Global ICT Capacity Building Symposium
6 to 8 September 2016
Nairobi, Kenya

FINAL REPORT

INTRODUCTION

1. The 2016 Global ICT Capacity Building Symposium (CBS-2016) took place in Nairobi, Kenya, from 6 to 8 September 2016. It was organized by the International Telecommunication Union and hosted by the Communications Authority of Kenya.

2. The theme of the Symposium was "Embracing capacity building opportunities in the digital era".

3. The Symposium attracted around 440 participants from 46 countries, public and private organizations, universities and research institutions, and other regional and international organizations.

4. The work of CBS-2016 was conducted under the chairmanship of Mr Francis W. Wangusi, Director-General of the Communications Authority of Kenya

5. The Symposium was preceded by two pre-events on 5 September 2016; the first one entitled "Capacity building in Internet Governance: Stakeholder perspectives" and the second one entitled "Regulators as enablers and beneficiaries of capacity building".

6. The outcomes of the Symposium are expected to provide strategic guidance to the national and international community, including ITU, on capacity building in the field of ICT, and on strengthening collaboration among the global ICT capacity building community.

7. Further information, including the agenda, the presentation slides, media information, the list of participants, and photos are available at: http://www.itu.int/en/ITU-D/Capacity-Building/Pages/CBS-2016.aspx.

Tuesday, 6 September 2016

Opening Ceremony

8. The Global ICT Capacity Building Symposium (CBS-2016) was opened by His Excellency William Ruto, Deputy President of the Republic of Kenya. Also participating in the opening ceremony were Mr Joseph Mucheru, Cabinet Secretary for the Ministry of Information, Communications and Technology (ICT) of Kenya, Mr Fred Okengo Matiang'i, Cabinet Secretary for the Ministry of Education of Kenya, Mr Francis W. Wangusi, Director General of the Communications Authority of Kenya, Mr Houlin Zhao, Secretary-General of ITU and Mr Brahima Sanou, Director of the ITU Telecommunication Development Bureau.

9. The Guest of Honour, H.E. William Samoei Ruto, emphasized the importance of innovation in the digital economy, noting that virtually all sectors of the economy, including finance, health, education, agriculture and government, are quickly embracing technology to enable the dissemination of information, enhancement of service delivery and effective reach to customers.

10. The ITU Secretary-General, Mr Houlin Zhao, appealed to Ministers of ICT and those of Education to build coherence in the way the two sectors work and urged Governments to mainstream ICT in all sectors so that information and communication technologies play a central and catalytic role in socio-economic development. He highlighted the importance that Small and Medium Enterprises (SMEs) played in providing opportunities for new jobs in developing countries, in particular in the ICT sector.

Ministerial Roundtable: ICTs, Sustainable Development Goals and future priorities for human capacity building

11. In setting the scene for the Ministers' discussions, it was highlighted that the three important issues in the digital era were IoT, big data; and artificial intelligence. Capacity building needed to take into account the skills requirements of these drivers of the digital economy.

12. The Ministerial Roundtable recognized that ICTs were key enablers of development and played a crucial role in the attainment of the Sustainable Development Goals (SDGs). Emphasis was placed on the need to develop competencies of people to use and leverage ICTs effectively.

13. Discussions highlighted that the demand for an ICT-skilled workforce was growing rapidly, and public policy in terms of education systems and vocational training programmes needed to keep pace with the challenge.

14. Ministers of ICT and Education addressed policy and strategic considerations related to the role of ICT in human and institutional capacity building and how it impacted sustainable development. Ministers shared experiences from their own countries and explored policy priorities and development programmes that facilitated capacity building in ICT to contribute to the achievement of the SDGs. Ministers noted that capacity building in the area of information and communication technology, cutting across all sectors, was critical for the timely attainment of the Sustainable Development Goals (SDGs).

15. There was an awareness of the need for governments to provide leadership in establishing the policy framework and conditions for skills development at a national level. In particular, ICT skills development should be embedded in education and training curricula. This required open dialogue

between Ministries of Education and ICT. It was highlighted that governments were key players in ICT capacity building. An example was the involvement of the government of Kenya in supporting the Kenya national digital literacy programme. In this respect, Governments were urged to allocate resources to develop ICT capacity for its workforce.

16. The Ministers highlighted the critical role of ICTs as an enabler of education noting that ICTs provided educational content in new, better and more effective ways. Ministers recognized that ICTs provided huge opportunities for the education sector as a whole and could address important policy goals, such as access to education for everyone.

17. The Ministers further highlighted the importance of linking ICT policies and education policies, in order to address the institutional reforms necessary for ensuring the availability of the skills required in the digital era. A priority in this regard was the need to ensure that capacity building in ICT is integrated in education. There was a call for the alignment of the education system to the future global skills needs, and for strategies for ensuring social integration in the digital economy, noting the importance of equipping people with the necessary ICT skills so that they can be part of the digital society.

18. Discussions also highlighted that due to the high demand for people with the right digital skills, governments needed to put in place the means and strategies to retain people and avoid brain drain.

19. Ministers spoke about the need for the global harmonization of policies that will support the development of ICTs. They noted the need for a strong legal environment that fosters long-term policies for the creation of capacity building programmes in ICTs. For this to happen, Ministers indicated that top government leadership must be equipped with appropriate knowledge to support enabling legislation.

20. Ministers emphasized the need for renewal in the delivery of public services and bringing on board young digitally skilled people. They also stressed the importance of partnering with the private sector to train public servants.

Leaders Dialogue: Establishing coherence in capacity building

21. The Leaders' Dialogue emphasized the need to foster coherence among different stakeholders from both the demand and supply side of capacity building in the field of ICT. Leaders from the industry, government and academia discussed issues related to national skills policies, industry skills requirements, and the role of academic institutions as providers of skills.

22. The session facilitated a conversation between communications industry stakeholders, specifically between service providers who required certain skills to be developed and academic institutions who were preparing graduates with the necessary skills. Panelists discussed policies and plans that support the development of relevant skills for the communications industry. The session pointed to emerging technological opportunities that could contribute to a more informed and equipped workforce. It noted that digital transformation was causing market disruption, which could be a force for good in the long run. Partnership, skills development and knowledge sharing were important in managing disruptive technologies.

23. Panelists emphasized how accelerating opportunities and fostering innovation was key for digital transformation.

24. Panelists further noted that collaboration between industry and academia was weak and needed to be strengthened. This required industry to be more involved in the area of capacity building and academia to be more responsive to the needs of industry.

25. The session noted that there were many stakeholders that played a role in developing capacities on ICTs at the national, regional and global level, including regulators, Governments, academic institutions, private sector companies and international agencies. These stakeholders should work together to establish synergies in capacity building initiatives and achieve the greatest impact.

26. In was noted particularly that regulators played an important role in facilitating skills development in the ICT sector and in other sectors, for example through funding digital skills initiatives. It was proposed that Universal Service Funds could be used to support capacity building initiatives related to digital skills development.

27. It was further explained that digital technologies created "permissionless innovations" that allowed users to access and use various technologies and services without having to seek anyone's permission. In this environment, light-touch regulation was recommended in handling these new and emerging technologies.

28. The session observed that the rapidly changing nature of the ICT sector required continuous updating and upgrading of skills and learning, which needed to be taken into consideration by training institutions, Universities and other capacity building agents in this field.

29. Panelists observed that there was a large skills mismatch across all sectors and the demand for an ICT skilled workforce was by far exceeding the supply, across all countries. This was hampering growth in the ICT and other economic sectors.

30. International organizations, such as ITU and UNESCO, as well as bilateral development agencies, played an important role in supporting capacity development efforts in developing countries, both at the policy and project level. The ITU Centers of Excellence initiative was highlighted as a good example of how capacities could be enhanced and it could also be considered for supporting digital skills initiatives.

31. The session reinforced an earlier point raised by the Ministers, on the importance of linking ICT policies and education policies, in order to address the institutional reforms necessary for reducing the ICT skills gap that exists worldwide.

32. Finally, the need to upgrade the curricula of training institution to be relevant in the emerging digital age was also highlighted.

Coping with new skills requirements in a changing ICT environment

33. The session recognized that the digital economy of today is driven by technological innovation, with the business community leading in the development of technologies, including Over-the-Top technologies, Internet of Things (IoT), big data, wearables, mobile applications, and the cloud.

34. Panelists highlighted that these technologies caused market disruptions, and most companies were ill prepared to respond to these challenges.

35. The session discussed the skills required for companies to turn the emerging technologies into business opportunities and create new jobs, as well as the capacity building challenges arising from these new jobs.

36. Panelists stated that, as the digital opportunities increase, there was a growing digital skills gap which needed to be addressed. They pointed to the new growth areas and explained what the required skill sets were for these new areas. They noted that the market was not yet fully prepared and there were skills shortages that needed to be addressed. Skills deficits had an impact on the introduction of new technologies in the private sector as well as on the deployment of ICT-based models in the public sector. The digital skills shortages represented a real challenge to companies from different sectors

and one of the ways to mitigate it was to implement capacity building programmes to be able to produce a digitally skilled workforce.

37. Panelists highlighted that employers had a responsibility to take ownership of digital skills development and that this should be done in partnership between industry, the government and other stakeholders. Digital capabilities should be at the core of all strategic human capital plans and it was necessary to prepare the society for this new reality.

38. Panelists highlighted the role of innovation in driving capacity building, and the need to create innovation hubs as knowledge centres for learning and development.

39. Partnerships amongst stakeholders, especially between public and private sectors were important for capacity building programmes to be successful. Industries played a crucial role in the learning process and in partnership with academic institutions and governmental entities it was possible to promote cooperation and share knowledge. Delegates highlighted the importance of building the capacity of stakeholders to ensure inclusive education and access to information. They emphasized the need to prioritize capacity building in ICT in education. Transformation of education at all levels, including University levels, was a critical step in creating a skilled workforce for the digital era and necessary for economic development.

40. Delegates recognized the need to create partnerships with digital technology hubs in other countries, where new forms of learning can take place and where digital innovation partnerships can be fostered.

41. Some of the challenges highlighted in the session were that ICT courses do not keep pace with the changes in technology. In some instances, some of the courses offered in the training institutions were too general and therefore did not equip the students with specific skills required.

42. Panelists recommended the establishment of a global benchmark for ICT skills, assessment, training and certification. They also urged the alignment of ICT skills with industry requirements.

43. Panelists concluded that providing people with 21st century technologies needed to be accompanied by the provision of digital skills to use these technologies successfully. In a global economy, future success required giving every student the skills and opportunities to excel. As stressed above, partnerships played a key role and positive results could be achieved if governments, NGOs, industries and solution providers worked together to promote research-based approaches to capacity building.

Wednesday, 7 September 2016

University without walls: Exploring new ways of learning in a digital era

44. This session examined the transformational changes that have taken place within the learning landscape due to ICT developments, and how these changes impact the existing theories, types and styles of learning and knowledge dissemination.

45. The session discussed learning methodologies such as online and face-to-face learning as well as presented the opportunities available in the digital era, such as massive open online courses (MOOCs) and social media tools, and the challenges associated with them.

46. Panelists recognized that digital learning could help meet the market needs as it had the potential to reach more learners, improve student outcomes, and transform post-secondary education systems. In this respect, panelists noted that mobile technologies offered unlimited opportunities for learning. Mobile learning had a good potential for learning since mobile devices were used by a much larger

share of population than traditional computers, and could be used to promote capacity building outside the classroom. Mobile learning had the potential to promote the integration of people who have been marginalized and to provide opportunities for people who are out of school.

47. Several cases were presented of using tablets for car diagnosis, visiting museums while playing Pokémon Go, learning English via mobile in Philippines, and promoting capacity building in indigenous languages.

48. Particular attention was focused on the role of Massive Open Online Courses (MOOCs) as a viable channel to expand training opportunities to gain skills and improve people's competitiveness in the labour market. MOOCs could be used to gain specific skills to improve job performance, obtain professional certification, prepare for additional education, and find new jobs. Discussions pointed to the challenges of MOOCs in terms of certifications. While the use of MOOCs was growing, employers did not always recognize the validity of MOOCs certifications. Panelists cautioned that MOOCs were not a substitute for teaching, learning or research, but rather they were supplementary. They could be used for individual learning exercises to support taught content, but should not be used as content on their own.

49. Delegates suggested that governments assume the responsibility to assess these new learning initiatives and ensure they are recognized by employers. Governments could play a key role in changing how new certifications are perceived.

50. The session also explored whether the market and industry were ready to embrace the digital delivery of education and training.

51. The session highlighted the changes in the modes of learning that have moved from teaching and lecturing to facilitating and developing a systems thinking approach.

52. Representatives of academic institutions discussed the role of universities in the digital era and the increasing expansion of online learning as opposed to face-to-face learning. However, while online learning continued to grow, face-to-face learning remained important. The blended learning approach became appealing as it leveraged the advantages of both online and face-to-face learning.

53. Panelists recognized that information and communication technologies that are accessible and inclusive had the potential of expanding the learning opportunities for people with disabilities. They stressed the importance of integrating accessible and inclusive ICTs in education.

54. Panelists highlighted the need for holistic policies which focused on all aspects of ICT integration in education. There was a need to look at the entire picture, considering elements such as ICT facilities provision, trained teachers in ICT pedagogy, curriculum development and digital content, and learners' assessment. Panelists also recognized the need for a comprehensive approach to capacity building in ICT integration in education. In the university environment, for example, it was not only about building capacities of lectures, but of the whole university staff.

55. In the ensuing discussions the symposium made the following observations and recommendations:

- Countries should consider using Ministries of Education or special education authorities, to promote MOOCs for specific agendas or programmes that benefit society at large.

- Government agencies should partner with educational institutions, libraries, and social organizations and implement MOOC awareness strategies that begin in primary and secondary education settings.

- An important challenge was how to make distance learning credible compared to traditional ways. The responsibility of making online learning credible mostly lies on governments.

- Online learning was social by definition, it helped to develop interpersonal skills.

- Lack of sufficient broadband capacity in many universities in Africa and other parts of the developing world was a hindrance to the provision of access to online learning and published research.

- There was a need to build powerful digital universities with rich localized content.

- It was important to understand what ICT integration in education meant and to identify how ICTs could improve the quality of education, helping achieve better outcomes.

In search of excellence: ITU Centres of Excellence model

56. The session started with an introduction of the ITU Academy and ITU Centres of Excellence (CoE) framework, the priority areas of capacity building emerging out of the World Telecommunication Development Conference 2014, and the selection process for the current Centres of Excellence. The session also introduced the work of the Group on Capacity Building Initiatives (GCBI), which was established by Resolution 40 of WTDC-10 and WTDC-14. The Group was composed of 12 representatives (2 per region), and had the important roles to advise the Director of the BDT on capacity building initiatives, and coordinate with organizations and experts to enhance engagement and facilitation in the ITU capacity building work. One of the key tasks of GCBI had been to endorse and oversee the operationalization of the new CoE strategy. Coherence, coordination and cooperation were highlighted as important strategic steps in this area. As WTDC-17 approaches, the need to prepare and support the ITU in identifying the new priorities was also emphasized.

57. ITU Centres of Excellence shared their experiences and models of partnerships in training. Presentations were made from Asia Pacific (China and Thailand), Africa (Nigeria), Europe (Czech Republic), and Latin America (Brazil and Argentina). The panelists highlighted the importance of collaboration between Government, industry and the Centres, as well as universities, which contributed to their visibility as institutions and ensured that the training they delivered was relevant.

58. The presentation from Argentina showed a model case study of a group of universities that have joined together under one project to support the work of ITU. The presentations reinforced the fact that the Centres of Excellence philosophy served as a winning multi-stakeholder model for capacity building. In all the presentations, successful Centres of Excellence demonstrated some partnerships with either Government or industry or both.

59. Industry partners also offered support and expressed interest in collaboration with the ITU Centres of Excellence. CoEs were urged to seek funding support from partners (both Government and industry). It was noted that alignment of training to industry requirements increased chances of recruitment of graduates from the CoEs.

60. The session called for an inclusive approach to capacity building (including for persons with disabilities, youth) and striking a gender balance. There was also requirement to identify and serve the needs of small and medium enterprises. Centres of Excellence should also be used for running and organizing summer schools and refresher courses for practitioners.

61. It also recognized the need to overcome the divide between rural and non-rural residents, and address the requirements of countries in unique situation (e.g. Small Islands Developing States, Land Locked Developing Countries).

62. There was also a need for universal access to include literacy levels and provide solutions that were affordable and appropriate.

63. The Centres of Excellences might be locally based but should expand scope and provide services to everyone. The courses should focus on bringing impact on the ground, enhancing inclusiveness and delivering value that affected the lives of people.

64. The delegates urged ITU to continue supporting the Centres of Excellence, and work towards strengthening their training delivery capabilities.

A dialogue with capacity building champions from the academic community

65. The session brought together representatives from universities and other higher education and research institutions to discuss the central role they play as champions of capacity building and trail-blazers in introducing smart approaches in capacity building using hi-tech innovations.

66. Universities presented their innovative work in the area of research and development related to emerging technologies, such as smart cities, smart societies and Internet of Things.

67. Universities pointed to the need to reinvent themselves in view of a new generation of students with different expectations and learning mindset. They shared innovative initiatives of university restructuring showing the challenges experienced and the results achieved.

68. The session shared different types of capacity building partnership models that have worked between the academia and private sector or government, and explored the challenges and opportunities that are present in these partnerships.

69. Panelists presented their experiences of collaboration between the industry and the academia to develop and deliver training that can help develop the skills and competencies of key stakeholders in the sector to meet the market needs.

70. The following observations and recommendations were raised during the discussions:

- Academic institutions needed to work closely with other partners such as private sector and Government, in developing training programmes and other capacity building solutions.

- Academia and industry were urged to forge closer cooperation with each other. Academia would benefit from enhanced funding opportunities from industry, gain greater knowledge of where the technical direction is heading, and push research ideas to industry. Industry in turn would benefit from the forward thinking revolutionary minds coming from Academia, and gain visibility from being associated with reputable institutions.

- The future Internet (e.g. Tactile Internet) would enhance the prospects/potential of distance learning through its ability to combine teaching/learning of manual skills with intellectual knowledge.

- Universities were challenged to adopt new innovative teaching methodologies, and teacher re-training in line with the changing requirements of learners due to technological advancements. In this respect, university professors needed to undergo tailor-made training programmes in order to prepare them for the needs of the millennials.

- In discussing the challenges associated with the speed at which learning approaches and requirements changed, the session noted that it was necessary to teach the learners how to learn so that they could teach themselves the required skills at their own pace. The new environment required that people be taught adaptation skills.

A new digital generation: Young innovators

71. This session brought together young people from all over the world whose technological innovations contribute to capacity building leading to socio-economic development.

72. Five young innovators presented their ICT innovations and explained their motivations behind them. They emphasized the opportunities of new technologies and showed how their technological innovations impact on education and training.

73. The session showed the importance of fostering innovation among the young technological community, which keeps up with the ICT evolving environment and is continuously attempting to develop new ICT solutions that could help advance development.

74. During the presentations, key messages that came out were the following:

    - In the 21st century, adults and youth needed to develop a whole new set of skills in order to be prepared for the new jobs of the information age. Educational technologies had the potential of helping develop these new skills and promoting digital literacy in developing countries.

    - Educational technologies were changing the approach to teaching as well as generating different ways of learning. These technologies needed to be relevant to their target groups. They needed to be based on the assessment of a learner's needs and performance, and should be able to provide individualized learning roadmaps.

    - The combination of various learning mediums such as written content, animations, games and videos could make learning more interactive and engaging.

    - Young innovators, who are also early adopters of ICTs, were well positioned to harness the power of technology in new and imaginative ways.

    - Governments were urged to encourage start-ups, and to champion small and medium enterprises (SMEs) for job creation. There was need to transform technology-users into technology makers.

Thursday, 8 September 2016

Celebrating resilient and successful capacity building partnerships

75. This session featured successful partnerships for capacity building that have been forged by ITU and other organizations. ITU partners shared testimonials relating to initiatives and activities jointly implemented with ITU and the impact these initiatives have had on individuals, countries and regions.

76. Presentations were made by CISCO, the United States Telecommunications Training Institute (USTTI), and the United Kingdom Telecommunications Academy (UKTA).

77. CISCO shared information on their Networking Academy, which was part of their corporate social responsibility (CSR). The CISCO Academy had 51,010 students since its inception, and being a global academy, all students in each country had the same experience and same delivery of content in the course. Partnership with ITU started in 2003 under the ITU-CISCO Internet Training Centres Initiative (ITCI). Under this initiative 71 ITU-supported Internet Training Centres were established in 59 countries across the globe offering certified courses in CISCO networking and benefiting a lot of graduates and school leavers with both employment and employability prospects.

78. USTTI traced its history and training record since its establishment in 1982 during the ITU Plenipotentiary Conference held in Nairobi, Kenya. Since then, USTTI had conducted 2,027 tuition-free training courses. The partnership with ITU was formalized in 2002 with the signing of a

Memorandum of Understanding, whereby USTTI agreed to provide priority acceptance for ITU-nominated applicants. In return, ITU agreed to provide subsistence allowance to selected participants in USTTI's tuition-free training. This agreement led to 189 graduates from 53 developing countries gaining access to the USTTI training.

79. UKTA was established in 1995 by the UK Government in conjunction with BT and Cable & Wireless. UKTA gave a history of its academic, vocational and professional training activities and fellowship resource mobilization efforts for participants from developing countries. UKTA stated that they offered two Masters programmes, in Law in ICT and in Communications Management. These were offered in partnership with the Open University of Tanzania and the University of Rwanda.

80. During the subsequent discussions, delegates noted that the location of the training needed to be considered in view of the increasing travel restrictions imposed by companies and governments. An alternative was to organize a training back-to-back with another event, or better still, deliver the training in the countries that needed them. In some cases, this was already being done.

81. Delegates once again highlighted the importance of forging partnerships in capacity building between training providers and both public and private entities.

82. It was further recommended that providers of training should follow up with the trained students to assess the impact and relevance of their training and provide continuous training.

83. The language in which the training is delivered was identified as a real challenge, noting that most training was available only in the English language. Efforts needed to be made to ensure that training was available in other languages (e.g. French) targeting specific communities of that language. There should also be recognition of the specific training needs of specific disadvantaged groups, such as people with disabilities.

Presentation of Awards

84. In this session, three organisations were recognized with awards for the capacity building partnership with ITU over the years: the United States Telecommunications Training Institute (USTTI); Cisco Systems, through the Cisco Networking Academy; and the United Kingdom Telecommunications Academy (UKTA).

85. An individual recognition award was given to Professor David Mellor, OBE, and former Chairman of UKTA for his outstanding work in capacity building within the ICT sector and close collaboration with ITU during his time as Chairman of UKTA.

86. ITU gave a history of Professor Mellor's association with capacity building in the ICT sector in general, and the capacity building work of ITU in particular. It was noted that while Chairman of UKTA, Professor Mellor hosted the predecessor of the Global Capacity Building Symposium in the UK on three occasions. During his career, he had trained and educated delegates from approximately 180 countries (including at least one from every LDC). He also helped mobilize GBP 30,000,000 for innovative Master's Degree Scholarships with considerable support from Cable and Wireless and the British Foreign and Commonwealth Office.

87. Each of the organizations gave a brief acceptance speech for the award, and thanked ITU for the honour. They pledged to work towards deepening their collaboration with ITIU in capacity building.

88. The results of the CBS Young Innovator competition was announced and the winner, BRCK Education of Kenya, was given the Young Innovator award.

89. Finally, the host country, the Communications Authority of Kenya was presented with an award for hosting the event.

Roundup of Symposium: Conclusions and recommendations

90. The Chairman of the Symposium, Mr Francis Wangusi, presented his summary report of the Symposium. This report contained the Chairman's conclusions and recommendations. The Summary report is available at www.itu.int/en/ITU-D/Capacity-Building/Pages/CBS-2016.aspx.

Closing Ceremony

91. The Symposium closed with a video of the event highlights, as well as closing remarks by ITU and the host.

ANNEX 1

Report on the pre-event

"Capacity building in Internet governance: Stakeholders perspectives"

5 September 2016, 9h30 – 12h30

1. This pre-event brought together ICT professionals and executives from Government ministries, Regulatory Authorities, UN Organisations, private sector companies, Universities and research institutions as well as global and regional bodies dealing with Internet Governance. The event provided a platform for stakeholders to discuss capacity building issues in international Internet Governance and to map out strategies for addressing these.

2. During the first part of the event, representatives from different Internet governance stakeholder groups presented ongoing and planned activities on Internet governance capacity building and training implemented by their organizations, including the topics covered in the training, the target audience, geographic representation, delivery methods, frequency, number of trained people, and lessons learned.

3. This was following by a panel debate focusing on the main needs that should be addressed by future IG capacity building; priority areas, including by region; preferred training methodologies; as well as the way forward for ITU and partners to address these issues.

4. In his opening remarks, the Director of the Telecommunication Development Bureau, Mr Brahima Sanou, welcomed the participation by different Internet governance stakeholders in the pre-event and emphasized the importance of working together to deliver the necessary training materials and courses.

5. The session highlighted that capacity building on Internet Governance (IG) was an important focus area and further work should be carried out in this field. Activities in this area needed to take into account complexity and dynamism of the Internet eco-system and its fast-changing environment, which rested on multiple pillars involving technical, governance and stakeholder engagement.

6. The multi-stakeholder approach to capacity building in IG was essential and needed to be part of all IG-related activities at the global, regional and national levels. It was crucial to enhance engagement of the stakeholders, and build the next generation leaders, in this complex area.

7. Some of the challenges in this area highlighted by panelists range from access to the Internet and broadband connectivity, the existence of language barriers and multilinguistic requirements, the need for adequate technical capacity, the availability of standards and interoperability issues, a lack of awareness amongst the stakeholders, to regional and local particularities and privacy and security concerns.

8. The meeting acknowledged that a number of stakeholders are working in the area of capacity building on Internet Governance, including Diplo, ISCOC, ICANN, the regional IG schools, regional registries, among others, and it was important for ITU to work with these stakeholders collaboratively in developing its future training programme and benefiting from existing expertise. Further work should take into consideration existing capacity building activities, existing knowledge and training materials, as well as new and emerging areas.

9. Panelists highlighted that Internet governance awareness and capacity building was important for a wide range of beneficiaries, including future leaders, policy makers, diplomats, the business and the

technical community, law enforcement authorities, young professionals, the media, and end users. Training should be targeted at people at different levels of decision making, with particular attention being paid to the middle management level in developing countries. In addition, building capacity from an inter-disciplinary perspective was critical as such an approach helped improve collaboration and building a holistic perspective on the complex issue of IG.

10. Multiple means of delivery channels (online, remote participation and face-to-face) and methods needed to be leveraged to create a long-term engagement of stakeholders in the capacity building process. The need for continuous learning/training was stressed by a number of participants, as well as the need for keeping training courses small and keeping participants engaged constantly.

11. Panelists also highlighted the need to cover a broad scope of topics on the one hand, and at the same time take an in-depth, focused approach to capacity building, targeting specific users. The approach needed to be inclusive and should also take into account regional differences. Capacity building exercises needed to draw upon practical experiences and build on peer-to-peer learning amongst developing countries. Role play was given as an effective example of generating a real debate during the training.

12. Participants highlighted many areas of capacity building in the field of Internet Governance, dealing with technical, governance, legal as well as policy matters of the Internet. In addition, the meeting also highlighted the importance of capacity building in the area of child online protection and online consumer protection. Several stakeholders shared their experience on child online protection initiatives and how this could be incorporated into capacity building initiatives.

13. In particular, the panelists made the following specific recommendations to ITU with respect to its future work on capacity building in Internet governance:

- continue work with all stakeholders;

- increase engagement with academia and universities to train the next generation and improve research;

- enhance engagement with policy decision makers in a multi-stakeholders approach and work with governments to enhance their awareness and engagement with other stakeholders;

- continue work to develop relevant standards and protocols on IG technology-related issues, in collaboration with the Internet Engineering Task Force (IETF) and ICANN;

- leverage the ITU Centres of Excellences to build capacity in this field; and

- open up the Council Working Groups to all stakeholders.

ANNEX 2

Report on the pre-event

"Regulators as enablers and beneficiaries of capacity building"

5 September 2016, 14h00 – 16h00

1. This pre-event discussed capacity building challenges faced by regulators in light of the fast evolving ICT sector that is experiencing the introduction of new technologies at an unprecedented pace. This called for new and innovative ways of regulation through upgrading of staff skill sets and training. The session also explored the role that regulators could play in ICT capacity building both within the ICT sector and across other sectors.

2. The panel was composed of a mix of high level speakers from regulatory authorities, and capacity building and training providers.

3. In his opening remarks, the Director of the Telecommunication Development Bureau, Mr Brahima Sanou, stated that the digital skills gap was becoming the biggest challenge of the digital era and as such, there was need to reflect on how regulators could contribute to strengthening such capacities and skills, in the interest of ensuring digital inclusion for all.

4. Panelists noted that new technologies brought new regulatory challenges for regulators and hence the need for continual upgrading of skills of employees. Some of the skills arising from new technologies were the skills to regulate over-the-top (OTT) applications and services.

5. Panelists highlighted that regulators needed to have a broad range of skills outside the technical areas related to regulation. They needed to be able to develop skills to manage conflicts between regulators and service providers which always arose when new technologies were deployed. They needed to have skills in areas such as conflict resolution, problem solving and negotiation skills.

6. Panelists pointed out that capacity building was not just about training. Other ways of effectively building capacity were through:

   • Developing case studies,

   • Implementing exchange programmes and cross-collaborations with other regulators as well as between regulators and operators, and

   • Undertaking studies on the impact of regulatory decisions on other stakeholders, such as operators.

7. Delegates made a proposal for the grading and categorization of regulators, to take into account that developing countries were at different levels of development, and faced different circumstances. In this respect, regulators needed to assess their own level of regulatory maturity and compare themselves with regulators of the same levels. This could be done through assessments or audit studies.

8. Panelists stressed that regulators should facilitate capacity building for the ICT sector as a whole. They should develop ICT capacity at the national level through programmes such as digital skills programmes, and should utilize Universal Service Funds for such capacity building activities. Where necessary, they could set aside a separate capacity building fund. This way, regulators would become champions of capacity building and develop programmes through which they supported capacity

building in all key areas of the ICT sector. By assuming an active role in capacity building, regulators were in a position to influence the alignment of training to the needs of the regulatory authorities and the ICT sector. This would eliminate information and knowledge asymmetry among the sector players and consumers of ICT services.

9. Panelists indicated various ways in which regulators could contribute to capacity building, including:

    - the supply of reference materials, books and ICT equipment;

    - sponsorship of ICT innovations and activities;

    - support to training centres, and research activities;

    - dissemination of information on available training opportunities across the entire ICT sector;

    - establishment of advisory groups in various areas of the ICT sector, for example, an advisory group on a specific technology, consumer issues, promotion of digital literacy, broadband etc.

    - under job training programmes, establishment of an exchange programme/benchmark between employees of regulatory authorities and operators.

10. Regulators were also urged to collaborate with other institutions involved in capacity building to leverage on each other's strengths to provide ICT capacity building. An example was the Communications Authority of Kenya's collaboration with Kenya library services to support capacity in the installation of IT services in libraries throughout the country. Through this collaboration, 46 libraries were expected to be equipped with IT services in the month of September alone. The regulator was also collaborating with another institution (Computer lab) to provide more than 1000 schools with IT services, using the Universal Services Fund.

11. Delegates emphasized the need for a multistakeholder approach in regulatory capacity building. It was recommended that certain positions within regulatory authorities be filled by persons from academia and industry for a certain duration to inject their respective experiences to the regulators.

12. The panelist also highlighted that regulators should adopt a regional approach to capacity building. This was considered as cost effective and had the advantage of creating synergies.

13. Finally, delegates urged ITU to take advantage of its close relation with national Governments and regulatory authorities to ensure that regulators take a more active role in ICT capacity building across all sectors.