2ND INTERNATIONAL DIALOGUE ON INTEGRATING SCIENCE & TECHNOLOGY ADVICE INTO FOREIGN MINISTRIES, in Talloires, 15 – 16 September 2017.

“Donor countries and the SDGs from Japan’s perspective”

September 16, 2017

Teruo Kishi and Tateo Arimoto
Japan

STI for SDGs

Presented "**recommendations**" on

how STI can be leveraged for achievement of SDGs

to the Minister for Foreign Affairs

(May 12, 2017)

Recommendation for the Future

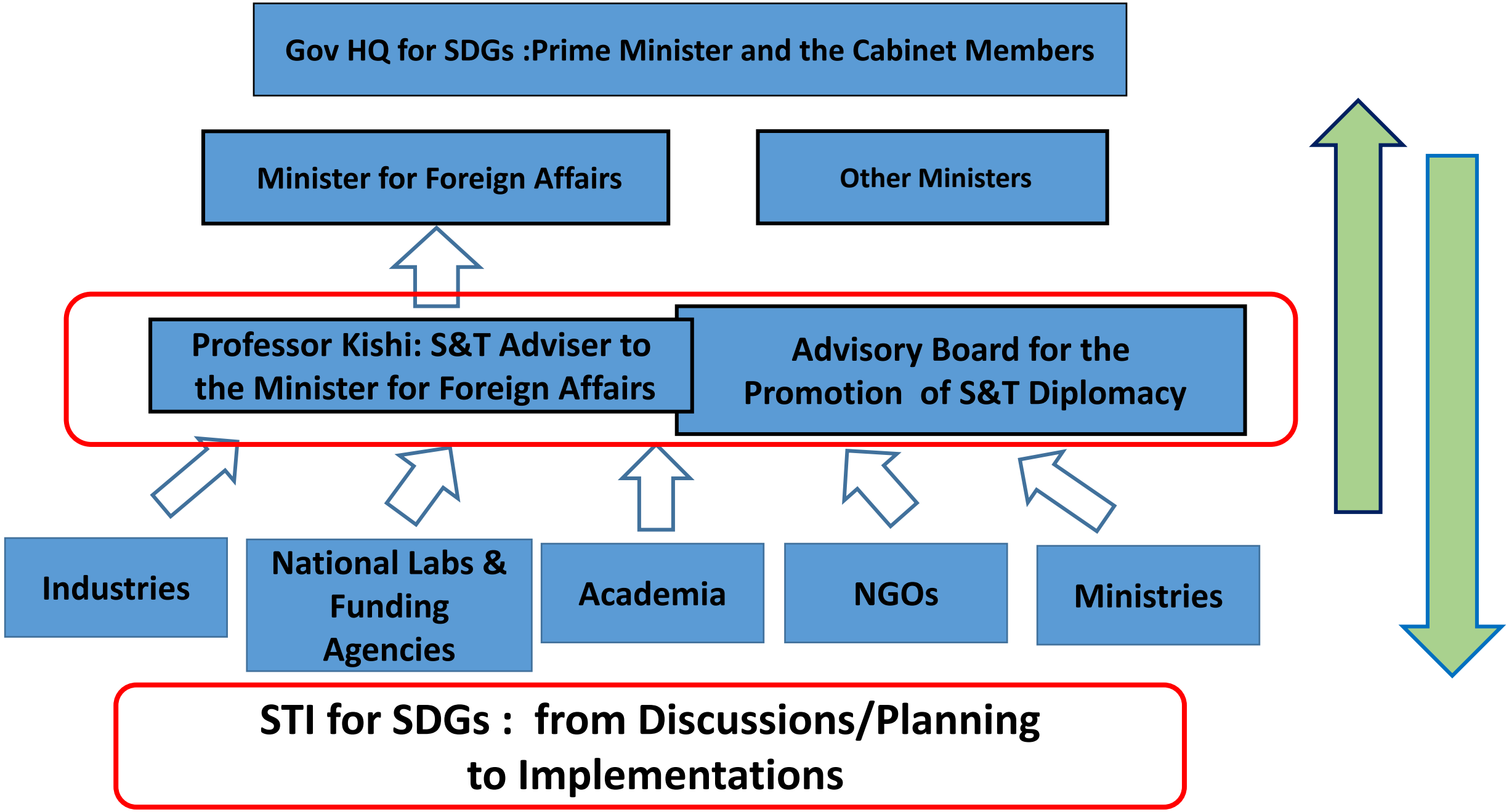
STI as a *Bridging Force* to Provide Solutions for Global Issues

Four Actions of Science and Technology Diplomacy to Implement the SDGs

12 May 2017

Advisory Board for the Promotion of Science and Technology Diplomacy

This recommendation is a product of the Advisory Board for Promotion of Science and Technology Diplomacy, chaired by the Science and Technology Advisor to the Minister for Foreign Affairs of Japan.


Gov HQ for SDGs :Prime Minister and the Cabinet Members
Minister for Foreign Affairs
Other Ministers
Professor Kishi: S&T Adviser to the Minister for Foreign Affairs
Advisory Board for the Promotion of S&T Diplomacy
Industries
National Labs & Funding Agencies
Academia
NGOs
Ministries
STI for SDGs : from Discussions/Planning to Implementations

Recommendation for the Future
STI as a Bridging Force to Provide Solutions for Global Issues
Four Actions of Science and Technology Diplomacy to Implement the SDGs

Introduction

- This recommendation aims to clarify what contributions Japan should make to the achievement of the Sustainable Development Goals (SDGs) through science, technology and innovation (STI) (**"STI for SDGs"**) in its future international cooperation.
- STI can contribute to the implementation of the SDGs as a deciding factor for making the best use of the limited resources.

1. Change through Innovation: Global Future Creation through Society 5.0

2. Grasp and Solve: Solution Enabled by Global Data

3. Link across Sectors, Unite across the Globe

4. Foster Human Resources for "STI for SDGs"

Conclusion: Core Message

- STI can contribute to the achievement of the **SDGs as a "bridging force"** which unites different **sectors, countries and regions**, thereby opening a path to create a society for the future generation.
- Japan's diplomacy should vigorously play a leading role in implementing the SDGs across the world through STI with these four actions as the pillars of its initiative.

Book of Japan's Practices for SDGs

- Creating Shared Value by STI, Business and Social Innovation -

(Prototype Edition, Spring 2017)

SUSTAINABLE DEVELOPMENT GOALS

STI forum 2017 Program

15 May

Conference Room 4

10:00-10:30 Welcome address and opening segment

10:35 – 10:40 Video mes

10:40 – 11:50 Session 1: ssing STI for the SDGs –the key to unlocking STI potentials

11:50 – 13:00

Co

Panel a) K
STI for en
everywhe

15:00 – 18:00

Co

15:00 – 1
for engag
lives and
at all ages

16:30 – 1
for engaging STI for achieving gender equality and empower all women and girls (Goal 5)

engaging STI for building resilient infrastructure, promote
sustainable industrializa
innovation (Goal 9)

16 May

Conference Room 4

10:00-11:00 Session 3: Lesson
improving the impact of STI on
highlighting the cross cutting na

11:00 – 12:00 Session 4: Natio
and policies for achieving the S

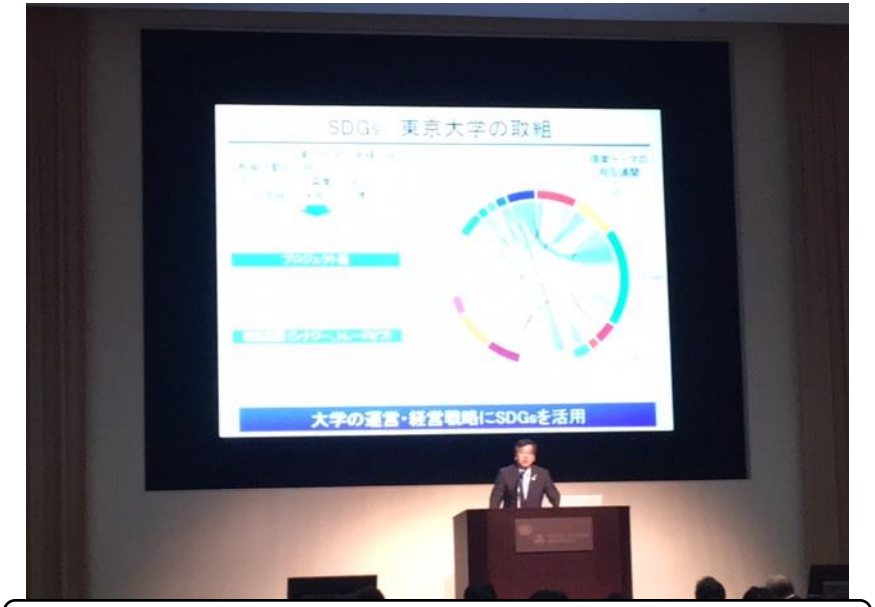
12:00 – 13:00 Session 5: STI cap
building for achieving the SDGs

15:00 – 16:00 Session 6: Emerg
Evolving STI developments with
for SDGs

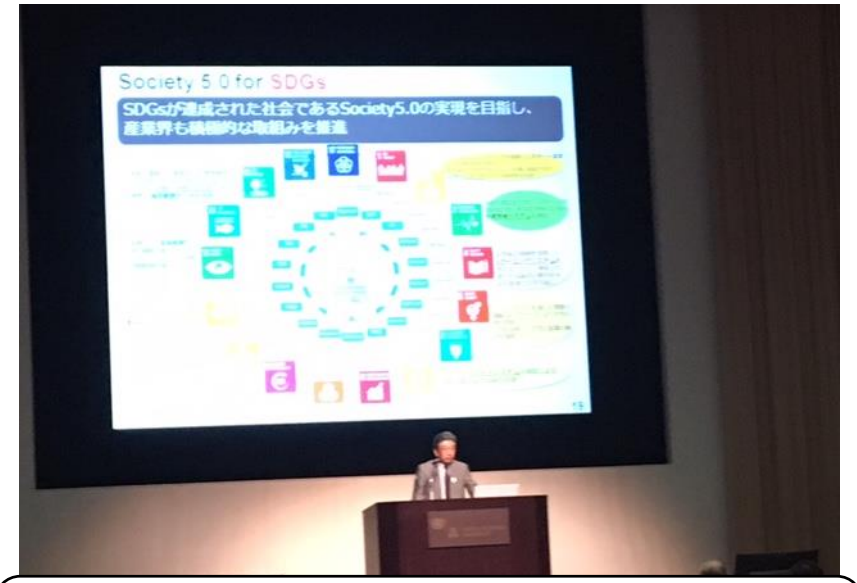
16:00 – 17:30 Session 7: Supporting the implementation of the Technology Facilitation Mechanism

STI for SDGs : From plan to action

STI for SDGs Symposium – Academia,Industry,NGO and Gov on September 5 2017, at the United Nations Univ in Tokyo

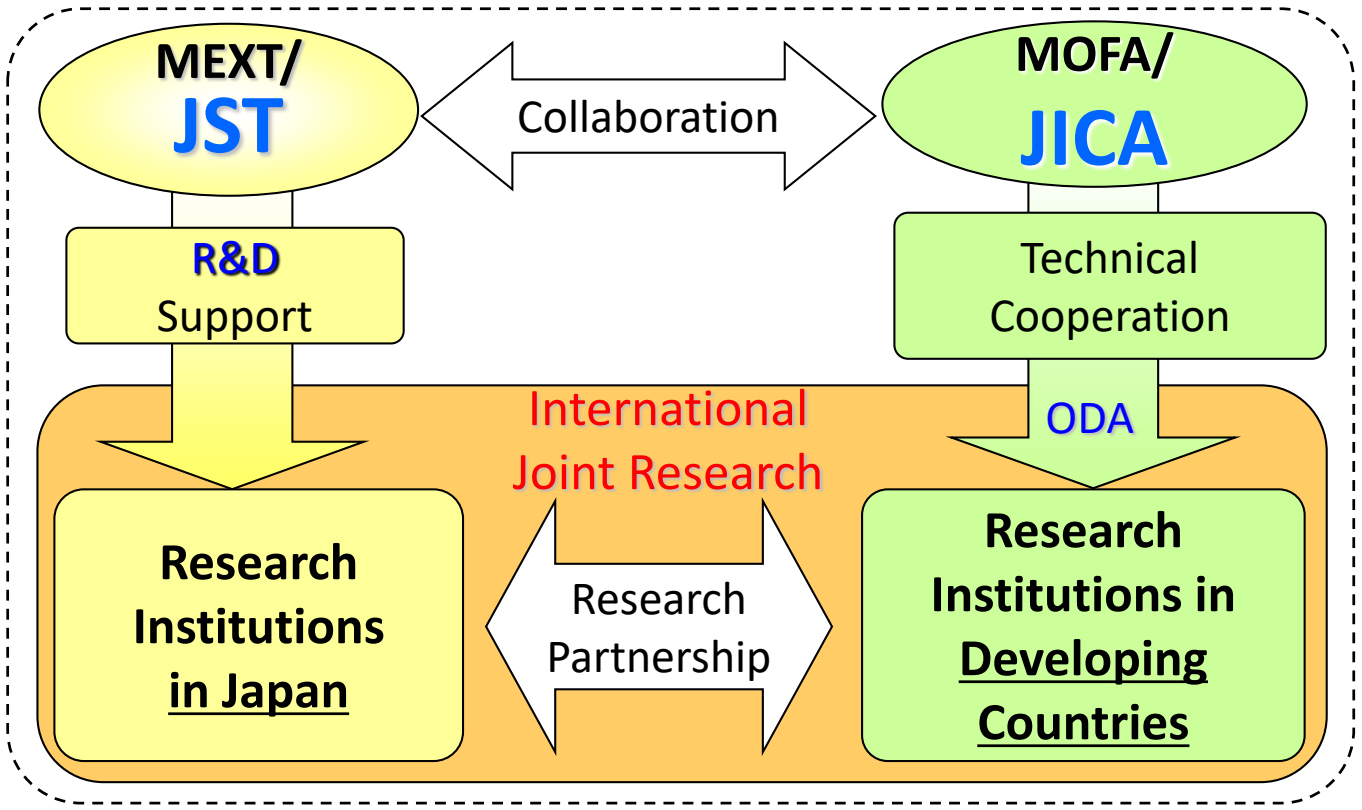


President of the University of Tokyo



VC of Japan Business Federation & Chairman of Mitsubishi Electric

New Funding Mechanism for SDGs
SATREPS: JST & JICA joint funding program



Research Period : 3-5 years

Research Funding

Approx. 1 million USD / project / year (JST + JICA total)

MEXT: Ministry of Education, Culture, Sports, Science and Technology
MOFA: Ministry of Foreign Affairs

SATREPS Research Areas

In total (since 2008) : 101 projects in 43 countries

■ Environment and Energy

- Global-scale Environmental Issues

  Climate change mitigation & adaptation, Safe water supply, Biodiversity conservation..

- Low-carbon Society

  Biomass energy, Energy efficiency, Renewable energy..

■ Bioresources

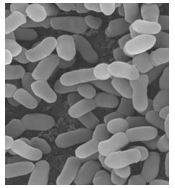
Breeding and cultivation technology, Bio resource management..

■ Disaster Prevention and Mitigation

Disaster mechanisms (Earthquakes, Volcanic..), Disaster mitigation..

■ Infectious Diseases Control

Diagnostic tool, Vaccines, Therapeutic products development
(Avian influenza, HIV/AIDS, Dengue fever..)



Outcomes of SATREPS projects

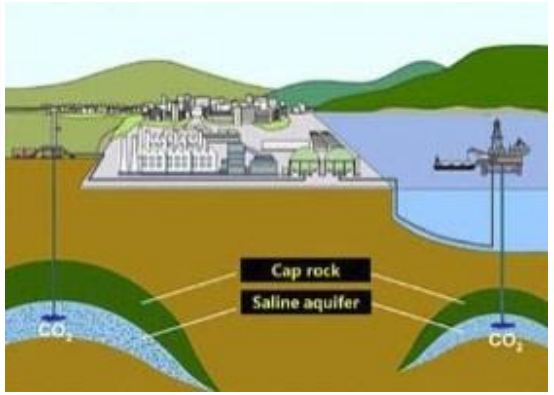
Returning outcomes to society with the support of the Asian Development Bank (ADB)

【Low Carbon Society / Energy】

A drilling in preparation for natural gas production

The MoC signing ceremony

PERTAMINA's Gundih Central Processing Plant



"Pilot Study for Carbon Sequestration and Monitoring in Gundih Area, Central Java Province
Adoption Fiscal Year 2011 Indonesian project

Outcomes of SATREPS projects

Development of the production technologies of high quality biofuel using biomass

【Bioresources】

H-FAME

an Alternative Upgraded Biodiesel

National Science And Technology Fair In Chiangmai, August 2014

Pilot plant set up within TISTR to manufacture high quality biodiesel (1 ton/ day)

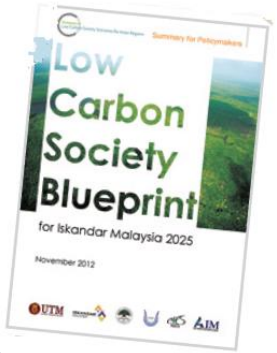
Innovation on Production and Automotive Utilization of Biofuels from Non-food Biomass, Adoption Fiscal Year 2009 Thai project

Outcomes of SATREPS projects

Community of the Malaysian government accepted the scenarios for a low carbon society in 2025

【Low Carbon Society / Energy】

One Outcome
From the project



Najib Razak,
Prime Minister of Malaysia

Constructing a low carbon society

Researchers in both countries

"Development of Low Carbon Society Scenarios for Asian Regions"

SATREPS aims

In total (since 2008) : 101 projects in 43 countries

Enhancing cooperation in science & technology

～Building win-win relationships between Japan and developing countries ～

Addressing global issues and new technology

～ Addressing global issues and advancing science ～

Capacity Development

～ Boosting self-reliant R&D capacity and sustainable research systems, training human resources and coordinating networking between researchers～

Practical utilization

～Expecting outcomes to make a real contribution to society ～

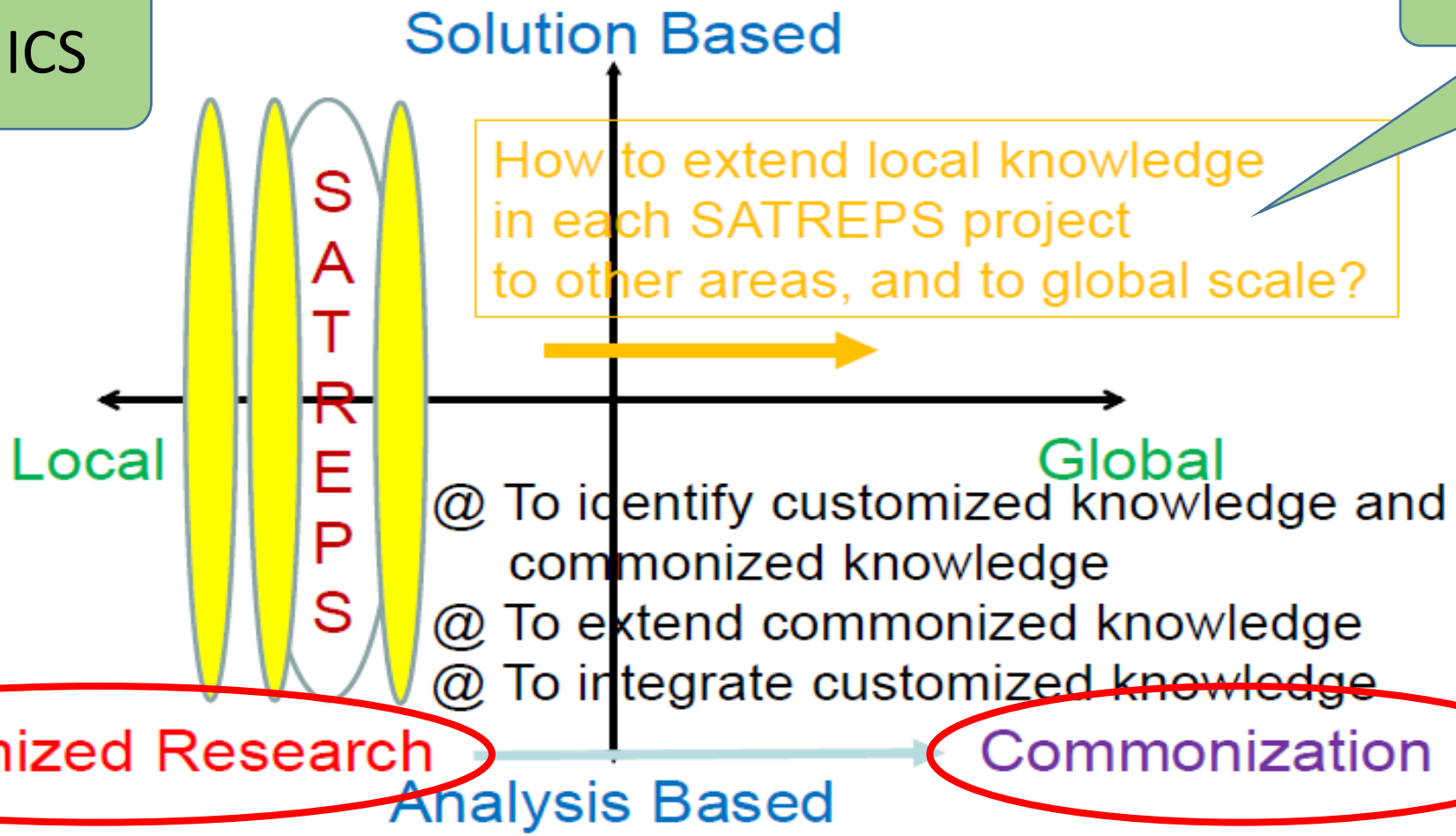
Co-design, Co-production and Co-delivery

JST/JICA Joint Program : SATREPS

Extension of SATREPS Local Knowledge to Global

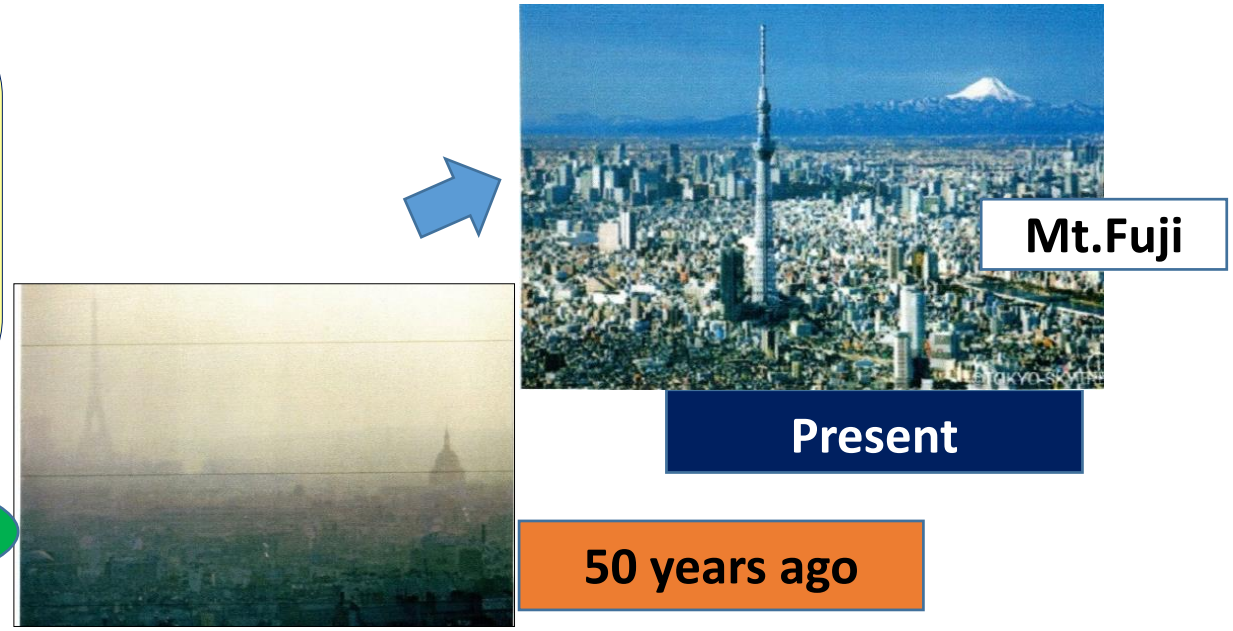
JST and JICS

World Bank



Here are examples by Japan' efforts in the past decades for SDGs. We can <u>transform our society by combination of technological innovation & social innovation</u>.

SDGs Goals : #2,3,6,7,8,9,11,12,14,15
social cohesion, stability & peace

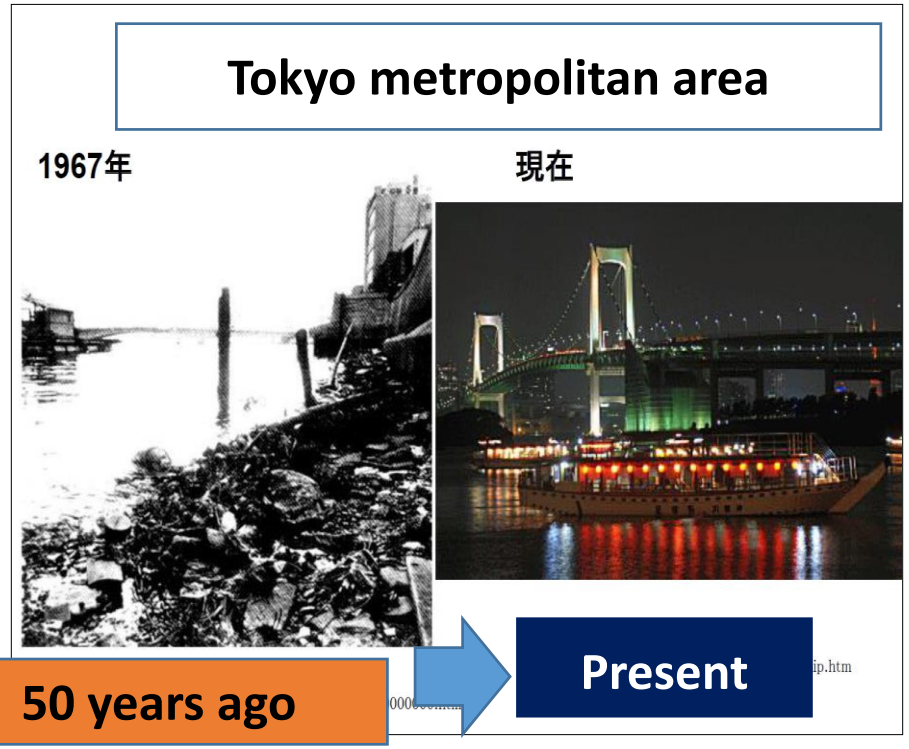


Industrial area in Kyushu

50 years ago

Present

Tokyo metropolitan area



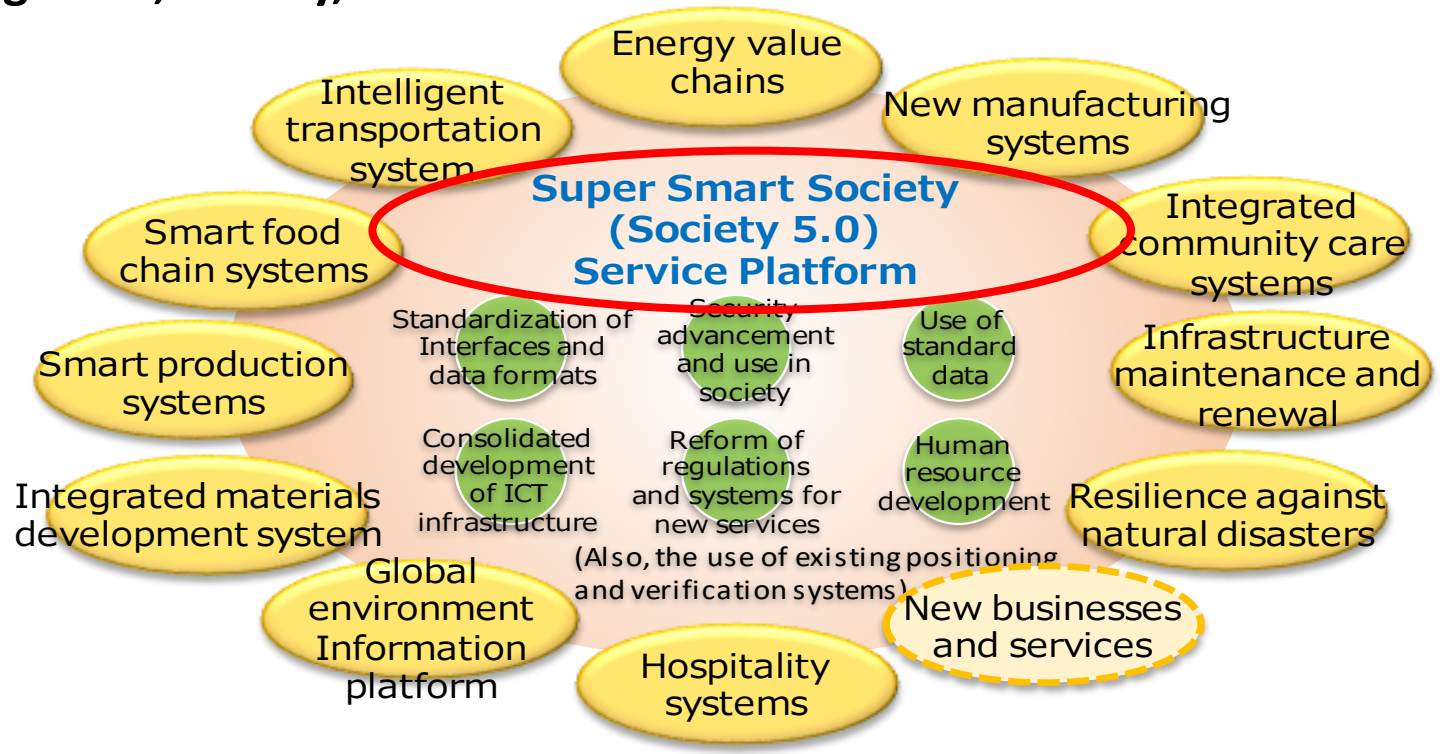
50 years ago

Present

5th National STI Basic Policy (2016～): "Society 5.0*": "super smart society"

A society where the various needs of society are finely differentiated and met by providing the necessary products and services in the required amounts to the people who need them when they need them, and in which all the people can receive high-quality services and live a comfortable, vigorous life that makes allowances for their various differences such as age, gender, society, nation.

Bridging Dometice Policy(Society 5.0) with SDGs



Integration of cyberspace with physical space ("the real world/real contex")

*So called to indicate the new society created by transformations led by scientific and technological innovation, after **hunter–gatherer society, agricultural society, industrial society, and information society**.

Japan Business Federation's Strategy; Bridging Dometice Policy(Society 5.0) with SDGs:

A new grand th model with a view of "solving social issues" as well as "creating a better future".

Using remote sensing and oceanographic data for monitoring and management of water quality, forests, land degradation, biodiversity, etc.

Boosting food production by smart agriculture utilizing IoT, AI and Big Data Improving nutritional status with smart food by cutting-edge biotechnology

Developing early warning alert system for the prevention of infectious diseases by combining different types of monitoring data

Resolving climate change issues with the simulation based on the analysis of meteorological and other observation data by using High Performance Computing

Making high quality education affordable for everyone on the earth with e-learning systems utilizing state-of-the-art technologies

Creating smart cities where convenience, safety and economic efficiency are made compatible

Empowering women with access to education and information through the Internet. Providing women with opportunities for startups by utilizing ICT

Building global innovation ecosystems by connecting industries, academic institutions and other related stakeholders

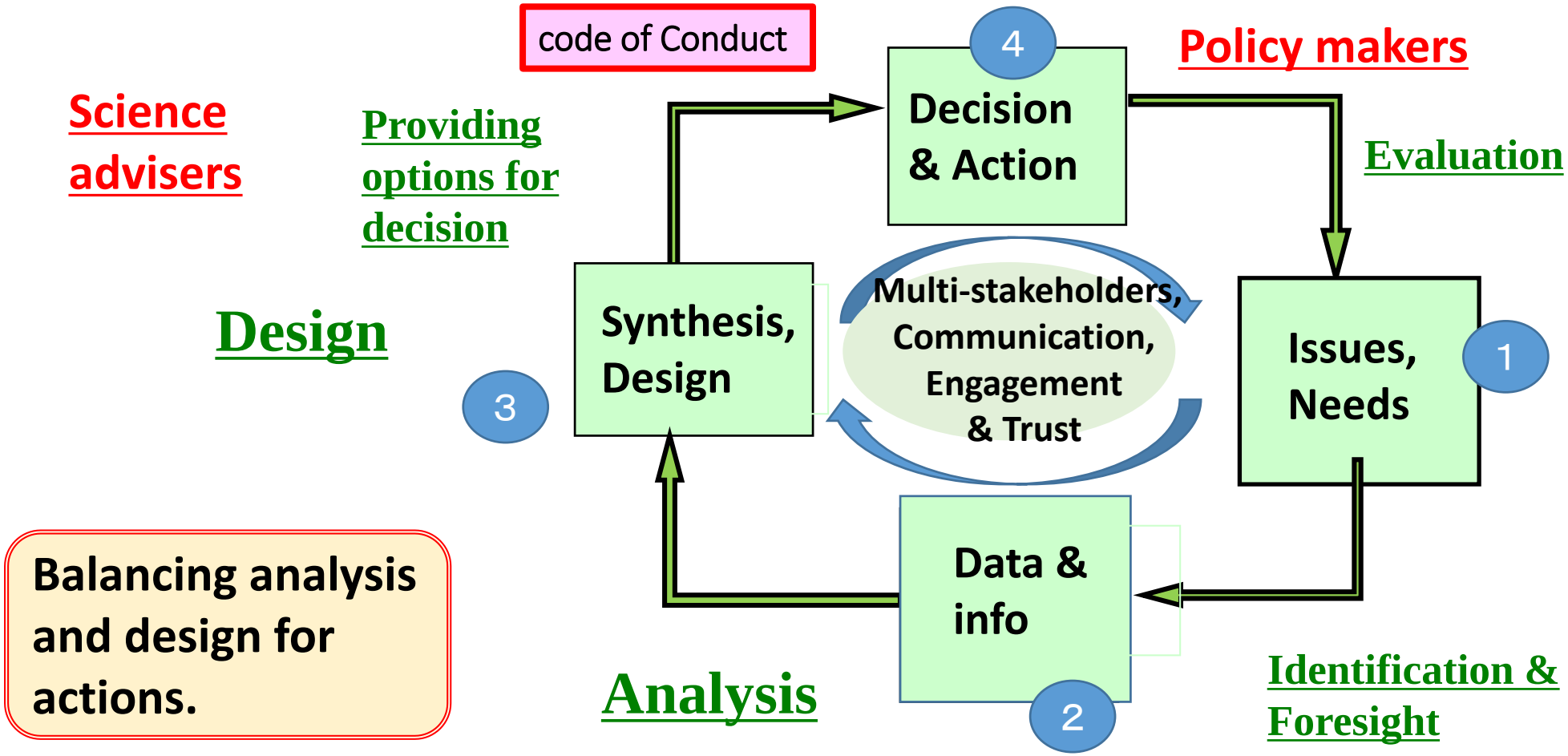
Making electric power supply and demand in a sustainable way by constructing smart grid system

Building resilient infrastructure and promoting sustainable industrialization by using i-Construction

Corporate social responsibility(CSR) ⇒ Corporate shared values(CSV)

Dynamic Cycle of Use of Scientific Knowledge ;

Issues → Data & info → Analysis → Design → Action → Evaluation →・・・



Balancing analysis and design for actions.

Ref. Prof. H.Yoshikawa

Thank you very much
for your attention

Questions:
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