# ITU Regional Development Forum for Africa (RDF-AFR)

**'Digital transformation for a sustainable and equitable digital future:
Accelerating the implementation of the SDGs in Africa"**

organized by the International Telecommunication Union in collaboration with the
Ministry of Innovation and Technology, Ethiopia

**3-5 October 2023
Addis Ababa, Ethiopia**

Please note that submitted information will be presented during the RDF-AFR P2C Roundtables and
it will also be reflected on the pledging platform of the Partner2Connect Digital Coalition.

# CONTRIBUTION FORM

**ORGANIZATION:** National Research Development, Ministry Innovation and Technology

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**TITLE:** Digitalization of Research and Development in Sub-Saharan Africa

**DESCRIPTION OF ACTION:**

The African Union adopted a people-centered and long-term Agenda 2063 in January 2015; "The Africa We Want" to foster inclusive growth and sustainable development at the national, regional and continental levels. The Science, Technology and Innovation Strategy for Africa 2024 (STISA-2024) was developed during an important period when the African Union was formulating a broader and longer-term AU Agenda 2063. STISA-2024 is the first of the ten-year incremental phasing strategies to respond to the demand for science, technology, and innovation to impact across critical sectors such as agriculture, energy, environment, health, infrastructure development, mining, security, and water, among others. The strategy is firmly anchored on six distinct priority areas that contribute to the achievement of the AU Vision. These priority areas are: eradication of hunger and achieving food security; prevention and control of diseases; communication (physical and intellectual mobility); protection of our space; living together to build society; and wealth creation.

The government's focus in Ethiopia will be on supporting the generation, transfer, and utilization of affordable agricultural, health, IT, and manufacturing technologies in research and development to enhance production, productivity, processing, and marketing at both household and commercial levels. Funded research projects should be aligned with national research agendas as well as international initiatives such as the UN Sustainable Development Goals. The collaboration is characterized by an impact-focused approach towards broad societal challenges, is interdisciplinary in nature, and involves societal partners throughout the process. International and regional development policies for the world and Africa (The 2030 Agenda Sustainable Development Goals, 2015; the African Union's Agenda 2063, 2013) and national development policies such as Ethiopia's home-grown reform agenda and Ethiopia's Ten Years Perspective Plan (TYPP 2021–2030) (Ethiopia Vision 2030, 2021) all require R and D for the use of science, technology, and innovation (STI) and plan to develop research and development infrastructures as enabling means to implement sustainable development and economic growth goals. The new government of Ethiopia has made several reforms in different sectors and aimed to facilitate investment in major infrastructure projects in agriculture, health, IT, manufacturing, and energy. Ethiopia's

national policies extended from the above visions, such as the science, technology, and innovation policy and the climate change-resilient green economic policy (National Science Policy and Strategy and Ethiopia's Climate Resilient Green Economy, 2021), are also all aligned to support the use of STI and plan to develop modern economic infrastructure in Ethiopia.

Research and development (R&D) play a central role in advanced economies in areas such as economic growth and job creation, industrial competitiveness, national security, energy, agriculture, transportation, public health and well-being, environmental protection, and expanding the frontiers of human knowledge understanding. Accordingly, companies, governments, universities, nonprofit organizations, and others around the world have made substantial investments in R&D. Research exploring appropriate solutions on health, nutrition, sanitation, alternative sources of energy, cost-effective housing and so on, also contributes towards the objectives of meeting the United Nations 2030 Agenda for Sustainable Development and the SDGs.

Research data management has undergone a rather tremendous paradigm shift in academic libraries thanks to the advancement in big data and cloud computing technologies. This new paradigm has emphasized data inventory preservation, standardized data organization, seamless data sharing and usage efficiencies and intellectual property protections, all geared towards satisfying the intensive data needs of users in research areas. Key challenges with research data management in the ministry, have stressed equipment and personnel funding needs, institutional support and data management scope and functions at the institutional level, which derives from research and development is to solve the problem of unavailability of resources, infrastructure, and limited data management skills among research staff are major concerns.

The overarching objective of this project proposal is to construct sectoral infrastructure and assess research data management policies and practices in ministry level in order to develop a strategic and comprehensive framework that depicts real coordination among ICT department for science, technology and innovation-based research development, thus setting a strong agenda for national development in Ethiopia.

Consequently, the project proposal will address the following specific objectives questions; the project seeks to:

- To create research data management system with in the ministry and practices in all stakeholders for research institutions.
- To identify key research data base system challenges of the ministry.
- To analyse the impact of research data management system on STI development.
- To recommend national strategic research data management system practices in academic and research institutions based on ministry's experience.

**COUNTRIES in FOCUS:** Ethiopia and Kenya, Rwanda, Uganda, Tanzania, Côte d'Ivoire, Burkina Faso, Senegal, Sierra Leone, Ghana, Nigeria, Zambia, Mozambique, Malawi, Namibia, Zimbabwe, Botswana

**YEARS of IMPLEMENTATION:** [Tick the relevant boxes or delete the irrelevant items]

⊠ 2023

⊠ 2024

☐ 2025

**RELEVANT ITU REGIONAL INITIATIVE:** [Tick the relevant boxes or delete the irrelevant items]

☒ AFR1: Supporting digital transformation to usher in a rapid transition to a digital economy while accelerating innovation in Africa

☒ AFR2: Implementation and expansion of broadband infrastructures, connectivity and emerging technologies

☒ AFR3: Building trust, safety and security in the use of telecommunications/ICTs and protection of personal data

☒ AFR4: Fostering emerging technologies and innovation ecosystems

Please find more information on the ITU Regional Initiatives 2023-2025, as defined by WTDC-22, here.

**RELATED ITU-D PRIORITIES AS DEFINED BY THE ITU WORLD TELECOMMUNICATION DEVELOPMENT CONFERENCE 2022**

☐ Affordable connectivity

☒ Digital transformation

☐ Enabling policy and regulatory environment

☒ Resource mobilization and international cooperation

☐ Inclusive and secure telecommunications/ICTs for sustainable development

Please find more information on the ITU-D Priorities, as defined by WTDC-22, here.

**RELATED ITU PRIORITIES AS DEFINED BY ITU PLENIPOTENTIARY CONFERENCE 2022**

☐ Spectrum use for space and terrestrial services

☐ International telecommunication numbering resources

☐ Inclusive and secure telecommunication/ICT infrastructure and services

☒ Digital applications

☒ Enabling environment

Please find more information on the ITU Priorities, as defined by PP-22, here

**RELATED WSIS ACTION LINE:** [Tick the relevant boxes or delete the irrelevant items]

☒ C1: The role of governments and all stakeholders in the promotion of ICTs for development

☐ C2: Information and communication infrastructure

☒ C3: Access to information and knowledge

☒ C4: Capacity building

☒ C5: Building confidence and security in the use of ICTs

☒ C6: Enabling environment

☐ C7: ICT applications

☒ C8: Cultural diversity and identity, linguistic diversity and local content

☐ C9: Media

☐ C10: Ethical dimensions the Information Society

☒ C11: International and regional cooperation

**RELATED SDG:** [Tick the relevant boxes or delete the irrelevant items]

☒ SDG 1: No Poverty

☒ SDG 2: Zero Hunger

☐ SDG 3: Good Health and Well- being

☒ SDG 4: Quality Education

☒ SDG 5: Gender Equality

☐ SDG 6: Clean Water and Sanitation

☐ SDG 7: Affordable and Clean Energy

☐ SDG 8: Decent Work and Economic Growth

☒ SDG 9: Industry, Innovation and Infrastructure

☐ SDG 10: Reduced Inequalities

☐ SDG 11: Sustainable Cities and Communities

☐ SDG 12: Responsible Consumption and Production

☒ SDG 13: Climate Action

☐ SDG 14: Life Below Water

☐ SDG 15: Life on Land

☐ SDG 16: Peace, Justice and Strong Institutions

☒ SDG 17: Partnerships for the SDGs