15 March 2021

# **Fifth Draft of the Report by the ITU Secretary-General** for the Sixth World Telecommunication/Information and Communication Technology Policy Forum 2021

**1. Preamble**

**1.1 The Sixth World Telecommunication/Information and Communication Technology Policy Forum 2021 (WTPF-21)**

1.1.1 Originally established by the 1994 Plenipotentiary Conference of the International Telecommunication Union (ITU), the World Telecommunication/Information and Communication Technology Policy Forum (WTPF) has been successfully convened in 1996, 1998, 2001, 2009 and 2013. By [Resolution 2 (Rev. Dubai, 2018)](https://www.itu.int/en/council/Documents/basic-texts/RES-002-E.pdf), the 2018 Plenipotentiary Conference of the ITU has now resolved to hold the next WTPF in 2021.

1.1.2 The purpose of WTPF is to provide a venue for exchanging views and information and thereby creating a shared vision among policymakers worldwide on the issues arising from the emergence of new telecommunication/ICT services and technologies, and to consider any other policy issue in telecommunications/ICTs which would benefit from a global exchange of views, in addition to the adoption of opinions reflecting common viewpoints ([Resolution 2 (Rev. Dubai, 2018)](https://www.itu.int/en/council/Documents/basic-texts/RES-002-E.pdf)).

1.1.3 By [Decision 611](https://www.itu.int/md/S20-CL-C-0081/en) (Rev. Council 2020), the 2019 session of ITU Council decided that the theme for WTPF-21 is as follows:

“*Policies for mobilizing new and emerging telecommunications/ICTs for sustainable development:*

The WTPF-21 would discuss how new and emerging digital technologies and trends are enablers of the global transition to the digital economy. Themes for consideration include AI, IoT, 5G[[1]](#footnote-1), Big Data, OTTs etc. In this regard, the WTPF-21 will focus on opportunities, challenges and policies to foster sustainable development.”

1.1.4 WTPF-21 shall not produce prescriptive regulatory outcomes; however, it shall prepare reports and adopt non-binding opinions by consensus[[2]](#footnote-2) for consideration by Member States, Sector Members, and relevant ITU meetings ([Resolution 2 (Rev. Dubai, 2018)](https://www.itu.int/en/council/Documents/basic-texts/RES-002-E.pdf)).

1.1.5 All information relating to WTPF-21 is posted on <https://www.itu.int/en/wtpf-21/Pages/default.aspx>.

**1.2 Preparatory process for the ITU Secretary-General’s Report**

1.2.1 Discussions at WTPF-21 shall be based solely on a single report by the ITU Secretary-General, and contributions from participants based on that report, prepared in accordance with a procedure adopted by the Council and based on the proposals of Member States and Sector Members, and on the views of Associates, Academia and stakeholders, and WTPF shall not consider drafts of any new Opinions that were not presented during the preparatory period foreseen for drawing up the Secretary-General’s report prior to the Forum ([Resolution 2 (Rev. Dubai, 2018)](https://www.itu.int/en/council/Documents/basic-texts/RES-002-E.pdf)). This report by the Secretary-General (“Report”) outlines a potential scope for discussions and presents some of the policy issues under consideration among different stakeholder groups on the theme of WTPF-21 as stated in Council [Decision 611](https://www.itu.int/md/S19-CL-C-0128/en) (Rev. Council 2020) and referred to in para 1.1.3 above.

1.2.2 In accordance with [Decision 611](https://www.itu.int/md/S20-CL-C-0081/en) of ITU Council 2019 (Rev. Council 2020), the ITU Secretary-General has convened an Informal Experts Group (IEG), each of whom is active in preparing for WTPF-21 in this regard.

1.2.3 The preparatory process will be guided by the timetable set out as Annex 2 in [Decision 611](https://www.itu.int/md/S19-CL-C-0128/en) (Rev. Council 2020) and in Table 1 below[[3]](#footnote-3).

**Table 1: Timetable for the elaboration of the ITU Secretary-General’s Report**

|  |  |
| --- | --- |
| **1 August, 2019** | A First Draft outline of the report by the Secretary-General shall be posted online for comments |
| **21 August, 2019** | Deadline for receipt of comments on the First DraftDeadline for nominations for a balanced group of experts to advise the Secretary-General on further elaboration of the report and of draft Opinions associated with it |
| **1st IEG Meeting (September 2019 during the CWG cluster)** | First meeting of the group of experts to discuss the First Draft of the report by the Secretary-General and the comments received |
| **1 November, 2019** | The Second Draft of the report by the Secretary-General will be posted online, incorporating discussions from the 1st IEG meetingThis draft will also be made available online for open public consultations |
| **23 December, 2019** | Deadline for receipt of comments on the Second Draft, and for contribution on broad outlines for possible draft Opinions Deadline for inputs from the open public consultations |
| **2nd IEG Meeting (January/February 2020 during the CWG cluster)** | Second meeting of the group of experts to discuss the Second Draft of the report by the Secretary-General and the comments received, including from the open public consultation |
| **1 April, 2020** | The Third Draft of the report by the Secretary-General will be posted online, incorporating discussions from the 2nd IEG meeting and including outlines of draft Opinions.This draft will also be made available online for open public consultations |
| **15 June, 2020** | Deadline for receipt of comments on the Third Draft, and for contribution on possible draft OpinionsDeadline for inputs from the open public consultations  |
| **3rd IEG Meeting (September 2020 during the CWG cluster)** | Third meeting of the group of experts to discuss the Third Draft of the report by the Secretary-General and the comments received, including from the open public consultation |
| **1 November, 2020** | The Fourth Draft of the report by the Secretary-General will be posted online, including the draft Opinions, and incorporating discussions from the 3rd IEG meeting |
| **23 December, 2020** | Deadline for receipt of comments on the Fourth Draft |
| **4th IEG Meeting (February 2021 during the CWG cluster)** | Fourth meeting of the group of experts to discuss the Fourth Draft of the report by the Secretary-General, including the draft Opinions, and the comments received |
| **15 March, 2021** | The Fifth Draft of the report by the Secretary-General will be posted online, incorporating discussions from the 4th IEG meeting, and including the text of the possible draft Opinions as an Annex.This draft will also be made available online for open public consultations. |
| **​1 May, 2021** | Deadline for receipt of comments on the Fifth Draft, including the possible draft Opinions.Deadline for receipt of comments from the open public consultation. |
| **​5th IEG Virtual Meeting (Mid-May, 2021 close to the WSIS Forum 2021 duration)** | ​Fifth meeting of the group of experts to discuss the Fifth Draft of the report by the Secretary-General, as well as the draft Opinions and the comments received, including from the open public consultation. |
| **​1 July, 2021** | The Sixth Draft of the report by the Secretary-General will be posted online incorporating discussions from the 5th IEG meeting and including the draft Opinions as an Annex |
| **​15 August, 2021** | Deadline for receipt of comments on the Sixth Draft, including the text of the draft Opinions. |
| **​6th IEG Meeting (September 2021 during the CWG Cluster)** | ​Sixth meeting of the group of experts to finalize the Draft Report by the Secretary-General, including the final text of the draft Opinions to be submitted to the sixth WTPF. |
| **​4 November, 2021** | ​The final report of the Secretary-General to WTPF will be posted online, including the draft Opinions​. |
| **16-18 December, 2021​** | Sixth World Telecommunication/Information and Communication Technology Policy Forum​.​ |

**2. Themes for WTPF-21**

2.1 By [Decision 611](https://www.itu.int/md/S20-CL-C-0081/en) (Rev. Council 2020), the 2019 session of Council decided that the theme for WTPF-21 is as set out in para 1.1.3

 Some experts were of the opinion that this theme, as decided by Council 2019, comprises two components – a high-level theme (i.e. “*Policies for mobilizing new and emerging telecommunications/ICTs for sustainable development”)* and sub-themes (i.e. the paragraph that follows the high-level theme). As a result, they stated that the high-level theme is broad enough to encompass discussions on the sub-themes and more, and therefore, the Forum should focus on the high-level theme and not delve into the various sub-themes as individual topics. Other experts expressed the opinion that Council 2019 has decided on a comprehensive theme for WTPF-21, that the text in its entirety, as set out in [Decision 611](https://www.itu.int/md/S20-CL-C-0081/en) (Rev. Council 2020), is meant to be the focus of discussions at the Forum, and that, as a result, WTPF-21 can explore any aspect of the theme.

2.2 New and emerging [digital technologies and trends] [telecommunications/ICTs][[4]](#footnote-4) have the potential to contribute towards the achievement of the 2030 Agenda for Sustainable Development by facilitating action on the Sustainable Development Goals, within the WSIS framework. As the world sees breakthroughs in technologies and trends transforming the global digital economy, it must address issues across diverse sectors such as health, education, employment, environment, transportation, agriculture, nutrition, disability, youth empowerment, social inclusion, gender equality and poverty reduction.

2.3 Mobilization of new and emerging [digital technologies and trends] [telecommunications/ICTs] for sustainable development depends on several factors including fostering an enabling policy environment that promotes investment and innovation through competition, capacity building, transparency, flexibility and the active participation of all relevant stakeholders. Promoting innovation and investment, including by removing barriers, is essential to achieve the full potential of new and emerging digital technologies and trends for better enabling the global transition to the digital economy.

2.4 This transformative potential comes with both significant opportunities and complex policy challenges in various social, economic, technical, environmental and developmental fields. Some of these opportunities and challenges are not new, and the world has previously witnessed similar transformations across society, industry and economy that have led to new models of growth and innovation. There is a policy imperative to learn from these past experiences to better inform strategies to maximize the opportunities and address the challenges of these telecommunications/ICTs and foster innovation for sustainable development through balanced and considered policies.

2.5 It is important to recognize and address the particular challenges faced by developing countries in mobilizing new and emerging [digital technologies and trends] [telecommunications/ICTs] for sustainable development.

2.6 Policy-making in this respect is critical for facilitating efforts, particularly in developing and least developed countries, to promote innovation and contribute toward sustainable development. Policy-making considerations include, *inter alia*, infrastructure needs, investment, regulatory environment, training and skills development, market environment, institutional cooperation, the role of development aid etc.

Some experts stated that WTPF-21 is aimed at mobilizing new and emerging telecommunications/ICTs for sustainable development and need not discuss issues relating to promotion of innovation as set out above. Additionally, other experts also highlighted that the term “effective” must be used in relation to policy-making efforts as set out in this paragraph as “effective policy-making” is critical to promote innovation and contribute toward sustainable development.

 2.7 In this regard, some of the broad questions that could be addressed while considering the opportunities, challenges and policies for mobilizing new and emerging [digital technologies and trends] [telecommunications/ICTs] for sustainable development are set out below.

Some experts suggested that the Report should focus primarily on the issue of policies for mobilizing new and emerging telecommunications/ICTs, which, as well as being broader in scope, is the theme of WTPF-21 and encompasses any related issues of opportunities and challenges. It was further recommended that this Report should avoid being overly prescriptive.

2.7.1 Looking ahead, what are the new and emerging [digital technologies and trends] [telecommunications/ICTs] that ITU membership considers to be key enablers of the global transition to the digital economy? Given the inter-connections or -dependencies in the use and deployment of such [technologies] [telecommunications/ICTs], what is the role that policy-makers and other stakeholders can play in fostering an enabling environment that creates an agile ecosystem to enable their sustainable use?

 Some experts were of the view that the language in this question should be more aligned with the text in Decision 611 (Rev. Council 2020) and in keeping with the theme of WTPF-21, this question should discuss how new and emerging [digital technologies and trends] [telecommunications/ICTs] are enablers of the global transition to the digital economy.

Other experts were of the opinion that the language in this question is in line with the text in Decision 611 (Rev. Council 2020) and that theme of WTPF-21 does not preclude discussion on what are the new and emerging [digital technologies and trends] [telecommunications/ICTs] that ITU membership considers to be key enablers of the global transition to the digital economy.

2.7.2 How does ITU membership envision the role of new and emerging [digital technologies] [telecommunications/ICTs] in contributing to sustainable development, keeping in mind the current and future needs of both developing and developed countries as well as all segments of the population? What are the trends and best practices in developing whole-of-government, multi-stakeholder collaborative policy approaches that are forward-looking, flexible and evidence-based that can contribute to this goal?

2.7.3 What are the key opportunities and challenges facing the mobilization of such new and emerging [digital technologies] [telecommunications/ICTs] for sustainable development? What are the issues for their development and deployment?

2.7.4 What opportunities and challenges may arise from mobilizing new and emerging [digital technologies and trends] [telecommunications/ICTs] for sustainable development? What polices should be considered in this regard to protect interests of all people and especially the most vulnerable groups of the population? What role should ITU play in this process within its mandate?

2.7.5 How can policy-makers and other stakeholders foster an environment that safeguards users, especially the most vulnerable populations, including women and girls and persons with disabilities and specific needs, when using new and emerging [digital technologies] [telecommunications/ICTs]?

2.7.6 How can the benefits of new and emerging [digital technologies and trends] [telecommunications/ICTs] be made more accessible to all? Along with the challenge of connecting the unconnected through infrastructure and complementary access solutions, what can be done to endeavor to ensure affordable access for everyone, particularly women and girls, to build the skills necessary to leverage a changing environment where people can learn, share, and engage; to foster incentives for continued innovation; and an environment of trust and inclusion? How can better international cooperation by all stakeholders contribute to these efforts?

Some experts expressed the view that the focus of this question should be on: inclusion, affordability, consumer trust, digital literacy and specifically finding innovative ways to mobilize new and emerging telecommunications/ICTs for sustainable development, as these are the key aspects to be considered given the theme of the Forum. Other experts were of the opinion that maintaining focus on the broader issues of trust and innovation would be better. In particular on the issue of “trust”, these experts stressed that building trust in new and emerging digital technologies will be key to promoting wider engagement with these technologies, and that the concept of “trust” is wider than just consumer trust and digital literacy.

2.7.7 What policies are needed to promote education, skills and training to develop a skilled workforce? How can policy-makers and other stakeholders help to identify, retain and develop the necessary skills base?

2.7.8 How can policy-makers build an enabling environment for investment? What policies can help ensure that the regulatory and market environments help mobilize new and emerging [digital technologies and trends] [telecommunications/ICTs] for sustainable development?

2.7.9 How can stakeholders build local and inclusive participation in policymaking and innovation ecosystems that enhance consumer trust and enable the deployment and use of new and emerging [digital technologies and trends] [telecommunications/ICTs] for sustainable development?

2.7.10 What measures can be taken to promote multi-stakeholder collaboration in order to enable developing countries to access the benefits generated by a digital economy?

2.7.11 What are the ways in which stakeholders, including in underserved areas, can work together to facilitate greater innovative access to new and emerging [technologies and trends] [telecommunications/ICTs] solutions, including interoperability and complementary access solutions?

2.7.12 How can ITU and other international fora continue to collaborate more closely, through the WSIS process, in supporting the use of new and emerging [digital technologies and trends] [telecommunications/ICTs] to achieve sustainable development?

In addition, some experts proposed that another question be added to this section to explore the issue of how best development aid can support the mobilization of new and emerging [digital technologies and trends] [telecommunications/ICTs] for sustainable development, and what policies are needed to promote effective development partnerships (for details, please see [Comment C-002](https://www.itu.int/md/S21-WTPF21PREP-C-0002/en)[[5]](#footnote-5)). Other experts were of the view that this aspect has been reflected under paragraph 2.6 of this Report.

**2.8 Some themes for consideration**

[Decision 611](https://www.itu.int/md/S20-CL-C-0081/en) (Rev. Council 2020) lists some themes for consideration[[6]](#footnote-6) as indicated below.

Some experts noted that the following sub-themes should be addressed in the Secretary-General's Report through the lens of new and emerging telecommunications/ICTs. They recommended against including standalone sections on these sub-themes to align more closely with the WTPF-21 theme and the ITU's mandate. Other experts were of the view that [Decision 611](https://www.itu.int/md/S20-CL-C-0081/en) (Rev. Council 2020) recognized the following themes explicitly and therefore, recommended that each of them should be discussed separately and incorporated as standalone sections in the Report.

**2.8.1 Artificial Intelligence (AI)**

2.8.1.1 AI solutions and technologies have the potential to transform areas as diverse and critical as education, healthcare, finance, mobility, agriculture, energy, accessibility and connectivity. They bring with them opportunities, challenges and risks.

2.8.1.2 Some examples of AI-related policy questions that could be considered include:

a. How can AI solutions and technologies promote sustainable development? What are the key policy imperatives driving decision-makers to explore and harness the potential of AI-based solutions and technologies to enable sustainable development, including the transition to a digital economy?

b. How can AI help the developing countries to better benefit from the use of advanced data-driven technologies? How can they benefit from AI?

c. What are the challenges facing the deployment and use of AI technologies?

d. How can stakeholders promote the development and use of AI technologies to support sustainable development?

e. How can AI be used to aid in developing solutions that do not threaten the environment?

 The text above was supported by some experts as a result of the discussions that are reflected below:

Experts recognized that the opportunities and challenges posed by AI are significant. Some experts were of the view that the best way to implement [Decision 611](https://www.itu.int/md/S20-CL-C-0081/en) (Rev. Council 2020) was to address AI in the Report through the lens of new and emerging telecommunications/ICTs. Therefore, they recommended against including a standalone section on AI in the Report and recommended to incorporate AI into other sections, focusing on policies to mobilize new and emerging telecommunications/ICTs to enable AI applications for sustainable development, aligning closely with the WTPF-21 theme and ITU's mandate. Some other experts were of the view that [Decision 611](https://www.itu.int/md/S20-CL-C-0081/en) (Rev. Council 2020) recognized AI explicitly among the topics for discussion in the theme for WTPF-21 and therefore, they recommended that AI should be discussed more broadly and incorporated as a standalone section in the Report.

Some experts noted that if there is a distinct section on AI, it should focus on broader questions relating to identification of opportunities and challenges for the purpose of mobilizing AI for sustainable development. Some other experts were of the view that it is important to address the specific opportunities, risks and challenges posed by such technologies.

**2.8.2 Internet of Things (IoT)**

2.8.2.1 The IoT and connected devices are driving improvements to economic growth and human wellbeing in a range of areas such as healthcare, water, agriculture, natural resource management, environment and energy. However, policy-makers and other stakeholders may need to address several challenges if they are to capture its full potential.

2.8.2.2 Some examples of IoT-related policy questions that could be considered include:

1. How can the development and deployment of IoT promote sustainable development?
2. What are the key challenges and opportunities that policy-makers and other stakeholders face in developing ecosystems that best support the cross-sectoral, public and private nature of such applications?
3. What steps can be taken by all stakeholders to safeguard users and infrastructure and promote affordability, accessibility, and inclusive access of IoT systems across countries and populations?
4. What role and priority tasks should be performed within ITU to create opportunities for the development and implementation of IoT in Member States?

The text above was agreed by consensus as a result of the discussions that are reflected below:

 Some experts were of the view that deliberations on IoT should be carried out with a focus on mobilizing the technology for sustainable development rather than referencing specific aspects such as development, deployment, affordability, public confidence or trust. Some other experts stated that it is necessary to consider all of these aspects in relation to IoT as they are important to understand the potential benefits posed by this technology.

 Some experts noted that the consensus text above does not explicitly address concerns related to factors such as security or trust. Some other experts stated that security, in particular, is a key aspect for all countries and entities, and is a crosscutting priority across all the technologies dealt with in this Report, without being specific to the topic of IoT.

**2.8.3 5G**

2.8.3.1 5G has the potential to be one of the key technologies enabling tomorrow’s digital economy, linking everything from smartphones to wireless sensors and industrial robots to self-driving cars. 5G could play a key role in transforming cities and rural communities into smart cities/communities - allowing citizens and communities to realize and participate in the benefits delivered by an advanced digital economy. Fostering the potential of 5G’s capabilities will require addressing several elements relating to its deployment including, inter alia, costs and infrastructure.

2.8.3.2 In this respect, some essential questions include:

a. How can 5G promote sustainable development? What are some of the key uses/application of 5G technologies that can drive adoption? What are the main challenges relating to deployment of such technologies?

b. What can policy-makers and other stakeholders do to develop policies and strategies that support effective solutions, including existing deployments and new 5G deployments, to provide benefit and access to all?

c. What steps can all stakeholders take to foster a 5G innovation ecosystem and new business models to maximize the benefits for all while minimizing associated costs, financial and otherwise?

In addition to the questions above, some experts were of the view that a cross-cutting question should also be included in order to draw focus towards the policies that can help mobilize 5G technologies towards enabling applications of Big Data and AI for sustainable development (for details, please see [Comment C-009](https://www.itu.int/md/S21-WTPF21PREP-C-0009/en)[[7]](#footnote-7)). Some other experts expressed the view that as separate sections have been devoted to each of these technologies, and since the primary objective of WTPF-21 is to deliberate upon policies for mobilizing these technologies for sustainable development, it is not necessary to include a specific question for this purpose.

**2.8.4 Big Data**

2.8.4.1 Experts recognized that the opportunities and challenges posed by Big Data are significant. Some experts were of the view that the best way to implement [Decision 611](https://www.itu.int/md/S20-CL-C-0081/en) (Rev. Council 2020) was to address Big Data in the Report through the lens of new and emerging telecommunications/ICTs. Therefore, they recommended against including a standalone section on Big Data in the Report and recommended to incorporate Big Data into other sections, focusing on policies to mobilize new and emerging telecommunications/ICTs to enable Big Data applications for sustainable development, aligning closely with the WTPF-21 theme and ITU's mandate. Other experts were of the view that [Decision 611](https://www.itu.int/md/S20-CL-C-0081/en) (Rev. Council 2020) recognized Big Data explicitly among the topics for discussion in the theme for WTPF-21 and therefore, they recommended that Big Data should be discussed more broadly and incorporated as a standalone section in the Report.

2.8.4.2 Big Data has the potential to create significant value for the world economy and consumers everywhere - enhancing the productivity and competitiveness of the private and public sector globally. However, policy-makers and other stakeholders may need to address several challenges if they are to capture its full potential.

2.8.4.3 In this respect, some of the key questions to be considered include:

a. How can Big Data promote sustainable development? In this regard, what tools, technologies and techniques can stakeholders apply to fully harness the potential of Big Data?

b. What are the key steps that policymakers and other stakeholders could consider to ensure that the use and application of Big Data benefits and provides safeguards to all?

c. How can the challenges associated with Big Data be addressed? How can stakeholders realize the benefits of Big Data in a responsible manner? What can be done to ensure that Big Data applications also respond to those left furthest behind?

d. How can stakeholders collaborate to develop an approach for harnessing the potential benefits of Big Data for sustainable development?

In addition to the questions set out above, some experts proposed a few other questions for consideration (for details, please see [Comments C-012](https://www.itu.int/md/S21-WTPF21PREP-C-0012/en)[[8]](#footnote-8)). These questions were considered by the IEG during the informal discussions that were conducted to determine the text for this section as a whole.

**2.8.5 OTTs**

2.8.5.1 The emergence of OTTs has been driving growth, connecting people, and advancing innovation in the global economy. OTTs are reshaping and expanding the entire communications ecosystem, while also providing social and economic benefits to consumers worldwide and the global economy.

2.8.5.2 At the same time, the economic impact on the traditional model of the telecommunications industry and on telecom operators is being increasingly analyzed, including inter alia, the competitive environment, the level of regulatory exposure, the level of substitutability between OTTs and traditional telecom services and the interconnection between OTTs and public networks.

 Some experts were of the view, consistent with existing ITU texts, that OTTs strengthen ubiquitous connectivity and provide social and economic benefits to consumers worldwide and the global economy. They noted that several Study Groups are studying OTTs and highlighted that Plenipotentiary Resolution 206 (Rev. Dubai, 2018) and ITU-T Recommendation D.262 establish the consensus of ITU membership on OTTs by providing a comprehensive policy framework for consideration of OTTs, including inter alia competition, cooperation, consumer benefits and protection, and innovation. They also noted that ITU-T Rec. D.262 already serves as a foundation Recommendation for other ITU-T text.

 Some other experts were of the view that while OTTs are impacting the communications ecosystem, it cannot be stated objectively that they are leading to ubiquitous connectivity. OTT services have a significant impact on economic aspects related to operational models of telecommunication operators. Expansion of OTT services sets new objectives for public policies related to issues such as security, privacy, user authentication, protection of consumer rights, licensing and measures to prevent misuse of OTT systems.

2.8.5.3 In this regard, some examples of OTT-related policy questions that could be considered include:

a. What are some of the key policy opportunities and challenges associated with OTTs regarding sustainable development?

b. What are the key safeguards that policymakers, OTT players and other stakeholders could consider to ensure that the use of OTTs benefits all?

c. What approaches might be considered regarding OTTs to help foster an environment that promotes competition and improves the range of OTT services to all stakeholders?

d. How can OTT players and telecom operators best engage with one another at a local and international level?

 Some experts were of the view that the WTPF-21 should explore what model partnership agreements could be developed. Some other experts were of the opinion that WTPF-21 should avoid delving into discussions that are too prescriptive, as may be the case with this question.

e. How can OTTs contribute to economic development?

f. What approaches might be considered regarding OTTs to enhance the inclusion of disadvantaged populations?

g. How should ITU further promote cooperation and dialogue among ITU Members as well as other stakeholders on activities related to OTT, including the dissemination of best practices, especially for developing countries?

 In addition to the questions set out above, some experts proposed a few other questions for consideration (for details, please see [Comments C-008](https://www.itu.int/md/S21-WTPF21PREP-C-0008/en)[[9]](#footnote-9) and [Comments C-012](https://www.itu.int/md/S21-WTPF21PREP-C-0012/en)[[10]](#footnote-10)). These questions were considered by the IEG during the informal discussions that were conducted to determine the text for this section as a whole. However, some experts were of the view that these questions should not be included in the Report.

**2.8.6 Mobilizing New Solutions for Connectivity**

2.8.6.1 [Technologies and trends] [Telecommunications/ICTs] have the power to transform lives, offering life-enhancing financial, health, education, and many other services, the ability to participate in the digital economy, and the means to participate in communities.

2.8.6.2 The COVID-19 pandemic has only further demonstrated the vital importance of connectivity globally, highlighting the centrality of telecommunications/ICTs to providing access to basic services as well as supporting critical needs.

2.8.6.3 Yet millions of people in new and emerging markets lack access to these services, due to the limited reach of reliable, secure, and affordable communications infrastructure in many countries. In addition, low income populations with access frequently do not use services, because of constraints arising from limited affordability and social norms that can bar access to communications technology to certain vulnerable populations such as women and girls and persons with disabilities and persons with specific needs.

2.8.6.4 To bridge these gaps, innovations in technology, business plans and funding models are being developed and explored by providers, governments, academia, and civil society actors. These include but are not limited to: low-cost solar-powered mobile radios that can open up rural areas to new connectivity options; new, high-capacity satellite services systems that can offer lower cost internet access to remote locations; and innovative business models including complementary access solutions that deliberately work to provide services to local communities and involve them in bringing down barriers to technology use. The success of these types of solutions relies fundamentally on an underlying infrastructure that can deliver high-quality and high-bandwidth connectivity.

2.8.6.5 In this respect, some of the key questions to be considered include:

a. What types of technologies and innovative business models, including complementary access solutions, should decision-makers learn more about when determining how to address connectivity, access and usage gaps in their own unique market contexts?

b. How can interest in innovation be mobilized in the private sector and other relevant stakeholders to solve unique market contexts of new and emerging markets?

c. How to more closely align funding mechanisms to mobilize new solutions for connectivity?

d. How to facilitate greater collaboration and knowledge sharing between innovators, investors and communities to accelerate the development of these innovations?

e. What are the challenges and opportunities mobilizing new solutions for expanding Internet connectivity, particularly to remote and under-served areas?

**3. Conclusion**

This Report will be further elaborated in subsequent drafts taking into consideration the written inputs received from experts as well as discussions during the meetings of the IEG.

ANNEX: CURRENT STATUS OF POTENTIAL DRAFT OPINIONS

There are currently 10 draft Opinions under consideration following the fourth meeting of the IEG-WTPF.

1. Mobilizing new and emerging telecommunications/ICTs for sustainable development
2. Inclusive access to new and emerging telecommunications/ICTs for sustainable development, including for women and girls
3. An enabling environment for investment in new and emerging telecommunications/ICTs
4. Fostering digital skills, education and inclusion
5. Mobilizing an enabling policy environment to foster the development and deployment of new and emerging telecommunications/ICTs for sustainable development
6. Mobilizing new solutions for connectivity
7. Policy Challenges related to OTTs
8. New and emerging technologies, in particular Artificial Intelligence for Sustainable Development
9. Building Confidence and Security in the Era of New and Emerging Technologies
10. Mobilizing new and emerging telecommunications/ICTs for sustainable development in the context of helping to eliminate and manage the effects of the COVID-19 pandemic

*Clustering draft Opinions*

Following the third meeting, Members were requested by the Chair to consolidate similar contributions so that the Group can focus on a manageable number of draft Opinions (a suggested maximum of 5-6 opinions) and work towards a consensus.

A number of proposals merging and consolidating the current draft Opinions above were received for discussion at the fourth meeting. All of the contributions for consolidating the draft Opinions are available on the [IEG-WTPF-21 website](https://www.itu.int/en/wtpf-21/Pages/ieg-wtpf-21.aspx).

No consensus was reached following discussions at the fourth meeting and it was agreed that further consultations would continue via an email reflector/distribution list ahead of the fifth IEG-WTPF meeting in May 2021.

1. Some experts suggested using the term “IMT-2020/5G” instead of “5G” to align with the terminology that is usually adopted at ITU when discussing this subject, including at the Plenipotentiary Conference, as IMT-2020 is a name for the systems, components, and related elements that support enhanced capabilities of 5G beyond those offered by IMT-2000 (3G) and IMT-Advanced (4G) systems. Other experts stated that it should be maintained as 5G as discussions at WTPF-21 are broadly aimed at mobilizing telecommunications/ICTs for sustainable development and this was the terminology adopted by [Decision 611](https://www.itu.int/md/S20-CL-C-0081/en) (Rev. Council 2020). [↑](#footnote-ref-1)
2. Following the fourth meeting of IEG-WTPF-21 (1-2 Feb 202), an email reflector/distribution list was set up for the IEG-WTPF-21 to share information and correspond on matters related to WTPF-21 including on draft Opinions. [↑](#footnote-ref-2)
3. The IEG-WTPF-21 has been following the procedure and schedule for preparation of the WTPF-21 as set out in Annex 2 of [Decision 611](https://www.itu.int/md/S20-CL-C-0081/en) (Rev. Council 2020). [↑](#footnote-ref-3)
4. The Chair appointed an informal coordinator on terminology discussions at the second meeting of the IEG-WTPF-21 (February 2020). Pending further discussions and until consensus on this issue is reached, the fifth draft of the Report has continued to reflect both terms in square brackets. [↑](#footnote-ref-4)
5. [Comment C-002](https://www.itu.int/md/S21-WTPF21PREP-C-0002/en):

Proposed new question: *How best can development aid support the mobilization of new and emerging technologies for sustainable development? What policies are needed to promote effective development partnerships?* [↑](#footnote-ref-5)
6. Some experts suggested considering other themes such as:

- Virtual Reality ([Comments C-006](https://www.itu.int/md/S21-WTPF21PREP-C-0006/en)), however, some other experts stated that Virtual Reality is not a priority issue or technology for consideration by the Forum given that the focus is on mobilizing new and emerging [digital technologies and trends/telecommunications/ICTs] for sustainable development; and

- Mobilizing an Enabling Policy Environment for New And Emerging Telecommunications/ICTS ([Comments C-009](https://www.itu.int/md/S21-WTPF21PREP-C-0009/en)), however, some other experts were of the opinion that this is a cross-cutting thematic issue that has already been reflected across the various sections and themes set out in the Report. [↑](#footnote-ref-6)
7. [Comment C-009](https://www.itu.int/md/S21-WTPF21PREP-C-0009/en):

Proposed new question: *What policies can help mobilize 5G technologies towards enabling applications of big data and AI for sustainable development?* [↑](#footnote-ref-7)
8. [Comments C-012](https://www.itu.int/md/S21-WTPF21PREP-C-0012/en): Proposed new questions:

*- How to guarantee the protection of the privacy of individuals?*

*- How is the management of personal data and their storage?*

*- How to deal with the unauthorized use of data in the areas of e-commerce and AI?* [↑](#footnote-ref-8)
9. [Comments C-008](https://www.itu.int/md/S21-WTPF21PREP-C-0008/en):

Proposed new questions  *How can the Member States deal with the taxation matter for OTTs?* [↑](#footnote-ref-9)
10. [Comments C-012](https://www.itu.int/md/S21-WTPF21PREP-C-0012/en):

Proposed new question: *How do OTT providers manage, store and reuse the personal data of their customers?* [↑](#footnote-ref-10)