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Summary of deliberations

Addendum

A United Nations system-wide strategic approach and road map for supporting capacity development on artificial intelligence*

I. Overview

1. The United Nations system-wide strategic approach, developed in line with the feedback and guidance of the High-level Committee on Programmes since its thirty-fourth session, was approved by the Committee at its thirty-seventh session. It outlines an internal plan to support capacity development efforts related to artificial intelligence technologies, especially for developing countries, with a particular emphasis on the bottom billion,[1] in the context of achieving the Sustainable Development Goals.

2. The strategic approach includes a road map for action, which offers a proposed series of concrete steps for building capacity to best harness the benefits of artificial intelligence technologies and mitigate their risks. Ultimately, when adopted, the system-wide strategic approach on artificial intelligence capacity-building will guide United Nations agencies as they prioritize and assess their actions relating to artificial intelligence in support of Member States, particularly developing and least developed countries.

3. The proposed United Nations system-wide strategic approach and road map for supporting capacity development on artificial intelligence is part of a broader United Nations system-wide effort on frontier technologies initiated by the United Nations System Chief Executives Board for Coordination (CEB) through the Committee. It supports the Secretary-General's strategy on new technologies, the stated goal of which is "to define how the United Nations system will support the use of these

* The International Monetary Fund opted out of endorsement on the basis of the scope of its individual mandate and specific legal status.

[1] In the present document, the term "bottom billion" refers to the people living in extreme poverty in middle- and low-income developing countries.

technologies to accelerate the achievement of the 2030 Agenda for Sustainable Development and to facilitate their alignment with the values enshrined in the Charter of the United Nations, the Universal Declaration of Human Rights and the norms and standards of international law". The strategic approach also ensures synergies with other interrelated work streams pursued under the auspices of the High-level Committee, namely, system-wide efforts related to the future of work and the future of education and learning. The present paper has been prepared under the coordination of the International Telecommunication Union (ITU) in consultation with other organizations and entities in the United Nations system.

4. At the request of ITU, the Berkman Klein Center for Internet & Society's team on ethics and governance of artificial intelligence prepared an independent contribution[2] offering a basis for the United Nations system-wide strategic approach on artificial intelligence. The contribution drew upon the Berkman Klein Center's significant expertise in considering the effects of emerging technologies, the Center's work as part of the Ethics and Governance of Artificial Intelligence Initiative, and extensive research relating to the concerns of global policymakers as they seek to respond to the challenges and opportunities of artificial intelligence technologies. The contribution was key to the role of ITU in leading the related work stream of the Committee.

II. Background and approach

5. The discussion paper on artificial intelligence capacity development and ensuring no one is left behind, which was presented at the thirty-fifth session of the Committee, based on input from the Berkman Klein Center's ethics and governance of artificial intelligence team, was aimed at examining the implications of artificial intelligence on the Sustainable Development Goal and outlining the opportunity for constructing coordinated system-wide positions and engagement in supporting the artificial intelligence capacities of Member States (CEB/2019/4, para. 18). At the session, the Committee committed to pursuing the following three-step approach: developing shared guiding principles on artificial intelligence technologies that would help to define the internal strategic direction of the United Nations system; articulating a system-wide framework on artificial intelligence technologies in order to encourage and guide integrated action within the United Nations system; and elaborating recommendations and concrete actions towards a capacity-building programme for developing countries (ibid., para. 21).

6. An interim draft of the road map was presented to the thirty-sixth session of the Committee. The Committee reaffirmed the three-step approach to supporting capacity-building in artificial intelligence for developing countries and approved the shared guiding principles and the system-wide framework. It requested that ITU, in cooperation with interested agencies and taking into account the comments made, finalize the road map for system-wide actions and present the full draft of the strategic approach for the Committee's consideration at its thirty-seventh session, bearing in mind the need for prioritization, complementarity and a clearer focus on the bottom billion and ensuring that no one is left behind. The Committee also supported engagement with outside experts as valuable input to the internal coordination process.

[2] The contribution from the Berkman Klein Center was prepared by Ryan Budish, Assistant Research Director, and Urs Gasser, Executive Director, in August 2018 as an output from the Ethics and Governance of Artificial I Initiative.

7. The final version approved by the Committee at its thirty-seventh session was prepared with these aspects taken into account.

8. The three-step approach, and all the principles that fall under it, will adopt an intersectional approach in order to address the structural and dynamic consequences of the interaction between multiple and intersecting forms of discrimination and marginalization, including by taking into consideration all conditions that inform the distinct risks and barriers to the opportunities presented by artificial intelligence technologies, based on factors including sex, age, disability status, gender identity, religion, race, ethnicity and class.

9. As the foundation under the three-step approach, the following principles were agreed upon by the Committee to guide the development and eventual implementation of a system-wide strategic approach. The proposed principles are:

(a) Artificial intelligence should be addressed in an ambitious and holistic manner, promoting the use of artificial intelligence as a tool in the implementation of the Goals, while also addressing emerging ethical and human rights, decent work, technical and socioeconomic challenges;

(b) All artificial intelligence-related capacity-building programming by United Nations entities should respect the principles of human rights, thereby helping to ensure that a human rights-based approach should be mainstreamed into the approach to artificial intelligence adopted by Member States;

(c) Artificial intelligence-related capacity-building programming should balance economic, social and environmental goals: reducing inequalities and ensuring equal access to opportunities, promoting productive transformation of the economy and protecting the natural environment. Such a process generates social justice within and between generations, sustainable development, peace and prosperity;

(d) Artificial intelligence-related capacity-building programming should gather diverse perspectives on the benefits and risks of artificial intelligence technologies and take into consideration the needs of all people, including those at risk of being left behind, especially those who are marginalized and vulnerable. People and particularly those farthest behind, including women and girls, should be at the centre of all artificial intelligence-related capacity-building programming and decision-making processes;

(e) All artificial intelligence-related capacity-building programming by United Nations entities should be gender transformative. Gender and age transformative approaches need to be embedded in all artificial intelligence-related capacity-building programming and decision-making processes. The particular effects of artificial intelligence on women and girls, and on the increasing digital gender and age divide, should also be taken into account;

(f) Artificial intelligence capacity-building programming by United Nations entities should focus on assisting all Member States in taking evidence-based action and take into consideration the fact that the developing countries, particularly least developed countries, landlocked developing countries and small island developing states, stand to benefit the most from artificial intelligence-related capacities that promote progress towards achievement of the Goals;

(g) Artificial intelligence-related capacity-building programming should strive to foster a “whole-of-government” and a “whole-of-society” approach, in particular in taking into account the bottom billion;

(h) Artificial intelligence-related capacity-building programming should make efforts to strengthen multi-stakeholder partnerships, especially between Governments, private sector, international organizations, civil society and academia;

(i) All artificial intelligence-related programming by United Nations entities should actively seek cooperation and synergy with complementary developmental programmes that deliver other key elements in order to reach common goals;

(j) All artificial intelligence-related programming by United Nations entities should ensure that a due process was followed to select artificial intelligence as the appropriate tool to deliver innovative and cost-effective solutions for achieving the Goals. In this way, the United Nations would ensure that alternative technological solutions were considered and that artificial intelligence was used because it was appropriate.

10. Such a strategic approach reflects a synthesis of many different inputs, including concepts and ideas from the preceding discussion papers, relevant feedback from the Committee, existing artificial intelligence-related initiatives from across the United Nations system and extensive research relating to the concerns of global policymakers as they seek to respond to the challenges and opportunities presented by artificial intelligence technologies.

III. Key goals and motivations

11. Policymakers across the United Nations system and Member States face significant obstacles to developing comprehensive approaches to artificial intelligence. Artificial intelligence technologies can be incredibly complex and difficult for many experts, let alone non-technical policymakers, to explain fully. Moreover, the developments and impacts of artificial intelligence are unevenly distributed, both in terms of the pace of change and the geographies and demographics of where those impacts occur. This poses a challenge for policymakers because the process of fully understanding the social, political, economic, ethical and technical impacts of these various technologies is still in its very early stages. The actual and potential impacts are often unequally distributed, with different cultural, social, economic and political contexts, dramatically shaping the ways in which the impacts from the development and deployment of artificial intelligence will be felt. For those reasons, there is no single approach that would work for all artificial intelligence technologies, for all potential impacts and for all contexts.

12. Because of these differences, four distinct layers of capacity development have been identified: infrastructure; data; human capital and social capabilities; and policy, law and human rights. The impacts of artificial intelligence are felt across almost every layer of society, and by the same token, United Nations agencies should ensure that their approaches to artificial intelligence capacity-building address the impacts across each of these layers. The goals for this strategic approach mirror this same multilayered structure, beginning with the general and including the four layers, as follows:

(a) **General.** To assist United Nations agencies in taking concrete actions that will help to ensure that the opportunities for artificial intelligence are more fully and equitably realized across geographic, political and social contexts, and diverse stakeholders, while advancing the achievement of the Goals. Such a strategic approach should reflect a commitment to ensuring that no one is left behind and to reaching the furthest behind first, and to ensuring that policy approaches to artificial intelligence reflect the inclusion of diverse stakeholders and perspectives, especially the most disadvantaged people, who are often underrepresented in the development and deployment of today's technology. In many cases, the steps set out in the subparagraphs below help to build capacity, further an understanding of the impacts of artificial intelligence and build an evidence base so that policymakers can develop related policy frameworks in the future, as needed;

(b) **Infrastructure.** The increased deployment of artificial intelligence technology is amplifying existing needs for Internet infrastructure and exacerbating existing digital inclusion gaps. More work must be carried out to bridge the digital divide, including the digital gender divide, to ensure that the increased adoption of artificial intelligence systems does not disproportionately and negatively impact countries and their citizens, particularly vulnerable persons, especially those in low- and middle-income countries with underdeveloped infrastructures;[3]

(c) **Data.** Data are a necessary input for many artificial intelligence technologies; the utility of these artificial intelligence-based systems depend on the quality and quantity of data sets from which such systems learn and evolve. More robust, open, inclusive and representative data sets (along with commensurately robust security and privacy) will both act as a foundation for technical innovation and also help policymakers to understand how artificial intelligence-based technologies may impact jobs, labour forces, mobility, public services, governmental transparency and security, furthering evidenced-based decision-making. Ensuring that this occurs in developing countries would be particularly important in order to realize the promise of ensuring that no one is left behind;

(d) **Human capital and social capabilities.** In order to actively participate in the creation and maintenance of artificial intelligence technologies and applications, specialized technological and mathematical knowledge is critical. Yet talent in artificial intelligence is scarce even in developed countries and critically so in developing countries. This highlights the need to provide digital skills in education and training systems along with core competences, new mindsets and attitudes that build up a society's innovation capabilities. Particular attention should be paid to recruiting women and girls to study science, technology, engineering and mathematics. Research capacity should be fostered and bolstered, while simultaneously working to mitigate the potentially substantial effects of artificial intelligence on labour in other fields. In order to effectively address the policy questions raised by artificial intelligence technologies, the gaps and information asymmetries between technical experts and policymakers must be minimized;

(e) **Policy, law, and human rights.** Existing frameworks for policy, law and human rights may not adequately address the impacts of artificial intelligence that will be faced in the near future. A combination of good oversight and, perhaps, new normative standards may be needed to achieve fair, transparent and accountable algorithmic decision processes, prevent discrimination and bias and, as the Global Commission on the Future of Work recommends in its report,[4] implement a "human-in-command" approach that ensures the final decisions affecting work are taken by human beings, not algorithms. Building on a long tradition of promoting human and workers' rights, the United Nations system can help Member States, especially developing countries, to have guardrails that leave open opportunities for experimentation and innovation, while protecting vulnerable populations and workers in newly emerging digital platform-based economies. The United Nations system can even consider how emerging technologies can be leveraged to advance human rights and gender equality, and to help to formalize work and training in the informal

[3] It is important to recognize that the development and application of artificial intelligence also depends on a range of other infrastructures that support general technological development. For example, firms cannot develop and apply artificial intelligence technologies if they do not have access to state-of-the-art technical facilities and "soft" infrastructures such as financial infrastructures (e.g., payment systems and insurance services) and legal and business services.

[4] Global Commission on the Future of Work, *Work for a Brighter Future* (Geneva, International Labour Organization, 2019).

economy. There should be an improvement to the capacity of developing countries to design and implement innovation policies.

13. These goals are not mutually exclusive; in fact, most of the commitments and measures in the road map below address multiple goals at a time. For that reason, this strategic approach is not organized around goals. Instead, it acknowledges that artificial intelligence is not one monolithic technology with unitary impacts. It recognizes that artificial intelligence has the properties of a general purpose technology, which means that it will open wide-ranging opportunities for applications and product innovation. They will be deployed in many cultural, social, economic and political contexts, each creating its own unique challenges and opportunities. As a result, the road map includes three different clusters of actions, corresponding to a collective understanding (or lack thereof) of the current and potential impacts of artificial intelligence and the efficacy of policy responses, all with the aim of supporting artificial intelligence-related capacity-building in the context of realizing the Goals:

(a) **High certainty – immediate action.** In some circumstances the impacts and opportunities of artificial intelligence technologies are relatively clear and straightforward, and the steps that the United Nations system can take are correspondingly clear;

(b) **Evolving knowledge – more evidence and experimentation needed.** In other cases, there are strong hypotheses about the positive and negative impacts that artificial intelligence technologies might have, but more research, data and experimentation is still needed to develop holistic policy responses. In these cases, the road map points toward ways to collect that information;

(c) **High uncertainty – balancing innovation with guardrails.** Lastly, there remain areas where the technologies are still too new, the medium- and long-term implications too speculative, and/or the potential responses too underdeveloped. In these cases, the road map points towards the creation of an opportunity for experimentation and innovation, while presenting guardrails to ensure safety and security.

IV. Road map for action: commitments and measures

14. The table below shows areas of commitment and measures, categorized by the three above-mentioned clusters, that the United Nations system may consider pursuing in order to help to enhance artificial intelligence-related capacities, especially in developing countries.[5]

15. It represents a comprehensive collection of ideas and suggestions gathered through consultations within the Committee's artificial intelligence task group, the Committee's other closely related work streams (future of education and learning and future of work) and the Committee's discussion papers such as the paper prepared by the United Nations Conference on Trade and Development (UNCTAD) entitled "Implications of frontier technologies in developing countries with a focus on the bottom billion".

[5] After the actions (commitments and measures) are approved, as part of the implementation plan for each agreed measure, referencing metrics and interested entities will be identified. The metrics could be from existing framework or initiatives, or new ones as appropriate.

16. The commitments and actions are prioritized to promote system-wide action on:

(a) Artificial intelligence-related capacity-building for developing countries with a focus on the bottom billion;

(b) Supporting broader stakeholder engagement and knowledge exchange within and outside the United Nations system on artificial intelligence;

(c) Promoting the ethical development and application of artificial intelligence technologies for public good.

Road map for action – commitment and measures

Commitment	*Measure*
High certainty – immediate action	
1. Enhance technical infrastructure and support the development of national and regional artificial intelligence and digital strategies, with a focus on continuing to close the digital divide	1.1. Expand efforts to help to deploy widespread, high-capacity broadband to connect the 50 per cent of the world that is offline, especially the bottom billion. 1.2. Collaborate with national and regional authorities in information and communications technology to promote the equitable distribution of infrastructure investments and developments. 1.3. Develop templates and guidelines for public-private investment agreements that facilitate greater investments in Internet infrastructure, ensuring that the benefits of such investments are shared widely across society, with a particular focus on those groups that are most likely to be left behind, including women and girls, persons with disabilities, migrants and refugees, rural people and indigenous people. 1.4. Advise in the creation of national and regional digital and artificial intelligence strategies, including to ensure that: such strategies consider and reflect the needs of disadvantaged, vulnerable and marginalized populations, including women and girls; cybersecurity and data privacy are a key component of all digital infrastructure projects; and the specific infrastructure needs of artificial intelligence, such as enhanced computing and data processing capacity, are taken into account.

Commitment	*Measure*
2. Increase artificial intelligence-related human capacity by supporting high quality and inclusive education, learning and training policies and programmes as well as reskilling and retraining of workers, including women and girls	2.1. Human capacity-building, including education and reskilling, is a critical element of efforts to ensure employability of workers and ensuring that no one is left behind. Taking into consideration the requirements of the bottom billion has to ensure that the most marginalized and those that are most vulnerable to the risks and barriers presented by artificial intelligence, including women and the elderly, are empowered. In this regard, a key strategy is to enrich and diversify the knowledge base of the labour force and promote shared mindsets that enable enterprises and organizations to rapidly adopt and diffuse new artificial intelligence technologies, and thus shape the future of work and make progress towards the Goals. This strategy needs to address learning in schools and workplaces, social networks such as families and communities, occupational and organizational networks, while also using digital platform and artificial intelligence tools. These aspects are further elaborated in the strategies on the future of learning and education and the future of work.
3. In order to better understand the opportunities and challenges of artificial intelligence to allow for effective capacity-building in Member States, improve internal United Nations institutional capacities around artificial intelligence through bringing in greater technical expertise and facilitating intellectual exchanges with the private sector and academia[a]	3.1. Create mechanisms for artificial intelligence education and capacity-building for United Nations staff. Partner with the private sector and academia in this regard. 3.2. Reduce hurdles for artificial intelligence-related knowledge-sharing across the United Nations system to ensure that existing knowledge is not trapped within silos; and conduct and publish annual surveys of existing artificial intelligence knowledge and capacity across the United Nations system. 3.3. Launch small pilot projects on the development of artificial intelligence to encourage collaboration between multiple United Nations agencies – preferably test beds focusing on the bottom billion – in order to create learning and experiences about the way artificial intelligence technologies are being developed and applied in support of the Goals and how they might evolve in the future. Develop guidelines to help agencies to incorporate artificial intelligence technologies in their initiatives. 3.4. Promote and support regular visits by United Nations agency staff and representatives of Member States, especially from developing countries, to geographically diverse artificial intelligence-based businesses, start-ups and research institutions.
Evolving knowledge – more evidence and experimentation needed	
4. Support broader stakeholder engagement from developing countries to ensure that artificial intelligence policies reflect a wider diversity of concerns, opportunities, and impacts, especially the unique perspectives and requirements of those at greatest risk of being left behind	4.1. Facilitate the development and adoption of consensus terminology for describing the technical, ethical, socioeconomic and human rights challenges of artificial intelligence, especially those related to developing countries, and for developing shared solutions.

Commitment	*Measure*
	4.2. Promote and support more inclusive multi-stakeholder participation in both United Nations-convened and externally organized platforms and organizations related to artificial intelligence. In this regard, launch initiatives to lower the financial, knowledge, accessibility and social barriers to the effective participation of all stakeholders, with a focus on increasing participation from developing countries, as well as increased participation by women and girls. 4.3. Enhance online platforms to expand capacity and global reach for public dialogue about artificial intelligence-related policy proposals, ensuring that such platforms are especially accessible in countries and communities that have been marginalized in access to technology.
5. Facilitate an ongoing knowledge exchange among the public and private sectors and other stakeholders and across public sector entities, and promote developing countries' access to global standards and best practices	5.1. Build a repository of artificial intelligence policy challenges and successes from diverse stakeholders, including the various solutions tried and their impacts, especially those solutions that are focused on the bottom billion and on those at greatest risk of being left behind, including women and girls. 5.2. Encourage the development of standards by creating procurement standards and developing standards for production processes. 5.3. Improve capacity in developing countries to plan for new technologies through facilitating foresight analysis exercises and technology impact assessments that consider the effects of technological change and identify potential setbacks and challenges while considering the technological gaps within and between countries.
6. Increase United Nations System and Member State capacity, particularly in developing countries, to collect, analyse and share open, interoperable sex-disaggregated data sets, as well as artificial intelligence tools to support both artificial intelligence innovation and the monitoring of the impacts of artificial intelligence	6.1. Encourage more robust data philanthropy through incentives, especially from the private sector, for sex-disaggregated data related to the poorest and marginalized people who may not be currently generating sufficient data to reflect their needs, and where public data may not be available or is insufficient, while respecting their rights to privacy and data security. Similarly, the sharing of open algorithms and tools should be encouraged. In this regard, negotiate global arrangements with global private sector data providers for use by all Member States, including developing countries. 6.2. Considering the diversity of data sets maintained in different agencies across the United Nations system, develop a labelling system for United Nations data sets, scoring each data set based on its comprehensiveness, representativeness, trustworthiness and suitability for different artificial intelligence-based applications, especially those offering solutions for the needs of the people at greatest risk of being left behind.

Commitment	*Measure*
	6.3. Encourage the adoption of standards to help ensure the privacy, security, diversity and inclusiveness of artificial intelligence training data (especially data related to the marginalized and vulnerable). In this regard, develop and promote policies regarding access to data, transparency in data ownership, data openness, data aggregation and interoperability and transparency regarding data use.
High degree of uncertainty – balancing innovation with guardrails	
7. Support sustainable and robust local artificial intelligence technology innovation and entrepreneurship for the public good in developing countries; open opportunities for advancing the achievement of the Goals	7.1. Identify and disseminate best practices direct investment initiatives for Member States in local artificial intelligence start-ups and businesses for the public good. 7.2. Develop templates for public-private incubators, which combine government investment and private equity to support local artificial intelligence start-ups for the public good. 7.3. Foster the launch of local and regional artificial intelligence innovation hubs, which can include providing physical space, funding, mentorship and networking, especially for developing innovative solutions that focus on the needs of the bottom billion, create jobs and decent work, and ensure a fair distribution of the gains resulting from investment in artificial intelligence innovation, while also protecting the natural environment for a sustainable development processes. 7.4. Assist Member States and regional and international organizations in conducting legal and policy assessments to help to foster local artificial intelligence innovation, including assessing the robustness of privacy and intellectual property frameworks at the local, national, regional and international levels. 7.5. Enable local and national university officials to exchange lessons and best practices around commercializing artificial intelligence technologies from university research laboratories, particularly encouraging research, development and adaptation of technologies that focus on grassroots solutions.
8. Recognizing that solutions that address the bottom billion may require fresh, innovative solutions and new business models, support regulatory sandboxes to allow experimentation, while limiting potential harm	8.1. Create regulatory toolkits and identify best practices for the establishment of artificial intelligence regulatory sandboxes. 8.2. Facilitate mechanisms for bringing together public and private organizations that have worked with regulatory sandboxes in both artificial intelligence and non-artificial intelligence contexts, and putting the lessons learned from those experiences into practice.

Commitment	*Measure*
9. Maintain strong ethical and human rights guardrails, ensuring that artificial intelligence developments do not exceed the capacity to protect society, particularly marginalized, vulnerable and the poorest populations, including women and girls	9.1. Support diverse and inclusive efforts at developing technical and ethical standards for artificial intelligence deployment and use, including in the world of work. 9.2. Work with Member States to review existing United Nations instruments and frameworks to identify gaps where existing processes may not be able to keep pace with developments in artificial intelligence-technologies, also taking into account emerging guidelines and principles being developed by other international organizations or the private sector. 9.3. Convene, as necessary,[b] consultations with governments, social partners and multi-stakeholder experts to identify areas where artificial intelligence technologies can be leveraged to promote human rights, labour standards and decent work and to advance the Goals. 9.4. Develop, building further on the existing efforts, policy and legal toolkits (with input from diverse stakeholders) that aim to ensure that artificial intelligence systems fully respect human and workers' rights, take into consideration local norms and ethics and do not contribute to, replicating or exacerbating biases including on the basis of gender, race, age and nationality, and in areas such as crime prevention. 9.5 Considering the risks posed by the possible uses of artificial intelligence for criminal activities, support Member States in developing relevant policy and legal frameworks that act to prevent and counter such threats.

[a] Some of these actions may fall under the purview of the High-level Committee on Management, but are included here for completeness. As appropriate, recommendations and inputs through this process of the High-level Committee on Programmes will be offered for the consideration of the High-level Committee on Management, especially in the context of its upcoming consideration of the future of work in the context of United Nations management.

[b] For example, building, as appropriate, on the relevant findings and recommendations from the upcoming report of the Secretary-General's High-level Panel on Digital Cooperation.

V. Implementation Plan

17. The High-level Committee, while endorsing the strategy, underscored a sense of urgency and the need for immediate action in view of the speed with which artificial intelligence is effecting societal transformation and recognized the importance and timeliness of the strategy. Stressing the necessity to swiftly move forward towards the effective operationalization of the strategy, members expressed strong support for pursuing multi-stakeholder engagement, particularly through the inclusion of the private sector, to transform ideas into value, while also highlighting the need for a cooperative and participatory approach with the affected communities. Members also pointed out that the United Nations system needed to adopt a collaborative approach and foster knowledge-sharing practices.

18. The implementation of the strategic approach and its road map for action will be carried forward by the collaborative efforts of relevant United Nations entities,

taking into consideration the strengths of each entity based on the four distinct layers of capacity development, together with relevant inter-agency mechanisms, including those that are operationally oriented or mandated. Pursuing coherent and effective system-wide implementation, coordination, collaboration and synergy are of key importance.

19. The first step towards the implementation of the strategic framework will be to develop a concrete workplan for realizing the road map, which will entail prioritizing the various action areas and identifying the various United Nations entities interested in leading or contributing to these areas. ITU, as the lead agency for the development of the strategic approach and road map for action, will continue to serve as the institutional focal point for promoting coordinated implementation in close collaboration with all relevant United Nations entities and working closely with outside partners as appropriate.

20. Synergies and complementarities with other ongoing and related efforts, including the Secretary-General's strategy on new technologies and the United Nations Innovation Network, will be ensured throughout the implementation efforts.