

Youth and innovation in Africa: harnessing the possibilities of Africa's youth for the transformation of the continent

Summary Report of Online (D-Groups) Discussion

New Technologies and Innovation Section Special Initiatives Division



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New Technologies and Innovation Section Special Initiatives Division United Nations Economic Commission for Africa July 2014

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Acknowledgement

The Economic Commission for Africa (ECA) hosted a moderated online discussion from 3 to 30 March 2014 on "Youth¹ and Innovation² in Africa: Harnessing the possibilities of Africa's youth for the transformation of the continent" on the electronic discussion platform Dgroups. The purpose of the discussion was to elicit ideas on how innovations in technology can be used to harness the possibilities presented by Africa's very young population to advance the African development agenda and to stem steadily rising youth unemployment rates.

The discussion provided a forum to a wide range of stakeholders an opportunity to identify ideas, policies and programmes and share experiences on how African youth can take advantage of the new opportunities presented by innovations and new technologies and of how African governments can take advantage of innovations and new technologies to harness the promise and potentials of their youth to transform their economies and improve the social welfare of their citizens. Topics discussed included skills acquisition and enhancement for improved employment prospects/performance of youth; removing or attenuating the constraint of access through technology; and financing technology and innovations using the dividends of Africa's resurgent growth. The discussion thus focused on answering the overarching question of how innovations in science and technology can build on the momentum of Africa's economic growth by removing barriers and increasing the relevant skill acquisition through academic, technical and vocational training for increased youth employability.

The discussion attracted 162 participants. Experts were drawn from civil society (youth groups); the public and private sectors; academia; experts in the areas of information and communications technology (ICT), innovation hubs,, planning; and representatives of national and international non-governmental organizations. The wide-ranging discussion was held simultaneously in English and French and resulted in 56 contributions³ from 27 participants,⁴ representing 15 countries. The discussion was moderated by Tsega H. Belai (NTIS Consultant⁵) and Mactar Seck (Economic Affairs Officer), under the direct supervision of Kasirim Nwuke, Chief of New Technologies and Innovation Section, and the general guidance of Fatima Denton, Director, Special Initiatives Division.

This report summarizes the discussions. It also provides based on the discussions a number of recommendations for the consideration of (and adoption by) policy makers on the possibilities that innovations and rapid technological progress present to Africa's youth and for the Continent's transformation.

We thank the staff of the New Technologies and Innovation Section for their inputs and contributions. The report is structured as follow: section 1 includes a discussion of the rationale behind the e-discussion; section 2 outlines the objectives of the e-discussion; section 3 summarizes the discussions; and section 4 highlights key recommendations for the consideration of Africans policymakers on options for harnessing, through innovation, the potential of African youth, with a view to formulating the continent's development agenda. Lastly, annex I provides a breakdown of participation regionally and annex II contains a list of the contributors to the e-discussion.

¹ Youth are defined is anyone belonging to 15-35 age bracket

Innovation, a broad-based concept encompassing novel approaches ranging from social/cultural innovation to scientific/technological innovation, is essential to lift youth out of poverty, unemployment, irregular, low wage and precarious employment in the informal sector and into quality education and training programmes tailored to tap into the economic potential of young people.

³ English: 39; French: 17.

⁴ See annex I for a complete list.

⁵ Pursuant to consultancy contract number 12643 and contract number 13656.

Background

An increasing number of African countries are characterized by dominant trends, including an expanding economy accompanied by significant improvements in social and political conditions; rapid technological development and innovation; and a growing population. Indeed, Africa's young and growing population⁶ present the continent with a youth bulge and with the opportunities and risks that come with it. High rates of youth unemployment continue to plague the continent,^{7 8} even though many African countries have experienced impressive rates of economic growth over the past decade. Ensuring that young people engage in technology and innovation should be a priority of African Governments, as advances in technology, particularly ICT, have resulted in global interconnectedness and increased opportunities for self-actualization. If harnessed properly, technology and innovation can offer opportunities for dealing with the challenge of youth unemployment, while a growing economy provides fertile ground for innovation and risk-taking by Governments and citizens. However, little is known about how best to bring all these together.

As the continent pursues a transformation agenda pursuant to the realization of the African Union's vision of "an integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in the global arena", it is evident that success will be elusive unless the potential of the young people of Africa is purposefully harnessed. African leaders have given credence to this view by identifying youth development and science, technology and innovation as key pillars of Agenda 2063 and the common African position on the development agenda beyond 2015.

Innovation in Africa is not a new concept. Human survival requires constant innovation and adaptation. For most Africans, innovation is a necessity, which enables them to navigate the daily precariousness of life. With African fortunes and prospects looking up and the continent making strides in its efforts to achieve its transformation agenda, there is an urgent need to introduce or intensify the use of science and technologies in traditional innovation.

To successfully realize the African transformation agenda, governments will have to capitalize on the potential of Africa's youth. Growing up in an increasingly free and fair continent, the young people of Africa are dynamic, forward-looking and best positioned to find innovative solutions to local challenges through the use of science and technology. To do this, conditions have to be suitable and young people need an environment in which barriers to self-actualization are broken.

In the light of this, ECA hosted a moderated online discussion entitled "Youth¹⁰ and innovation¹¹ in Africa: harnessing the possibilities of Africa's youth for the transformation of the Continent". The aim of the discussion was to lay the ground work for research on youth and innovation by answering the overarching question of how innovations in science and technology can be used to build on the momentum of economic growth in Africa, and to elicit ideas on how innovation in technology can harness the potential of African youth in order to advance the African development agenda and to stem steadily rising youth unemployment rates.

⁶ World Population Review, "African Population 2014", 14 March 2014. Available from http://worldpopulationreview.com/continents/africa-population/.

⁷ International Labour Organization, Global Employment Trends 2014: Risk of a Jobless Recovery? (Geneva, 2014).

⁸ International Labour Organization, Global Employment Trends for Youth 2013: A Generation at Risk (Geneva, 2013).

⁹ See www.au.int/en/about/vision.

¹⁰ Youth are defined as anyone belonging to 15-35 age bracket.

¹¹ Innovation is a broad-based concept, encompassing novel approaches. It is essential for lifting young people out of poverty; reducing levels of unemployment and irregular, low-wage and precarious employment in the informal sector; and improving the quality of education and training programmes aimed at tapping the economic potential of young people.

To tackle such a broad-ranging topic, the discussion focused on two themes in particular: (1) impediments young people in Africa face as regards innovations in science and technology; and (2) creating an enabling environment for youth and innovation in Africa. The present report summarizes and reframes the issues raised, the solutions offered, and the lessons learned as African countries work towards harnessing the potential of their dynamic youth. While the discussions raised a broad range of topics, ideas and experiences, the present report focuses on youth, innovation and science and technology in Africa.

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2. Objectives

The main objective of the online discussion was to elicit ideas on how innovations in technology can be used to harness the potential of Africa's young population in order to advance the continent's development agenda and stem steadily rising youth unemployment rates.

The e-discussion provided a wide range of stakeholders – civil society, policymakers, academia, the private sector, youth associations, and national and international non-government organizations – with the opportunity to identify ideas, policies and programmes aimed at encouraging African youth to take advantage of the new opportunities presented by innovation and the latest technologies.

Specific objectives of the e-discussion included:

- Providing a continent-wide platform for exchanging information, experiences and practices pertaining to new technologies and innovation involving youth in Africa
- Promoting policy measures for the creation of an enabling environment for young people to engage
 in innovation in Africa, including access to funding, public access to ICT, skills development and
 technology infrastructure.

Methodology:

The e-discussion was conducted over a four-week period. Participants were drawn from the existing ECA community of practice members and through solicitation. The group consisted of 162 participants, from across Africa and around the world. The sections that follow contain summaries of the contributions of the participants, arranged in the order in which the discussion proceeded.

3. Summary of discussions

3.1 Impediments African youth face with regard to innovations in science and technology

This section summarizes the key impediments African youth face with regard to access to innovations in science and technology as identified by participants during the first two weeks of the discussion.

3.1.1 Language-based barriers

Many languages are spoken in Africa. In addition to the thousands of indigenous languages, colonialism and the Arab conquest of North Africa left a legacy of Francophones, Anglophones, Arabophones and Lusophone Africans. For the majority of African youth, language barriers impede access to advances in science, technologies and innovation, including ICT, and consequently severely limit innovation.

There are various facets to the language debate. Some have argued that innovation in Africa predates new technologies, and that emphasis should therefore be placed not on determining which language is better suited for innovation in science and technology, but on providing education – including scientific education and technological training – in local languages, which will facilitate the use of tacit knowledge and local knowledge towards achieving innovation.

Focusing on local languages may be effective for new innovations. However, given that most new technologies and innovations, irrespective of country or language of origin, are widely made available in English first and that many African countries face budget constraints, thereby compelling them to adapt and build on already available technologies, it seems that improving English language skills among African youth will help them obtain wider access to existing technologies and open up more opportunities for them. Indeed, English is quickly becoming a *lingua franca* around the world, and almost all literature pertaining to innovation and science is readily available in English. According to a survey conducted by W3Techs, ¹² English is by far the leading language used on the Internet (56 per cent of users). Spanish is the fifth most widely used language (4.6 per cent of users), with French in sixth position (3.9 per cent), Portuguese in eighth (2.2 per cent) and Arabic in thirteenth (0.8 per cent of users). African languages are listed in the category "below 0.1 per cent usage rate". In addition, a recent ranking of the world's top universities shows a disproportionate number of English-language universities at the top of the list.

The onus for ensuring that youth have the necessary language skills rests with African Governments. For instance, if countries are to promote innovations in science and technology in local languages, Governments must strongly reinforce the role of local languages in their education system. This entails providing primary to tertiary education in local languages, translating modern science and technology concepts into local languages, and making technological applications available in local languages. While this seems like an ideal solution, as it will help to preserve local languages, African countries are hosts to tens, if not hundreds, of languages. As a result, carrying out such an endeavour would require a substantial investment of human and financial resources, national consensus and political will.

Increasing proficiency in English has also been touted as a solution for tackling language-based barriers, and in order to do so, African Governments must reframe their education policies. Specifically, Governments need to implement policies aimed at promoting the English language from primary

W3Techs, "Usage of content languages for websites", World Wide Web Technology Surveys. Available from http://w3techs.com/technologies/overview/content_language/all (accessed 6 August 2014).

¹³ The Times Higher Education World Reputation Rankings, "World reputation rankings". Available from www.timeshighereducation. co.uk/world-university-rankings/2014/reputation-ranking/range/91-100 (accessed 6 August 2014).

school to tertiary education, and set up specialized English learning centres for adult learners. If this option were to prevail, African countries that do not currently use English as the language of instruction would face tremendous structural, practical and financial challenges during the transitional period. Nevertheless, the successful transition of Rwanda from a Francophone country to an Anglophone one is evidence that such a transition, although difficult, is possible. It is worth nothing that following this transition, Rwanda is emerging as a major ICT hub in Africa, and that the ICT sector is now at the forefront of the country's transformation agenda towards a knowledge-based economy.

3.1.2 Skill-based barriers

As the world's population continues to grow, Governments are saddled with the responsibility of ensuring that opportunities are available for their young people as they enter the job market. In *The Global Employment Trends for Youth 2013* report,⁵ skills mismatch – that is, over-education/over-skilling and under-education/under-skilling – is identified as one of the main hindrances perpetuating global youth unemployment.

In spite of their growing economies, African Governments are unable to allocate adequate funds for the skills development of young people owing to budgetary constraints. Furthermore, skills mismatch in Africa is aggravated by funding shortages, resulting in low-quality education, limited access to secondary and tertiary education, overcrowding and understaffing of educational institutions, limited access to technical and vocational training, and poor access to information (few public libraries, limited access to ICT, etc.). The migration of educated and skilled Africans in search of better opportunities is further exacerbating the situation, as it creates a gap in knowledge transfer and results in a shortage of qualified professionals to teach in African educational institutions.

Significant and sustainable progress towards the economic transformation of Africa is not possible without tapping the potential of young people. The current generation of African youth is dynamic, motivated and better positioned than previous generations to play an active role in achieving the objectives outlined in their respective countries' transformation agendas. Building the skills capacity of young people in Africa in ICT, science and technology is essential if the continent is to become a global economy that is competitive, interconnected and highly digitized.

Skill-building aimed at tapping the full potential of African youth falls into two sets: skills acquired through education, training and exposure to new technologies, and skills needed to turn innovative ideas into reality, from research and development to production and distribution. Thus, skill-building in ICT, science and technology among African youth needs to be tackled through a two-pronged approach. The first one pertains to mainstreaming formal education in technologies, from the primary level onwards, into educational systems. This requires the following: building the capacity of teachers to enable them to incorporate technology in the curriculum; improving educational interaction by limiting the number of students per class; enhancing the infrastructure of institutions and creating world-class facilities that have fully equipped laboratories, thus enabling practical, hands-on education; and setting up higher education institutions that specialize in innovation and technologies. As the cost of such endeavours would be prohibitive for many countries, Governments should encourage public-private partnerships to provide the infrastructure necessary for technology-based education. The second approach involves organizing training programmes and workshops that would help young people to develop ideas and apply for grants and funding. This would include training on how to attract investment, develop managerial skills, and understand finance, marketing, production and distribution.

3.1.3 Access-based barriers

African countries have registered phenomenal growth in providing ICT services. For example, according to data from the International Telecommunication Union¹⁴ for 2014, Internet access in Africa has more than doubled from 9.6 per cent in 2010 to 20 per cent, while mobile broadband penetration levels reached 19 per cent, and mobile-cellular penetration levels soared to 69 per cent over the same period. However, services that require significant infrastructure, such as fixed telephone subscriptions and fixed broadband, remain scarce across the continent. A closer look at ICT infrastructure reveals that, as with other services such as education and health, rural areas across Africa – which is where the great majority of African youth reside – are significantly underserved as compared to urban areas.

While weak infrastructure is pervasive across the continent, the rural-urban divide among young people is deepened by weaker infrastructure in rural areas. High cost considerations have limited expenditure on rural ICT infrastructure. As African economies continue to grow, investments and the development of rural areas will provide young people from rural areas with greater exposure to technologies and improved education, training and employment opportunities, and this will help to bridge the gap between rural and urban youth and attenuate or minimize the impetus for rural-urban migration. To further bridge the divide, setting up higher education institutions in rural areas and using ICT to build linkages between rural and urban educational establishments – through schemes such as virtual labs, e-classes and webinars – could equalize learning opportunities.

Compounding the problem of weak infrastructure is inadequate access by rural youth to new technologies and innovations. Young people in rural areas need to be exposed to technologies and ICT services that are adapted to their daily activities through policies aimed at promoting computerization of rural schools, ensuring that teachers are adequately trained and developing solid curricula with a focus on technology. Exchange programmes for rural and urban youth could help to narrow the divide by making young people in urban areas aware of the challenges faced by those in rural areas. Additionally, such programmes would widen rural youth's exposure to the versatilities of new technologies, which would stimulate innovative thinking.

Lastly, instilling a culture of entrepreneurship among young people is essential, particularly in rural areas. One viable approach for doing this would be to establish entrepreneurship support groups that offer training in basic business skills and technologies at the local level.

3.2 Towards an enabling environment for youth and innovation in Africa

The second two weeks of the online discussion focused on how to create an enabling environment. The exchanges elicited a wide spectrum of responses that can be broadly summarized as follows:

Political dimension

Long-term strategies need to be introduced with a view to stimulating the creativity of young people; providing them with quality education geared towards the global market; strengthening their capacity through training and workshops; facilitating and supporting the establishment of youth associations; ensuring equal opportunities for all; and breaking down socioeconomic barriers. All of these are central to developing and harnessing the potential of African youth. Additionally, political commitment is needed in order to develop ICT infrastructure and to promote research and development in science and technology.

¹⁴ International Telecommunication Union, World Telecommunication/ICT Indicators database 2014, 18th edition.

Youth Innovation Challenge programme

Launched in 2009, the Youth Innovation Challenge programme was designed to build a culture of innovation among African youth by promoting targeted partnerships with researchers, private sector actors, civil society actors and policymakers. The programme is aimed at stimulating the culture of innovation among young Africans through entrepreneurship incubation programmes.

Fund for Internet Research Education (FIRE) programme

FIRE is a grants and awards programme designed to encourage and support the development of the Internet and technical capacity-building in Africa by emphasizing the role of the Internet in the social and economic development of the continent.

www.fireafrica.org

Providing quality education

With many African countries struggling to meet Goal 2 of the Millennium Development Goals (universal primary education), already tightly stretched budgets are being spent on providing basic access to education, rather than ensuring quality education. To tap their full potential, African youth need to receive an education that is relevant and is directed towards developing the skills needed to be productive adults. National curricula must be reviewed and adapted to current global situations. This could be achieved by, for example, introducing business concepts and teaching computer literacy in the early stages of education. Schools should also organize workshops so that students can experiment with the practical applications of theories learned.

Mentoring initiatives

Young Africans who have participated in mentoring initiatives have demonstrated impressive abilities when it comes to scientific and technological innovation.¹⁵ Private-public partnerships among ICT firms, universities and research institutions can be promoted by Governments through policies that require ICT operators and other technology-driven industries interested in operating in Africa to offer mentoring and short-term internships as part of their corporate social responsibility programmes. Young people in Africa must also be encouraged to actively seek out mentoring opportunities themselves, as the lessons learned and guidance received from such experiences are invaluable.

Stoking creativity among African youth

Youth innovation is closely linked to creativity and imagination. Promoting youth innovation begins at childhood during play, is further developed through adolescence, and is brought to fruition in adulthood. To this end, parents, the community, instructors and employers all have a role to play in recognizing, encouraging and developing the creative abilities of young Africans. Additionally, creative problem-solving skills can be encouraged through national mentorship and internship programmes, as well as through national competitions targeting different age groups.

Fostering a positive environment

Young people are highly susceptible to the opinions of the adults around them. Fostering youth innovation and creativity requires the full support of Governments, the private sector, the local community, the educational system and family networks. Teachers, trainers and supervisors need training in how to communicate with young people, particularly adolescents. They also need to gain a proper understanding of how to motivate young people, how to awaken curiosity and how to translate it into creative thinking. Young people should also be regularly exposed to successful innovators, inventors, scientists and entrepreneurs.

This has specifically been seen through two Nigerian programmes, Aiki Nigeria and Paradigm Initiative Nigeria. For more details, please see www.aiki.ng/ and www.pinigeria.org.

Tony Wagner, Creating Innovators: The Making of Young People Who Will Change the World, (New York, Scribner, 2012).

Awareness building

African societies are characterized by strict age-based hierarchies. A significant component in building an enabling environment for youth and innovation is to provide young people with platforms to share ideas, discuss challenges, exchange experiences and seek guidance. These platforms can be developed through the combined efforts of the public and private sectors and in the form of workshops, programmes, competitions and associations. Additionally, at the national level, they can serve as outlets for students to present projects, research and inventions to the wider public, instead of just gathering dust in various university offices.

Entrepreneurial support

To develop their entrepreneurial skills, African youth need guidance, which can range from providing analysis, such as market and cost-benefit analysis, to sourcing funding. Entrepreneurial support also involves providing young people with access to capital to enable them to launch their ventures. Additionally, Governments should support youth ventures by offering free vocational education, mentoring programmes and incentives on production and programmes for the commercialization of innovations.

Network building

African youth have to be connected with their counterparts at the community, national, regional and continental levels. Creating networks and synergy among young entrepreneurs and innovators, as well as with the wider business community and relevant associations, will result in a community of likeminded people, expose young people and their innovations to a wider audience and foster collaboration.

Promoting incubation centres

Youth-oriented incubation centres are nurturing centres aimed at providing young people with an outlet for developing their innovations and business ideas, enhancing their entrepreneurial capabilities, benefiting from mentoring opportunities and obtaining access to a wide range of resources and networks. In recent years, there has been a surge in incubation centres across Africa. Some commendable examples are the Chandaria Business Innovation and Incubation Centre of Kenyatta University in Nairobi, iHub, the Southern Africa Innovation Support (SAIS) Programme community, the Co-Creation Hub Nigeria, Hive Colab and IceAddis.

Subsidized access to new technologies

The costs associated with new technologies can be prohibitive for African youth, particularly for those in rural areas. Governments should, therefore, provide young people with subsidized access to new technologies and to reliable communication services. Subsidies targeted at making communication easier and more rapid through reduced tariffs, taxes and levies for small businesses and youth ventures will accelerate the development of new technologies. Governments can also initiate technological partnerships and barter for mutually beneficial trade with private companies and with other countries in Africa.

Infrastructure

Developing sound infrastructure, such as roads, electricity and communication networks, is central to harnessing the potential of African youth.

Research and development

Strong national frameworks for research and development are imperative for innovation. Many have questioned whether African Governments are currently providing the support needed for research institutions to flourish. Countries that have successfully developed innovations have strong research and development policies in place, which, along with adequate funding and monitoring of quality,

promote partnerships among research institutions and the private and public sectors. Additionally, linkages between academia and industry give students the opportunity to witness the practical application of the theories they have studied.

Access to funding

African innovators, young or old, face tremendous challenges in bringing their innovations to fruition due to lack of funding for research and development, and difficulties developing prototypes, formulating business plans, setting up production facilities and distribution channels, and marketing – all of which require capital investment. Most African banks practise collateral-based financing, making it nearly impossible for young people to apply for loans and grants. Youth-dedicated funds should be set up to provide young innovators with the seed money to help them realize their aspirations. Additionally, youth-targeted workshops on applying for funding and grants (locally or abroad), budgeting, forecasting and accounting should be provided.

Regulatory reforms of intellectual property rights

Enforcement of intellectual property rights is very weak in many African countries. In countries where tendering and patenting services are available, those processes tend to be time consuming, complex and costly. To empower young entrepreneurs across Africa, they need a guarantee that their ideas and inventions will not be stolen and copied by those who have the necessary capital or the right political connections. Two regional frameworks, the *African Regional Intellectual Property Organization* and the Organisation Africaine de la Propriété Intellectuelle, guarantee intellectual property rights regionally for Anglophone and Francophone countries, respectively. However, as these two organizations are not yet linked, patents issued under the framework of one of the organizations are not recognized under the framework of the other. Consequently, innovators have to submit separate patent applications to secure their intellectual property rights.

Promoting local production

If young innovators cannot envision a market for their products, they are less likely to follow through on their ideas. African markets are increasingly dominated by inexpensive, low-quality imports that undercut more expensive, locally produced goods. Governments should implement polices that support local production through subsidies, tax breaks or increased custom fees on imported goods.

4. Key recommendations and conclusion

The e-discussion on "Youth and innovation in Africa: harnessing the possibilities of Africa's youth for the transformation of the continent" has helped to underscore the urgent need for Governments, development partners and civil society organizations to work together to create an enabling environment for young people and innovation in Africa. It was a great opportunity for experts from local and international organizations, young entrepreneurs and academia to share ideas, knowledge and experiences, including best practices in efforts to create an enabling environment for young people to play an active, or even leading, role in enhancing new technologies and innovation in Africa.

The e-discussion took place at a very opportune time, allowing stakeholders from 15 countries to voice their concerns and share ideas on creating enabling environments for youth and innovation in Africa. The outcome of the e-discussion proved to be very informative and valuable. A number of lessons learned emanating from the e-discussion offer useful insights to be taken into account when formulating policies on new technologies and innovation.

The discussion has spotlighted the importance of developing contextualized solutions to African development challenges. Africa is at a unique crossroads in which serious commitment and investment in young people will be an important factor in fulfilling its development and transformation agenda. During the e-discussion, political commitment was highlighted as an essential requirement for harnessing the potential of African youth.

African Governments have already started implementing initiatives aimed at harnessing the potential of young people. However, as pointed out during the e-discussion, young people continue to face a number of challenges including unequal access to ICT and quality education, low levels of participation in research and development, weak youth empowerment, and a lack of an enabling environment that stimulates a culture of creativity and innovation. Participants also underscored the lack of access to financial services as a major barrier to entrepreneurship for young people.

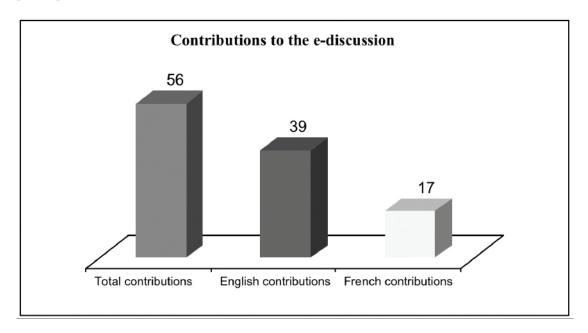
It is therefore important that Governments pursue policies aimed at providing equitable access to ICT and quality education; encouraging research and development; empowering young people; stimulating a culture of creativity and innovation; breaking down socioeconomic barriers; and facilitating access to funding. This will enable African Governments to create environments conducive for key stakeholders - civil society organizations, development partners, private sector actors and community associations - to work with young people in taking advantage of the new opportunities presented by innovation and new technologies.

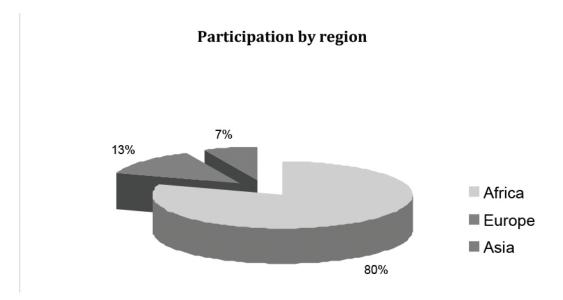
It should be noted that, in spite of the lively debates the e-discussion sparked, the participation rate compared to the number of invitees was low. Only 27 of the 162 participants gave responses, with 15 countries represented by the 56 interventions made. Contributions in French accounted for 29 per cent of the interventions. The participation of women was also low. It is difficult to analyse the reason for this low participation; there is a need to reconsider the modality of an online platform, its duration and the role of the moderator, with a view to making the e-discussion more interactive and increasing the number of active participants.

Annex I Participation

The discussion was held on a knowledge-sharing platform operated by ECA (https://.org/uneca/youth-innovation-africa) over a four-week period. The platform was freely accessible to all of the participants, who also had the option to send contributions via e-mail to afr-youth-innovation@uneca.org.

The scope of the e-discussion was wide ranging. The group had 162 participants, which included representatives of civil society (youth groups), members of the public and public sectors, experts in the areas of ICT, innovation and new technologies, planning experts, members of academia, representatives of national and international non-governmental organizations, and young entrepreneurs. The discussion was held simultaneously in English and French, and resulted in 56 contributions¹⁷ from 27 participants from 15 countries.





¹⁷ English 39; French 17.

Annex II List of contributors

In order of contribution:

- 1. Joshua Amposen (Ghana)
- 2. John Makoni (Zimbabwe)
- 3. Santosh Kumar Mishra (India)
- 4. Keston Perry (United Kingdom of Great Britain and Northern Ireland)
- 5. Rasheedat Sanni (Nigeria)
- 6. Hilary Nwokeabia (Switzerland)
- 7. Maryam Cam (Nigeria)
- 8. Valerie Cho Nkarimbi (Cameroon)
- 9. Aliou Diouf (Senegal)
- 10. Abebe Chekol (Ethiopia)
- 11. Claude Migisha (Rwanda)
- 12. Barbara Macon (Benin)
- 13. Hope Waira (Uganda)
- 14. Phillipe Junior Sibir (Central African Republic)
- 15. Ian Mutamiri (Zimbabwe)
- 16. Pierre Dandjinou (Benin)
- 17. Emmanuel nene Odjidja (Ghana)
- 18. Farell Folly (Benin)
- 19. Daniel Dindji (Côte d'Ivoire)
- 20. Patricia Senghor (Senegal)
- 21. Mistoihi Abdillahi (Comoros)
- 22. Thierry Edoh (Benin)
- 23. Liranso Gebreyohannes (Ethiopia)
- 24. Armel Keupondjo (Côte d'Ivoire)
- 25. Ajoke Omoware (Nigeria)
- 26. Bruno Soufo (Cameroon)
- 27. L. Tchonang (Cameroon)