

*Multi-Stakeholder Forum on Science,  
Technology and Innovation for the  
Sustainable Development Goals  
(STI Forum) - a component of the  
Technology Facilitation Mechanism*

Richard A. Roehrl  
Senior Economic Affairs Officer  
Division for Sustainable Development Goals  
United Nations Department of Economic and Social Affairs

# Outline

1. The STI Forum as part of the Technology Facilitation Mechanism – what is it?  
(Example: biotech and synthetic biology)
2. An inclusive space and science-policy interface - what does it offer scientific and technological communities?
3. Support to national level efforts

*“Creativity is contagious. Pass it on!”*  
(Albert Einstein)

# Technology Facilitation Mechanism (TFM)

- In 2015: Addis Ababa Action Agenda (§123) and 2030 Agenda for Sustainable Development (§70) established the TFM to support SDG implementation.
- Pinnacle of the UN system architecture on science, technology and innovation for sustainable development.
- Global collaboration: facilitate multi-stakeholder collaboration, partnerships, information sharing, best practices, technology solutions and policy advice for the SDGs.
- “Multi-stakeholder”: Member States, civil society, private sector, scientific and technological communities, UN system,...
- Engaged 1,000s of stakeholders (many new to the UN debate). Participation has increased and widened.
- TFM runs primarily on volunteer work.



# TECHNOLOGY FACILITATION MECHANISM

SUSTAINABLE  
DEVELOPMENT  
GOALS



46 UN entities, 100+ expert staff volunteers, 10-working streams



appointed by SG every two years

1

## UNITED NATIONS INTERAGENCY TASK TEAM ON STI FOR THE SDGS (IATT)

3

## MULTI-STAKEHOLDER FORUM ON SCIENCE, TECHNOLOGY AND INNOVATION FOR THE SDGS (STI FORUM)

1,000s of stakeholders have been involved, with many related events.

2

## 10-MEMBER GROUP TO SUPPORT THE TECHNOLOGY FACILITATION MECHANISM

4

## ONLINE PLATFORM (2030 Connect) - GATEWAY FOR INFORMATION ON EXISTING STI INITIATIVES, MECHANISMS AND PROGRAMS

Single entry point to STI solutions and information by many partners

→ A new one-UN, multi-stakeholder way of working



# Multi-stakeholder Forum on STI for the SDGs



- Convened by the President of ECOSOC, appoints two Forum Co-Chairs
- Organized by IATT and 10-Member-Group of high-level representatives
- Engages many new stakeholders (not usually engaged with UN)
- Co-chairs' summary is a mandated input to the HLPF in support of its review of the SDGs (see UN document E/HLPF/2021/6)
- STI Forum works cumulatively. Thematically aligned with HLPF.
- 2 days: opening/closing, Ministerial session, thematic sessions, special events, associated events, side events; innovators competition, exhibition, etc.
- Tech solutions, initiatives and policies; national plans; emerging science and technology issues; TFM findings on the impacts of rapid technological change

# 7<sup>th</sup> STI Forum (Virtual, 5-6 May 2022)

Theme: “Science, technology and innovation for building back better from the coronavirus disease (COVID-19) while advancing the full implementation of the 2030 Agenda for Sustainable Development”



**H.E. Mr. Kennedy Godfrey Gastorn**

Ambassador and  
Permanent Representative  
of Tanzania to the United  
Nations, Co-Chair of the  
2022 STI Forum



**H.E. Mr. Sergiy Kyslytsya**

Ambassador and  
Permanent Representative  
of Ukraine to the United  
Nations, Co-Chair of the  
2022 STI Forum

Call for Inputs (Science-Policy Briefs)  
Science and technology solutions,  
partnerships and policies

AI and digitalization, climate, and COVID.  
Science-policy interface, South-South  
cooperation and research funding, ...

More information: <https://sdgs.un.org/tfm/STIForum2022>

# Examples of biotech and synthetic biology issues discussed in STI Forums

- How we harness emerging technologies - such as biotech, AI, and nanotech - may well be the defining issue of our times
- Dramatically reduced the cost of DNA sequencing and of DNA synthesis → “programming” of new organisms
- “Do-it-yourself” biology labs, biohacker spaces, makerspaces and fablabs
- “Citizen scientist” movements
- Convergence of biotech, IT and AI → “labs-in-a-chip”

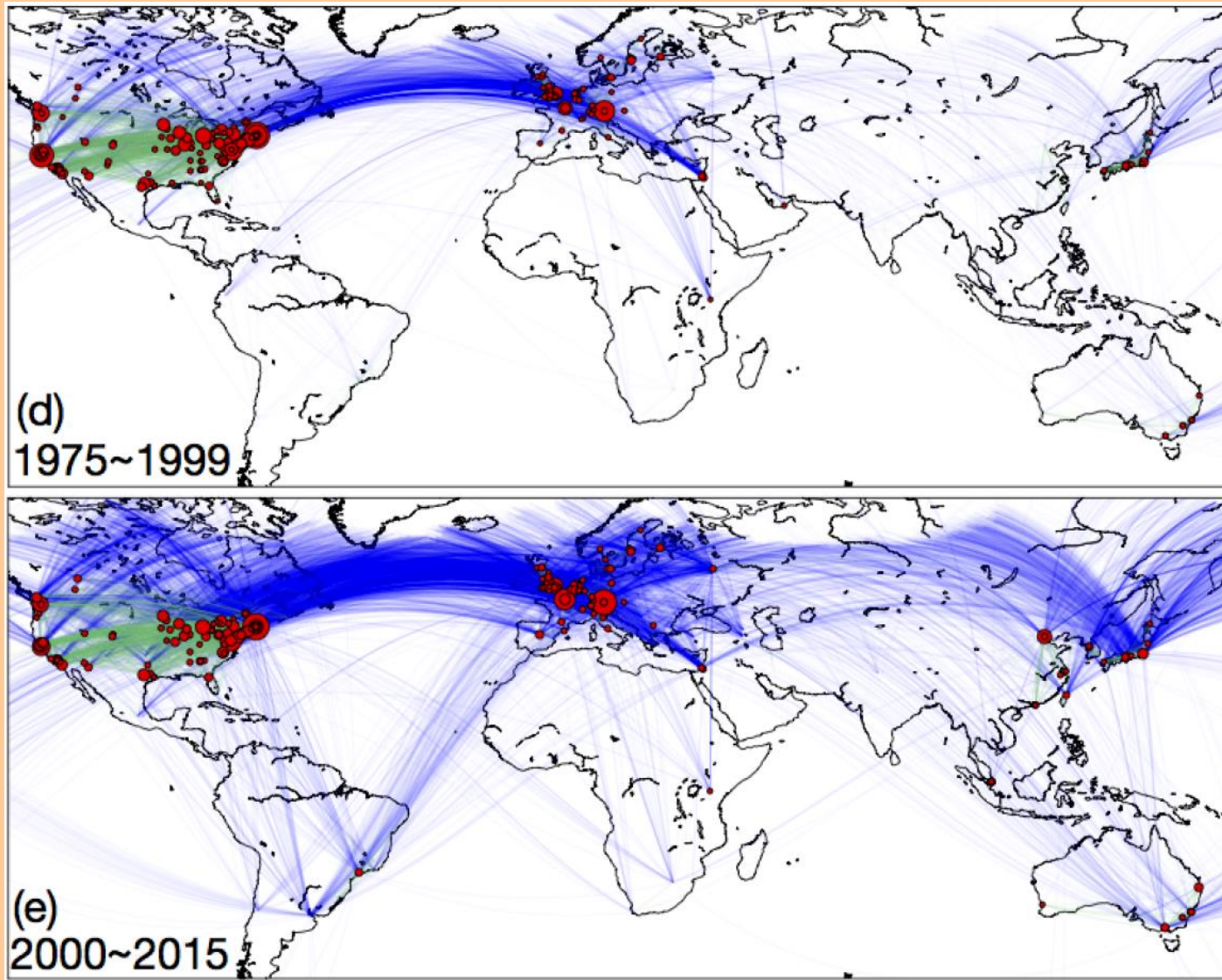




193 Member States



# Global science collaboration, 1975-2015



**Lines:** relative strength of cooperation between institutions

**Circles:** top 200 most-cited institutions

Source: KDD 2017, [h.p://dx.doi.org/10.1145/3097983.3098016](http://dx.doi.org/10.1145/3097983.3098016)





*Example call for inputs*

## Science

- *Inherently uncertain and skeptical*
- *Universal*
- *Precise*
- *Rational*
- *Long-term*
- *Win-win*

## Politics

- *100% certain, skepticism is heresy.*
- *National, regional*
- *Inclusive*
- *Emotional*
- *Short-term*
- *Zero-sum*

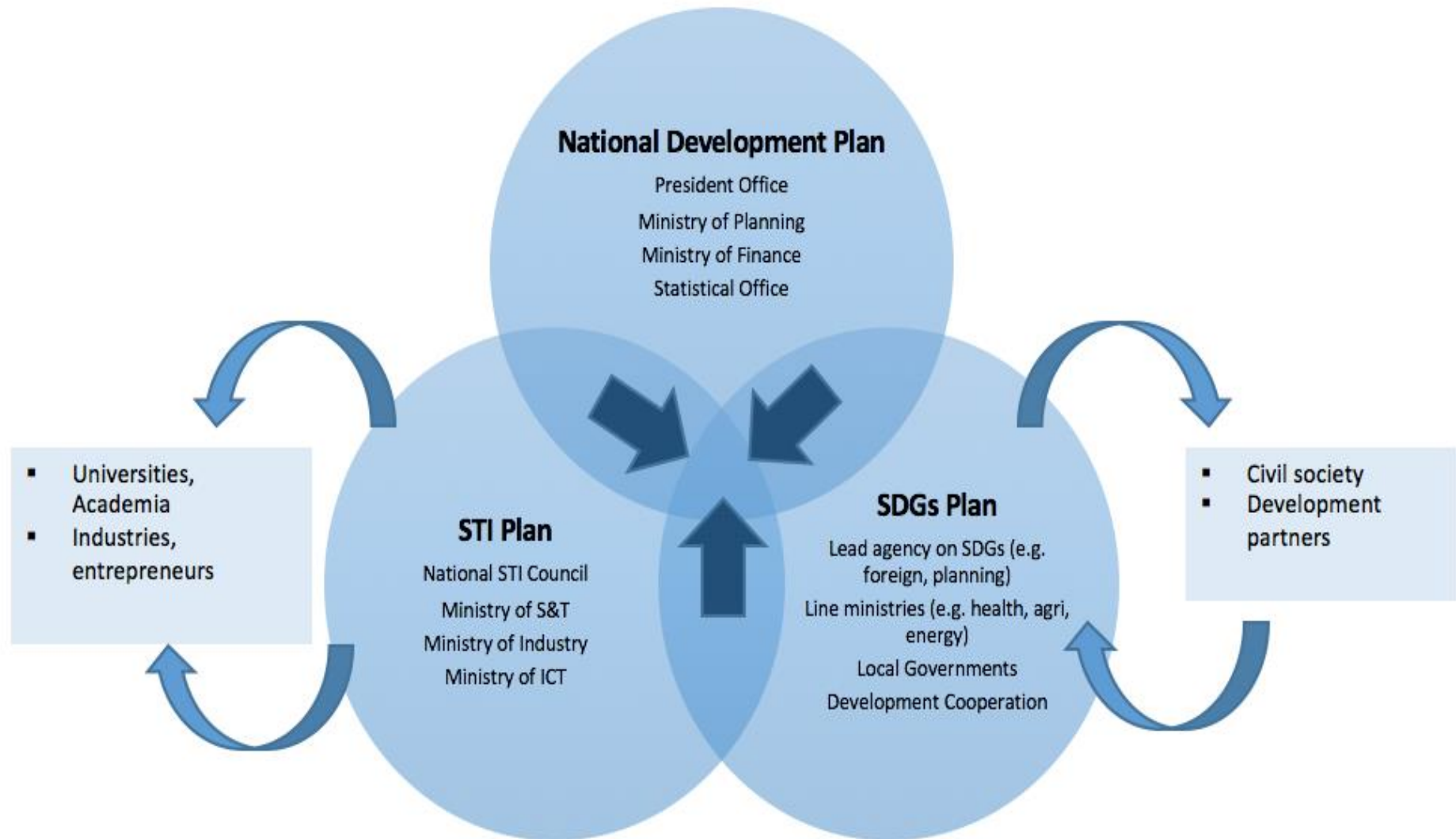


# New and old types of entry points for science at the UN

	Ad hoc or <u>established</u>	Examples
Meetings & groups	UN Conferences and Summits	Rio+20, Rio process Conferences
	Commissions, Committees, fora	<u>HLPF</u> , <u>CSTD</u> , <u>STI Forum</u>
	UN Expert Group Meetings	<u>CDP</u> , <u>TFM 10-Member Group</u> , <u>Independent Group of 15 Scientists</u> ; many UN ad-hoc EGMs, SG ad-hoc advisory groups
	Major groups consultations (ICSU, ISSC, WFEO)	OWG-SDG, Rio+20, <u>major groups status</u>
	Online, surveys, crowdsourcing	<u>GSDR and TFM processes</u>
Assess-ments	Intergovernmental scientific assess.	<u>IPCC</u> , <u>IPBES</u> , AASTD, <u>GEO</u> , <u>AH</u> , <u>VNRs</u>
	Scientific-technocratic assessments	<u>GSDR</u> , <u>CDP</u> , GSP, <u>WESS</u> , SD21
	Scientific research cooperation	GEA, MEA, Census of Marine Life
Other	Advisory groups outside UN	SE4all
	Open calls for inputs (UN & others)	<u>Science-policy briefs for STI Forum</u>
	Partnerships	<u>Future Earth</u> , <u>SDSN</u>
	Technical cooperation projects	<u>UN nexus projects</u> , STIP
	Become a UN or government staff	UN, UNCTAD, UNESCO...

# National STI for SDG Roadmaps

At the intersection of development, STI and SDG plans



# Guidebook and online course (with UNITAR) for the preparation of STI for SDG Roadmaps



دليل إعداد خرائط طريق العلوم والتكنولوجيا  
والابتكار من أجل تحقيق  
أهداف التنمية المستدامة



Chinese Version  
中文版



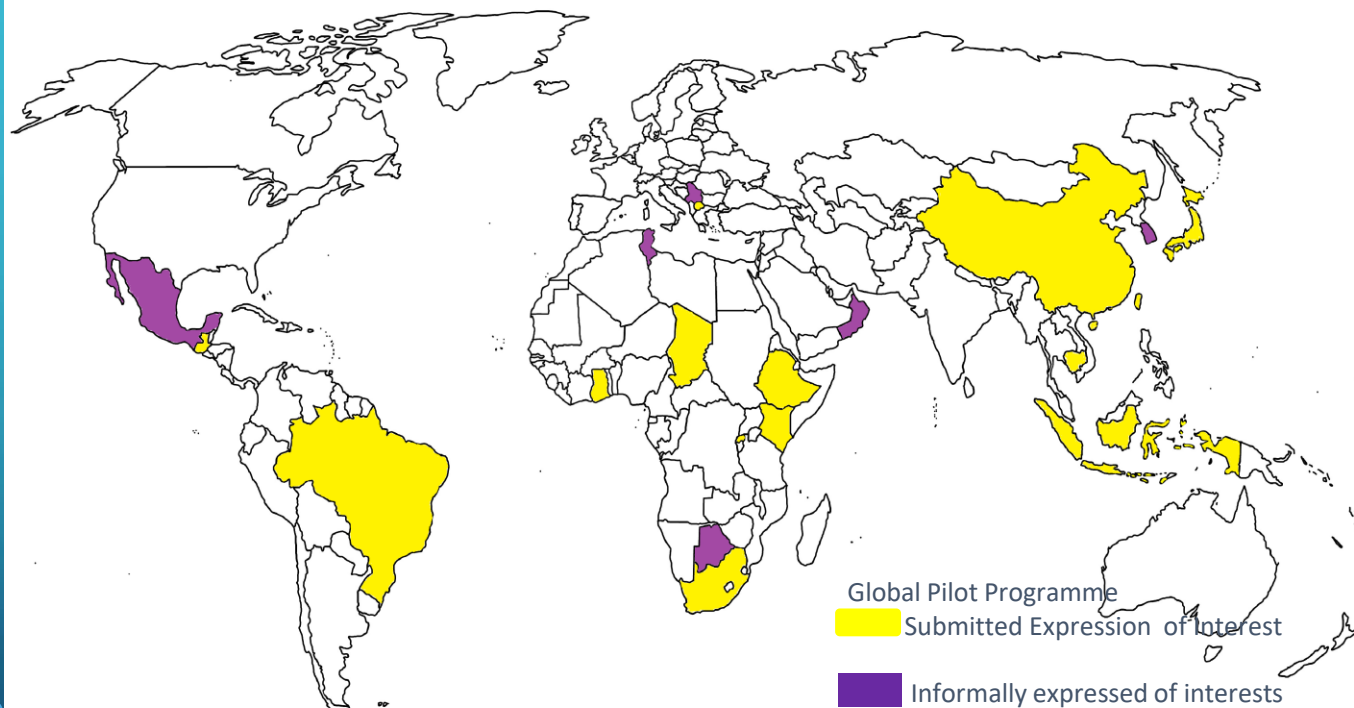
2021\_UNITAR VIDEO1\_v3.mp4



指引手册  
(中文翻译版)



## Pilot countries and expressions of interest



**“Partnership in Action” under development to enable STI4SDG roadmaps in many more countries**



*Thank you!*

GIFT OF LUXEMBOURG  
1988

<https://sdgs.un.org>