

DIGITAL FOOD FOUNDATIONS

Digital
transformation
and our fight
against hunger



World Food
Programme

W FORE RD

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.

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

DATA & INNOVATION VERSUS CLIMATE CHANGE



预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_910

