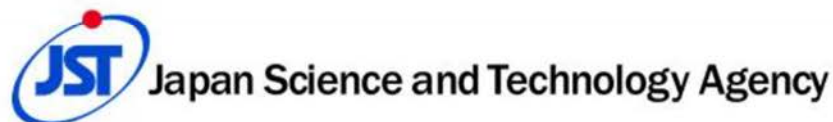


STI Roadmaps for SDGs ~ Journey to 2019 and Beyond~

Michiharu NAKAMURA



Japan Science and Technology Agency

Where are we ?

The Sustainable Development Goals Report 2017

		World	Africa	Central/ South Asia	South East Asia	Central/ South America
SDG 1	Proportion of the population living below 1.90 US dollars a day (%)	10.7	42.3	14.4	3.2	5.4
SDG 2	Proportion of undernourished people, 2016 (%)	10.8	23	15.4	9.3	5.5
SDG 5	Proportion of seats held by women in single or lower houses of national parliament, 2017 (%)	23.4	23.7	18.5	20.1	29.4
SDG 7	Proportion of the population with primary reliance on clean cooking fuels and technologies, 2014 (%)	57.4	12.4	37.3	58.8	86.5
SDG 8	Unemployment rates, youth, 2016 (%)	12.82	11.1	10.7	10.9	17.2
SDG 9	Research and development expenditure as a proportion of GDP, 2014 (%)	1.689	0.414	0.682	2.067	0.691
SDG 11	Proportion of urban population living in slums, 2014 (%)	22.8	55.9	31.8	27.5	21.3
SDG 12	Material footprint per capita, 2010 (metric tons per capita)	10.1	2.5	3.9	13.1	10.3
SDG 15	Average proportion of each terrestrial that is covered by protected areas, 2017 (%)	30.6	27.1	10.0	29.6	46.4
SDG 16	Number of victims of intentional homicide per 100,000 population, 2015 or latest year	5.2	9.3	3.6	1.3	21.3

<https://unstats.un.org/sdgs/report/2017/>

Challenges to be addressed

1. *Paradigm shift in science; “science for/ in society”*
2. *Disruptive, game-changing solutions through STI for SDGs*
3. *Data analysis and integration*
4. *Leveraging the cross-cutting nature of STI in multi Goals*
5. *Responsible research and innovation (RRI)*
6. *Holistic approaches to social implementation*
7. *Respect to local activities*
8. *Global innovation ecosystem*
9. *Capacity building*
10. *Monitoring progress with roadmaps*



Multi-stakeholders' (policy makers, academia, private sectors, NPOs, NGOs, etc.) collective actions for attaining the SDGs

Discussions on STI Roadmaps for SDGs

STI forum in 2016 & 2017

“the STI roadmaps and action plans are needed at the subnational, national and global levels, and should include measures for tracking progress.”

2017 Incheon Workshop on STI for SDGs

STI roadmap for SDGs was extensively discussed as one of key agendas of the 2018 STI Forum.



UN IATT-STI Sub-working group on STI Roadmaps for SDGs

Since February 14, 2018, weekly teleconference among IATT member agencies

Expert Group Meeting on STI for SDGs in Tokyo

“TODAY”

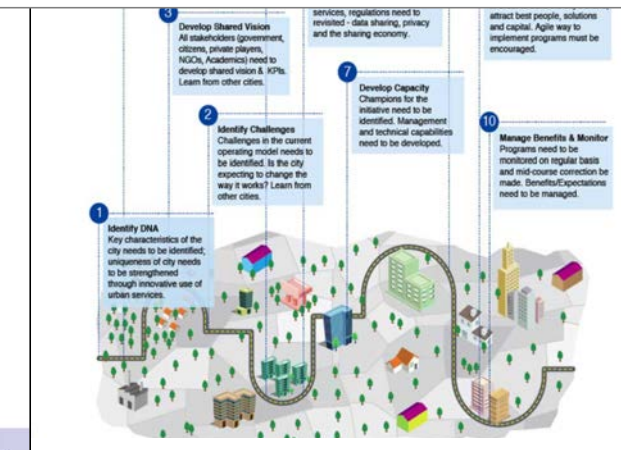
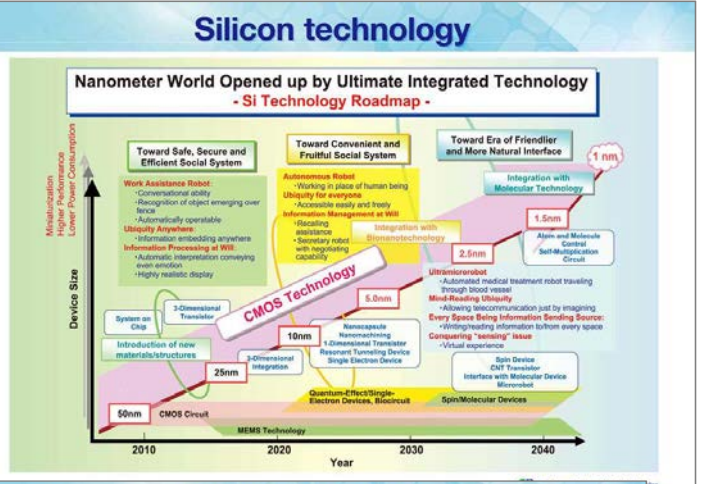
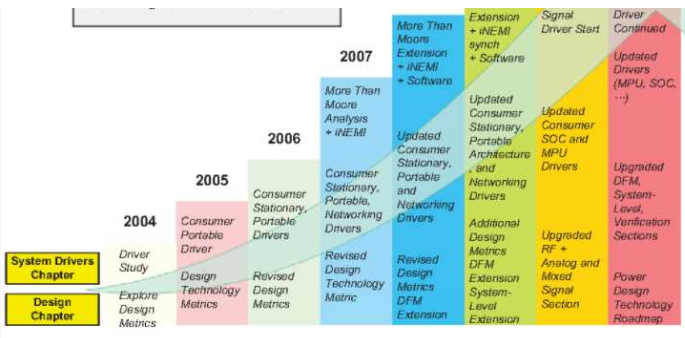
Aiming to **cultivate peer-learning environment, strengthen the capacities and shape consensus and partnerships** among developing and developed countries and UN systems on STI roadmaps, action plans and strategies

STI forum in 2018 and 2019

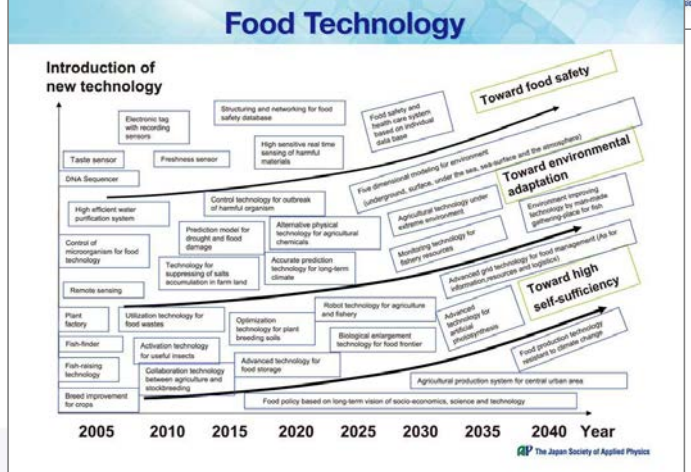
A joint work programme and a global initiative on STI Roadmaps will be launched as a part of the TFM to engage a group of countries for sharing country experiences and championing STI Roadmaps for SDGs at national and global levels.

Various types of Roadmaps exist in the World

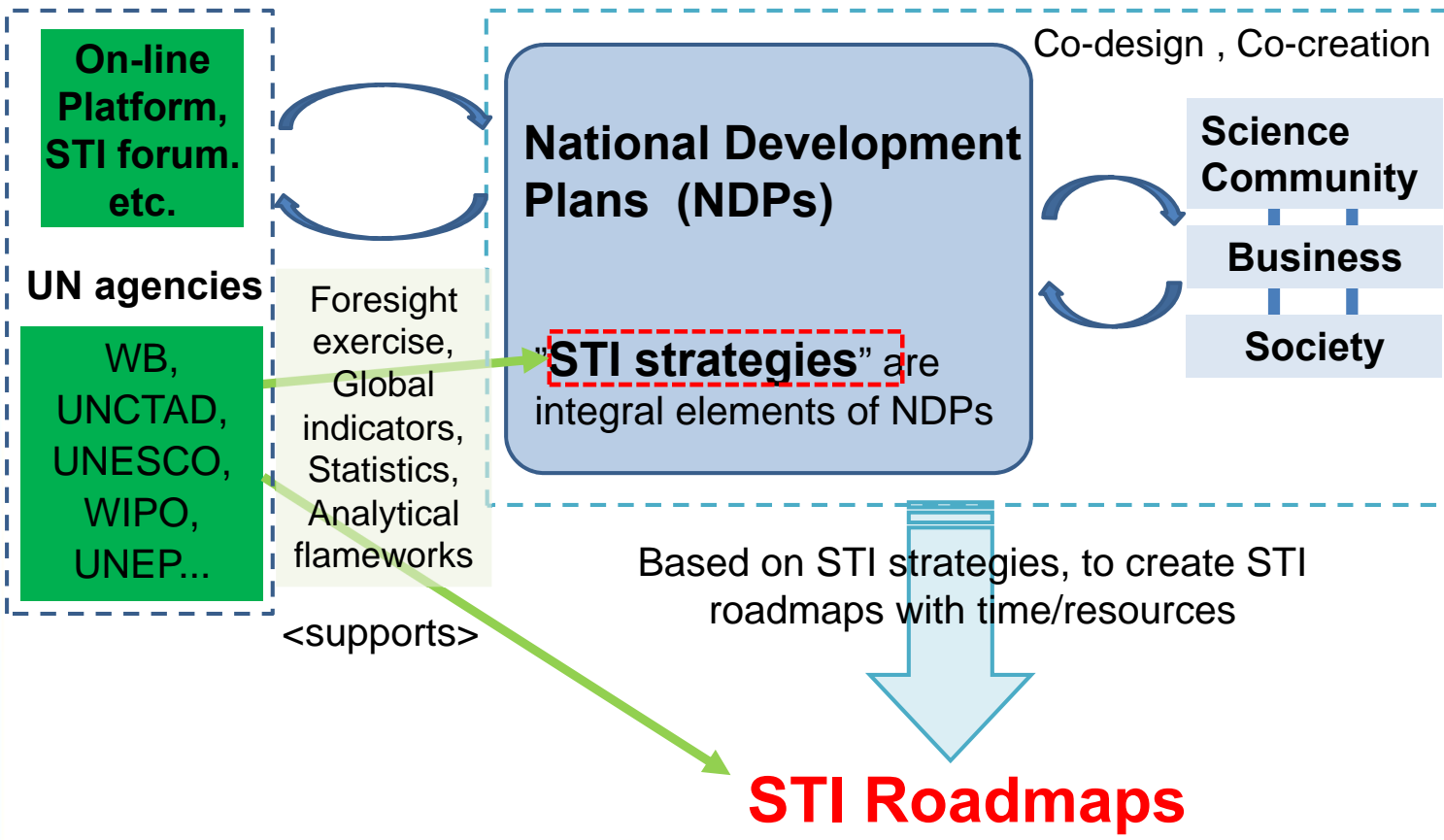
The ITRS design technology and system drivers roadmap: Process and status
DOI: [10.1145/2463209.2488776](https://doi.org/10.1145/2463209.2488776)



World Economic Forum: Urban Development

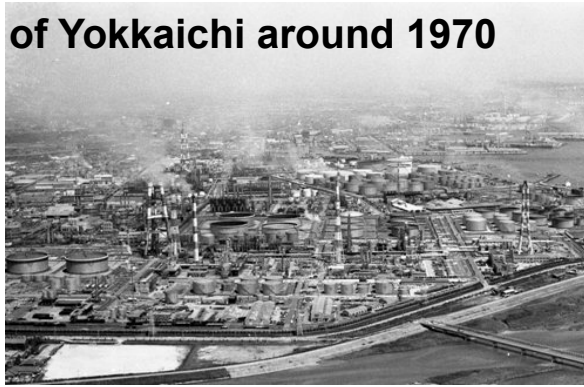


National Development Plans and STI Strategies



Japan's experience to fight against pollution

City of Yokkaichi around 1970



City of Yokkaichi today

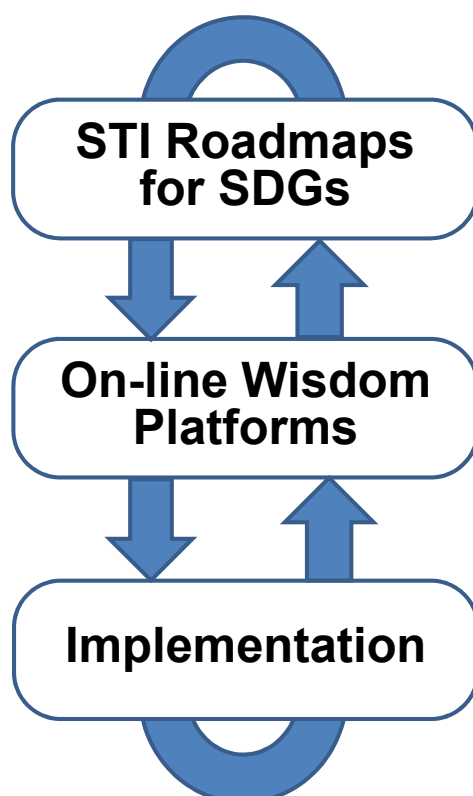


Public-Private Partnerships

- Policy/Laws/ Social systems
- Business/ Investment
- Research and Development/ Capacity Building

From now,
+ Data analysis and integration

Facilitation Cycle of "STI for SDGs"



Analyzing interlinkages (synergies and trade-off) between goals/ targets, gaps, emerging technologies
Bridging STI and policy
Orchestrating multi-stakeholder's efforts
Monitoring progresses

Social/Economic/Technological knowledge
Policies, Practices, Lessons learned
On-line dissemination

Finance, ESG investment
Regulation, Standardization
Global Collaboration
Communication
Capacity Building

Objectives of STI Roadmaps for SDGs

- Roadmaps are main facilitation tools for communications among multi-stakeholders to enhance public-private partnerships (PPPs) for implementing the SDGs.
- Roadmaps depict pathways towards 2030 by analyzing interlinkages of SDGs, reflecting gaps, and horizontal scanning of new seeds of STI on future society.
- Roadmaps contribute to establish domestic and global innovation ecosystems.
- Roadmaps are used to monitor progresses and revised/updated if necessary towards 2030.
- Sharing practices on roadmaps benefits us to enhance the quality of facilitation and achieve Goals more effectively.

Lessons-learnt from trials to develop STI Roadmaps for SDGs

- Enrich **existing national development plans/ strategies in harmony with SDGs** and accelerate necessary actions towards 2030
- Conduct **interlinkage analysis, gap analysis and horizontal scanning** of new seeds of STI
- Formulate **adaptive and interactive roadmaps with cyclic approach** of analysis, co-design, collaborative action and monitoring/review.
- **Leverage existing technologies to solve social issues**, as emphasized in the summary of the 2nd STI Forum. To do so, **matching function** should be harnessed
- Take advantage of **financial tools such as ESG investment**
- **Connect STI roadmaps, on-line wisdom platforms and social implementation** and develop them interactively.

Tentative schedule for Journey to 2019

Tokyo EGM on STI Roadmaps for SDGs May 8-9, 2018

2018 CSTD, twenty-first session May 14-18, 2018

2018 STI Forum June 5-6, 2018

2018 HLPF July 9-18, 2018

INGSA in Tokyo November 6-7, 2018

2019 CSTD, twenty-second session May, 2019

2019 STI Forum May/June, 2019

2019 HLPF July, 2019

The General Assembly of the UN September, 2019

SUSTAINABLE
DEVELOPMENT
GOALS

**Thank you very much
indeed for your attention.**

