### Where are we?

The Sustainable Development Goals Report 2017

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

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

National Development Plans and STI Strategies

On-line Platform, STI forum, etc.

UN agencies
WB, UNCTAD, UNESCO, WIPO, UNEP...

Foresight exercise, Global indicators, Statistics, Analytical frameworks

National Development Plans (NDPs)

“STI strategies” are integral elements of NDPs

Based on STI strategies, to create STI roadmaps with time/resources

STI Roadmaps
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”

STI Roadmaps 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

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

Implementation
- 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

Thank you very much indeed for your attention.