MLIT
Ministry of Land, Infrastructure, Transport and Tourism

Japan's experience in Building Smart and Resilient Cities and Communities

Ministry of Land, Infrastructure, Transport and Tourism
Government of Japan

Daisuke KAKUYA

Sendai Framework for Disaster Risk Reduction 2015-2030
- crystallized into international standard: ISO 37179
(Smart community infrastructures)

MLIT's practices the initiative for disaster prevention and mitigation in alignment with the frameworks

Characteristics of Smart City in JAPAN

Source：the materials of the 3rd ASEAN-Japan High-Level Meeting on Smart Cities Network,

Eco-Cities
(Environmentally Symbiotic Cities)

TOD
(Transit-Oriented Development)

Building Disaster-Resilient Cities
(Resilient Cities)

How to increase the feasibility of smart cities

In addition to hardware, a soft approach is needed

Establishment of legal systems

Urban planning legislation
Land use system
Location optimisation
Environmental greening, etc.

Consensus-building mechanisms among stakeholders.

Large-scale station-front developments
Area management
(e.g. development around Tokyo Station and Osaka Station)

Know-how on Construction Management

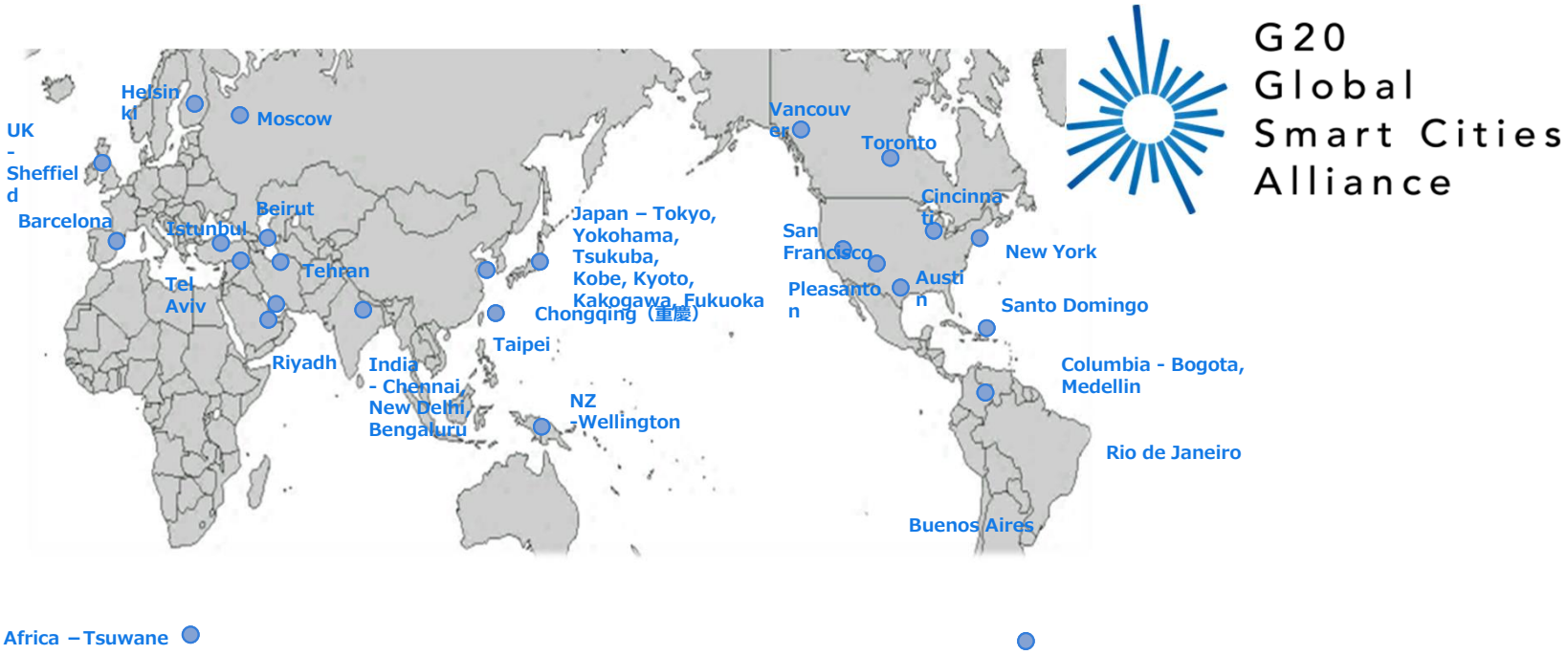
Process management
Safety assurance
Optimisation of Quality, Cost and Delivery

Both hardware (technology) and software (institutions and mechanisms) approaches can increase the feasibility of smart cities.

Five principles by the G20 Global Smart City Alliance

"Five principles" toward "realizing technology governance" and "eliminating governance gaps between cities" was recommended for establishment at the 2019 G20 Digital and Trade Ministers' Meeting.

An establishment meeting was held in Yokohama in October 2019.



Five principles in smart cities

- **Safety, security & resiliency**
- **Transparency & Privacy**
- **Interoperability & openness**
- **Equity, inclusion & societal impact**
- **Operational & financial sustainability**

Sendai Framework for Disaster Risk Reduction 2015-2030

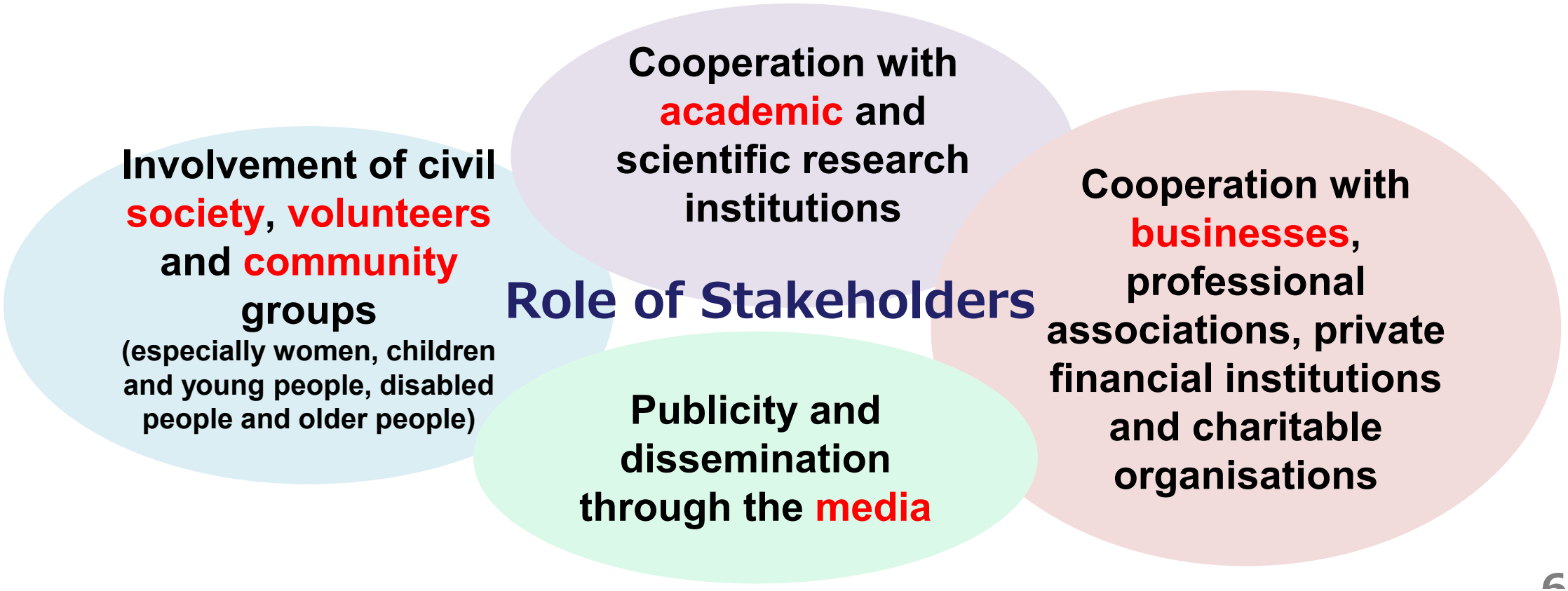
The Sendai Framework outlines seven global targets to be achieved between 2015 and 2030

UNDRR Sendai Framework at a Glance

Sendai Framework for Disaster Risk Reduction 2015-2030

The four priority Actions

- Understanding disaster risk
- Strengthening disaster risk governance to manage disaster risk
- Investing in disaster risk reduction for resilience
- Enhancing disaster preparedness for effective response, and to "Build Back Better" in recovery, rehabilitation and reconstruction



Overarching principles

ISO 37179 : 2024

- Stakeholder inclusiveness
- Optimized resource allocation for operations
- Harmonization and dissemination of technology for disaster risk reduction
- Robustness and redundancy

Core principles

Priority 1: Understanding disaster risk

- Sience - based approach

Priority 2: Strengthening disaster risk governance to manage disaster risk

- Critical function focus
- Structural and non-structural measures

Priority 3: Investing in disaster risk reduction for resilience

- Investment in advance

Priority 4: Enhancing disaster preparedness for effective response

“Build Back Better”

- Response preparedness

Exercise

- Continuous improvement

Thank you for your attention.