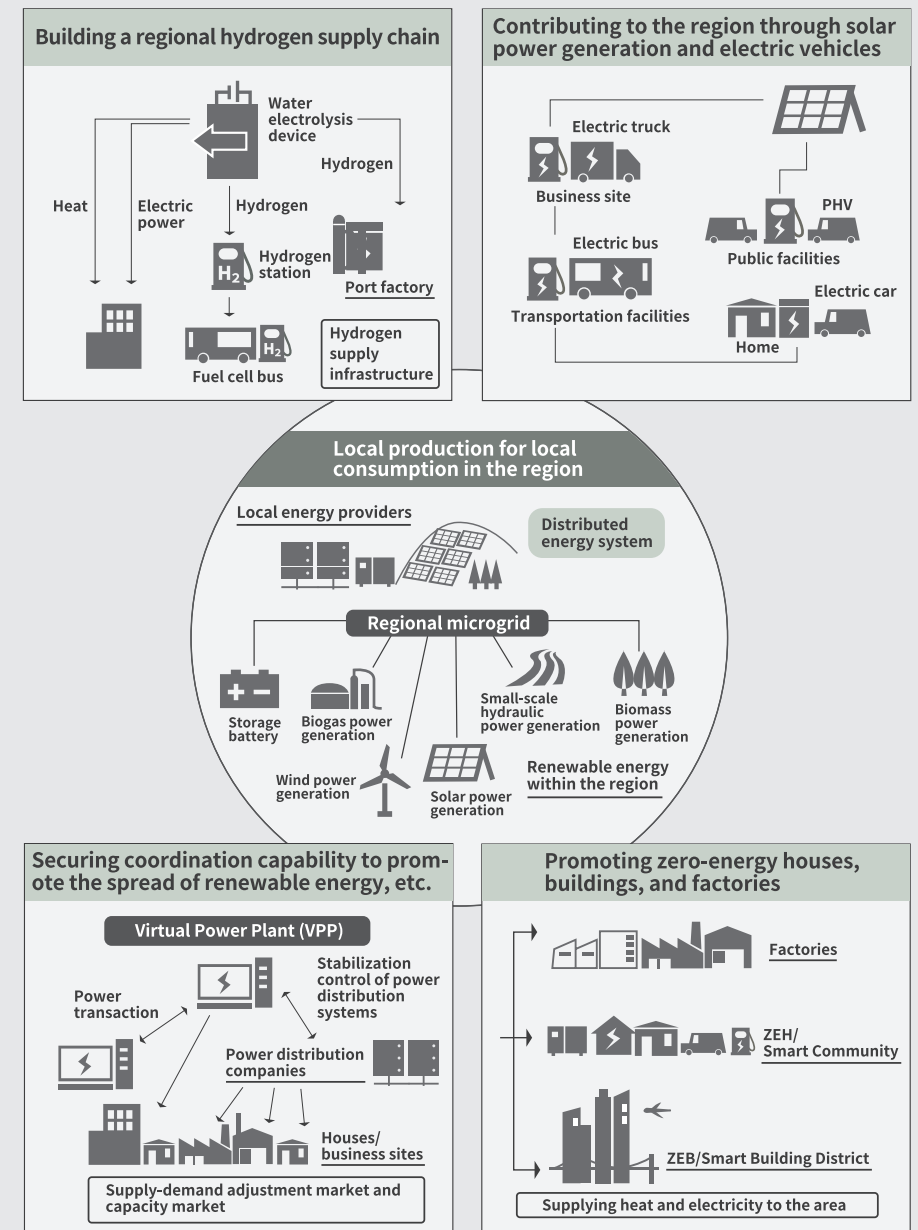
I Smart City

A living experimental field for the realization of a smart society



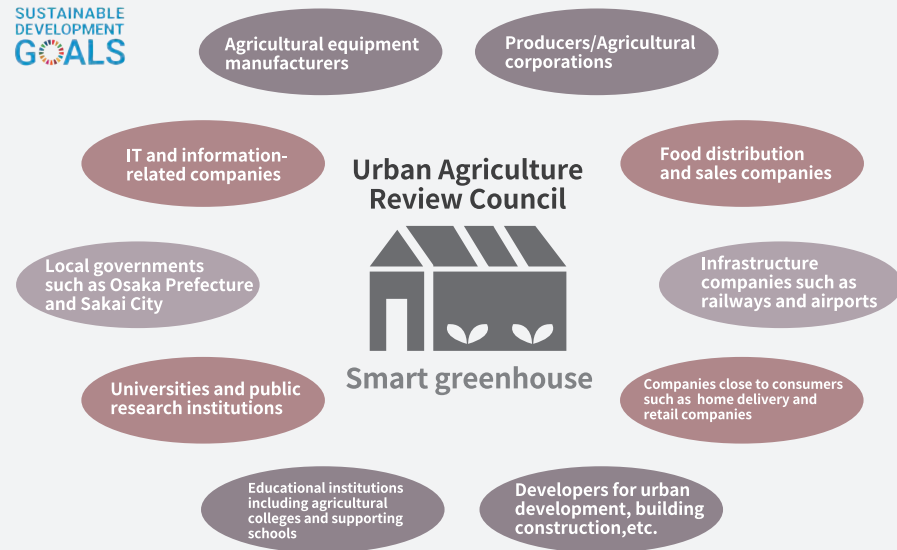
I Smart Energy

Human-centered next-generation energy network



I Smart Agriculture

SDGs-driven urban agriculture



1) Trend survey

- Survey and data analysis of consumption, distribution, and production trends in urban and rural areas
- Information sharing with rural areas



2) Simulation of production method and analysis of distribution system

- Pilot cultivation using smart greenhouses
- Cultivation manual development, and distribution and sales simulation
- Analysis of the system from production to distribution



3) Application of scenario creation to other regions

- Trial sales at a satellite shop
- Analysis of trial sales results
- Investigation of the status of expansion to other regions
- Search for business partners

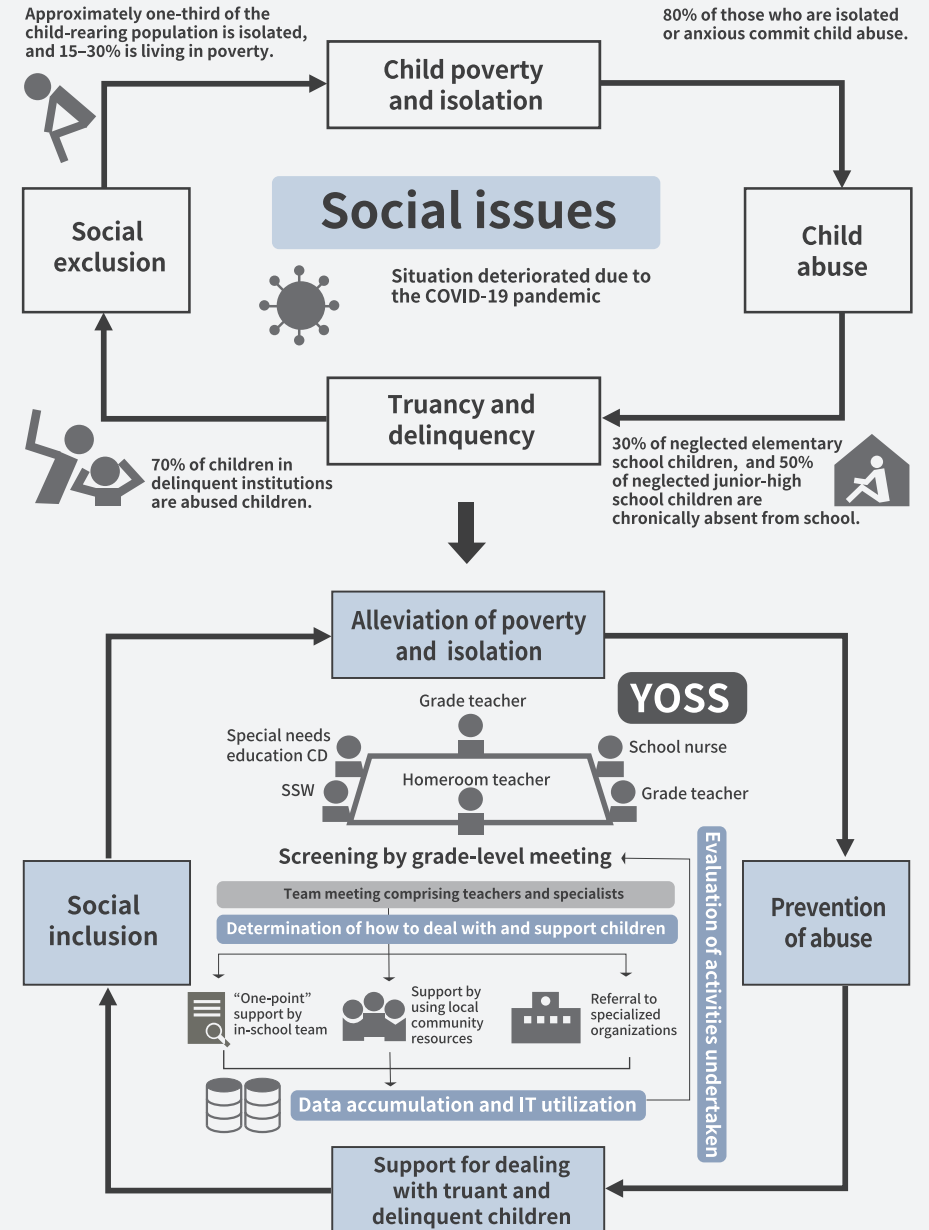


4) To the next step

- Establishment of a food production system starting with a survey/analysis of consumption trends in large cities, and social implementation of packaging
- Feasibility and study of renewable energy production at SGH
- Verification of SGH' s value as a disaster management base and as an educational tool

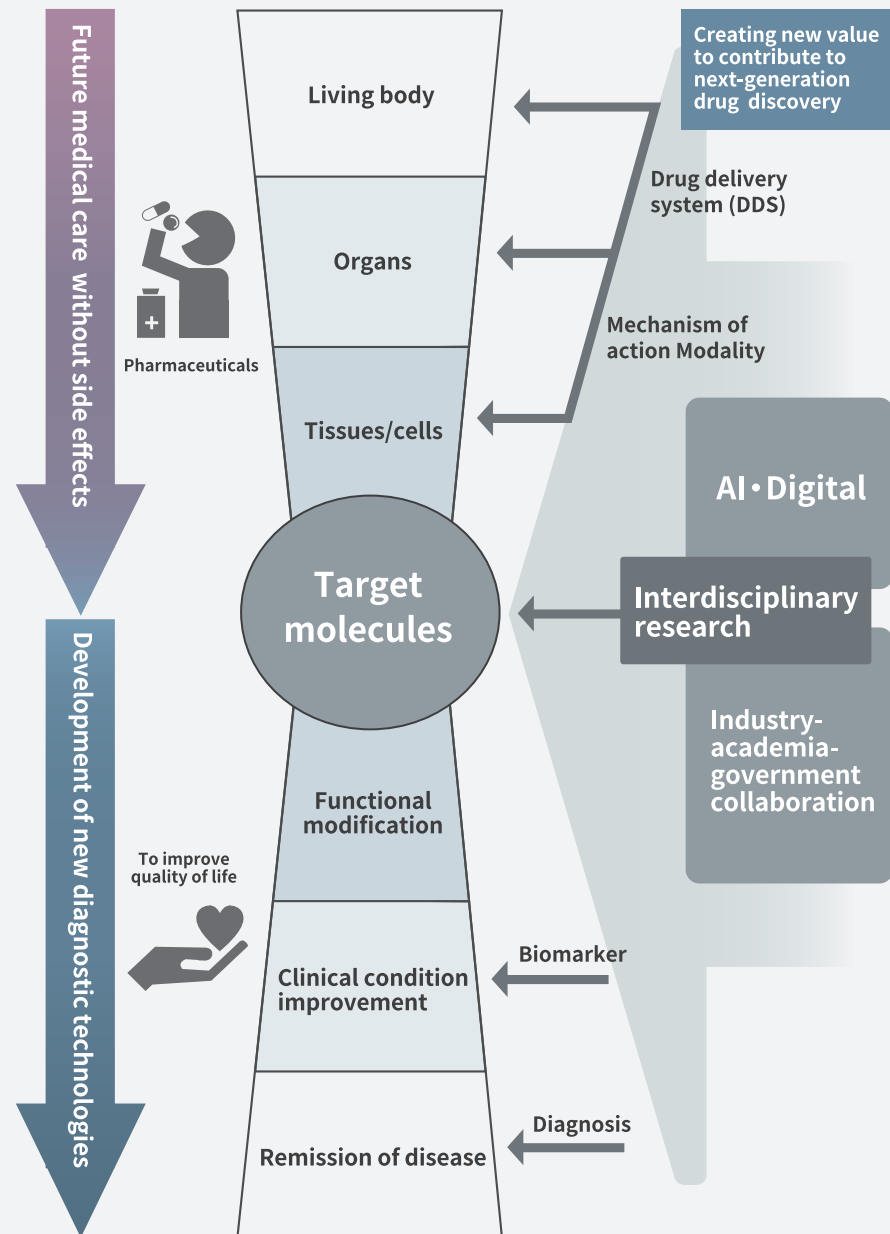
I Future Society for Children

Co-creation hub for building a future society where children can live healthy lives



I Smart Healthcare

Contributing to future pharmaceuticals and healthcare through the collaborative development of products, services, and people



I Smart Healthcare

Contributing to future pharmaceuticals and healthcare through the collaborative development of products, services, and people

Research Center for Gerontology and Geriatric Medicine (tentative name)

Create a new center for dementia research and treatment by opening a specialized hospital, research institute, and long-term care health facility for dementia and complications in FY2027.

Advanced multidisciplinary care for dementia

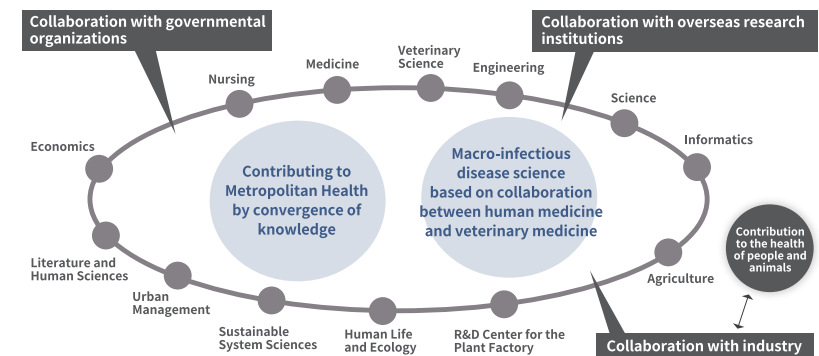
Early detection and prevention of cognitive and motor function decline

Unique pharmacological and non-pharmacological treatments

Enhancement and strengthening of collaboration with local medical services



- Realization of healthy longevity through scientific study of pre-symptomatic diseases
- Rapid infectious disease control
- Establishment of a network for fully automated/remote surgery
- Personalized precision medicine based on genomic information
- Exploration of causes and treatments for diseases that are still unknown
- AI diagnosis and treatment as the foundation of medical care



Osaka International Research Center for Infectious Diseases

Contact details



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The story behind the Symbol Mark of Innovation Academy



Innovation Academy, established at Osaka Metropolitan University and serving as a symbol of the enormous comprehensive knowledge brought by the co-creation of industry-academia-government-residents. Where different synapses are cross-connected and united into a neural network that strides across disciplines. Dedicated to preparing each human resources or consortium to engage societal issues and empower to continuously implement our society for the next generation.