UN 75th General Assembly

Side Event on STI for SDGs Roadmaps

Science, Technology and Innovation Roadmaps for the SDGs – achievements and new opportunities

Date: 17 November 2020
Time: 10.00-13.00 EST
Venue: Virtual Meeting (Webex)

The GA Side Event on Science, Technology and Innovation Roadmaps for the SDGs convened on November 17, 2020, in a virtual format due to the COVID-19 pandemic. It was co-organized by DESA/DSDG, the European Commission/JRC, OECD and Japan. The meeting launched the Guidebook on STI Roadmaps for the SDGs, with strong commitments to enhance partnerships, voluntary commitments, and networks. The event brought together senior representatives from EC/JRC, Member States, 10 Member Group, and UN partners, with more than 500 stakeholders registered to participate. In celebration of UN 75th anniversary, the side event focused on the preliminary results and the next steps for the finalization of the pilot roadmaps as part of the Global Pilot Programme on STI for the SDGs launched in five countries and presented suggestions and ideas for the expansion of the Global Pilot Programme within the proposed initiative "Partnership in Action". Participants, in particular from countries that are interested in the next phase of the Global Pilot Programme, as well as potential donors and partners in the implementation of the Global Pilot Programme were actively engaged. The event concluded with a very positive note that supported to continue the momentum of the expansion of the Global Pilot Programme on STI Roadmaps, to further advance the Technology Facilitation Mechanism, as part of the 2030 Agenda for Sustainable Development.
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Key Messages

- All five pilot countries have set objectives and adapted the STI for SDGs Roadmap for their national contexts and respective economic and social conditions.
- Participants highlighted that the Guidebook was an important resource for incorporating STI in national development plans.
- Participants reflected on the essentiality of multi-stakeholder collaboration and international cooperation
- Several speakers acknowledged the need for a recovery that is inclusive, accessible, and equitable and leaves no one behind
- The event highlighted the importance of using STI for SDGs and post-pandemic recovery.

- Participants emphasized that COVID-19 has given us a valuable opportunity to revolutionize our STI systems based on the response measures that are taken. Many representatives echoed the sentiment that the lessons learned from the pandemic should be applied to other global challenges too.
- SDGs 2 and 3 were addressed most commonly, given the disruptions in health and agriculture during the current pandemic.
- Countries that have not yet been involved in the Pilot Programme demonstrated significant interest and engagement in the expansion of the Programme beyond the current five pilot countries.
- The event requested follow-up actions to scale up collaborations through the Partnership in Action by using the lessons learnt from the Global Pilot Programme
- There is a need to develop an online toolbox, including specific methodologies, such as the one in the STI roadmapping projections on future technology developments with foresight techniques
- The event emphasized the key role of strengthening capacity for STI roadmaps design and implementation.
- The Partnership in Action is an important initiative to scale up international cooperation on STI for SDGs roadmaps. As an immediate follow-up, the draft Partnership in Action proposal should be made available on the UN website for feedback from Member States and other stakeholders.
- Proposed the establishment of Registries of Voluntary Commitments and dedicated financing for implementing STI for SDGs roadmaps in the context of the TFM, is required to scale up the programme and allow more countries to join.

Summary

Opening remarks

Opening remarks were delivered by **Mr. Shantanu Mukherjee,** Chief of the Integrated Policy Analysis Branch (IPAB) in UNDESA's Division for Sustainable Development Goals. After expressing gratitude to all partners and agencies for their consistent support, Mr. Mukherjee stressed that implementing the SDGs requires all stakeholders to work together. Thus, the core of the STI for SDGs Roadmap is to build a coherent and stable platform for stakeholders to coordinate efforts, procure investments, and sustain efforts in the context of the Technology Facilitation Mechanism in implementing the SDGs. He reiterated that multi-stakeholder partnerships are a challenge, but the only way to be successful. Therefore, DESA is fully committed to support the partnerships.

Mr. Bernard Magenhann, Deputy Director General of the European Commission's Joint Research Centre (JRC) expressed the continued commitment of the JRC to supporting the work of the UN-IATT on STI for SDGs in EU and non-EU countries on STI for the achievement of SDGs. He specified that cooperation between the EU and the UN has been consistently increased and consolidated. This specifically includes the collaboration with the UN-IATT on EU-made Smart Specialisation as one of the methodologies for the achievement of the goals set out in the 2030 Agenda, as well as contributions to the development on the Guidebook and its accompanying background papers. Mr Magenhann pointed out the successful collaboration with UNIDO in the framework of the Global Pilot for the development of STI for SDGs roadmap and the implementation of the Smart Specialisation in Serbia. The Smart Specialisation approach has been adopted by 23 countries worldwide and 27 EU Member States. The approach sets priorities for public and private investment in research and innovation aimed at enhancing opportunities and developing a smart, sustainable and inclusive economy. Mr. Magenhann concluded by calling upon governments,

scientists, research organizations and the private sector to join together to accelerate the achievements of STI for the SDG Roadmaps and address global challenges, including the most immediate ones such as COVID-19.

Ms. Shamila Nair-Bedouelle, Assistant Director-General for Natural Sciences in UNESCO distinguished the common goal of raising the profile of science, technology, and innovation in addressing global challenges such as the impact of climate change on access to water, biodiversity loss, and fighting COVID-19. COVID-19 has illuminated worldwide inequalities - the significant one among them is the technological divide between the developed world and the global south. STI unlocks new ways for rapid social and economic growth and thus needs to figure on the top of countries' development agendas. Therefore, UNESCO is committed to reducing the knowledge divide, and joining forces with development partners and Member States, to make sure no one is left behind. Ms. Nair-Bedouelle reminded the principles of science being a human right and a common good to all societies and appealed for stronger and increased cooperation on STI in order to maximize the benefits of STI to society.

PART 1: Ministerial Roundtable

The first part of the event gave an overview of the context, state of play, recent developments and next steps within the UN-IATT work stream on STI for SDGs roadmaps, as well as on the Global Pilot Programme and the Guidebook for the Preparation of STI for SDGs Roadmaps. Ministerial representatives from the five pilot countries, Ethiopia, Ghana, India, Kenya and Serbia, gave updates on their national achievements and progress in implementing the STI for SDGs Roadmaps and suggested ideas for next steps based on lessons learned. International partners, namely Japan and the European Commission's Joint Research Centre, also contributed insights from their participation in the first phase of the Programme. Panellists were invited to address the following guiding questions:

- What are your country's key achievements [expectations] through participation in the Global Pilot Programme on STI for SDGs roadmap?
- What challenges did you face [do you anticipate] - especially in the context of urgent needs and opportunities to apply STI for resilient recovery from the COVID-19 pandemic?
- What lessons and advice would you share with other countries for the next phase of the Global Pilot Programme?
- What should UN and international partners consider to further enhance support to countries to harness STI planning for achieving the SDGs?

The session was moderated by **Mr. Wei Liu,** Coordinator for the Inter-Agency Task Team on Science, Technology, and Innovation for the SDGs (IATT) in UNDESA's Division for Sustainable Development Goals. Mr. Liu welcomed all participants and thanked them for their participation in the event. He introduced the newly launched Guidebook for the Preparation of STI for SDG Roadmaps, a joint effort between many UN partners and non-UN stakeholders. He briefly described the Global Pilot Programme, launched last year, and the five countries that the UN Technology Facilitation Mechanism has brought together through the process.

Dr. Michiharu Nakamura, a member of the UN Secretary General's 10-Member Group to Support the Technology Facilitation Mechanism, introduced the achievements of the UN Working Group for STI Roadmaps. Dr. Nakamura recognized the importance of systematic planning within the STI for SDGs Roadmaps and explained that a number of expert group meetings have been held to deep dive and share practices on STI roadmaps in preparation for the release of the Guidebook earlier this year. He clarified that the Guidebook for the Preparation of STI for SDGs

roadmaps is a tool for helping decision makers harness the potential of science, technology, and innovation to effectively and efficiently achieve SDGs through national, internal, regional collaborations, financing, capacity and resource mapping. The Roadmap should be explored as the intersection of the STI plans, SDGs plans and development plans which would otherwise be independently pursued. Dr. Nakamura advised that government support and multi-stakeholder engagement are key to comprehensive and coherent activities. He added that it is important to adjust STI implementation based on internal and external uncertainties, such as the current COVID-19 crisis. Furthermore, the Guidebook is intended to be used not only by policy makers, but also in the private sector, academia, and other sectors. Dr. Nakamura reflected that the pandemic has given us a valuable opportunity to revolutionize the STI system by applying the lessons we learned from COVID-19, such as the speed in which it is possible to develop a vaccine and the importance of open science and open data. These lessons, and lessons we are yet to learn, should be applied to other global challenges too.

H.E. Prof. Vijay Raghavan, Principal Scientific Advisor for the Government of India stated that a dramatic change is required in our attitude towards politics, society, science, and technology. Our experience in a global pandemic can remind us how rapidly impact can come from science and technology. For example, vaccine development typically takes tens of years and costs hundreds of millions of dollars, but we have now witnessed vaccine development over the course of a year (though the cost has raised enormously) without compromise to safety. As such, the principles of collaboration should be learned even if in urgency. Prof. Raghavan gave an overview of India's response to the pandemic and key initiatives that have resulted in notable coordination between different government entities, science agencies, and industry. India has been proactively working with neighbouring countries on diagnostic equipment, medicine supply, and online training and also let numerous start-ups engage in the program. He emphasized the importance of equity and access, citing a partnership with Kenya and Japan that contributed significant investment.

Dr. (Mrs) Wilhelmina Quaye, Director of the CSIR-Science and Technology Policy Research Institute in Ghana spoke on behalf of **H.E. Prof. Kwabena Frimpong Boateng**, the Minister of Environment, Science, Technology and Innovation in Ghana. Dr. Quaye shared that Ghana has been using the STI Guidebook as a tool for developing Ghana's roadmap exercises. She elaborated that Ghana has received valuable inputs from University College London and other stakeholders since embarking on the STI for SDGs Roadmap preparation process in December 2019. Ghana has focused on targeting sectors in which STI is particularly important, including agriculture (SDGs 1&2), water and sanitation (SDG 6), industry (SDGs 9, 8 & 1), education (SDG 4), and health which is especially timely (SDG 3). Dr. Quaye shared key achievements, including that they had made use of the Guidebook in developing *five policy briefs* that address the main challenges and opportunities for Ghana. Moreover, they have conducted a situational analysis of the extent of integration of STI in development plans and critical contribution of STI to accelerate the achievement of the SDGs in Ghana. Like other panellists, Dr. Quaye conveyed that the challenges of COVID-19 have presented an opportunity to apply STI for resilient recovery from the pandemic, in Ghana's case through upgrades in health facilities, infrastructure, educational training, and adopting digital technology. She closed her remarks by reinforcing that shared responsibility and commitment at the highest level is key, and encouraged further partnerships and international collaboration for sharing STI knowledge and resources.

H.E. Mr. Viktor Nedovic, Coordinator for Smart Specialisation Strategy in the Republic of Serbia and Director of Serbia Accelerating Innovation and Entrepreneurship Project – SAIGE in Ministry of Education, Science and Technological Development, spoke as a representative of **H.E. Dr Slavica Djukic Dejanovic,** Special Adviser to the Prime Minister of the Republic of Serbia. Mr. Nedovic shared that Serbia's national STI for SDGs Roadmap development is based on the UN Guidebook and the Smart Specialisation methodology. Thus far, Serbia's progress in the Pilot Program has focused on defining the main challenges in achieving SDGs and exploring scientific, technological, and innovative potential that can be utilized in response to these challenges. The Serbian government

is particularly cognizant of the value of science, technology, and innovation because of the pandemic. Aiming to support the recovery during and after the COVID-19 crisis, Serbia is working with innovative companies and local efforts. Mr. Nedovic reiterated Serbia's appreciation of the support from the JRC and UNIDO and continuing work on STI for SDGs based on the UN Guidebook and the Smart Specialisation methodology.

Prof. Walter O. Oyawa, Director General of Kenya's National Commission for Science, Technology & Innovation (NACOSTI) identified that Kenya's STI roadmaps has been focused on SDGs 2, 3, and 9 (which also have implications on 1 and 8) in this phase of the pilot programme. These goals are linked to Kenya's national development blueprint, the Kenya Vision 2030, which include food security, universal health, and affordable housing. The purpose of the pilot testing is to improve understanding on the use of the STI Roadmaps guideline, then develop a clear plan to implement Kenya's STI Roadmap. Thus far, they have defined a scope and undertaken a comprehensive situation analysis of SDGs 2, 3, and 9. Prof. Oyawa stated that their findings demonstrate that the food security index of Kenya is above the continental average and improvements have been made in child mortality and life expectancy. Kenya is experiencing several challenges, including lack of development funding and shortages in research. Nonetheless, Kenya is joining the global team in vaccine development and adopting the use of frontier technology to support economic recovery.

H. E. Mr Serhiy Shkarlet, the Acting Minister of Education and Science of Ukraine delivered his remarks regarding the possibility of participation in the next phase of the Global Pilot Programme to allow Ukraine to contribute to synergies and benefit from international cooperation on STI. The Ukrainian government understands that the STI for SDGs Roadmap is a crucial instrument for effectively accomplishing the SDGs and moving towards a sustainable and resilient economic and social recovery post-COVID-19. Mr. Shkarlet articulated that Ukraine has great research and innovation potential, as exemplified by the Ukraine's National Academy of Science having achieved visible results of modelling possible pandemic scenarios and successfully developing a diagnostic mechanism and treatment system for patients. In response to social challenges during the pandemic, the government and local start-ups have been implementing new digital solutions for the educational sector. Ukraine has started to set up a competitive research mechanism and successfully launched the National Research Foundation of Ukraine in 2020 with one of the main objectives to address the current global pandemic. Mr. Shkarlet expressed interests to join the programme as it scales up, acknowledging the importance of regional and international cooperation for achieving the SDGs, and noting positive support from the JRC and UNIDO.

Mr. Fumikazu Sato, Councillor for Innovation Promotion, Cabinet Secretariat / Deputy Director General for Science, Technology and Innovation in the Japanese government began by discussing how Japan has utilized the STI for SDGs Roadmaps. Japan has used the Roadmaps not only to harmonize relevant policies of each issue, but also to check the progress of the policies, determining the degree of attainment. This involved a deep dive in the fields of artificial intelligence, environment and energy, the results of which were made publicly available. Japan is committed to take full advantage of the Roadmaps and consistently re-examine their plan. Mr. Sato shared that Japan had successfully co-organized a two-day workshop for the Global Pilot Programme with India and the UN IATT where a wide range of stakeholders participated. In addition, Japan has begun to support Kenya and India's Roadmaps through funding and consultations, and introduced digital transformation in policy planning to strengthen their efforts.

Dr. Thazin Han, the Representative of Department of Research and Innovation in Myanmar's Ministry of Education called upon the UN and other international partners to share tools to help policy makers to evaluate and monitor the impact of its own STI policies. Specifically, Myanmar requested support from UN ESCAP to support the policy formulation process in order to develop a sound STI policy. Thus far, ESCAP has been supportive to Myanmar in the areas such as capacity building and training. Through this process, Myanmar expects to promote national STI policies to achieve the SDGs.

PART 2: Stakeholder Roundtable

The second part of the event aimed at discussing the next steps for the finalization of the pilot roadmaps as part of the Global Pilot Programme for STI for the SDGs and at presenting proposals and ideas for the expansion of the Global Pilot Programme within the new proposed initiative "Partnership in Action".

The session's main outcome was to have a common understanding on the need to continue and expand the Global Pilot Programmes and prepare to consider commitments for mobilizing more resources, including funding or otherwise supporting the expanded Global programme and contribute actively to the proposed Partnership in Action. In particular, panellists and discussants were invited to address the following guiding questions:
- What key contributions or commitments can your agency or constituency make to support initial and future pilot countries in developing and implementing STI for SDGs roadmaps?
- What are key areas requiring additional collective efforts to promote effective national and international efforts on STI for the SDGs?
- What kind of activities (capacity building, roadmap design, implementation, monitoring etc. need support? Which are the good practice examples that can inspire the proposed Partnership in Action?

The session was moderated by **Dr. Monika Matusiak**, Coordinator for Smart Specialisation and Sustainable Development Goals at the Joint Research Centre of the European Commission. She gave a brief introduction of the proposed Partnership in Action and how to scale up the Global Pilot Programme. Recalling the Decade of Action initiative and the short time available until 2030, she stressed the need to involve more countries, partners and donors to maximize the effort and resources in achieving the SDGs. The proposed Partnership in Action would mobilize partners and resources to be able to allow more countries to join the Global Pilot Programme. Each country has the responsibility for its own development and there is need for sound institutions to develop STI for SDGs roadmaps. Because of different capacities and resources available, there is need also for the support of the international community. Dr Matusiak reiterated JRC's commitment to support the UN IATT work both on the methodological development of the STI for SDGs roadmaps and the practical implementation of the Global Pilot Programme.

Dr. Veerle Vandeweerd, Managing Partner, Platform for Transformative Technologies (P4TT) and Co-founder of G-STIC and its policy director (2017-2019), provided her insights on how the Partnership in Action should be shaped and established. In particular, Dr Vandeweerd provided her suggestions on how to strengthen the STI for SDGs roadmaps working group in the context of the UN Technology Facilitation Mechanism:

1. Establish a process to set up the Partnership in Action. Specifically, she mentioned the need to scale up activities and use the lessons learnt from the Global Pilot Programme to launch the process in more countries and achieve the critical mass that will deliver the SDGs worldwide. For this purpose, there is the need of permanent and informal multi-stakeholder partnerships on STI for SDGs roadmaps at the national and international level.

2. Enhance delivery through ONE UN and multi-stakeholders partnerships. In particular, she suggested to strengthen the link with the UN Country Teams, as well as to work more closely with Economic ministries and relevant private actors.

3. Raise funds and resources through crowdfunding and voluntary contributions. There is need to dig from national and international expertise available. For this purpose, she proposed the establishment of

Registries of Voluntary Commitments. In addition, she suggested exploring new forms of financial contributions.

Having set the scene with some proposals on how to scale up the support to countries in developing STI for SDGs roadmaps, the stakeholders' roundtable opens the discussion with **H.E. Mr. Tetsuya Kimura,** Ambassador for Economic, Social and the UN Management Affairs at the Permanent Mission of Japan to the UN. The Ambassador stressed that in the current context to build back better a more sustainable and inclusive future, we must foster a stronger science-policy-society interface at the local, national and international level. For this reason, STI for SDGs roadmaps is more than ever relevant. Japan congratulated the 10-member group and the IATT on the Guidebook preparation and on the insights given by the pilot program countries. Japan called for support to scale up STI cooperation among the pilot countries to accelerate the progress in the Decade of Action and beyond. He proposed some priority actions:

1. An assessment of the cost associated to expanding the pilot programme in order to set up a clear resources mobilization goal and strategy.

2. A more detailed assessment of incentives mechanisms to promote the collaboration among private sector, academia, research centres and civil society.

3. Targeting initiatives to strength collaborations and prioritize SDGs areas to liberate collaboration.
4. Making the draft Partnership in Action proposal available on the UN website for feedback from Member States and other stakeholders

The Ambassador also stressed that in this particular situation, it is important to strengthen the resilience and build comprehensive health systems where water, sanitation, education, gender and other issues are considered together to make sure no one is left behind. Japan recommended that the UN IATT circulate the proposal of Partnership in Action to collect feedback and to make the process as inclusive and transparent as possible.

Dr. Mario Cervantes, Senior Economist, Science and Technology Policy Division, Directorate for Science, Technology and Industry at OECD presented what OECD contribution could be for the next phase of the STI for SDGs roadmaps. OCED has two main foundational resources at the disposal of countries to help in the development and implementation, evaluation and monitoring of roadmaps.
1. Together with the European Commission, OCED developed the STIP compass, which is an international database on STI policies covering a wide range of topics.
2. A framework that combines technology and foresight techniques to systematically explore major uncertainties surrounding STI policy today. STI roadmapping requires also projections on future developments.
The OCED is committed to work with the UN IATT and the pilot countries to support the preparation on the STI for SDGs roadmaps.

Prof. Xiaolan Fu, Director of the Technology and Management Centre for Development at Oxford University shared some Ideas for capacity building programme on STI roadmaps. There are two areas that should be taken into account when thinking about capacity building:
-   Capacity building in the roadmap design,
-   Capacity building for effective implementation of the designed roadmap,
These capacity building includes capability in STI creation, absorption, adaption. In addition, there is the capability of policy design to motivate the community and individuals to adopt and monitor the roadmap.

The roadmaps have to be co-produced by involving stakeholders to be effective in each country. For this reason, the local capacity is critical. In addition, the capacity building will unlock the shortage of abortive capacity in certain countries, such as in Africa. The benefit from the capacity building is a long-term benefit and will go beyond 2030. Thus, Prof Fu proposed 4 areas of actions as follows:

- prioritize countries' needs. E.g. targeted bespoke training program that suit the country's need such as education system reform to address upcoming challenges,
- partnership with higher education sector can play a very important role in building capacities,
- financial support,
- international partnerships for capacity building.

Mr. Bjørn Tore Kjellemo, Director at the Department for Global development and International Relations, Research Council of Norway shared some ideas for international cooperation on STI for SDGs Roadmaps. He shared the experience of the Global Research Council Initiatives for developing a pilot for global funding mechanism for the SDGs with the ambition to have concrete impact on the SDGs by building on existing research through the establishment of a joint platform. This initiative is characterized by equitable partnership and ownership of all stakeholders.

Following stakeholders' proposals and expectations for the establishment of the Partnership in Action, lead discussants shared their views and recommendations. **Dr. William Colglazier**, Editor–in–Chief of Science & Diplomacy and Senior Scholar at the Center for Science Diplomacy, stressed that achieving the 17 SDGs is a global interest as well as national interest. Making progress on UN 2030 Agendas requires action at the national level. The STI for SDGs roadmap is an integrated action plan which takes into consideration nation SDGs plans, STI strategies and capacity building plan. The Roadmap helps countries to focus on their share of global responsibilities. The Global Pilot Programme offers network to countries to prepare their roadmaps and to learn from each other. Stakeholders engagement can be enhanced by international networks related to key sectors including government, private sectors, civil society. The Partnership in Action can help international networks to assist domestic sectors in building national roadmaps and can mobilize a great number of different stakeholders. The Partnership in Action is an important initiative to scale up international cooperation on STI for SDGs roadmaps to address issues such as the COVID19 recovery and to boost international knowledge and technology for the SDGs.

Dr. Paulo Gadelha, Member of the 10-members group of the UN Secretary General, Coordinator of the FIOCRUZ Strategy for the 2030 Agenda, Oswaldo Cruz Foundation (FIOCRUZ) in Brazil shared his vision on the future of the STI for SDGs roadmaps, especially in light of what we learnt during the COVID19 crisis. Oswaldo Cruz Foundation is willing to help in not only address questions of STI in health but also bring experience to the roadmap preparation in the health sector sharing data and information. He observed the lack of Latin American countries in the pilot programme. There is a need in strengthen the diagnosis and forecast phases from global, national, regional and local perspectives.

The last part of the session focused on the reflections by UN agencies' representatives.

Mr. Kareem Hassan, Executive Director of ESCWA Technology Centre at ESCWA, brought the voice of the Arab region.   ESCWA is working to adapt the concept of STI for SDGs roadmaps to the Arabic context and is developing a participatory approach called entrepreneurship, science, technology and innovation multimodality roadmap for the Arab region. The main steps of this approach are 1) to define the primary objectives and promote, support the technology development. 2) assessment of the current situation 3) drafting a capacity building portal on STI roadmaps for researchers, entrepreneurs and policy makers to be able to design STI for SDGs roadmaps. 4) assessing

alternative pathways of technology development through the ESCWA Centre for Entrepreneurship. 5) utilize knowledge and innovation communities 6) execute monitoring and evaluation in 3 pilot countries, namely Egypt, Lebanon and Jordan. Mr Hassan expressed the need for further collaboration utilizing existing methodologies and building on experiences of pilot countries.

Mr. Jonathan Wong, Chief of Technology and Innovation at ESCAP, shared his insights on the difference between the STI for SDGs roadmaps/new STI policies and traditional STI policy. The starting point is the key three features of SDGs, which are economic, social and environmental objectives; their time bound nature to be reached by 2030; and the principle of leaving no one behind. The objective of STI for SDGs roadmaps needs to go beyond the economic aspect and include the social and environmental aspects. He stressed that with the time bound nature of the SDGs, we need complementary measures with more mission-driven approaches to solve the global challenges. Finally, new STI policies should be more inclusive to make sure that no one is left behind to allow people to access technologies. ESCAP is planning to launch a report on what next generation STI policy for SDGs will look like. It will include the work done on STI for SDGs roadmaps. As concern COVID19, it has accelerated science discovery and could be seem as a global innovation competition to facilitate open innovation.

Mr. Nobuya Haraguchi, Chief of the Research & Industrial Policy Advice Division at UNIDO, stressed the need to move from STI for SDGs roadmaps preparation to actual implementation. STI can actually contribute to national and international efforts for the achievement of the SDGs. UNIDO stands ready to identify possible ways to collaborate with IATT and other partners.

Mr. Naoto Kanehira, Senior Private Sector Specialist at the World Bank Group, commended the work of 10 member group, IATT, the pilot countries and called for the need to move to the next stage through the Partnership in Action. The World Bank is committed to continue its engagement and contribution as well as the financial support received from the Government of Japan. Mr Kanehira reiterated the urgency to recover from the pandemic. The common interests for everyone is the response and recovery from this ongoing COVID situation that requires all governments to participate to overcome this global challenge and harness STI. He proposed to build on what pilot countries are doing in response to COVID, to evaluate and strengthen the international mechanisms which already exist for the development of vaccines. Finally, he proposed to expand the UN collaboration to mobilize resources.

Mr. Selvaraju Ramasamy, Head of the Research and Extension Unit, Office of Innovation, Food and Agriculture Organization of the United Nations (FAO), announced FAO effort to consolidate its work on science and innovation to achieve food security and SDGs through modern science and technology, innovative approaches. Sustainable agriculture approaches have become one of the focuses of FAO, which include biodiversity, biotechnology, digital agriculture, agriculture machinery, etc. One of the focus areas at FAO is to strength the functional capacity to innovate at 3 different levels:
1. Strengthening innovation partnership at local level, especially for technical issues
2. Strengthening the capacity of innovation support service mainly focus on the institution that provide support services to farmers and other producers
3. Linking them to better inform the policy process at the national level

FAO is looking forward to bringing sustainable agriculture and food security perspective in STI for SDGs roadmaps and looking for new opportunities to collaborate.

Mr. Michael Anthony Lim, Economic Affairs Officer at UNCTAD, shared insights on some areas that should be further strengthened in view of the participation of new countries to the pilot programme: 1) to have strong ownership of local leadership and good national representation, 2) stronger collaboration among IATT members in the design and

implementation, 3) dedicated financing for implementing STI for SDGs roadmaps would make an enormous difference. UNCTAD renewed its interest to continue collaborating with the IATT on the STI for SDGs roadmaps.

Ms. Kornelia Tzinova, Assistant Programme Specialist at UNESCO, provided some lessons learnt from the experience of UNESCO with the pilot programme. In particular, Ms Tzinova mentioned the importance of carefully taking into consideration the implementation aspects already in the design phase of the roadmap by involving local partners, UN country team, potential donors and private sector. In addition, she suggested to systematically providing capacity building training activities for member states who engage in the roadmap development and implementation process. The Guidebook could serve as an important training tool, as well as the UN IATT capacity building working group. Finally, Tzinova confirmed UNESCO's commitment to continue working with IATT on STI for SDGs roadmaps on a potential joint mobilization strategy and building a strong communication strategy.

Closing remarks

The session concluded with closing remarks delivered by **Ms. Maria-Francesca Spatolisano**, UN Assistant Secretary-General for Policy Coordination and Inter-Agency Affairs at UN-DESA and **Mr. Mikel Landabaso Alvarez**, Director for Growth and Innovation at the Joint Research Centre of the European Commission**,** moderated by **Mr Alessandro Rainoldi,** Head of Unit on Territorial Development at the Joint Research Centre of the European Commission.

Ms. Spatolisano praised the achievements made by the IATT with the elaboration of the Guidebook and the launch of the pilot programme on STI for SDGs roadmaps. She also thanked all participants for their interventions made during the event. She stressed that DESA is formally committed to helping advancing the Technology Facilitation Mechanism. Especially in this current context, there is general agreement on the vital role of STI in finding solutions to the global challenges. At the same time, there is also wide recognition that there is no "one size fits all". The UN Assistant Secretary-General encouraged widening the range of partners involved in this initiative to build new synergies. She stressed that recovering from COVID-19 does not mean that we have to come back to where we were but rather we need to act to build a sustainable future for all. Ms Spatolisano called different stakeholders to join the work of the Technology Facilitation Mechanism and in particular to take the opportunity to work on STI for SDGs roadmaps to deliver concrete results.

Mr. Landabaso Alvarez provided his view on the issues emerged during the discussion. In particular, he focused on how we deliver sustainability through innovation efforts and what is the role of the public sector in this field. He mentioned also how we recover from the COVID-19 crisis in line with SDGs. Achieving the 17 SDGs requires good governance: on the international scene, we need effective internationally concerted actions. This is the time for multilateralism at its best. In the field of STI, this is a win-win situation for all. The aspect of governance is also very important. The Guidebook should emphasize the importance of governance, learning and cooperation. STI is key for recovery: there is need of applied S&T to recover from this crisis. The European Commission put together a fund of 1.8 trillion Euros, one of the biggest European Commission's budget, in order to invest heavily in innovation and achieve the EU green deal and digitalization. The Guidebook should be improved in light of the experiences of pilot countries. This initiative should allow us to learn from each other. Mr. Landabaso Alvarez stressed that the JRC offers full support and gratitude to UN IATT for this initiative and expressed commitment in continuing working on STI for SDGs roadmaps.