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**Submissions from entities in the United Nations system, international
organizations and other stakeholders on their efforts in 2019 to
implement the outcomes of the WSIS**

Submission by

United Nations Industrial Development Organization

This submission was prepared as an input to the report of the UN Secretary-General on "Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels" (to the 23rd session of the CSTD), in response to the request by the Economic and Social Council, in its resolution 2006/46, to the UN Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the WSIS as part of his annual reporting to the Commission.

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UNIDO Inputs to WSIS Annual Report 2019

Part 1: Executive Summary of UNIDO activities

UNIDO has been designated as a co-facilitator to the following WSIS outcomes:

- C3. Access to Knowledge and Information;
- C4. Capacity Building; and
- C6. Enabling Environment.

UNIDO has undertaken several key activities to support the implementation of the aforementioned outcomes in cooperation with governments, academia institutions and private sector, and with major reflection on Small and Medium sized Enterprises (SMEs). Rapid technological progress driving the fourth industrial revolution is changing the landscape in which SMEs operate, and hence present new opportunities as well as new challenges to be addressed. Difficulties related to the access and cost of certain technologies, lack of systemic and collaborative approaches for innovation, need of new skills development or re-skilling, as well as to increased competition, must be faced in most cases.

Under this context, UNIDO activities are focused on the areas of capacity building; assessment of innovation systems; networking to enhance cooperation; leverage investment and fostering digital platforms. Several projects examples are discussed.

UNIDO's future activities will be aligned with the organization's conceptual Strategic Framework to work with the countries to enable their smooth transition to the New Industrial Revolution (NIR). The Strategic Framework includes new innovative programmes (on smart manufacturing, smart agro-food, smart energy and smart circular economy) to assist the countries in their path to ISID, by addressing challenges and leveraging opportunities stemming from NIR to realize the SDGs.

UNIDO's flagship report, "*the Industrial Development Report 2020 - The future of industrialization*", which focuses on the future of industrialization and manufacturing, science technology and innovation, will be officially launched at the eighteenth session of the [UNIDO General Conference](#), 3 to 7 November 2019, Abu Dhabi, United Arab Emirates.

Part 2: Overview and Analytical Trends of Implementation

2.1 Activities contributing to WSIS outcomes on access to knowledge and information, capacity building

Capacity building

The reason why SMEs, particularly in developing countries and emerging economies, face the digital divide is not only related to the lack of access to information technology but mainly to the lack of proper knowledge, education and skilled owner - managers and employees within the enterprises.

Through the support provided to pilot SMEs under the framework of the Industrial Upgrading and Modernization Programme (IUMP), UNIDO implements capacity building activities that

facilitate the integration of computing into their operations and the acquisition of ICT capabilities (software- and hardware-related) to improve their productivity and competitiveness. Among others, the UNIDO IUMP supported the adoption of computer-aided design systems in the textile sector in Eastern Europe and Central Asia, helping the local industry to diversify the production and access new markets.

UNIDO launched the project "Intelligent Manufacturing (IM) technology and its application in SMEs" in 2017. IM speaks directly to overcoming challenges of the New Industrial Revolution and particularly digital technologies, on the productivity, competitiveness and consumer preferences, which small and medium enterprises (SMEs) face on a continuous basis. The purpose of this project is to introduce SMEs in Shanghai to the concept of IM and its attendant ICT needs, increase awareness of its benefits and provide training on its implementation. As a capacity-building project, one of the core output is "Training-of-trainers program on IM and attendant ICT needs". UNIDO has selected two industries for the "Training-of-Trainers" program on Digital Design and Additive Manufacturing. The training material is currently under compilation.

Assessment of innovation systems (IS)

UNIDO's approach to mapping and measuring systems of innovation at the national, regional and sectorial level follows several principles leading to effective policy analysis, implications and recommendations. These last allow the countries' needed capacity building to monitoring and management capability for the effective deployment of resources, in order to catch up, as well as enabling them to better prepare for and adapt to arrival of Industry 4.0 and its related technologies. UNIDO has a track record in mapping and measuring IS in countries such as Ghana, Kenya, Cabo Verde and India at the sectorial level. This robust methodology is being utilized by them in order to align expectation and policy through evidence-based technical cooperation.

Leverage investment

ICT-related entrepreneurs often count on a solid technical background but lack the necessary soft- and managerial-skills to transform their ideas into commercially viable products and reach the industrial scale. They often face difficulties in access to finance due to their limited capabilities to design sound bankable business models. UNIDO nurtures ICT-related startups and SMEs and supports them to grow and upscale, by providing them with tailored mentoring and coaching. By doing this on a pilot basis, UNIDO creates role models in the country that inspire others and serve as success stories to mobilize investment.

2.2 Activities contributing to WSIS outcomes on enabling environment

Networking to enhance cooperation

UNIDO's activities aim at strengthening the capacities of the support institutions contribute towards creating an enabling environment conducive to ICT-related innovation and mainstreaming. In its capacity as a global convener, UNIDO also facilitates partnerships between industry actors and all information and communication technology stakeholders.

Networks are an important means to exchange knowledge and speed their economic development. By working through an integrated and networked approach, multilateral stakeholders, national and local governments as well as private entities are better equipped to approach development processes in a more effective, inclusive and transparent way.

Currently, UNIDO has a project called “Strengthening the global innovation network on inclusive and sustainable industrial development”. The project aims to establish and operationalize a Global Science & Technology Innovation Center (SGSTIC) as part of government's strategy to strengthen its global innovation network to support implementation of ISID. SGSTIC strives to build a comprehensive innovation platform integrating Five Platforms mentioned below:

- Expert Sharing
- International Cooperation
- Industrial Development
- Financial support – To be funded
- Public services Platforms

The project seeks to push all stakeholders beyond the boundaries of traditional business and traditional negotiation by facilitating communication and cooperation among them. Up till now, more than 30 partnerships/networks created or supported and 5 demonstration projects have been signed, regarding new materials, green energy, intelligent manufacturing, intelligent finance, ecological science and technology.

Fostering digital platforms

UNIDO’s Trade, Investment and Innovation Knowledge Hub¹ is an interactive online platform which provides information and relevant resources related to the three thematic areas. The Training Academy, which is part of the Knowledge Hub, hosts a number of interactive online courses such as on “Quality Infrastructure and Trade”, “E-commerce” and “Impact Investment”. Additional courses on “Industry 4.0” and “International Business Alliances” will be available soon. All courses are designed for an independent self-learning experience and – upon successful completion – awarded with a certificate. The courses are also accessible via the United Nations Institute for Training and Research (UNITAR) - United Nations System Staff College (UNSSC) initiative called “SDG: Learn”.

UNIDO likewise promotes increased e-commerce adoption and digital marketing activities among SMEs, shortening the distance of the supply chain between manufacturers and consumers and enabling the enterprises to adjust their business strategies to their target markets.

The organization initiated a pilot E-commerce project in the BRICS with the objective of supporting SME development through the utilization of e-commerce. The BRICS were specifically chosen due to their high potential in influencing global e-commerce activities. UNIDO also viewed this project as a platform to strengthen the technical co-operation between these countries. The project produced 3 concrete outputs:

- 2018 BRICS+ E-commerce Development Report: This aim of this publication was to present the latest e-commerce trends in the BRICS. However, UNIDO went a step further and examined trends found in select ‘plus’ countries, thereby expanding the scope of this report. This research was co-prepared with the Shanghai Academy of Social Sciences and various national e-commerce experts.
- UNIDO Online E-commerce Training Course: The organization has developed a training course that provides interested stakeholders an introductory insight into the

¹ See <https://tii.unido.org/>

basics of e-commerce. The course was designed from the perspective of a trainee that doesn't have much familiarity with this sector. This course can be accessed on UNIDO's Trade, Investment and Innovation Knowledge Hub. The organization has promoted this capacity building tool on the "E-trade for All" platform.

- Digital Business Good Governance Framework: Recognizing the rate of digital propagation among enterprises globally, UNIDO has developed a framework that provides guidelines on the mechanisms that new digital businesses should employ to adhere to the principle of corporate social responsibility.

Another example is the UNIDO project on "Linking the tourism industry to productive activities in the Issyk-Kul region of the Kyrgyz republic" where all the beneficiaries were registered on the online e-platform of agro-producers. This has provided them with information on what are special standards and customs requirements if they want to start exporting their production on international markets. A large number of workshops were held in the framework of the same project on food safety and hygiene standards for regional specialists involved in the sector of tourism and agro production. Within the above-mention project on tourism, experts on tourism held series of consultation with Kyrgyz tour-operators and hoteliers to introduce the principles of sustainable and eco-tourism, as well as assess their readiness to move towards Europe-adopted green standards and practices.

Part 3: Future Implementation Activities

Many more projects and activities are to be initiated if the international community is to realize the various WSIS outcomes. In this sense, the UNIDO's future activities will be aligned with the organization's conceptual Strategic Framework to work with the countries to enable their smooth transition to the New Industrial Revolution (NIR).

The Strategic Framework includes new innovative programmes (on smart manufacturing, smart agro-food, smart energy and smart circular economy) to assist the countries in their path to ISID, by addressing challenges and leveraging opportunities stemming from NIR to realize the SDGs. In particular for smart manufacturing development the actions include:

- Raising awareness of NIR opportunities and challenges, monitoring NIR readiness and develop 4IR roadmaps at the industry and enterprise levels, designing innovation-friendly policies and business environment reforms and regulations;
- Build capacities to develop innovation eco-systems for enabling product, process, functional and value chain industrial innovation by using NIR technologies and innovative business models, and the use of harmonized new standards and business protocols for interoperability in smart manufacturing, improving industrial safety and cybersecurity;
- Brokering multi-stakeholder partnerships to provide technical and vocational education and training to meet the demand for new skills stemming from NIR and to leverage investment on required infrastructure.