DIGITAL FOUNDATIONS

Digital transformation and our fight against hunger

World Food Programme

FOREWORD

Ever since I established digital transformation as a priority for WFP four years ago, we have led the way in harnessing the power of cutting-edge technologies to meet the needs of the people we serve. This means much more than a simple set of targets or impressive-looking apps. It means weaving technology into every aspect of our work across more than 80 countries.

Today, WFP has the capabilities and know-how to tap into mobile technology and artificial intelligence to monitor food security; use satellite technology to locate and track communities in need; and offer digital finance via blockchain technology to put consumer choices in the hands of our beneficiaries.

Our commitment to embracing digitization also paid huge dividends when COVID-19 swept the globe last year. We were able to scale up our assistance, rapidly and efficiently, in response to soaring needs. And we took care of our own people by launching a worldwide program to improve connectivity for teams out in the field while shifting large numbers of employees to remote working.

Even before the pandemic hit, WFP was committed to spending every last cent we receive from our donors as responsibly and efficiently as possible – and digital transformation is helping us do just that.

In 2020 alone, we achieved more than US$138 million in cost savings partly attributable to digital transformation, with automation and a major connectivity upgrade saving hundreds of hours of employee time. Every dollar we save can mean an added four meals for a child. This is a tremendous incentive for us all to go even further and be even better.

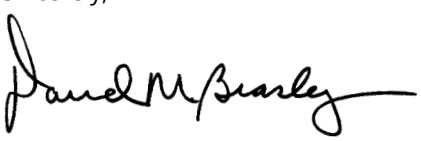
I am proud that our leadership in data, innovation and technology has been recognized on a global scale with multiple awards, most recently when WFP's Innovation Accelerator was named in FastCompany's Best Workplaces for Innovators 2021. It is hard to imagine that the 2020 Nobel Peace Prize, awarded to WFP for our efforts to use food as a pathway to peace, would have been possible without the game-changing power of technology and innovation.

But this is just the beginning of our exciting journey. With cash transfers, we will open even more doors to financial inclusion so people can continue receiving help from digital financial products long after WFP payments end. We will refine our systems for monitoring hunger, and enrich our research by fine-tuning data collection and analysis. And dynamic data from WFP operations will help us make smarter, faster and more targeted decisions to ensure we fulfil our life-saving mission.

Meanwhile, our Munich-based Innovation Accelerator is leading more than 100 projects worldwide, backed by two regional innovation hubs and four country-based hubs. There is no limit to how much more we can achieve, and how many more great ideas we can scale up and operationalize, by embracing the endless potential of technology and innovation.

The best is yet to come - and the creativity and dynamism which power WFP's digital transformation will fuel our progress as we go all-out to achieve Zero Hunger by 2030.

Sincerely,



David M. Beasley
WFP Executive Director

VISION

WFP is on the frontlines of the most formidable challenges facing humanity: conflict, food insecurity, the worsening effects of climate change, global health emergencies and human displacement. Serving people who are furthest behind has, out of necessity, propelled us to build an organizational culture of persistence, ingenuity and problem-solving. We capitalize on the wealth of knowledge that has come from decades of innovative humanitarian response to bring value to the people we serve.

GUIDING

Technology, innovation and data are indeed enablers of humanitarian and development work, but they must be shaped and guided by a clear vision that has people at its centre. For WFP, this is achieving a world with zero hunger by 2030.

Humanitarianism appeals to our hearts and consciences but is increasingly analytical, requiring deep contextual knowledge and operational efficiency. Driven by this understanding, over the past five years, WFP has prioritized and implemented an organization-wide digital transformation.

DIGITAL

The evolution of WFP's school meals work is a prime example. A powerful social safety net for children and families worldwide, school meals can amount to 10 percent of the income of poor and vulnerable families. In 2020, 15 million schoolchildren received nutritious meals and snacks from WFP. Working with governments to build capacity, WFP helped strengthen the national school feeding programmes of 65 countries, reaching a further 39 million children.

Building on six decades of experience working on school meals in over 100 countries, WFP is making this safety net smarter through the deployment of the School Connect app. With digital tablets, personnel working in school canteens can now report how many children are attending school and what they are eating, giving WFP valuable data on food stock and distribution quantities to prevent food shortages. The solution has so far been scaled up to all 535 WFP-supported schools in Burundi.

With the solar panels and tablets used to run School Connect, schools in low- and middle-income countries now have possibilities beyond ensuring food supplies. The next question is how to make the social safety net even stronger. What if children's nutritional data can enrich agricultural planning by involving governments, farmers and nutritionists in strategic discussion? What if schools can get access to Internet connectivity – and more educational content – because of an idea that began with school feeding? With data, innovation and technology, there is endless potential to deliver human-centred value.

WFP's digital transformation is informing operations around the world and bringing us closer to the people we serve. Whether it's keeping supply chains moving, improving the way we understand and respond to hunger or localizing emergency preparedness and response, our digital capabilities help us reach those furthest behind while advancing the collective UN aim of creating a better, more equitable world.

This report outlines how digital innovation, technology and data analysis are foundational to our work in action – from the COVID-19 response to climate change, social protection and conflict. The pandemic has taught us that while nobody can predict the future, we can prepare for it by taking a committed, digitally-transformed approach to saving lives and changing lives.

OPTIMIZED SUPPLY CHAINS INFORMED RESPONSE

In 2020, the COVID-19 pandemic compounded the effects of conflict and climate shocks and left 235 million people in need of humanitarian assistance in 2021. In the face of unique, multi-layered crises, data and technology were instrumental in helping WFP respond to this unprecedented emergency.

Public health measures taken to contain the pandemic, such as introducing social distancing, shuttering businesses and closing borders, changed the world overnight, disrupting food

production and market systems and impeding the delivery of humanitarian assistance. WFP had to reorient its global operations, with staff working remotely, supply chains hit by travel restrictions, and distribution networks fractured by lockdowns and school closures. WFP's six decades of innovation and working with technology went into hyperdrive.

For example, WFP launched the Emergency Service Marketplace in June 2020, which gave

the global humanitarian community instant access to WFP supply chain services provided by air, land and sea, while using real-time data to track shipments of medical supplies such as ventilators, personal protective equipment and testing kits. Through the platform, WFP has shipped 148,000 cubic metres of life-saving health and humanitarian cargo to 173 countries on behalf of 72 organizations in response to the pandemic.

The data and logistics foundations that made it possible to set up the Marketplace so quickly were years in the making.

HARNESSING ANALYTICS TO SERVE PEOPLE BETTER. The 2012 drought in the Sahel region caused food insecurity for 15 million people. Driven by a need to streamline and simplify processes to serve people faster and better, WFP developed the Supply Chain Management Dashboard. With descriptive analytics showing operations at the country level, the dashboard became the universal point of reference for WFP's emergency responses.

With this better vantage point on its operations, WFP refined its decision-making processes with Optimus, an application that figures out the most cost-effective ways to get WFP food baskets to a given location. Thanks to savings identified through Optimus, in some instances the same budget can be used to serve up to 20 percent more people, stretching donor support further.

The application has saved WFP a combined US$50 million across complex emergencies in countries such as Syria, Iraq and Yemen and was awarded the 2021 Franz Edelman Award for excellence in advanced analytics, operations research and management science.

To channel these two main data flows – the Supply Chain Dashboard and Optimus – into one estuary, a powerful solution called DOTS was developed for WFP, giving the organization a single, clear and consistent picture of what is happening across operations.

A case in point is South Sudan, where 7 million people urgently needed food assistance in 2019. Security issues and a heavy rainy season made large parts of the country inaccessible by road and expensive airdrops were the norm for getting food to remote locations. Analytics perfected WFP's preparation strategy and its supply chain, saving money and time. More food was bought ahead of time and pre-positioned during the dry season in points closer to final destinations, and substantial amounts were delivered by river barge, avoiding roads altogether. The number of airdrops was halved, freeing up donated funds to make a bigger impact elsewhere.

DATA & INNOVATION VERSUS CLIMATE CHANGE

The effects of global warming are now a daily reality for people all over the planet. Droughts, massive storms, wildfires and floods have a dangerous interplay with heatwaves, pest infestations and rising sea levels. With this comes greater instability for lives and livelihoods, perpetuating cycles of poverty, conflict and food insecurity. Climate hazards are resulting in people on the move: of the 40.5 million new human displacements in 2020, 30 million were due to weather-related disasters. And if current warming trends persist and global temperatures rise 2°C by 2050, an additional 189 million people will become food insecure.

In this context, WFP not only works to help people and communities respond to and cope with emergencies, but also finds life-changing solutions that build sustainable resilience. Taking a digital approach to localized capacity building helps us do this.

For example, in March 2019, drones enabled the Government of Mozambique to carry out rapid disaster mapping in the aftermath of Cyclone Idai, one of the worst disasters ever to hit the southern hemisphere. It took just two or three days to capture over 70,000 high resolution images to inform relief operations – nearly half the time that would have been required to conduct manual damage assessments. Local authorities were ready

because they had been trained by WFP on ten different drone systems.

Building on the need to respond faster and more efficiently to climate shocks, WFP developed a machine learning application called Digital Engine for Emergency Photo-analysis (DEEP) in June 2019, intent on reducing the time it takes to identify damaged buildings and structures from a high-resolution image. A data scientist sitting anywhere in the world can run satellite imagery through DEEP and get a detailed picture of damage. The application is game-changing in that it can be used with drone and satellite images, making it effective for the deep field while lowering operating costs.

DEEP was piloted during the Mozambique cyclone season of 2019 and has since been used in the aftermath of Hurricane Iota in Colombia, Typhoon Goni in the Philippines and the blast in the port of Beirut, Lebanon. It has shortened the damage assessment process from weeks to a few hours, with 85 percent accuracy in detecting damage.

Climate change has a powerful effect on food security all over the world, with implications for growing seasons and the health of agricultural land. Over the past

36 years, WFP has developed a bird's-eye view of food security across 167 countries using satellite Earth Observation technology combined with socio-economic and environmental analytics. This makes it easier to predict the implications of climate shocks and plan a response that cushions communities from the immediate impact and builds long-term resilience.

For example, Earth Observation data has informed water and conservation activities in Niger that seek to improve agricultural productivity, and led to the planting of 1 million trees to re-green the Gamberi desert in north-eastern Afghanistan.

Innovative solutions that foster adaptation to climate change are cost-effective and imperative. A digital approach can help local communities achieve resilience in harmony with the natural environment.

Smallholder farmers, for example, produce up to 34 percent of the world's food but are heavily affected by extreme weather, pest infestations and other effects of climate change. Communities that depend on these farmers are particularly vulnerable to hunger and malnutrition. By boosting the productivity and incomes of smallholders, the local supply of nutritious foods increases and food prices fall. Technology and innovation can play important roles in this process.

Such was the impetus for developing WFP's Farm2Go app, which has so far connected thousands of farmers in Kenya and Rwanda with training and information on weather and local agriculture. Similarly, the Farm to Market Alliance (FtMA) helps smallholder farmers increase their productivity and incomes through access to information, investment opportunities, and agricultural support – from seed to market. Supported by its mobile app, FtMA reached over half a million people in 2020.

Pastoralists also need to be protected from the effects of drought, which is where WFP's Satellite Index Insurance for Pastoralists comes in. The scheme integrates mobile and satellite technologies into microfinance solutions: when a risk to the insured livestock is detected, insurance companies distribute payouts directly to participating pastoralists via mobile bank accounts.

INFORMATION IS POWER. In the minutes, days and weeks after a cyclone, earthquake or tsunami, or during armed conflict, actors at all levels require communications connectivity: from the individuals and families affected, to governments who lead and coordinate national relief efforts and the humanitarian organizations who contribute to local response.

Supported by 30 partners, the WFP-led Emergency Telecommunications Cluster (ETC) responds to up to 10 emergencies per year. The cluster has increasingly turned its attention to supplying communications support for people affected by crisis.

In the Central Sahel region, for example, people face instability from protracted conflict compounded by the effects of climate change. The ETC is assessing communications needs among refugees and internally-displaced people in Niger, Burkina Faso and Mali, with plans to open kiosks that provide charging stations and Internet connectivity.

At the same time, a deluge of information, both true and false, can create what the World Health Organization calls an "infodemic," making it harder for people to get the facts at the right time, in the right language and in an accessible format.

This is one motivation behind the ETC-run call centre in Libya known as Tawasul ("dialogue" in Arabic), which was used as the central COVID-19 hotline throughout 2020, answering over 18,000 calls with valuable health and safety information. The call centre, which is run by ETC as a national inter-agency effort, also keeps humanitarian agencies informed of population needs and supports programming decisions and the coordinated "One UN" approach. The inter-agency call centre model has since been replicated in other countries.

Building on this initiative, the ETC developed a machine learning-enriched chatbot which automates the process of answering questions, making health and safety information available to people 24 hours a day. The chatbot has thus far been introduced in Libya and Iraq, and offers interactive services in English, Arabic and Kurdish. The tool is distinctive for its ability to become smarter over time, making it increasingly intuitive and responsive to human conversation. With its vast potential for scale-up, the chatbot gives humanitarians unprecedented and anonymized insight into the needs that are most important to people in crisis.

PEOPLE EMPOWERED BY DIGITAL

Conflict, economic disparity, and the effects of climate change are the main drivers of food insecurity in the world, disrupting food systems and displacing people from their homes into precarious circumstances. Up to 85 percent of refugees are hosted in neighbouring developing countries that may face their own intense struggles with economic instability and low employment rates. In Iraq and Lebanon, for instance, displaced young people face limited prospects when it comes to rebuilding their lives, feeding their families and finding fulfilling careers. The result is an unsustainable cycle of dependence on international aid.

But there are opportunities in the digital economy. In 2021, 4 billion people are expected to be using mobile Internet; three quarters of them will be living in low- or middle-income countries. Even so, bridging the gender digital divide will remain a major hurdle, as 327 million fewer women than men have a smartphone, curtailing their access to mobile Internet.

Harnessing opportunities in the digital economy, WFP builds pathways to peace by helping people

respond to and recover from conflict-related food insecurity while strengthening social cohesion and self-reliance.

WFP's EMPACT programme trains young people in digital skills, opening the door to employment in today's online world. In Mosul, Iraq, students have learned web development tools such as Javascript, CSS and HTML as well as English-language skills, business communication and résumé writing. In Turkey, which is host to the world's largest number of displaced people including 3.6 million refugees from Syria, young people graduate from EMPACT with software development skills in Javascript and Vue.js.

Since it began in 2016, EMPACT has reached more than 55,000 people in Iraq, Lebanon, Kenya and Turkey, helping to reduce the digital divide among communities hit by conflict. After the first year of the programme in Iraq, almost 20 percent of students went on to generate income through online work and 33 percent were employed four months after graduating. Notably, 52 percent of EMPACT graduates are women. The scheme is kicking off in Colombia and Zimbabwe and pilot projects are planned for Sudan, Somalia and Palestine with a goal of reaching 100,000 people with skills training by 2025.

WORLD HUNGER IN REAL TIME

Data analytics and mobile technologies are essential for understanding how hunger develops and changes, enabling humanitarians to predict and respond to people's needs. In 2019, to meet demand for near real-time hunger monitoring, WFP created HungerMapLIVE, a system that tracks food security, its drivers and relevant shocks such as COVID-19 in over 90 countries.

At the height of the COVID-19 pandemic, WFP and other agencies used data from HungerMapLIVE to plan humanitarian interventions in countries such as the Central African Republic, Guinea and Nigeria.

As crises erupt around the world, HungerMapLIVE reveals how these emergencies affect food security. When hurricanes Eta and Iota made landfall in Latin America and the Caribbean, near real-time data kept WFP informed, contributing to a range of assessments including emergency food security assessments and Integrated Food Security Phase Classification (IPC) exercises in Guatemala, El Salvador, Honduras and Haiti. Similarly, in early 2021, HungerMapLIVE was used in Mozambique to understand the impact of Cyclone Eloise on food security and plan resources accordingly.

JOINING THE DATA POINTS

WFP's mobile vulnerability analysis and mapping (mVAM) team uses different tools, innovations and approaches to understand food security. Using mobile technology and call centres to gather food security data, mVAM is especially useful in contexts where physical access is limited, for example by disease outbreak, conflict or logistical constraints.

By 2018, mVAM had evolved into a sophisticated remote and continuous food security monitoring system, collecting thousands of data points daily through live calls conducted by call centres around the world. This made it possible to see where hunger was peaking or improving and what shocks were causing situations to change.

Fast forward to 2021, and data is now being collected and processed through 36 hunger monitoring centres and a machine learning-based predictive model is used to estimate food security in places where data is not collected. This machine learning mechanism makes it possible for HungerMapLIVE to display data covering 90 countries.

Rapid, real-time data is a powerful antidote to hunger. Yet the question is no longer whether data is available but rather, is data agile and transferrable to a point where anyone, anywhere, can use it to inform their own analysis?

By building tools like DataBridges and Survey Designer, WFP has been able to reduce the time and effort needed to clean, standardize and release food security data from months to days. Platforms such as DataViz connect different parts of the organization and bring a wealth of food security data into a single pipeline. This gives decision makers immediate data and analytics that reflect academic research while also transforming WFP's food security data into global public goods.

As digital transformation permeates the world and is accelerated by the COVID-19 pandemic, "leaving no one behind" necessarily extends to digital inclusion. The United Nations Secretary-General's Roadmap for Digital Cooperation warns that without concerted action, the global digital divide will create even greater obstacles for development, alongside poverty and climate vulnerability.

WFP believes that people should be able to take part with agency in the digital economy growing rapidly around us. Tapping into mobile money and other innovative digital services enables WFP to more effectively target and tailor its assistance programmes, while simultaneously transforming lives by opening the door to digital financial inclusion.

Cash transfers are one way to create pathways towards stability and food security while supporting local economies. In places where food can be grown locally but people cannot afford to buy it, WFP provides communities with cash to shop for food from local retailers. This gives underserved people – particularly women – access to a bank account and all the opportunities that come with it: loans, savings and new spending potential. When women gain financial independence, they also gain decision-making power in their families.

WFP is the world's largest provider of humanitarian digital cash. In 2020 we served 40 million people across 67 countries, transferring over US$2.1 billion in assistance, which amounts to 37 percent of WFP's assistance portfolio.

In Somalia, for example, WFP's online e-Shop allows 280,000 people to redeem their cash assistance by ordering food which is then delivered to their door. Transactions worth over

OPENING DOORS TO DIGITAL INCLUSION

US$22 million have been processed through e-Shop since its launch in 2018. The platform promotes price transparency and competition while making nutritious food more accessible and affordable. Home food deliveries also protect women from safety and security threats including terrorist attacks and harassment on the street and in camps.

Blockchain is another technology helping to make transactions more useful and easier for the people we serve, while streamlining humanitarian response. To obtain their monthly assistance, people used to juggle authentication forms from WFP and other organizations. WFP's Building Blocks – the largest humanitarian blockchain network – has centralized assistance across a chain of organizations and services and now supports over 1 million people every month, and to date has processed transfers of US$271 million in humanitarian cash-based assistance through 10 million transactions.

For example, a refugee can use a QR code or an iris scan to access assistance from organizations across the humanitarian sector, allowing them to receive entitlements. The system also gives humanitarians a clear line of sight over who is helping whom. With blockchain, all data is non-personally identifiable, so organizations can reap the benefits of transparency without compromising the privacy of the people they serve.

Building Blocks aided recovery in Cox's Bazar, Bangladesh in March 2021, when a massive fire displaced 45,000 people in the world's largest refugee camp. Even though many people lost their identity papers in the fire, food assistance was quickly channelled to those affected via blockchain, in collaboration with other humanitarian agencies on the ground.

GREAT IDEAS GOING A LONG WAY. Services that have emerged from WFP's technology and innovation pipelines are facilitating humanitarian operations and supporting the UN system more broadly.

The Telecommunications Security Standards (TESS) service has reinforced safety for humanitarians across the sector by standardizing personal security communications infrastructure and protocols in 62 countries where none existed. This work saves the UN system millions of dollars in annual costs.

The United Nations Booking Hub streamlines the process of getting UN workers to and from their missions safely, covering operations in 98 countries, 1,135 service points, over 3,700 vehicles, 285 flight destinations, 270 UN guesthouses, 70 UN clinics and 35 UN counsellors. The Booking Hub received the Best Transport Achievement Award 2021 from Fleet Forum.

With a tap on their smartphone, anyone can pay US$0.80 and give a child a meal using WFP's ShareTheMeal mobile app. A fundraising campaign launched as part of the COVID-19 response generated US$7 million from 200,000 donors in 216 countries in one of the fastest-moving campaigns in WFP history. Delivering over 122 million meals to date, ShareTheMeal was named one of the Best Apps of 2020 by Google and Apple.

The digitization of beneficiary management systems also brings new opportunities to refine the services offered to people in need. For example, data collected in SCOPE, WFP's beneficiary and transfer management platform, allows staff to understand trends and emerging needs to adapt assistance to over 20 million people in different contexts. And Conditional On-Demand Assistance (CODA) is WFP's cloud-based technology that digitizes aspects of humanitarian operations such as malnutrition programme management. The tool enables field staff at over 160 health points in six countries to check people's progress in malnutrition treatment programmes and adjust as needed. As a result, people receive individualized care and case management which is more reliable and consistent compared with the paper booklets previously issued, which were easily lost or destroyed.

CHALLENGES

The enabling capabilities of data, innovation and technology cannot be denied. However, we must not lose sight of the risks they also present for individuals, governments and UN agencies.

Cyberattacks and threats to privacy are two growing challenges. WFP has worked diligently to strengthen cyber-security capabilities as part of its digital transformation journey. This includes building capacity among staff to recognize security risks and protect digital devices.

OPPORTUNITIES

Data privacy is paramount when working with sensitive information. WFP has made strides in improving data guidance and governance – notably by creating a Global Privacy Office – and we work closely with the broader humanitarian and development communities to share best practices and unite on policies concerning data privacy and ethics. In areas such as biometrics and identifiable personal data, responsible data issues require solutions which are technically sound but also, most importantly, put people first. Overall, humanitarian organizations must follow the imperative to "do no digital harm" by strengthening their frontline abilities – working on our people and our systems – to minimize risks to the people we serve.

RISKS

The appetite for maturing digital innovation and policy is felt throughout the UN, catalysed by the adoption of the Secretary-General's Roadmap for Digital Cooperation and the UN Data Strategy in 2020. The ambitious aim of the data strategy is to create a single data ecosystem for the whole of the UN. The Secretary-General has also advocated for use of digital public goods, based on free and open-source software, to help governments achieve the Sustainable Development Goals. WFP supports the Secretary-General's vision for a "UN 2.0" that fully leverages innovation and digital technologies to ensure the organization is ready to respond to challenges now and in the future.

In parallel, the Secretary-General's Call to Human Rights Action underscores the need to act in accordance with core principles during the design, procurement and use of technologies, and in partnerships with technology companies. Due diligence practices will become ever more important going forward and WFP will be engaging more deeply with governments, other UN agencies and NGOs on this and other issues to share experiences, so that the lessons we have learned can help the wider community. WFP's global experience with technology can make a positive contribution to the direction of the humanitarian community on matters of policy and practice.

The world is changing at an extraordinary rate. Unprecedented challenges require new thinking, a willingness to innovate and a capacity to experiment and adapt. WFP's people-centred approach to digital transformation is designed to ensure that in the crowded landscape of new technologies and solutions, our focus remains firmly on how to maximize our ability to best serve those most in need.

Successful digital transformation relies as much on changing mindsets as on technology. The WFP Programme Division is set to play a greater role in fostering people-facing innovation. This could mean, for example, moving from beneficiary feedback mechanisms designed for troubleshooting to using those same mechanisms to listen to affected people and understand their problems as a route towards improving service delivery and accountability.

WFP's use of technology, data and innovation has already delivered well-documented benefits in terms of cost and flexibility. But the digitization of our operational footprint matters far beyond the efficient and effective management of WFP resources.

WHERE TO FROM HERE?

By creating open, comparable, consistent and standardized data, WFP will seek to give others – governments, researchers, local partners or analysts – access to robust information and resources at little to no cost, empowering decision makers across the UN and the humanitarian community. We have the technology and security controls in place to be able to responsibly share data with the humanitarian and development community, and contribute to collaborative initiatives including UN INFO and the New UN Data Hub. This creates a supportive environment for the Secretary-General's aim of nurturing a single UN Data Ecosystem.

Established in its capacity-building role for governments around the world, WFP could increasingly be called upon to supply expertise in support of government efforts to build digital transfer systems or supply chain services. This might entail adopting a more decentralized model of innovation, working closely with government partners and the technology ecosystems in partner countries to support the development of digital solutions tailored to context.

WFP stands ready to adapt to changing digital needs. Over the coming year, we will be targeting investments towards understanding the foundations we need to have in place to achieve our open data aspirations, as well as identifying technical limitations in our current digital architecture and addressing governance aspects related to data collection, privacy and quality.

In 2020, WFP's workforce defined the five core values that shape the organization, and these are also the principles that also inform our approach to digital transformation. With integrity, we prioritize the safety and privacy of the people we serve and exercise due diligence with prospective donors. By collaborating among divisions, between disciplines and through partnerships, we push to achieve more with data and digital technology. A strong commitment to duty keeps us from ever settling for "business as usual" as we innovate to disrupt hunger, while our sense of humanity pushes us to develop solutions with a sustainable impact on people's lives. And with an inclusive mindset we welcome the people we serve as equal participants in the digital landscape that is helping pave the way to zero hunger.

PARTNERSHIPS FOR THE SDGs

To leverage technology, innovation and data, WFP relies on strategic partnerships with companies and organizations that can supply pro-bono access to industry-standard software, products and professional skills that help WFP reach the people we serve.

For example, the WFP Innovation Accelerator collaborates with the public sector and private companies, both as innovation mentors and as co-developers of solutions. Meanwhile, the WFP-led Emergency Telecommunications Cluster benefits from the ingenuity and commitment of 30 partner organizations including private companies, public sector and non-governmental organizations, UN agencies and governments.

Prospective private partners go through a rigorous due diligence process. Once formalized, partnerships are managed day to day by technical teams and WFP's private sector partnership experts. Our most successful private partnerships are multi-year, committed relationships that involve common strategic planning and feature hands-on support from our partners.

The WFP Innovation Accelerator sources, supports and scales high-impact innovations that disrupt hunger, employing the agile, human-centred and lean start-up strategies of social entrepreneurs and Silicon Valley innovators. Since 2015, the Accelerator has supported more than 100 projects in 46 countries, with 14 innovations scaling up to achieve significant impact. These projects have impacted 3.7 million lives in 2020 alone as part of WFP's humanitarian field operations. The Accelerator raised US$118 million in co-funding for innovation projects in 2020 and was named in Fast Company's lists of Best Workplaces for Innovators and Most Innovative Companies (Non-Profit) in 2021.

WFP PARTNERS AND COLLABORATORS

We are grateful to the partners and collaborators who have invested in and worked with WFP on our data, digital technology and innovation efforts.

Acatech (German Academy of Science and Engineering)

Alibaba Cloud

Alliance of Bioversity International and the International Center for Tropical Agriculture (CGIAR/ CIAT)

Amazon Web Services (AWS)

Australian Government Department of Foreign Affairs and Trade

BASF Stiftung

Bavarian State Ministry of Food, Agriculture and Forestry

Bill & Melinda Gates Foundation

Boston Consulting Group (BCG)

BSH Home Appliances

Cargill

Creating Hope in Conflict: Humanitarian Grand Challenge

Dublin University

European Commission

Food Security Information Network

Fraunhofer

German Aerospace Center (DLR)

German Federal Foreign Office

German Federal Ministry for Economic Cooperation and Development

Global Network Against Food Crises

Google

Google Developers Launchpad

Government of Belgium

Government of Japan

Government of Luxembourg

Government of Mozambique

Government of Namibia

Government of Peru/Ministry of Agricultural Development and Irrigation

Government of Switzerland

Government of the Netherlands

Government of the Republic of Korea

Government of the United Kingdom

GSM Association

HAPS Alliance

Humanitarian Data Exchange

The Integrated Food Security Phase Classification/Cadre Harmonisé

Ideo.org

ISI Foundation

Lancet Commissions

Leiden University

Ministry of Foreign Affairs of Norway

NEC

Nielsen

Orange Silicon Valley

Palantir

Salesforce

Sealed Air

Singularity University

Southern African Development Community

Stockholm International Peace Research Institute

Tableau (a subsidiary of Salesforce)

Tufts University

UK Cabinet Office Briefing Rooms

UK Foreign, Commonwealth and Development Office

UN Food and Agriculture Organization

United Nations High Commissioner for Refugees

United Nations Innovation Network

United Nations Office for the Coordination of Humanitarian Affairs

United Nations Sustainable Development Solutions Network

USAID

USAID's Bureau for Humanitarian Assistance

World Bank

World Economic Forum

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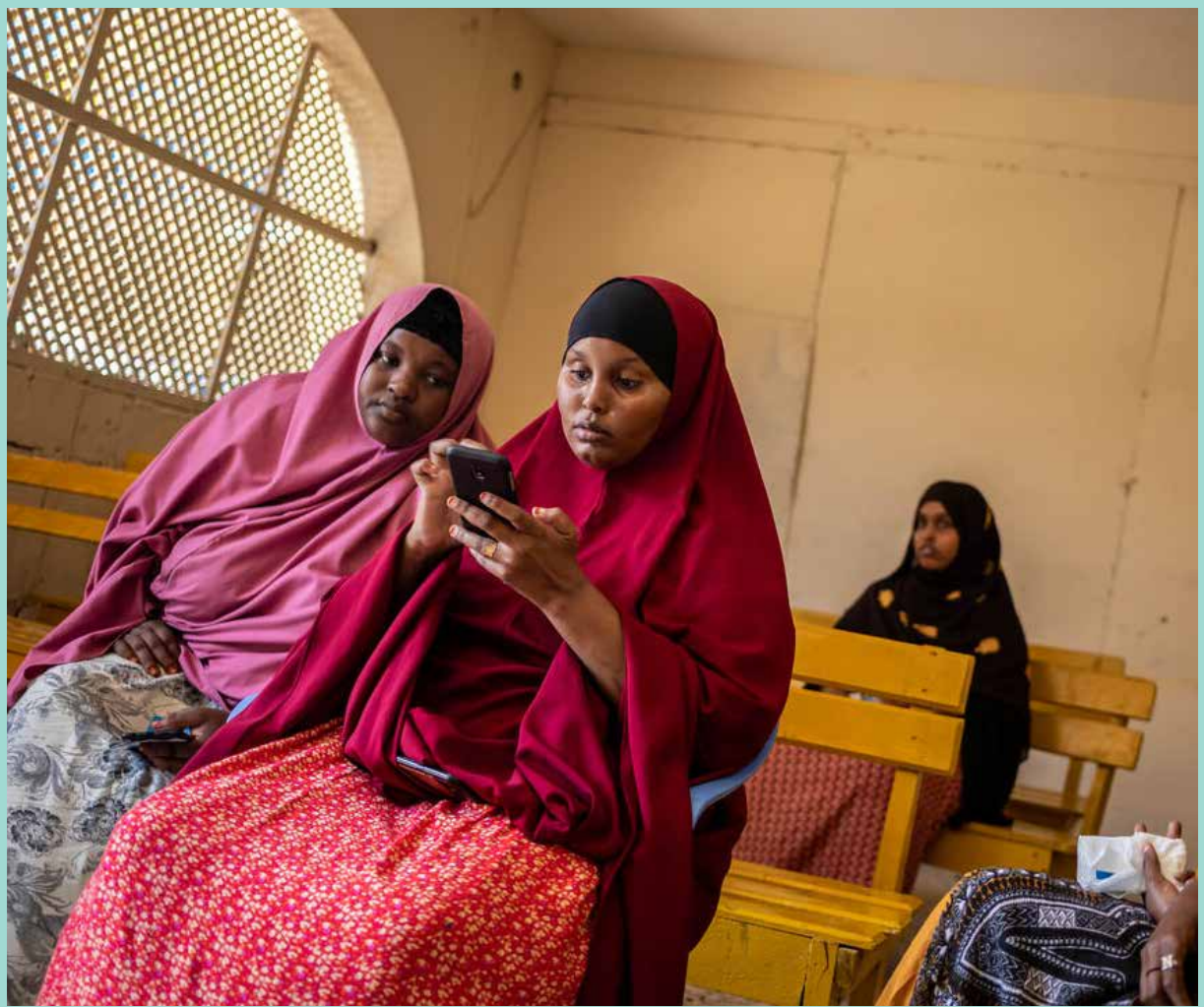

Global Emergency Telecommunications Cluster partners

Action contre la faim

CDAC Network

Cisco

Ericsson Response

Food and Agriculture Organization of the United Nations (FAO)

Global VSAT Forum

Government of Luxembourg

GSM Association

International Committee of the Red Cross (ICRC)

International Federation of Red Cross and Red Crescent Societies (ICFRC)

International Organization for Migration (IOM)

International Telecommunication Union (ITU)

Internews

NetHope

Office of Information and Communications Technology (OICT)

Oxfam International

Plan International

REACH

Save the Children

Swedish Civil Contingencies Agency (MSB)

Télécoms Sans Frontières (TSF)

U.S. Department of State

UN Children's Fund (UNICEF)

UN Department of Safety and Security (UNDSS)

UN High Commissioner for Refugees (UNHCR)

UN Office for the Coordination of Humanitarian Affairs (OCHA)

United Nations Development Programme (UNDP)

World Food Programme (WFP)

World Health Organization (WHO)

World Vision international (WVI)

Photo credits

Page 3: *WFP Executive Director David Beasley waits for cargo plane to land in Accra, Ghana carrying materials for a UN COVID-19 field hospital.* WFP/Michael Dakwa

Page 5, top: *Food distributions in Bangladesh give solace to people who fled violence in Myanmar.* WFP/Saikat Mojumder

bottom: *WFP Egypt's school feeding programmes keep children healthy and in the classroom.* WFP/Mohammad Gamal

Page 6: *August 2020: equipment is loaded onto a WFP-chartered aircraft to assist Lebanon after the blast at Beirut port.* WFP/Arete

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Notes

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