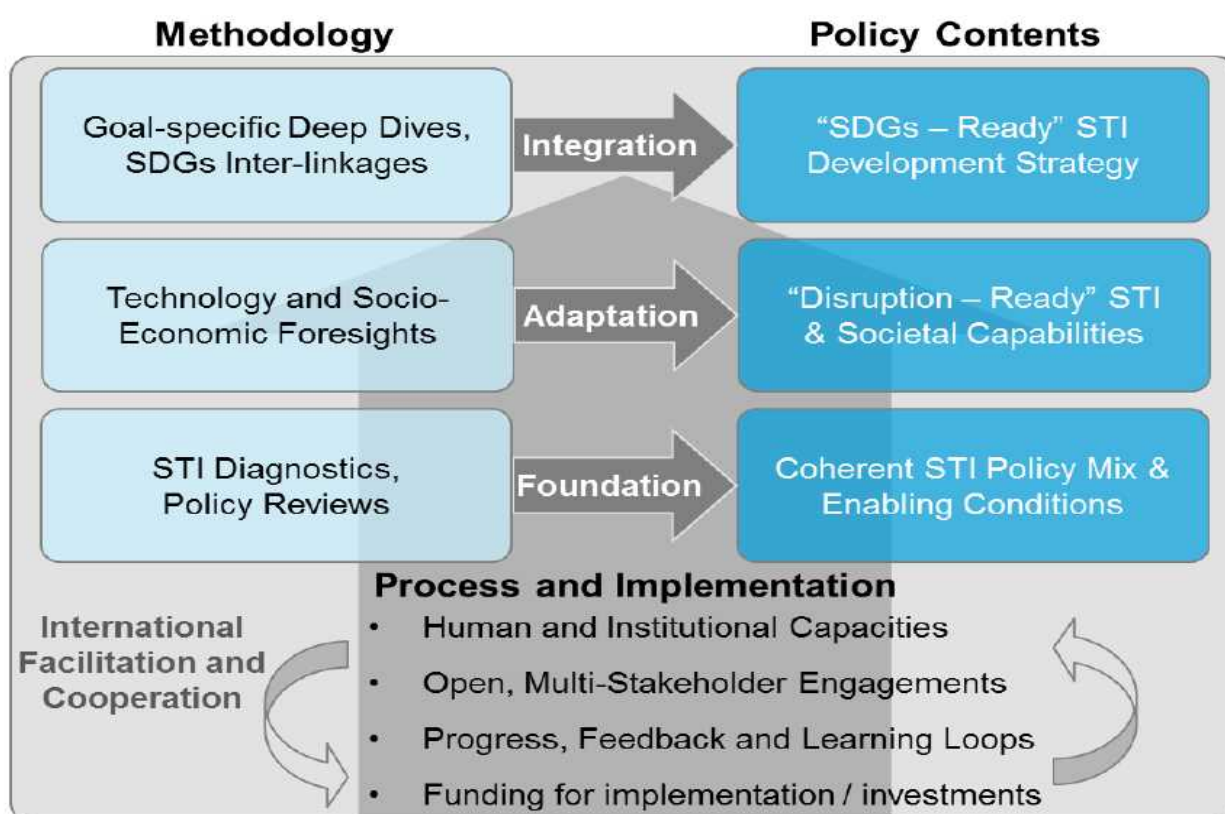


## Expert Group Meeting – Tokyo

### Session 1: Introduction to the STI Roadmaps for the SDG

Klaus Tilmes  
World Bank Group  
May 8, 2018

## Organizing Framework for STI Roadmap Elements and Approaches

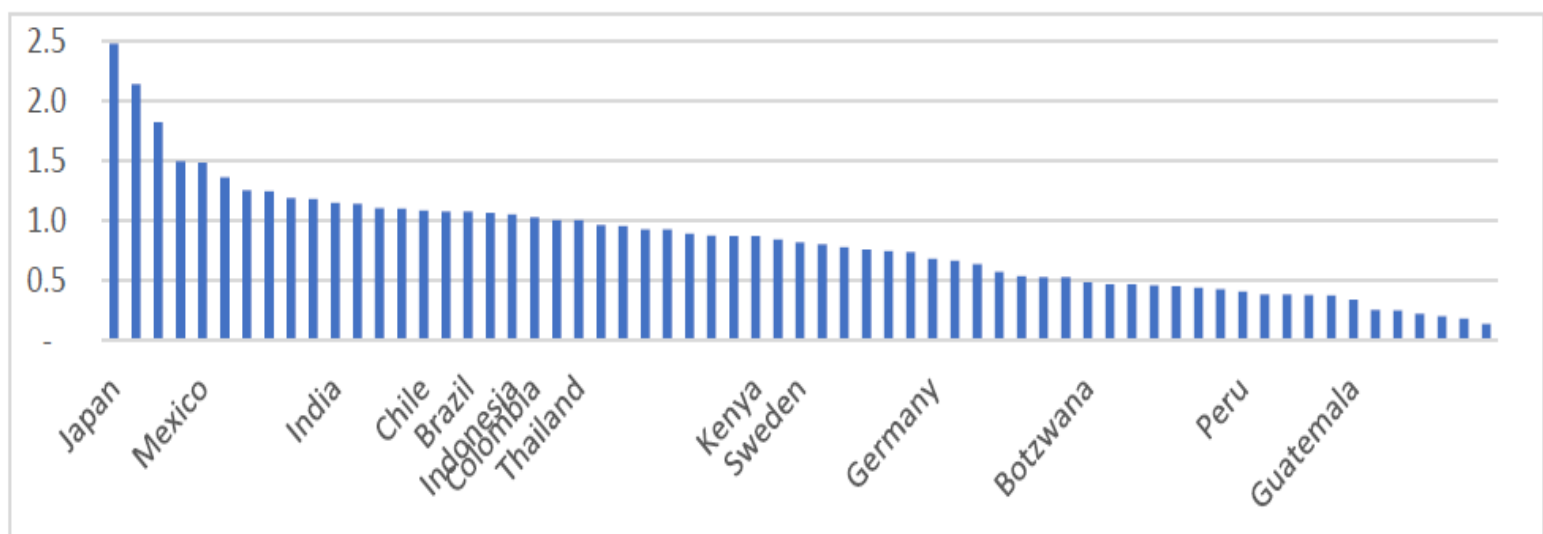


# Summary of Canada's Status on Domestic SDG Indicators

Sustainable Development Goal	Moving backwards	Breakthrough needed	Acceleration needed	On track
1 Poverty		•	•	•••
2 Hunger & food systems	•••			
3 Good health & well-being	•	••	•••••••	•••
4 Quality Education	••	•		•••
5 Gender equality	•	•••••••		
6 Clean water & sanitation	••	••	•	
7 Affordable & clean energy	•	•	•	•
8 Decent work & economic growth		••	•	•
9 Industry, innovation & infrastructure	•	••		
10 Reduced inequalities	•	•		
11 Sustainable cities & communities	•••			•
12 Responsible consumption & production		•••		
13 Climate action		•		
14 Life below water	•		•	••
15 Life on land		•••		•
16 Peace, justice & strong institutions	••	••	•	••
	18	26	12	17

Source: McArthur and Rasmussen, *Who And What Gets Left Behind? Assessing Canada's Domestic Status on the SDGs*, Brookings (2017)

## Voluntary National Reviews



Frequency of STI References per Page

# STI Questionnaire: Preliminary Observations

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## Areas of Convergence:

- Adoption of Frameworks for National STI Policy
- Engagement of Diverse Stakeholder Groups
- Emphasis on Inter-ministerial / Cross-departmental Coordination on STI
- Identification of Sectoral Entry Points for STI
- Selected Adoption of Functional Programs & Institutional STI Reforms
- Reliance on Expert Support & Advice for STI Review and Policy Planning (UN, WB, OECD)

*Status as of 5/6/2018: Brazil, Colombia, EU, Ghana, Sweden*

# STI Questionnaire: Preliminary Observations

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## Constraints & Shared Challenges:

- Development of STI Roadmaps and Integration with SDGs/NDPs
- Implementation Capabilities for STI Programs (Plan → Action)
- Evidence Base (analytics, benchmarks, program evaluation)
- Alignment of Policy Mix for STI Financing and Implementation across Government / NIS (incentives, regulation, PPP, ...)
- ‘All-of-Government’ Approach (Clarity of Policy Objectives & Resource Alignment with Effectiveness and Efficiency)
- Foresight Capabilities & Awareness of Stakeholders around Emerging Technologies and their Impact
- Preparedness for Adaptation to Impacts of Technological Disruption (inclusiveness, economy, regulation, social cohesion..)
- Role of Entrepreneurial Ecosystem (Start-ups; Digital Disruptors); Varying Emphasis on Productive Sector and Firm Capabilities
- Lack of Scale (and Coordination) in International STI Support

*Status as of 5/6/2018: Brazil, Colombia, EU, Ghana, Sweden*

# STI Questionnaire: Preliminary Observations

## Opportunities for a Joint STI Action Plan:

- Position STI in the Context of SDGs
- Emphasize Inclusiveness ('Leave-No-One-Behind')
- Develop Transition Programs & Policies
- Partnership / Financing Opportunities with Private Sector
- Adopt Shared Meta-level STI Framework to Facilitate x-Country Learning; Set up Learning Loops around Key Areas of Shared Interest / Expertise
- Global Consensus Building

## Countries Experiences with UN Support to STI Roadmaps

STI Diagnostics and Reviews have been conducted in ~ 130 countries over the last 10 years

	EU	OECD	UNCTAD	UNESCO	WB	UNIDO	WIPO	UNEP	ITU
Botswana				2013					
Brazil	2015	2016		2015		2017			
Cameroon									
Chile		2016			2017				
China	2015	2016		2015	2013	2017			
Colombia		2014	1999		2016			2013	
Germany		2016							
Ghana			2011			2012	XX	2012	
Guatemala				2017				XX	
India	2015	2016		2015	2017	2017			
Indonesia		2016			2013			2012	
Japan	2011	2016		2015					
Kenya		2016			2018		XX	2013	XX
Mexico	2015	2016							
Peru		2016	2011		2016			2012	
Rwanda			2017	2015	2018	2016	2014	2012	XX
Sweden	2016	2016							
Thailand			2015					2012	

## Historical UN System Inputs to Rwanda

Agency	WB	UNEP	UNIDO	WIPO	UNDP	UNESCO	UNCTAD	ITU
Instrument	<a href="#">Building Science, Technology, and Innovation Capacity in Rwanda</a>	<a href="#">Rwanda Technical Needs Assessment</a>	<a href="#">Review of the SEZ Policy and Development of Industrial Parks in Rwanda</a>	<a href="#">Integrating Intellectual Property into Innovation Policy Formulation in Rwanda</a>	Foresight Xchange	<a href="#">GO→ SPIN: Country Profile: Rwanda</a>	<a href="#">Rwanda STIP Reviews</a>	<a href="#">Rwanda ICT centric innovation ecosystem country review</a>
Scope	National	Sector	Sector	Function	Foresight	National	National	Function
Time Started	2006	2009	2013	2014	2014	2015	2016	2017
Length of Study		4 years	2 years	7 months		1 year	7 months	In process

## STI Strategy in Kenya's Vision 2030

<b>Vision for 2030</b>	<b>A nation that harnesses STI to foster global competitiveness for wealth creation, national prosperity and a high quality of life for its people</b>		
<b>Strategy</b>	<b>Enhance the application of STI in the national priority sectors for optimal benefits for Kenya's socio-economic and political development</b>		
	<b>Economic Pillar</b>	<b>Social Pillar</b>	<b>Political Pillar</b>
<b>Master Plan</b>	To maintain a sustained economic growth of 10% p.a. starting from 2012	A just and cohesive society enjoying social equity and development in a clean and secure environment	An issue-based people-centered, results-oriented and accountable democratic political system
<b>Implementation</b>	<b>← Science, Technology and Innovation →</b>		

# Proposed Priority Actions for Discussion

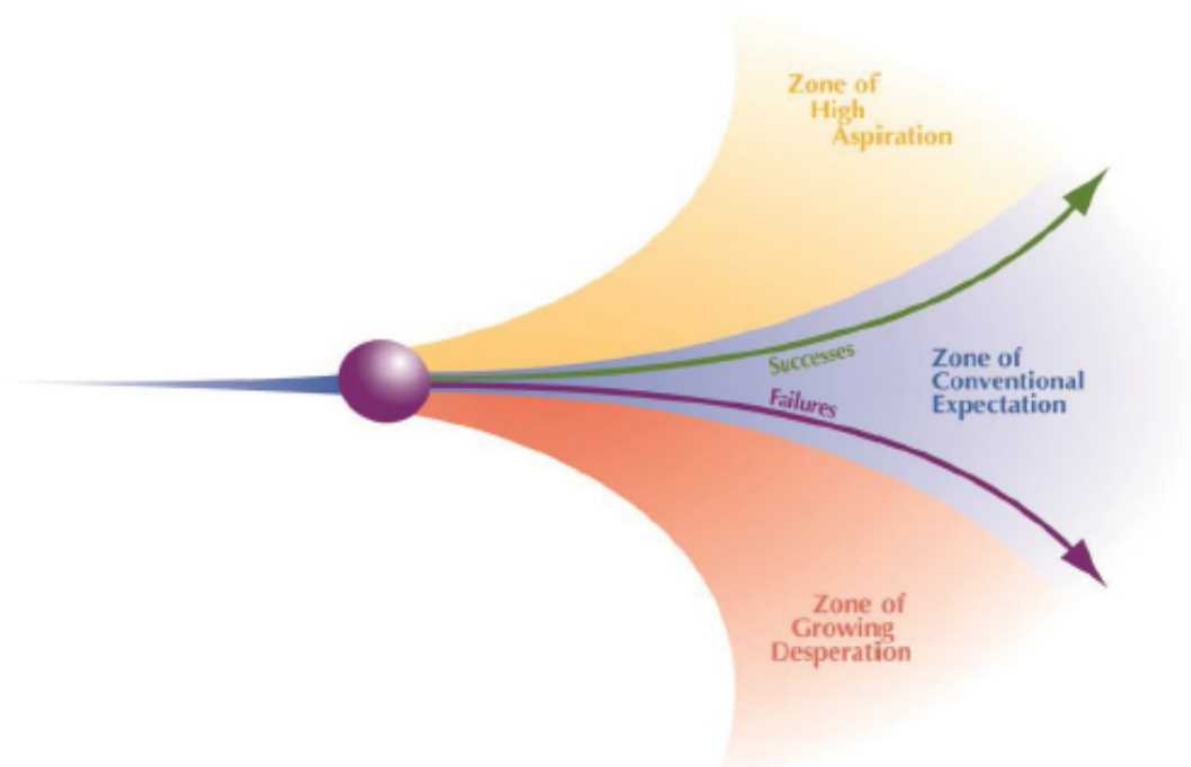
## Next 30 Days:

- Finalize Background Paper (drawing on STI Questionnaire)
- Shape Key Messages around Importance and Benefits of STI Roadmaps
- Call for Participation to further Joint Work
- Showcase 'Emerging Practices'
- Explore Joint Action / Pooling of Expertise by IOs

## UN STI 2019 / UNGA 2019:

- Peer Learning / EGMs
- Adopt Common Principles for STI Roadmaps
- Pilot STI Roadmaps
- *Expand to Larger Group of Countries*
- Communicate & Raise Awareness
- Joint Action by IOs; Envision support mechanisms, with pooled resources, for STI roadmaps at scale

## Developing “Opportunity” Narratives *together*



# Advancing Roadmap Discussions with UN-STI Community

		2016	2017	2018 (target)	2019 (ambitious target)
Country level roadmap	<b>Awareness for needs for and utility of roadmap, and associated challenges</b>	<ul style="list-style-type: none"> <li>Need policy coherence</li> <li>Generic and SDGs-focus</li> <li>Foresight and horizon-scanning</li> </ul>	<ul style="list-style-type: none"> <li>Challenge in universality vs country realities</li> <li>Lack STI policy capacity</li> <li>Governance, coordination</li> <li>Strategies for disruption</li> </ul>	(Reconfirm key elements on STI policies and roadmaps from the last two Forums)	
	<b>Country examples highlighted</b>	<ul style="list-style-type: none"> <li>Kenya; USA; Dominican Republic; Mauritius</li> </ul>	<ul style="list-style-type: none"> <li>UAE, Japan, USA</li> </ul>	<ul style="list-style-type: none"> <li>Triangulate a few successful country cases</li> </ul>	<ul style="list-style-type: none"> <li>Highlight impact of UN systematic support</li> </ul>
	<b>Requirement for effective roadmap</b>	<ul style="list-style-type: none"> <li>Whole-economy approach, trade-offs and synergies</li> <li>Adequate, diverse funding</li> <li>Integrated assessment tool</li> <li>Legal environment, trade, intellectual property policy</li> <li>Private sector, all stakeholders</li> <li>Linking to and tracking development challenges</li> </ul>	<ul style="list-style-type: none"> <li>Open, inclusive process</li> <li>Identify needs and gaps</li> <li>Holistic approach, diverse source of knowledge</li> <li>Deep dives for each Goal</li> <li>Human and institutional capacity</li> <li>Science advisory ecosystem</li> </ul>	<ul style="list-style-type: none"> <li>Integrate STI roadmap to national sustainable development strategies</li> <li>Developed countries plan for international STI contributions</li> </ul>	<ul style="list-style-type: none"> <li>Lessons from pilots to be learned through roll-out</li> </ul>
	<b>Recommendations</b>	<ul style="list-style-type: none"> <li>Develop national policy roadmap</li> </ul>	<ul style="list-style-type: none"> <li>Prioritize STI policy capacity development</li> </ul>	<ul style="list-style-type: none"> <li>Pilot 10-20 countries by 2019</li> <li>Review policy capacity efforts and progress</li> </ul>	<ul style="list-style-type: none"> <li>Roll-out 100+ countries over next 4-year cycle</li> <li>10-20 VNRs with UN systematic STI support</li> </ul>
	<b>Follow-up</b>	--	--	--	--
	<b>Follow-up</b>	--	--	--	--
Inter-national level roadmap	<b>Awareness</b>	<ul style="list-style-type: none"> <li>Need roadmap at national and global levels</li> </ul>	<ul style="list-style-type: none"> <li>Align international responses with national needs</li> </ul>	(Reconfirm)	
	<b>Recommendations</b>	--	<ul style="list-style-type: none"> <li>Focus on accelerating progress, at sub-national, national, international levels</li> <li>Learning loops, what works</li> <li>UN to close gaps in resource, strategy, data, reporting</li> </ul>	<ul style="list-style-type: none"> <li>Synergize UN system's assessments, policy capacity development and roadmap support to address national needs</li> </ul>	<ul style="list-style-type: none"> <li>UN and development partners to systematically address needs and gaps, informed by national roadmaps</li> </ul>
	<b>Follow-up</b>	--	--	--	<ul style="list-style-type: none"> <li>Track progress</li> </ul>