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Innovation and Technology Day

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Summary prepared by the UNCTAD secretariat

Introduction

1.   Innovation and Technology Day is an open forum for technology pioneers, entrepreneurs, policymakers and experts and is designed to facilitate dialogue and action on key issues related to innovation, technology and development. It is also a joint initiative of UNCTAD and the Qatar Foundation aimed at unlocking human potential and fostering sustainable development. It has the following specific objectives:

        (a)   To highlight the importance of technology and innovation in achieving faster economic growth and advancing sustainable human development;

        (b)   To explore how policies can be improved to make science, technology and innovation (STI) a more powerful lever for development.

2.   There can be no sustainable development without STI. Policymakers increasingly recognize STI as a powerful instrument that can be used to raise productivity and achieve the Millennium Development Goals. However, innovation is not an automatic consequence of simply acknowledging its relevance.

3.   The challenges of innovation take different shapes in various parts of the world, but even when some people and enterprises in developing economies have been able to achieve innovative breakthroughs, their path towards better paid and higher value-added activities often remains thwarted.

4. Moving away from such patterns requires political will as well as active engagement by government, academia and the business world. Further, developing effective STI strategies calls for a better understanding of the innovation process in developing countries.

Proceedings

5. The meeting was opened by the Secretary-General of UNCTAD and the Executive Chairman of the Qatar Science and Technology Park, followed by a keynote address by the former President of the Republic of Finland. The remainder of the day was moderated by David Foster, Al-Jazeera, and divided into three sessions. Session 1 featured the following guest speakers: Soumitra Dutta, Professor, INSEAD; Hermes Chan, Co-founder, President and Chief Executive Officer of Medmira; and Khalid Al-Mohannadi, Co-founder of Sago. The guest speakers in session 2 were Tissa Vitarana, Minister of Scientific Affairs of Sri Lanka; José Urquizo Maggia, Minister of Production of Peru; and David Mowery, Professor, University of California at Berkeley, United States of America. Session 3 featured guest speakers Hessa Al Jaber, Secretary-General of ICTQatar; Eric Hersman, Co-founder of Ushahidi; Mongi Marzoug, Minister of Information and Communication Technologies of Qatar; and Fadi Nasser, Chief Alliances Officer of MEEZA, Qatar.

6. In the ensuing discussion, participants drew lessons from the experiences of those whose innovations had changed people's vision of the world, and explored the policy options available to developing countries to maximize the benefits of such innovations. It was necessary to devote adequate attention to STI to address the world's pressing development challenges. That applied to issues related to climate change, food security, poverty and bridging the gaps of knowledge and technology, among other factors. It was therefore necessary to bring technology and innovation higher up on the global development agenda.

7. Against this background, session 1 discussed what was needed to foster innovation in different contexts and industries. Speakers said that some of the general characteristics common to many successful innovators were aspiration, curiosity, passion, creativity, continuous learning and persistence.

8. At the same time, innovation was not happening in a vacuum. The extent to which innovation could be nurtured depended also on the ecosystem of which the innovators were part. The key elements of an innovation ecosystem were adequately skilled human resources and access to markets and capital, especially when combined with knowledge.

9. Local role models could also be instrumental in changing perceptions among young people. In India, for example, more youths were aspiring to become entrepreneurs and to set up their own companies than was the case a decade ago.

10. There was a need to create a culture that accepted failure. Many start-ups failed. The educational system should inspire and encourage thinking out of the box rather than stifling creativity.

11. Governments could play an important role in fostering innovation, as evidenced by the example of the Republic of Korea in supporting key players in innovation and the recent initiative by the mayor of New York City to launch competitive bids in building a high technology university. According to some experts, crucial elements in a country's catching-up strategy should include greater spending on research and development (R&D), especially in areas of relevance to the current industrial structure such as agriculture; strong linkages among actors within an ecosystem and with the rest of the world; proactive policies to foster technology adoption; and investment in human capital development.

12.   In Africa, many countries were providing an increasingly attractive environment for innovation, thanks to economic growth, a rising middle class and improved connectivity through information communications technology (ICT). Innovation today was happening everywhere – on the street, in farms, universities, laboratories, incubators and in both small and large companies. In Kenya, a whole new innovation ecosystem had emerged around mobile telephony and applications. The iHub in Nairobi, for example, had some 7,000 members, and had seen the birth of 45 new companies since 2010. This case illustrated the importance of having a space to help generate innovative activity.

13.   The experience of Peru and Sri Lanka illustrated the policy challenges facing governments that sought to promote innovation. Key challenges included boosting education in natural sciences, diversifying the economy towards more knowledge-based activities and increasing productivity in smaller enterprises. In this context, greater emphasis on STI, funding research and development, education and business facilitation were among the key approaches.

14.   Governments also needed to be mindful of the importance of creating job opportunities for young graduates, not least to avoid brain drain. There was a need to break the vicious cycle of outdated STI infrastructure, weak output from investment in R&D, limited visibility of R&D benefits and weak investment in STI infrastructure. This further underscored the strategic importance of active government policies on STI.

15.   The discussion showed that how recent changes in the ICT landscape was affecting innovation and development in the global South. Experts from the Arab region and Africa said that the rapid spread of increasingly powerful ICTs was changing the face of innovation and that such technologies served both as catalysts and enablers.

16.   In the Arab region – not least in Qatar – the ICT sector had grown rapidly, especially in mobile broadband and digital media. That trend was creating many new commercial opportunities, for example, in relation to digital content adapted to the Arab markets. The revolution in Tunisia was used as an illustration of the transformative power of digital technologies. ICTs had opened up more space for innovation in that country, with media playing a key role in the process.

17.   At the same time, many people in developing countries were not yet connected to the Internet. It was therefore important to focus not only on the latest and most sophisticated technologies, but also on ensuring basic connectivity for those that had yet to benefit from telecommunications. In this context, access to energy should not be overlooked. This was necessary to achieve a more inclusive development based on the knowledge economy. There was a need to bridge prevailing gaps between different segments of society, geographical regions and generations.

18.   Particular attention should also be given to the young generation. In many parts of the developing world, there was a great need to create more job opportunities. It was estimated that in the coming years, some 75 million new jobs would be needed in the Arab region alone. In some surveys, youths had indicated that they would like to see their countries become technology proficient. Young people in the Arab region were generally more technology savvy than earlier generations, and the adoption of ICTs was changing the way in which they interacted and perceived their future. It was therefore important to ensure that education systems became better at taking technology developments into account.

19.   In terms of government regulation, some experts emphasized the importance of encouraging competition among ICT service providers. They cautioned against excessive regulation, as that might stifle innovation. At the same time, in the wake of the Arab Spring, it was important to build trust among users of ICT and to allay fears that government would be monitoring and controlling its use.

20.   With regard to the implications for the United Nations, participants stressed that all agencies engaged in ICT for development should align their work to boost the effectiveness of the United Nation system's support to member States in that area.

21.   The following conclusions were drawn from the meeting:

(a)   There was a direct link between technology and innovation on the one hand and economic and social development on the other. It was essential that the technology dimension be better reflected on the development agenda;

(b)   New technologies, including ICTs, biotechnology and nanotechnology, were creating new opportunities in countries at varying levels of development;

(c)   To seize those opportunities, policymakers, innovators and other stakeholders should work together with a view to building indigenous capabilities – relying exclusively on imported technology was not a recommended option;

(d)   It was important to nurture a culture that accepted failure to facilitate innovation. In addition, political will was key;

(e)   UNCTAD must, on the basis of experience and through dialogue, help member States identify the policies that would allow countries at a certain level of development to leverage STI for development. A key task for UNCTAD would be to help provide a stronger interface between STI and policymaking.

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