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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

World Food Programme

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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Report to WSIS: implementation on the actions and/or main themes of WSIS targets, recommendations and commitments

Part 1: Executive Summary

The UN World Food Programme (WFP) is harnessing the benefits of digital technology to reinforce its capacity to prepare, respond and save lives in humanitarian emergencies, to contribute to ending hunger and the overall achievement of the Sustainable Development Goals (SDGs). In November 2018, the WFP Executive Board affirmed that digital transformation is one of the five critical change initiatives for the Organisation.

Leveraging public and private resources, WFP is a leader in the UN system and in the humanitarian system in embarking on an ambitious Digital Transformation Agenda. As such, the WFP, through its activities is: i) enabling populations left farthest behind to be active participants in an increasingly digital economy and society; ii) optimizing the use of cutting-edge digital tools and data to increase operational and programmatic efficiency and effectiveness, and to inform decision-making; iii) boosting connectivity, agility and our footprint in humanitarian emergencies and development; and iv) increasing the capability to provide common services to the humanitarian community and the UN system.

Overall, the WFP's digital transformation is helping to bring about a more nimble and better data-informed organization and humanitarian system that continuously and consistently aligns business to the needs of beneficiaries and clients and to increasing demands for humanitarian and development assistance. Delivering on such an ambitious agenda faces challenges from ensuring the appropriate skill sets, protecting our beneficiary's data, through to delivering this in the face of natural and human disasters. However, with the right partners, we can take innovative digital solutions to scale, rebuild telecommunications systems in emergencies and distribute e-vouchers to millions of people around the world.

Part 2: Trends and experiences in implementation: achievements and obstacles

WFP is investing in technology to make WFP into an agile, growingly efficient and effective, innovative and technologically advanced humanitarian organization. WFP has defined and embraced digital transformation including user-driven technology development and innovation acceleration. There are three priority pillars in the way WFP addresses information technology:

- I. Modernization of IT: Transforming WFP into an efficient, effective, competitive, and modern organization.
- II. Beneficiary Services: Meeting beneficiaries' needs through effective technology and responsible use and management of data.
- III. Ecosystem Positioning: WFP delivers high quality digital services ranging from SCOPE to drones, and emergency services ranging from connectivity to data collection to secure telecommunications not only for the service of the WFP but also for its government, humanitarian and development partners

Our experience has demonstrated that partnerships (SDG17) and world-class expertise are key elements to harnessing digital tools, data & innovative technology to deliver on Zero Hunger (SDG2).

- Our solid partnerships with the technology sector enable us to experiment and adopt cutting-edge technologies to strengthen food systems, shorten humanitarian response times, deliver assistance more efficiently and make funds stretch further.
- WFP works to leverage the skills and talent of innovators around the world to unearth, incubate and pilot new solutions.

- WFP is testing new frameworks to pioneer new forms of partnership for the UN and WFP such as the UN Digital Solutions Centre.
- WFP has, and continues to, develop new partnerships with innovation and technology donors and governments such as Japan, Switzerland, UK, Belgium, Luxembourg, EU; Middle Income Countries (ASEAN); South-South Cooperation (China, India); Coalitions and new alliances such as GSMA and WEF; other UN agencies (UN Innovation Network; UN Data Innovation Lab).
- WFP partners with numerous universities and academic institutes to collaborate on the latest research on innovation and digital trends: Leiden, Stanford, Bocconi, TUM Munich, Oxford, American University Beirut, DLR, Acatech, among others.

Achievements

- People assisted with WFP cash assistance in 2018 - a significant proportion digitally – with 26% of this provided as electronic vouchers **24.5 million**
- Cash entitlements transferred to Syrian refugees in Jordan using blockchain **US\$ 64 million**
- WFP is committed to leveraging technologies like SCOPE, WFP’s beneficiary and transfer management platform, to empower the people it serves, providing tailored assistance and offering meaningful digital services in a transparent and accountable way. People’s identities registered in SCOPE **40 million**
- Countries where WFP uses mobile phone-based technologies to survey communities about their food needs. The program, running for six years, incorporates artificial intelligence (AI), satellite imagery, chatbots and advanced analytics **40+ countries**
- Supply-chain related savings through advanced data analytics and optimization **US\$ 30 million**
- Trainings on the use of drones in humanitarian settings conducted in the past year alone, benefitting approximately 90 organizations **7 trainings in 3 regions**
- In four years, the **WFP Innovation Accelerator in Munich has sourced 4,400 applications with ideas to disrupt hunger, hosted 21 innovation bootcamps to refine project plans, and scaled up 8 projects globally to impact 1 million people by the end of 2019.**
- As of September 2019, more than **1.56 million users have donated over 44 million meals (over US\$ 22 million) to ShareTheMeal** -WFP’s first fundraising and awareness app. Google and Apple have repeatedly ranked ShareTheMeal as one of the best apps in their respective stores.

Challenges

The following are high-level risks that WFP has identified that could potentially impede implementation of reaching the WSIS targets. In the organization’s IT strategy, each of these risks have had mitigating actions put in place that would reduce the likelihood and probability of these risks occurring.

Data security and privacy: The rapid advance of digitalisation of WFP’s front-end assistance processes has resulted in beneficiary personal data being acquired by WFP and stored in its information systems. This has provided opportunities for greater program effectiveness and operational efficiencies, and enabled WFP to scale-up humanitarian action using cash-based modalities. However, the accumulation and sharing of this data has also led to new risks related to beneficiary protection, data governance, and standardized solutions for data management.

Scalability: In 2019, WFP SCOPE has been used to serve 14.1 million beneficiaries across 41 countries. Despite the continued efforts to implement SCOPE across all the countries and for the all the beneficiaries that require SCOPE services, we are still unable to register entire beneficiary populations. This is due to the sheer number as well as the capacity of the system to handle these numbers.

Limited connectivity: We are seeing the rise of the ‘connected beneficiary’ where their need to find friends, family, services, information and assets are increasingly being available through mobile services and the internet. In addition, connectivity provides humanitarian agencies, such as WFP the ability to collect, analyze and get good information that will support the beneficiaries. These new services places additional demand on the existing communication infrastructure, especially in countries impacted by conflict, geographically dispersed, or underdeveloped

Disruption by natural or human disasters that impede setting up partnerships for emergency response or that impede execution of a partnership agreement.

Capability to acquire new skills: From programming and database creation to providing general technical support, as well as communication, data protection and privacy, networking and time management, there many levels of expertise and skills required to support WFP’s digital transformation. There is growing competition for people with this suite of skills especially with the private sector.

Part 3: Programs, project and initiatives undertaken by WFP to ensure implementation of WSIS targets

Digital transformation is about improving how critical and life-saving services are delivered to those in need and refining how WFP operations are managed. Included below are a few of the innovative programs and projects that WFP are engaged in that support the WSIS targets.

SCOPE - WFP's beneficiary information and transfer management platform is an in-house technology solution that stores the identities of more than 40 million people in a unique, secure and organised repository. This vital data allows WFP to provide a more meaningful service by identifying trends, emerging needs and issues.

Blockchain - In Jordan, WFP deploys blockchain technology that allows more than 100,000 Syrian refugees to buy groceries from local shops using iris scans instead of cash, paper vouchers or credit cards. When a refugee visits a grocery store to make a purchase, their eye “unlocks” their virtual account and the bill is settled without the refugee opening their wallet. The transaction is immutably recorded on the blockchain. To date more than US\$ 64 million in cash entitlements have been disbursed by WFP through this system, which make cash transfers faster, cheaper and more secure.

Mobile VAM - In remote and inaccessible areas, WFP provides near real-time data and analysis on hunger and nutrition using data collection via mobile phone technology. This type of data collection providing early-warning on emerging trends, enabling fast and informed decision-making. WFP provides this service in more than 40 countries including Yemen, Nigeria and Papua New Guinea, and is experimenting with new tools for data collection including chatbots.

Drones – In the aftermath of disasters, WFP deploys drones to rapidly survey affected areas and get assistance to those who need it most. When Cyclone Desmond hit Mozambique in January 2019, post-disaster data was collected with drones, supplying vital information that enabled a better-informed response. WFP also uses drones to monitor the impact of climate change, closely watching moisture, soil and crop health, and providing access to data not visible to the naked eye.

Hunger Map (big data & predictive analytics) – WFP has developed a “World Hunger Map” to help assess, monitor and visualize the severity and scope of hunger in the world’s most vulnerable countries, including those in which WFP operates, in real-time. The new system improves and streamlines WFP’s existing monitoring systems by using custom-built software to pull together key metrics – like climate, population density, market

prices and food availability – to understand the current situation and predict the food security situation in a given country.

Biometrics – WFP is pioneering the use of biometrics in humanitarian operations to ensure the right assistance reaches the right people, offering improvements in accuracy and efficiency, as well as accountability to donors. Data protection, privacy and digital design are critical and high-priority areas for WFP and other humanitarian organisations.

Hydroponics (H2Grow) is a no-soil, water-efficient solution that allows people threatened by hunger to grow their own food in the least favourable environments. Using units built from local sources, sprouting green fodder in deserts or fresh vegetables in town, hydroponics aims to support a million people in ten countries. Residents, refugees and displaced families from Algeria to Peru are set to benefit over the next three years.

Innovation Accelerator - To maintain a forward-looking approach, WFP keeps a close watch on the latest developments and proactively encourages innovative thinking on the part of its staff and external companies, including through the organization’s Innovation Accelerator in Munich, Germany. Launched in 2016 and modelled after private sector start-up accelerators, the WFP Accelerator supports the piloting and further roll-out of pioneering solutions to help ending hunger.

SCOPE CODA is a solution that facilitates the delivery of conditional on-demand assistance and improves programmes’ case management. It uses data to automatically calculate a score that guides field workers on what assistance to provide. SCOPE CODA also provides real-time access to digital records, helping staff easily monitor progress from the field. Currently used in nutrition programmes, the solution tells health workers if a child is acutely or severely malnourished, if they require immediate medical attention, or if they are now healthy. This helps them know what life-saving action to take. WFP won a GSMA GLOMO Award for outstanding contribution to the Sustainable Development Goals in February 2019.

Dalili is WFP’s first mobile app to connect beneficiaries with information on real-time market prices. It helps Syrian refugees get the most from the credit they receive on their e-cards and provides geo-targeted information on nearby shops and food prices. The Dalili app – ‘my guide’ in Arabic - lets people compare shops and prices and provide anonymous feedback. It is now available across all of Lebanon (20,000+ users) and will also be expanded to Jordan and Kenya.

ShareTheMeal is WFP’s first fundraising and awareness-raising app. Free to download, the award-winning app is a pioneering way for people to join our efforts in creating a world with Zero Hunger. As of April 2019, over 1.3 million users have donated over 35 million meals (over US\$ 17.5 million). Google and Apple have repeatedly ranked ShareTheMeal as one of the best apps in their respective stores.

EMPACT (Lebanon & Iraq) is a unique programme that puts income opportunities in the global digital economy within reach of young adults affected by war or economic crisis. By providing digital skills through a tailored, focused training programme and working closely with a network of forward-leading organisations in the private sector, EMPACT has trained more than 2,700 students in Lebanon and Iraq. Over 50% of the graduates are women. Improved financial independence, increased social cohesion and less dependence on humanitarian assistance are other benefits. WFP is currently designing and deploying the best model to scale. The goal is to reach 20,000 students by the end of 2020, with immediate plans to expand to North and East Africa.

Amended WSIS targets:

- Target 1. Connect all villages with ICTs and establish community access points;
- Target 2. Connect all secondary schools and primary schools with ICTs;
- Target 3. Connect all scientific and research centres with ICTs;
- Target 4. Connect all public libraries, museums, post offices and national archives with ICTs;
- Target 5. Connect all health centres and hospitals with ICTs; Target 6. Connect all central government departments and establish websites;
- Target 7. Adapt all primary and secondary school curricula to meet the challenges of the information society, taking into account national circumstances;
- Target 8. Ensure that all of the world's population has access to television and radio services;
- Target 9. Encourage the development of content and put in place technical conditions in order to facilitate the presence and use of all world languages on the Internet;
- Target 10. Ensure that more than half the world's inhabitants have access to ICTs within their reach and make use of them;
- Proposed Target 11: Connect all businesses with ICTs