Overview and Updates of Draft Guidebook

Special Session on STI For SDGs Roadmap: Country Experiences and International Partnerships

Guilin, China

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Objectives of this special session

• Present current state and future plans on the guidebook and on the global pilot program
• Share the initial experiences of the pilot countries and their IATT focal points/partners
• Discuss specific ways for the IATT to broaden/deepen multi-stakeholder engagements and promote international partnerships as part of the global program.
National STI Roadmaps – What, Who and How?

Policy frameworks and key actors

National Development Plan
- President Office
- Ministry of Planning
- Ministry of Finance
- Statistical Office

STI Plan
- Ntl. STI Council
- Ministry of S&T
- Ministry of Industry
- Ministry of ICT

SDGs Plan
- Lead agency on SDGs (e.g. foreign, planning)
- Line ministries (e.g. health, agri, energy)
- Local Governments
- Development Cooperation

- Civil society
- Development partners

Step-by-step guidance

1. Define objectives and scope
2. Assess current situation
3. Develop vision, goals and targets
4. Assess alternative pathways
5. Develop detailed STI for SDG roadmap
6. Monitor, evaluate, and update plan

Key Inputs:
- Stakeholder consultations
- Expertise
- Data & evidence base

SOURCE: A Guidebook for the Preparation of STI for SDGs Roadmaps, UN IATT draft 2019
### STI Roadmap Pilots: national and international system efforts

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<tr>
<th><strong>Team structure</strong></th>
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<tbody>
<tr>
<td>Kenya</td>
<td>Ghana</td>
<td>Ethiopia</td>
<td>India</td>
<td>Serbia</td>
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<tr>
<th><strong>Underlying policy frameworks</strong></th>
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<tr>
<th><strong>Scope and objectives of roadmap</strong></th>
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<td>- Big Four (agri, health, manufacturing, housing) - Agro-processing and ICT as an initial focus</td>
<td>(tbd)</td>
<td>SDG 8 (Job creation)</td>
<td>- Agri, energy, water, health; align with key initiatives (e.g. Doubling Farmers Income, Aadhar, Digital India) - Strong international focus – Africa and Far East</td>
<td>- defined smart specialization priority domains and horizontal actions - creative industries; food for the future; machines and production processes of the future; ICT</td>
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<th><strong>Approach to pilot</strong></th>
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<td>- Sectoral deep-dive, target-driven (100% food and nutrition security by 2022) - R&amp;D &amp; adoption/diffusion - Aiming for an East Africa regional model</td>
<td>- Aim for investment proposals and institutional strengthening</td>
<td>- Sectoral: build on 24 technology roadmaps</td>
<td>- International national and subnational levels (Lighthouse India, cooperative federalism) - Data/Dashboard to be substantiated through STI-PER inputs</td>
<td>- work at national level, with the subnational and international dimension - mix of deep dives and horizontal activities</td>
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<th><strong>Key milestones</strong></th>
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<td>(tbd)</td>
<td>(tbd)</td>
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<td>- First 6 months (in India) - End 1st year (AfDB AMs?) - End 2nd year (in NY)</td>
<td>- adoption of S3 draft (December 2019)</td>
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<th><strong>Partners</strong></th>
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<td>IATT focal</td>
<td>- WB (STI PER) - UNESCO (Saga, Go-SPIN)</td>
<td>- UNESCO - WB</td>
<td>- WB (STI PER) - ESCAP</td>
<td>- UNIDO - UNESCO</td>
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<th>UN, Others</th>
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<td>- FAO (?) - Priv. partnership (Toyota)</td>
<td>- OECD</td>
<td>- UNDP, UNIDO (?)</td>
<td>- OECD - UNDP (?)</td>
<td>- EC/JRC (RIS3)</td>
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| AUC, RECs (?) | Japan-India-Africa (?) |  |  |  |  |  |

### Table 4.1 Five Countries Participating in the Global Pilot Program for STI for SDGs Roadmaps (draft requiring alignment between IATT focal points and pilot counterparts)
International cooperation to supplement national STI efforts - needing to connect the dots in parallel

National Level: Policy Frameworks and Key Actors

- National Development Plan
  - President Office
  - Ministry of Planning
  - Ministry of Finance
  - Statistical Office
- STI Plan
  - National STI Council
  - Ministry of S&T
  - Ministry of Industry
  - Ministry of ICT
- SDGs Plan
  - Lead agency on SDGs (e.g. foreign, planning)
  - Line ministries (e.g. health, agri, energy)
  - Local Governments

International STI Cooperation: Domains and Actors

- Development Cooperation / Finance
  - Development Banks
  - Bilateral ODA (incl. Emerging)
  - Businesses, Blended Finance, Philanthropies
  - OECD (e.g. DCD / DAC)
- STI Cooperation
  - Science Diplomacy
  - Academies of Science, International Forums
  - Research cooperation, Business R&D
  - OECD (DSTI / CSTP)
- SDGs Cooperation
  - UN (TFM, Technology Bank for LDCs…)
  - Thematic mechanisms (IPCC, Global Fund…)
Three pillars to build, boost and broker international STI co-operation

1. **Build** country STI capacity
   - Develop human, institutional and policy capabilities of key STI actors, build STI infrastructures
   - Help design STI for SDGs Roadmaps

2. **Boost** international STI flows
   - Support market and non-market flows of STI across countries
   - Support cross-country STI collaboration to address local challenges

3. **Broker** STI coalitions
   - Mobilize ambitious STI collective actions to address global critical gaps
   - Transform global STI system toward acceleration of SDGs
(Adapted) framework to build, boost and broker international STI co-operation

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<tr>
<th>Unit of intervention</th>
<th>Areas of international support (Instruments and recipients)</th>
<th>Select examples</th>
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<td><strong>Build STI capability</strong></td>
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| Individuals | - Researchers: scholarships, research grants  
- Farms/firms absorptive and innovation capacity: training, BDS, agricultural/management extension services  
- STI policymakers: training, peer-learning, learning-by-doing | ASEAN-India S&T Development Fund |
| Human capital base and institutions | - STEM education, digital skills, basic and applied research institutes  
- Entrepreneurship/Deployment system, intermediaries, networks  
- Public service delivery (e.g. health, education, water, conservation...) | WB ACE |
| Broader STI system | - STI-related infrastructure (quality systems, connectivity...)  
- STI system diagnostics, policy advice / assistance to reforms  
- Sectoral R&D and innovation systems (e.g. energy) | UNEP TNA STIPR/Go-Spin/PEN |
| **Boost STI flows** | | |
| Non-market | | |
| Link / strengthen existing STI for SDGs | - University partnerships, exchange programs  
- Multi-stakeholder platforms, networks, communities of practitioners | PASET AOSP |
| Increase new STI for local challenges | - Supply-push: joint research projects  
- Demand-pull: government procurement, prizes | CGIAR, UK GCRF X Prize |
| Market | | |
| Barriers to markets | - Matchmaking STI supply and SDGs demands by online repository /platforms, challenge competitions, demonstration projects | TFM online platform |
| Trade and investment flows | - Donor/IFi projects to crowd in and catalyze R&D, technology transfer and innovation linkages through private capital and blended finance  
- Treaties and other agreements conducive to STI flows (e.g. IP) | Lighting Africa US FfF |
| **Broker STI coalitions** | | |
| Norms, values, standards, statistics | - Global visions, strategies, monitoring reports  
- Cross-country monitoring and evaluation systems | UN Digital Cooperation Panel |
| Coalitions addressing critical global gaps | - Partnership/funding/governance frameworks  
- Mission-innovation programs, grand challenges | US PEPFAR Africa Moonshot |
| Transformative STI system (global/regional) | - Joint or aligned fiscal/procurement/research policies  
- ... | Horizon 2020 |

Source: Authors, informed by WB-OECD, the Background Paper on International Collaborations for STI for SDGs Roadmaps (forthcoming)
Expectations for Workshop

• Learn from country pilot experience
  • extent to which guidebook is useful
  • understand which steps countries are finding most difficult
  • receive suggestions for how to improve the guidebook and international support.

• Discuss how to strengthen international cooperation and multi-stakeholder involvement in the pilot countries, including
  • how to more effectively coordinate the support from different international organizations and government
  • how to more effectively involve the private sector and civil society