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Report of the Multi-year Expert Meeting on Investment, Innovation and Entrepreneurship for Productive Capacitybuilding and Sustainable Development on its sixth session

Held at the Palais des Nations, Geneva, 2 and 3 July 2018





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Introduction

The sixth session of the Multi-year Expert Meeting on Investment, Innovation and Entrepreneurship for Productive Capacity-building and Sustainable Development was held at the Palais des Nations in Geneva, Switzerland, on 2 and 3 July 2018.

I. Chair's summary

A. Opening plenary

1. In her opening statement, the Deputy Secretary-General of UNCTAD highlighted three issues. First, the Multi-year Expert Meeting needed to show how science, technology and innovation policy could be relevant in achieving the Sustainable Development Goals, beyond the usual objectives, such as economic growth. Second, current understanding of innovation needed to be rethought in order to better address social objectives. Third, the need for an improved understanding of innovation required embracing a greater scope of stakeholders, including citizen communities, non-governmental organizations and society at large. To advance on such an enhanced agenda, all stakeholders needed to work in a spirit of partnership and teamwork.

2. Introducing the note by the secretariat entitled "Effectively harnessing science, technology and innovation to achieve the Sustainable Development Goals" (TD/B/C.II/MEM.4/17), the Director of the Division on Technology and Logistics emphasized that national innovation strategies and systems were required to frame policy actions. Engaging with new actors would be necessary to identify specific Goals-related challenges. This would impact science, technology and innovation policy reviews and development, as it would provide for a change in methodological approaches. With regard to the science, technology and innovation policy reviews of UNCTAD, there was a need, therefore, to broaden the policy domain and engage with new science, technology and innovation stakeholders, as a challenge-driven policy domain embedded in the Goals framework.

B. Effectively harnessing science, technology and innovation to achieve the Sustainable Development Goals

(Agenda item 3)

1. New directions for science, technology and innovation policy and methodology: Rethinking science, technology and innovation policy with regard to the 2030 Agenda for Sustainable Development

3. During the first informal session, the first panellist emphasized the high level of compatibility between the 2030 Agenda and the national development strategy of the Dominican Republic. He noted that technology was a cornerstone of policy aimed at changing the production matrix of the economy and cited several figures underpinning this narrative. However, there was still concern with regard to relatively elevated levels of poverty and unemployment, coupled with significant levels of informal job creation. This situation had prompted a rethinking of development policy. The major risk lay in not having the ability of foresight, which could be enabled by a better understanding of science, technology and innovation. The panellist noted that, in order to achieve such an understanding, the Dominican Republic was strengthening its capacity for science, technology and innovation in both education and industry, and had established a development strategy and formed an innovation fund to bring together universities and industries. Finally, the Dominican Republic was developing broad collaborations with entities such as UNCTAD, the United Nations Industrial Development Organization and the United States of America Agency for International Development and implementing pilot projects focused on training in innovation policy, to replicate and adapt established models.

4. The second panellist highlighted that the Government of Oman, noting that the current trajectory and growth impetus were not sustainable and that a reorientation towards science, technology and innovation-led development was required, had developed a

national innovation strategy. Following the UNCTAD science, technology and innovation policy review, Oman had developed a national vision based on innovation, set up a team and dedicated resources with the Research Council to develop and implement the national innovation strategy and decided on a set of pillars and deliverables with specific key performance indicators of achievement and time frames. Other initiatives had also been implemented to provide better support for research, start-ups and innovative firms and entrepreneurs, such as technology transfer centres, incubators and industrial innovation centres.

5. The third panellist discussed several current initiatives such as the Annual Multistakeholder Forum on Science, Technology and Innovation, the Technology Bank for the Least Developed Countries, the Technology Facilitation Mechanism and the United Nations Inter-agency Task Team on Science, Technology and Innovation for the Sustainable Development Goals. Such initiatives had, in part, been triggered by the 2030 Agenda and the Goals, which presented significant challenges and opportunities. The policy work had many layers, including considering the role of science, technology and innovation under specific Goals, and also raised questions about how the 2030 Agenda affected science, technology and innovation-related thinking and practice. A key concern was whether indicators were providing the feedback and data needed for evidence-based policymaking with a view to providing the adjustments needed to achieve the 2030 Agenda. Capacity-building was another key concern and recent efforts in inter-agency cooperation within the Inter-agency Task Team had yielded good initial results, yet there were concerns about the sustainability of such initiatives.

6. The fourth panellist highlighted the challenge of steering innovation efforts towards achieving the Goals, given that innovation not related to the Goals was also advancing and would not necessarily price itself out of the market in favour of pro-Goals technology. He emphasized that the notion that education would drive innovation towards sustainability or the provision of business support should not be taken for granted. A more Goals-focused policy approach was therefore needed. Space for experimentation and policy learning was also required, to develop experiences that could be scaled up. Such efforts were closely linked to governance, which included coordination and cooperation between many stakeholders. Broadening policy reviews beyond development towards achieving the 2030 Agenda was not a simple task, as many stakeholders had narrow interests and it was often difficult to develop policy action for systemic issues such as sustainable development. Improved coordination and cooperation among United Nations agencies would therefore be welcome, yet might lead to other challenges with regard to funding and institutional mandates.

7. The fifth panellist noted that the rationale for public policy in science, technology and innovation had changed from dealing with market failure to supporting firms and entrepreneurs and addressing system failures. More recently, discussions had focused on the problem of directionality, or a weakness in strategic perspective on science, technology and innovation, in particular when there was a need to develop targeted responses to challenges such as those presented by the targets to be met under the Goals. To address this weakness, a new framework based on sociotechnical transitions had been developed, within which policy experimentation needed to be encouraged. The provision of technical advice and the development of knowledge brokerage platforms were key in advancing science, technology and innovation. Finally, developing countries, along with developed countries, were key players in forging new sustainable technological trajectories.

8. During the ensuing discussion, one expert addressed the issue of obtaining correct data that reflected actual innovative performance, in particular, best practices in data collection and classification. Another expert noted the difficulties in moving towards implementation given that ministries might have their own objectives and targets. In addition, one expert considered the relevance of international practices for collecting and using data on innovation in developing countries and noted that modes of cooperation between agencies on science, technology and innovation policy reviews needed to be further enhanced.

9. Another expert emphasized the importance of immigration and diaspora policy as an effective mechanism to enable knowledge transfer and technology upgrading.

Another expert noted that national innovation ecosystems were based on industrial development and that, as national experiences involved addressing familiar problems related to communications and linkages between stakeholders and agencies, the type of methodological support that could be provided by UNCTAD could be considered.

10. The discussion served to emphasize that the vision of the 2030 Agenda brought clarity to its policy framework and that it was useful for advancing the innovation agenda. With regard to the role of indicators in securing funding for public innovation programmes, one panellist noted that there might at times be a trade-off between the depth and breadth of data. Dialogue among science, technology and innovation stakeholders was crucial for developing innovation strategies as it increased the sense of ownership and shared vision. Finally, another panellist stated that policy reviews provided opportunities for policy learning and that lessons learned were often best captured qualitatively, as the diversity of approaches made comparisons difficult at a data-analysis level.

2. Sustainable action for sustainable development: Industries and enterprises for achieving the Sustainable Development Goals

11. During the second informal session, the first panellist discussed policy efforts to improve conditions for science, technology and innovation-led development in Ethiopia. Diverse lines of action had been pursued, including support for microenterprises and small and medium-sized enterprises, through credit services and marketing facilities, as well as business incubation centres and facilitation for women and youth entrepreneurs. The strategic direction of the second Growth and Transformation Plan 2015–2020 focused on technology transfer and strengthening the national innovation system. In 2012, Ethiopia had adopted a national science, technology and innovation policy and an implementation plan. The policy was currently under review in partnership with UNCTAD.

12. The second panellist emphasized that technology, knowledge and finance were available to solve the sustainable energy challenge. There were multiple benefits to investment in renewable alternative energy, moving beyond economic growth alone to address issues related to human rights, welfare and aspirations. Innovation could be found in strategy and business models. Experimentation was necessary and demonstrated by, for example, current efforts in Ethiopia, involving the building of small solar and wind-power generating plants to provide power to ten universities. Other similar projects were ongoing in Burundi and Rwanda. The key to driving innovation no longer lay in the cost of technology and its deployment but in leadership.

13. The third panellist stated that a key problem was the view that renewable energy and climate-related targets were a burden rather than an opportunity for investment and growth. One significant obstacle was poor horizontal communications, which worked against entrepreneurial initiatives. The issue of gender equality was of concern as, even when women were well represented among the staff of firms and organizations, moving up institutional hierarchies, women were increasingly less represented in leadership positions. With regard to work in the agricultural sector, free energy audits for women entrepreneurs could help raise awareness about the potential gains of renewables. Finally, finance was a perennial problem, with intermediaries marking up interest rates on funds directed to development purposes. There was space for many activities such as mentoring, scholarships and support for clean energy transition.

14. The fourth panellist provided an example of an innovation and entrepreneurial path, highlighting that although there was no lack of human capacity, financing was difficult to obtain from traditional sources. The availability of diverse stakeholders and expertise was a key issue and partnerships should be sought broadly to enable access to technical and operational competencies. In the example situation, initial funding had been enabled through a grant supported by employees and former employees. From a policy perspective, solutions involved bringing in firms during the policy development process rather than developing policy in public bodies in isolation.

15. The UNCTAD secretariat highlighted recent policy analysis focused on entrepreneurship in the least developed countries. The 2030 Agenda implied broad transformative processes and these could only be made possible with the active engagement of firms and entrepreneurs. The entrepreneurial ecosystem had therefore become a key

policy consideration. A large proportion of entrepreneurs in the least developed countries operated by necessity and therefore had a limited innovative capacity. When firms and entrepreneurs managed to grow and survive, technology transfer and tacit knowledge transfer became possible. Public policy needed to support entrepreneurship and technology transfer through an active industrial policy, as well as supporting South–South cooperation.

16. During the ensuing discussion, two experts noted that good governance was a key enabler of innovation. However, all stakeholders needed to be innovative, including Governments and public agencies. One expert provided an example of efforts in Georgia, where blockchain technology was used to integrate land registration, artificial intelligence and chatbot programmes were used in university information systems and work was ongoing on providing electronic services to citizens.

17. Another expert underlined that while there needed to be a certain level of investment in research and development, the main challenges were having focused leadership in place and changing mindsets. A large portion of research and development spending was in the public sector and not often linked to firms and industries. Another expert noted that the costs of training and research and development could be absorbed through partnerships that provided certainty for investors. Other experts noted that there were many synergies to be gained through diverse partnership and stakeholder cooperation models, that cooperation was required in the private sector and that entrepreneurs and firms might look more to each other for support rather than depending solely on public policy.

18. With regard to energy, Goal 7 directly addressed its access, affordability and sustainability, yet energy was also an enabler for the achievement of the other Goals, for households and industries and with regard to education. The secretariat noted that lack of electricity reduced educational outcomes in the least developed countries and similar difficulties had been encountered in the health sector. In this regard, one expert highlighted that while the Goals were global, policies needed to be nationalized in order to be implemented. For example, Jamaica had developed specific national energy targets, including with regard to renewable energy. The liberalization of energy production enabled microproducers to sell to the grid. Another expert noted that energy access empowered the rural economy and reduced migration to urban centres, and reiterated that the achievement of all 17 of the Goals depended on access to energy. Yet another expert considered the support available for enhancing South–South cooperation and the facilities and types of investments and technology transfer that had been enabled.

19. The panellists underlined that the source of energy generation was a key concern as certain modes had significant impacts on health, as well as cost implications that held back poverty alleviation. In addition, South–South cooperation was advancing, as developing countries such as China and Turkey were investing in technology and knowledge transfer to other developing countries and the least developed countries; the modalities were diverse and involved both public and private-sector actors. Finally, the participation of citizens was a key input to the democratization of energy production through small-scale solar and wind-power generation.

3. Social innovation and entrepreneurship with regard to the 2030 Agenda and the Sustainable Development Goals

20. During the third informal session, the first panellist highlighted that social innovation developed around notions of purpose, unmet needs and impact. Achieving impact was as important as taking action. Social innovation focused on societal goals and impacts and was highly consistent with the 2030 Agenda. Linkages, knowledge flows, mindset changes and leadership capabilities were important components. The key challenge for social entrepreneurs related to how to scale up without resulting in mission drift. Social entrepreneurs were also more risk averse. Possible ways forward included getting large firms to embed social innovation in ongoing commercial activities and adopting a doing-well-by-doing-good approach.

21. The second panellist detailed the support of Impact Hub, a platform for assisting start-up communities, for a bottom-up approach to developing social innovation and supporting social entrepreneurs. There were at present more than 100 Impact Hubs globally, associated in one network. In-house institutional innovation within existing firms

and organizations was also supported. New types of collaboration and partnerships, in connection with Goal 17, were being explored, as the Goals were universal and achievements shared globally. Policy support could involve improving regulatory processes, legal structures and financial support. More strategically, Governments could develop their own Goals-related maps. For example, legal structures related to the Goals could present challenges for social entrepreneurs. Obtaining access to capital was also difficult for social entrepreneurs as their goals were a poor fit for the financing models used by banks and investors. The taxation of start-ups focusing on social innovation projects that help progress towards the Goals might require rethinking.

22. The third panellist referred to the challenge of reversing the low success rate of start-ups, which was often less than 20 per cent. Surveys of successful start-ups indicated that success factors included the human entrepreneurial qualities of passion and teamwork and environmental support. To enable success, a mind-match alignment was needed at the firm level, with competencies and aspirations matched to tasks and assignments at the firm level. Therefore, initial hiring and assignment designations in start-ups were key considerations. At the macrolevel, failing firms, including start-ups, posed an unnecessary cost to society and were a source of waste and missed opportunities. The panellist underlined the importance of mindsets when starting new ventures and the role of educational institutions in forming mindsets. There was a significant role for education and the training of teachers was a crucial element of an entrepreneurial ecosystem.

23. During the ensuing discussion, one expert considered the role of civil society in connecting social innovation and the private sector, in particular in networking firms and social innovators. Another expert considered tools for enabling market access to international markets for socially innovative firms. The discussion focused on the possibility of cultivating a culture of innovation. Two panellists noted that building trust was key to deconstructing silos and that mindset changes occurred during exchanges of competencies targeted at achieving particular groups of Goals. In addition, developing actions with purpose, yet within the framework of a project, might help, and there was a trade-off between seeking impacts and establishing feasibility. Personal interaction and a common purpose were important components inbreaking silos, and challenges related to the circular economy presented an opportunity to explore common purposes. The relative scarcity of funds in developing countries made it even more important for investments in innovative firms to succeed at a higher rate than in developed countries since, when funding was scarce, partnerships and cooperation, both national and international, became increasingly important.

24. One expert noted that legal structures for social innovation needed to allow for a mix of for-profit and non-profit models. Several countries, such as Germany, Switzerland and the United States, had recognized purpose-driven entrepreneurship as a legal structure, which provided certain benefits. Another expert highlighted that definitional issues were important in order to mitigate overcomplications of legal frameworks. Finally, another expert noted that entrepreneurship needed to be part of curriculums and that training programmes such as Empretec had achieved impacts in this regard.

25. With regard to a query on whether assistance to start-ups included absolute beginners, one panellist detailed the impact assessments performed by Impact Hub, noting that the more aggregated the indicators, the less reliable and indicative they were of underlying development. Impact assessments needed to be conducted in partnership with other stakeholders and organizations to create a learning community that could advance the purpose-oriented agenda of social innovation.

26. One expert highlighted that education was key in equipping youth with skills for the labour market and in creating an innovation culture in the public sector and in private-sector firms. In this regard, one panellist noted that some countries might need more social innovation than others and that the key to sustainability was business success or reducing the failure rate of innovating firms. Support for acceleration needed to be outcome-bound rather than time-bound and an acceleration organization needed to address talent deficiencies in innovative firms, including in management, accounting, financing and design. A possible model involved receiving equity in exchange for funding and support, at 100 per cent in early phases, and with equity returned to the founders on an outcome basis

as agreed milestones were reached. Finally, success rates for firms solving social problems were higher than for those solving business problems, yet many firms in developing countries sought to emulate businesses in developed countries rather than addressing local needs and concerns, and there was therefore a need for experimentation.

27. Another panellist noted that there were active innovators within existing firms, or intrapreneurs, who also required support. Governments needed to reach out to the entrepreneurship community and its networks through such methods as the organization of policy hackathons and supporting start-up weekends, as well as conducting reviews of failures in order to learn about the challenges faced by local entrepreneurs and find appropriate solutions. Providing space for experimentation to potential ventures or start-ups and accepting the necessity of failure as a learning opportunity were actions that required active public policy support.

28. With regard to a query on the presentation of country reports at the High-Level Political Forum and their relation to the discussions during the present informal session on innovation, the secretariat noted that UNCTAD contributed inputs to the High-Level Political Forum based on the deliberations of the Commission on Science and Technology for Development. In addition, with regard to a query about the role of UNCTAD in the field of social innovation, the secretariat highlighted that the work programme was anchored in the 2030 Agenda and that the social dimension of innovation therefore had to become an integral part of its work on innovation, but that this would not alter the three-pillar structure (research and analysis, technical assistance and consensus-building) of the involvement of UNCTAD in innovation.

29. One expert considered the role of the enabling environment for pro-Goals innovation, referring to the gap between developed and developing countries and to technology transfer as a major issue that needed more attention. Another expert noted that in the Dominican Republic, as in many other developing countries, many young people with diplomas, 60 per cent of whom were women, had qualifications that were not relevant for the labour market and highlighted the need for policies that could help address this challenge.

30. Finally, the panellists agreed that a common purpose and common projects were key elements of social innovation, as the basis of trust-building, collaboration and partnership. Achieving the Goals would require new forms of partnership, whose importance was emphasized by one panellist with regard to Goal 17, along with the fact that social innovation and social entrepreneurship could create, develop and strengthen.

4. Ways forward for science, technology and innovation policy, methodology and implementation

31. The fourth informal session consisted of an interactive discussion on issues that had been explored during the previous sessions. A convergence of views emerged on the following nine specific suggestions:

(a) The 2030 Agenda and the Goals needed to be positioned as the overall framework for developing and implementing science, technology and innovation policy, including a strong gender equality component, overall inclusiveness and the imperative of environmental sustainability;

(b) Science, technology and innovation indicators, including data collection, methodology and classification needed to be strengthened and made more relevant to the Goals and indicative of sustainable and inclusive innovation and development outcomes, in cooperation with all relevant United Nations partners;

(c) There was a need to support countries, institutions and innovation actors in policy experimentation and policy learning and UNCTAD could support such action by developing a network of experts and policymakers involved in science, technology and innovation policy, including those involved in the conduct of previous and current science, technology and innovation policy reviews;

(d) Given a heightened awareness of the relevance of new approaches to innovation with regard to challenges in the context of the 2030 Agenda, science, technology

and innovation policy and practice needed a broader scope beyond the consideration of traditional instruments and stakeholders;

(e) New stakeholders such as civil society, women's groups, youth, indigenous peoples and concerned citizens, as well as consumer and environmental interests, all had a role in science, technology and innovation with regard to Goals-related policy formulation and implementation processes, and UNCTAD could develop its science, technology and innovation policy methodologies to better engage with the growing stakeholder community;

(f) Given the need to address improvements in the directionality of science, technology and innovation policy and practice, consistent with the requirements of sustainability and inclusiveness, the work of UNCTAD to transform its science, technology and innovation policy review methodology and process was timely;

(g) Given a renewed realization that innovation for the 2030 Agenda needed to be driven by entrepreneurship, UNCTAD science, technology and innovation policy work needed to leverage the synergies between these two policy domains;

(h) Good governance was a key factor in encouraging the growth of a healthy, entrepreneurship-driven innovation ecosystem;

(i) Good inter-agency cooperation within the United Nations was key to developing consistent, purposeful and science, technology and innovation policy and capacity-building relevant to the Goals, as well as data and indicators, and UNCTAD could continue to cooperate with development partners under the Technology Facilitation Mechanism and the Inter-agency Task Team on Science, Technology and Innovation for the Sustainable Development Goals, along with other national and international science, technology and innovation stakeholders.

II. Organizational matters

A. Election of officers

(Agenda item 1)

32. At its opening plenary, on 2 July2018, the Multi-year Expert Meeting on Investment, Innovation and Entrepreneurship for Productive Capacity-building and Sustainable Development elected Mr. Uwe Petry (Germany) as its Chair and Ms. Hilda Al Hinai (Oman) as its Vice-Chair-cum-Rapporteur.

B. Adoption of the agenda

(Agenda item 2)

33. Also at its opening plenary, the Multi-year Expert Meeting adopted the provisional agenda for the session (TD/B/C.II/MEM.4/16). The agenda was thus as follows:

- 1. Election of officers;
- 2. Adoption of the agenda;

3. Effectively harnessing science, technology and innovation to achieve the Sustainable Development Goals;

4. Report of the meeting.

C. Outcome of the session

34. At its closing plenary, on 3 July 2018, the Multi-year Expert Meeting agreed that the Chair should summarize the discussions.

D. Report of the meeting

(Agenda item 4)

35. Also at its closing plenary, the Multi-year Expert Meeting agreed to authorize the Vice-Chair-cum-Rapporteur to finalize the report after the conclusion of the session.

Annex

Attendance*

1. Representatives of the following States members of UNCTAD attended the session:

| Algeria | Jamaica |
|--------------------------|--------------|
| Austria | Jordan |
| Azerbaijan | Kazakhstan |
| Bahrain | Kenya |
| Brazil | Malawi |
| Burkina Faso | Mauritius |
| China | Morocco |
| Congo | Nepal |
| Cuba | Nigeria |
| Djibouti | Oman |
| Dominican Republic | Philippines |
| Egypt | Saudi Arabia |
| Ethiopia | Spain |
| France | Sri Lanka |
| Georgia | Sudan |
| Germany | Togo |
| Guatemala | Tunisia |
| Guyana | Uganda |
| India | Yemen |
| Islamic Republic of Iran | Zambia |

- Representatives of the following member of the Conference attended the session: State of Palestine
- 3. The following intergovernmental organizations were represented at the session:

African, Caribbean and Pacific Group of States Cooperation Council for the Arab States of the Gulf

4. The following United Nations organ, body or programme was represented at the session:

Economic Commission for Europe

5. The following specialized agencies or related organizations were represented at the session:

International Telecommunication Union United Nations Educational, Scientific and Cultural Organization

6. The following non-governmental organizations were represented at the session:

General category

Association Africa 21 Engineers of the World International Network for Standardization of Higher Education Degrees

^{*} This attendance list contains registered participants. For the list of participants, see TD/B/C.II/MEM.4/INF.6.