

# What are universities for?



**Education and Research** 

Co-Creation with Society



Engine for the value creation of society

**Providing** 

a platform, skilled coordinators/moderators, and active students



## Multi-stakeholders

# Multi-disciplinary R&D

# **Social Reform Initiative**

The way to solve social and industrial problems

# KOINE



**Kyudai global Open Innovation Network Engine** 

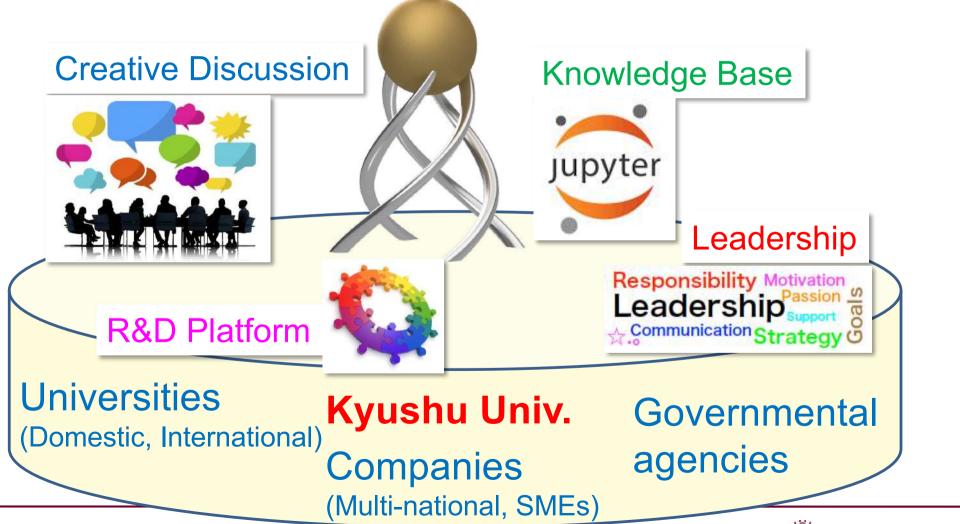
Common language and knowledge

コイネ:恋ね、濃いね、来いね

#### Open Innovation + Entrepreneurship

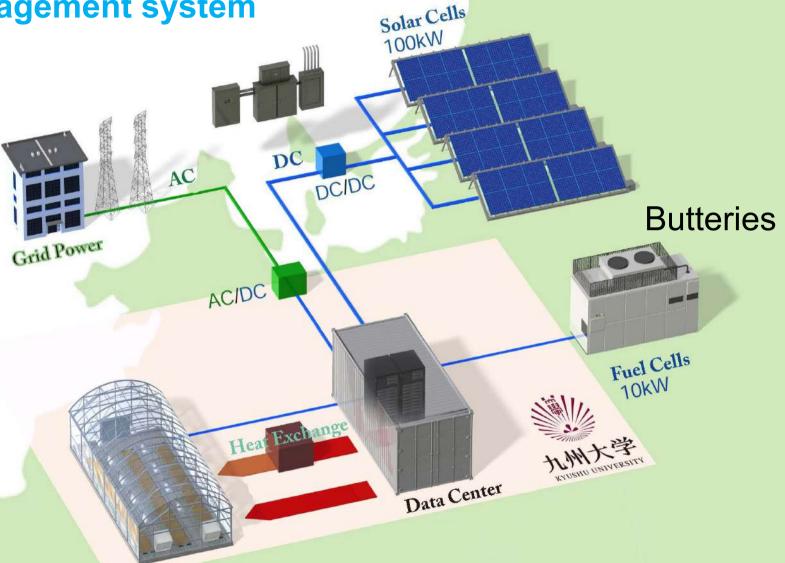
Since 2017 October





Renewable energy
DC microgrid
Energy management system

New generation of ICT system with fusion of hardware and software



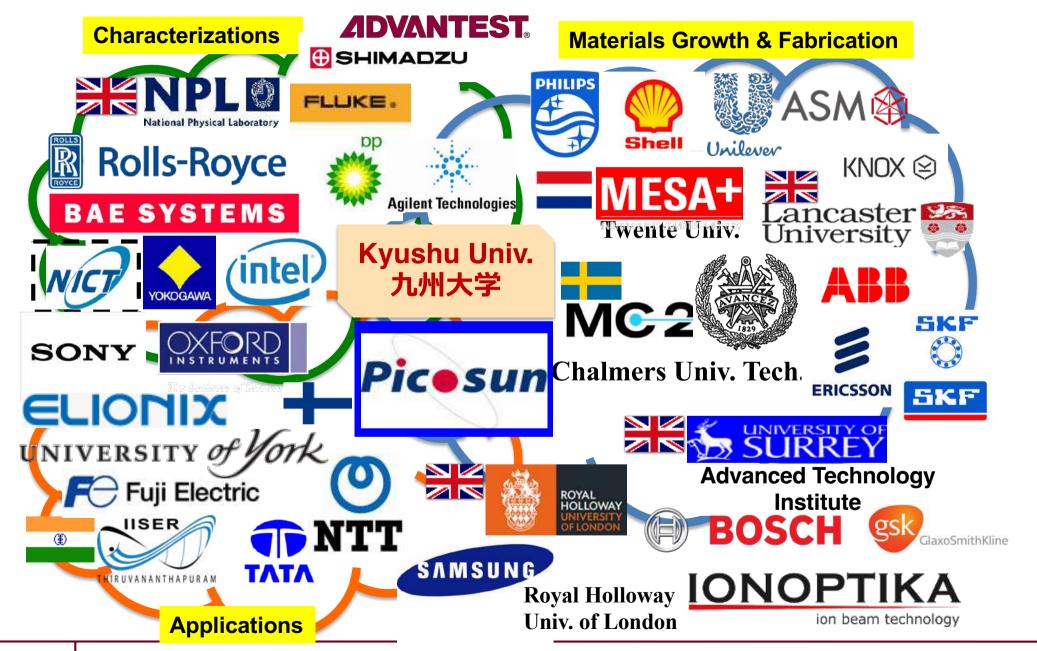
Consumption reduction of the total thermal energy to ½.

# IEEE-ICDCM 2019 DC Microgrid Conference





# NanoFactory



# **KOINE Working Groups**

Single ion implantation £425k from UK

# Science of 2.5 Dimensional Materials

Grand-in-Aid for Transformative Research Area

### NanoFactory

3D printer in atomic & molecular level

#### **NanoFoundry**

Development & application of 2D materials

#### ColdTech

Energy ecosystem Based on thermal energy

## **AgriFood**

Ecosystem Agriproducts & its food application

#### **SmartCommunity**

Integrated system Based on energy & information

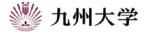
Centre for Sustainable cooling



Q<sup>2</sup>ST

**Quantum computing** 

Quantum computing system center at KU



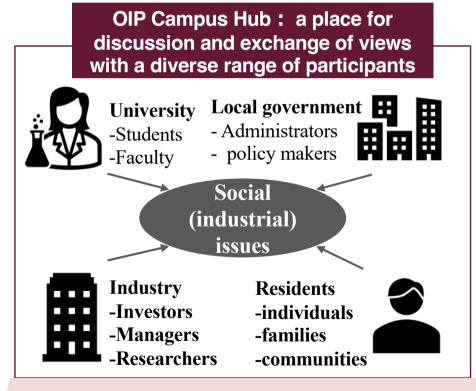
Halal

# **OIP Campus Hub service**



The OIP Campus Hub, provided by Kyushu University OIP corporation, is an initiative to create new values from discussion with diverse participants based on open innovation and entrepreneurship to realise a better society.

eExpected effects



Open Innovation 2.0: a concept in which diverse stakeholders collaborate and co-create in a multi-layered manner to solve social problems.

Creating new research and industries based on a vision for solving social problems

#### Digital collective knowledge

Systematizing & visualizing knowledge on social issues

#### **Human resource development**

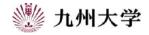
Global leadership that works with multistakeholders

#### **Developing a vision for the future**

Fostering a vision where social issues are solved.

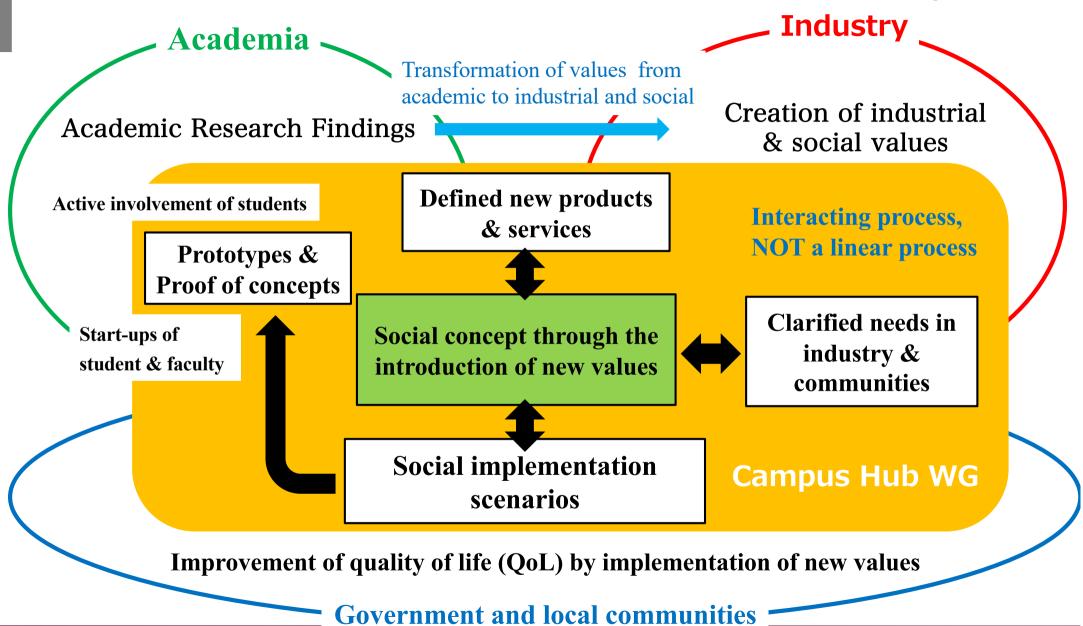
#### **Proof of concept (PoC) studies**

Proof-of-concept study of the idea, leading to competitive funding and the establishment of joint research.



# Value creation in OIP Campus Hub WG





# Ripple effects of OIP Campus Hub WG



**Industrial value chain** 

**Local revitalization** 

Start-up

New business

**Social infrastructure** 

Legal reform

Social concept through the introduction of new values

Social implementation scenarios

**Prototypes & Proof of concepts** 

**Defined new products & services** 

Clarified needs in industry & communities

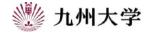
**Campus Hub WG** 

**Collaborative research** 

Patent/Design

**National grant** 

**International grant** 



# **Smart Community Working Group**



#### From a metropolitan to autonomous decentralized communities

**Objective:** To establish sustainable local communities based on local resources, the energy, information and food production within the region are examined.

**Vision:** Study of an infrastructure system based on the local circulations in communities with a population of 50,000-100,000 people.

### Region-specific businesses based on the infrastructure and its big data

River Local Info (traffic, weather, etc.) PHR E-Commerce Transportation Agriculture Recycling

Complex infrastructure, including regional energy, data center, smart agriculture, and etc.

Local Energy and Local Information Local Food Production

Resources

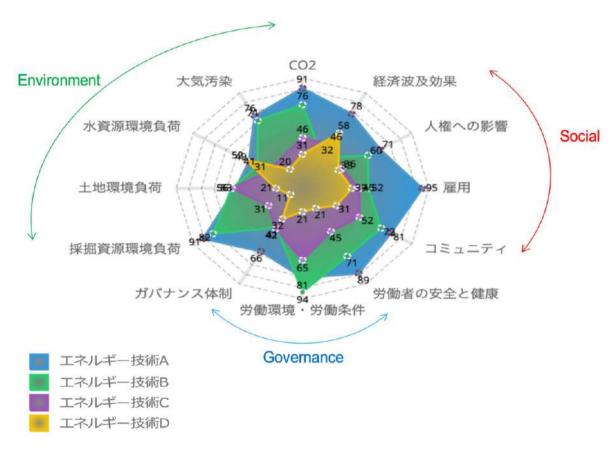
## Inclusive wealth (IW): Alternative to GDP



**GDP: Gross Domestic Product** 

## Prof. Alexander Keeley and Prof. Managi at KU





Evaluation of Scope 3 GHG by IW



#### MIRAI Collaboration Platform

























UNIVERSITET







Free for MIRAI Universities Admission for other organizations

Open Innovation Platform: Subsidiary company 100% owned by Kyushu U leading on Industry- Academia collaboration.

Campus Hub: Global Open Innovation WG

(operated by Kyushu U OIP)

Collaborative Researches. **Proof of Concepts, Business developments** 

Concrete Social/Industrial concepts & visions Bilateral **Projects** 

**EU Horizon Projects** 

external partners (examples)

**Swedish** companies





Japanese companies

