High-level Study Visit to China on Science, Technology and Innovation (STI) for the SDGs
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Panel Session 6
CONNECTING USERS AND PROVIDERS OF STI THROUGH ONLINE MECHANISM: NATIONAL PERSPECTIVES

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I.   Protocol

II.   Background

It is by now agreed that the Technology Facilitation Mechanism (TFM) should primarily facilitate consequential and persistent capacity building and technical assistance for developing countries on technology development, transfer and deployment. The TFM online platform is a key element of this initiative. The platform will serve as 'a gateway for information on existing STI initiatives, mechanisms and programs'.[1]

This meeting is a really good starting point, and this panel particularly reflects the UN's awareness of the relevance of country experiences in developing an adaptive and responsive online platform. It is against this background that I highlight, based on my first-hand knowledge of the STI system in Nigeria, some specific – though not exhaustive – lessons and recommendations from how STI users and providers have been brought together.

III.   Connecting users and providers of STI both online and offline in Nigeria

To create a context, it is useful to refer to how the STI system in Nigeria is organised, at least in the public sector (Figure 1). The President chairs the Federal Executive Council which, together with the National Assembly (i.e., the Senate and Federal House of Representatives), oversees the entire system. The Federal Ministry of Science and Technology (FMST) convenes the National Council on Science and Technology (NCST) which involves all the state ministries/departments of Science and Technology. The FMST itself is organised into seven (7) departments, some of which oversee the activities of a total of 21 agencies. For instance, my own agency, the National Centre for Technology Management reports to the Planning, Research and Policy Analysis department of the FMST.

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[1] https://sustainabledevelopment.un.org/tfm

Figure 1: The Management Structure of the STI System in Nigeria
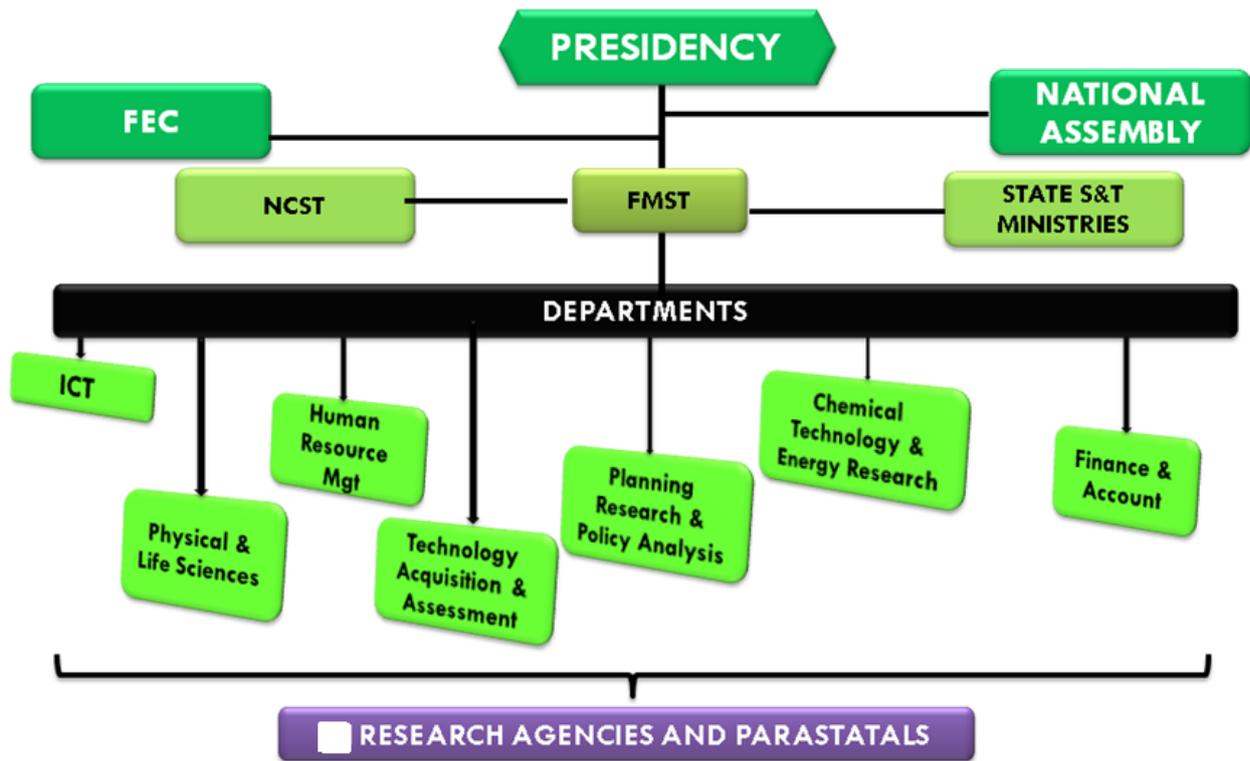
Offline connections

A primary meeting point for users and providers of STI appears in this structure: the NCST, which is the highest STI decision-making forum in the country. **At the NCST, state ministries/departments as well as departments/agencies of the FMST discuss their respective STI needs and offerings through memoranda, and productive matching often takes place.** For instance, NACETEM's competence has been deployed by a number of states in designing and developing their own STI policies and ministries/departments.

Emerging purely from private sector initiatives, a number of **innovation spaces now bring together inventors, entrepreneurs and venture capitalists for the purpose of business development.** Interactions within these spaces (such as Cc-Hub in Yaba, Lagos) essentially revolve around the creation of technology-based businesses. Recently, **government at different levels has also engaged STI users and providers via innovation spaces and technology hubs.** Publicly-funded spaces have emerged in Lagos, Cross Rivers and the Federal Capital Territory.

Many universities and research institutes now have **technology transfer offices (TTOs) and other similar support structures** that serve the purpose of facilitating the transfer of STI solutions they develop to the market through the process of commercialisation. Admittedly, a lot remains to be done in this respect but there are pockets of success here and there.

Online connections

The innovation spaces already mentioned above make **extensive use of online platforms to drive linkages between users and providers of STI-related services.**

The Federal Ministry of Science and Technology, through NACETEM, has since 2005 collected **data on STI indicators.** With support from a programme of the DFID, we have made the data **freely available online**, and it has been taken up by researchers at home and abroad.

Some of our recent research at NACETEM has focused on **the creation of an online platform (termed Government-Industry-Knowledge-Interaction model) that will elicit and match STI problems and solutions.** The design of the platform relies on the 'two-sided markets' that ICT advances now makes possible. This is the business model that underlies matching businesses like Jobberman, Hotels.ng and Andela. The work has been slow but I believe strongly that a synergy can be achieved with the TFM online platform.

Major challenge

A disconnect remains between the suppliers and the users of STI outputs. This is partly because STI providers often do not involve the users, especially policymakers in designing STI initiatives and programmes.

IV. Applying the lessons to TFM's online platform

Top three recommendations

i. It is crucial to do things on the ground if the online platform would have the desired impact. Some specific examples of what to do: consider extensive use of local expertise as a way to achieve an adaptive and responsive platform; establish a sustainable monitoring and assessment mechanism similar to the African Peer Review Mechanism; consider convening regular events like the NCST to keep the activity alive.

ii. Curate several existing initiatives and programmes in countries, e.g. available innovation hubs, sorted by sector of activity; available STI databases and efforts[2]; existing publications, sorted into open access and paid access; existing online platforms.

iii. Engage both the public and private sectors. The public sector creates the context within which things work, and the private sector is more active in making things work.

[2] Siyanbola, W., Adeyeye, A., Olaopa, O. and Hassan, O. (2016). Science, technology and innovation indicators in policy-making: the Nigerian experience. Palgrave Communications DOI: 10.1057/palcomms.2016.15

Other recommendations

iv.   Beyond convening regular STI events such as the NCST, there should be proper monitoring and follow-up on the recommendations and initiatives at these events

v.   Develop or elicit favourable and sustainable funding mechanisms

vi.   Develop the right capacities/competencies – this has to be adaptive as all contexts do not necessarily need the same things.[3]

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[3] Sanni, M., Oluwatope, O., Adeyeye, A. and Egbetokun, A. (2016). Evaluation of the quality of science, technology and innovation advice available to lawmakers in Nigeria. Palgrave Communications DOI: 10.1057/palcomms.2016.95