INTERSESSIONAL PANEL OF THE UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)

Lisbon, Portugal
6-7 November 2023

CSTD 2023-2024 priority theme on "Data for Development"

Statement submitted by

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My name is Omid Maghazei. I am an assistant professor and lecturer at the University of Bath School of Management. I conducted my doctoral studies at ETH Zurich, Switzerland, and I have been empirically researching applications of industrial drones in operational settings since 2016. I would like to focus my intervention on how to enable the adoption and implementation of data-enabled technologies for sustainable development.

Business perspective

The issues paper on data for development shows us that despite their tremendous potential, data-enabled technologies are not always successfully adopted. Based on the lessons we learned from more than seven years of research on drone technology, I would like to share the knowledge why businesses both in developed and developing countries often fail to successfully adopt new promising data-enabled technologies.

Organizations are used to looking aggressively for the business case in technology acquisition projects. You can easily miss an opportunity by asking "What's the return on investment?" too early in the process. It's tough to answer that question before piloting the technology. Instead, consider what the business case could become if the use case is successful.

Moving from a use case to a business case isn't always a linear process. It requires negotiation and problem-solving between business decision makers and operational and technological change agents. Technological implementation and economic viability may have to be modified across different locations.

Policy perspective

What can policy makers do to facilitate the technology adoption at scale?

1. Clarify the utility of data-enabled technologies.

If we distinguish the nature of technologies' contribution to the development activities, we could frame technologies' role into three categories, enabling: 1) Data collection such as drones, internet of things, 2) Data analysis such as artificial intelligence, and 3) Data transfer and communication such as blockchain, broadband networks (5G), and mobile phones. While there are problems for the adoption and scale of each category of technologies, the challenges are exacerbated when we aim to adopt technologies across the board and make it streamlined and fully integrated. Policy makers could foster balanced strategies for the development of these categories of technologies, which could help avoid uncoordinated technological enhancement and mitigate the identified pitfalls such as data divides, market competition, and power imbalances.

2. Create a governance structure for the exploration of emerging technologies.

For drone technology, scattered, unstructured, and uncoordinated initiatives on experimenting with drones deemed unsuccessful in our business case studies. It spreads resources and know-how too thin, and experiences from failures are often kept under close wraps or lost. In providing a governance structure, I recommend dedicated task forces to support a strategic process for discovering viable solutions to real problems by allocating funding and personnel without overly interfering in local pilot projects.

3. Take a phased approach to scaling.

As soon as a technology is operationally functional and robust and the benefits outweigh the costs, it's time to start scaling. We are witnessing that disruptive data-enabled technologies are developing so rapidly, hence I recommend that a phased rollout that allows for further operational iteration is more advisable than direct corporatewide adoption. Successful and unsuccessful scaling cases should be documented and communicated across broader business ecosystem with the hope that we can mitigate scaling for future technology adopters.