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Executive Summary

The United Nations digital agenda advocates for the leveraging of Information and Communication Technologies (ICTs) to achieve the Sustainable Development Goals (SDGs). In turn, the 2018–2021 UNICEF Strategic Plan states what is needed on the ground, to have ‘everyone, everywhere connected’. Thus, our mandate is clear, and UNICEF has accelerated and fully embraced the use of ICTs, and is fast becoming a digital organization.

As ICT professionals, change is one of our biggest challenges, and yet a close ally. A challenge, in that our function now permeates all aspects of the organization, beckoning new partnerships, but also an ally as all aspects of the organization go digital, welcoming our expertise in matters concerning security, system interoperability and compatibility, project management, IT financial management, innovation and more. As such, in 2018, we took big strides towards applying new and innovative solutions for improving UNICEF the wellbeing of children and UNICEF itself. As an organization, we showed leadership within the United Nations family in several ways. We assumed the position of Chair of the Management Committee of the United Nations International Computing Center (UNICC), hosted collaborative inter-agency meetings on Enterprise Resource Planning (ERP) and cyber security awareness, strengthened interagency participation in our annual Emergency Telecommunications Training (ETT), developed the interagency partner portal and strongly engaged interagency efforts to explore frontier technologies.

With the SDGs in focus, we also strengthened the relationship between ICT and the business. The ICT function manifested a new culture of collaboration and partnership with programmes and innovation teams, in addition to supporting the digital transformation of the organization itself – not just technologically, but culturally, too – as well as many country offices which started using technologies in new ways. Notably, this was the first full calendar year of work for the new ICT Business Relationship Managers (BRMs) and Technology for Development (T4D) specialists who together partnered with all headquarter and regional offices and field programmes and priorities to provide invaluable ICT services. The initial response to their work has been overwhelmingly positive, receiving mention in the organization’s innovation evaluation report as a best practice.

Cloud services continued to improve efficiencies for all facets of business, most notably in the area of hosting a Yemen cash transfer programme, a ground-breaking initiative that could mark a new way of programmatic support, with implications for how best to scale-up open source, mobile-made-simple apps for real time monitoring, a growing demand. We look to learn from such trail blazing initiatives in order to become more efficient in scaling up other proven innovations in the future.

We had great success in doubling the uptake of our cloud-based telephone system to a 25% adoption rate, boosting the use of webinar and video conferencing. We also rolled out a new digital workplace with a new intranet as well as tools for improved internal and external collaboration. The new digital workplace addresses modern day questions related to the management of digital assets on secure, user friendly platforms that preserve institutional memory, facilitate findability, and, in the case of the United Nations family, address matters of diplomatic privileges and immunity.

2018 opened the current quadrennial planning period which marks a new era of digitalization, its full manifestation yet to be conceived, let alone imagined. Therefore, as change in the ICT world continues to accelerate, and change, *per se*, it is imperative that we ourselves remain a vessel designed to be overhauled in mid-flight, as we continues on the 2018–2021 journey as trusted allies with ICT stakeholders, to successfully implement UNICEF programmes globally through the use of innovative, technology-enabled solutions for better results for children.
ICTD Context and Trends
As this section describes the ever-changing context of our work, it sets up a backdrop for the ensuing narrative of achievements and attempts to give the reader an appreciation of the challenges our staff face as they deliver results for children. As ICT professionals, change is one of our biggest challenges, and yet a close ally. A challenge in that our function now permeates all aspects of the organization, beckoning new partnership everywhere, but an ally in that all aspects of the organization are going digital at full speed, welcoming our expertise in matters concerning security, system interoperability and compatibility, project management, IT financial management, innovation and more.

In the context of the ICT industry itself, new technical trends endlessly reshape our approaches to our mandate, bringing new opportunities and challenges through new technologies and culture. Cloud computing, for example, have become an effective and efficient solution that has redesigned our ICT infrastructure.

Increased attention to data protection and privacy was evidenced by extensive news coverage and some highly publicized controversies. The European Union’s General Data Protection Regulation (GDPR), being the most publicized normative mitigation, has contributed to changing how we will formulate programmatic ICTs.

More formally, at a global level, every SDG implies the use of ICTs as enablers. It is understood that technology will help us reach those goals. In turn, the United Nations digital agenda is unequivocal as it advocates for leveraging ICTs to achieve the SDGs.

Within the organizational, the 2018–2021 UNICEF Strategic Plan states what is needed on the ground, to have ‘everyone, everywhere connected’, which firmly places ICTs as an enabler across all intervention areas; hence the growing need for T4D expertise and engagement. The ever-intensifying awareness and use of ICTs has turned UNICEF into a landscape of digital assets and processes requiring continuous cultivation. The ICT journey is no longer our singular prerogative, but everyone’s story, mandating stronger, omnidirectional partnerships to enable results for children.

The context of our work in everyday life is one of a changing planet of connectivity. The reach of mobile technology is astonishing, and increasing at lightning speed. GSMA.com estimates that the number of unique mobile subscribers at 5.1 billion, offering ample opportunities for UNICEF, such as our renewed Supporter Engagement Strategy which aims to extend our partnerships.

Unique mobile subscribers
March 2019

5,170,965,938

GROWTH, YEAR ON YEAR

GROWTH, LAST 3 YEARS

▲ 3.00%
It is thrilling to witness history from the centre of the digital revolution, as the transformative power of ICTs capture the world and discussions about the effects and affects of Artificial Intelligence, Block Chain and Machine learning take their place at the forefront of international deliberative bodies.

**Key Results Achieved**

As this section outlines our results, it accentuates the benefits of partnering with the ICT function to achieve the UNICEF Strategic Plan goals. Annex 1 supplements this section. It captures the actual values of our Key Performance Indicators (KPIs).

As established in the Information and Communication Technology Division (ICTD) Office Management Plan (OMP), three outcome areas correspond to the three pillars of the ICT Strategy: (1) Operational Effectiveness and Efficiency, (2) Programme Effectiveness and (3) the Innovative use of Technology. The ICT Strategy is illustrated below:

In 2018, we started measuring our aspirational goal to grow the number of programme-related apps (pillar 2) to at least 50 percent overall, a UNICEF Strategic Plan KPI. In 2018, the percentage of programme solutions grew from 25 to 34 percent. The remaining ICT solutions were for operational effectiveness and efficiency (pillar 1) and it is work noting that the percentage of staff with full access to all relevant core UNICEF information systems, including ones with mobile enablement, grew from 83 to 90 percent, primarily owing to our new licensing strategies and cloud services.
Partnerships and relationships for results

Partnerships and relationships are essential ingredients to making our strategy work. External engagement, which rose by 10 percent.

A widespread uptake of the new ICT Strategy, is worth noting as an area of exceptional achievement, as it reflected the new strategic dispensation of the organization, working towards a higher digital IQ to enable the corporate strategy. That uptake was catalyzed by another area of achievement, a strengthened partnership with the Regional Chiefs of ICTs and newly recruited regional T4D managers. They used the global ICT strategy as the basis for their work in their respective regions.

2018 was the first full calendar year of work for our fully resourced ICT Business Relationship Managers (BRMs), that played a key role in making our strategy work. They engaged business owners to help improve project governance and promoted the use of standard productivity tools amongst business divisions. As a result, our partners recognized the added value of the BRMs to their projects and initiatives. One key challenge that the function faces is in helping the business strengthen its ability to capture return on investments (ROIs). While monetary ROIs are readily quantifiable, qualitative ROIs remain a challenge and are one of the reasons, among others, why an increase in resources in the BRM function beckons, as the growing number of mission-critical projects shows no signs of deceleration.

The ICT Board (composed of key stakeholders from the four Deputy Executive Director cones, regions and country offices) was kept well abreast of the implementation of the ICT strategy by the Chief Information Officer (CIO). The Board oversees strategic ICT investments, and three portfolio alignment meetings were conducted in 2018 to vet ICT business requirements across all functional areas of UNICEF.

Strengthening the innovative use of technology

The percentage of countries implementing proven real-time information innovations at scale, including adaptation for humanitarian response, jumped from 24 to 64 percent, as UNICEF accelerated results for children and young people through innovation.

Through the integration of real time monitoring into national systems using RapidPro, an 11-country initiative, supported by the regional T4D managers, planning and programme specialists in East and Southern Africa, South Asia and Middle East and North Africa regions were able to help more than 38 million children, and 50,000 front line workers through digital water and sanitation, health, and child protection programmes. Child Protection experts worked with ICT architects to conceptualize the next generation system, and presented this as an accelerator proposal which was approved by the ED.

More than half of the countries reported using a real-time information technology at scale. ICT staff also supported the U-Report initiative that is now is live in 55 countries, 11 of which launched in 2018.

Innovative data science and predictive analytics were used in the Democratic Republic of the Congo during the Ebola crisis to provide mapping of high risk areas where the epidemic could spread. In 10 countries, more than 500,000 schools were mapped, including internet connectivity maps for 5 countries (covering 125,000 schools with connectivity data), allowing the government of Kyrgyzstan to provide connectivity to more than 100 new schools in 2018. The data science team (Magicbox) transitioned from innovation to ICTD in 2018, to grow UNICEFs capabilities in the area of AI and data science for future use cases.
ICT staff also worked with the Data, Policy and Research (DRP) division, to develop the next data management solution (Helix) that will form a robust platform for UNICEF-hosted programme data in years to come.

**Humanitarian partnerships: of machines, people and processes**

In emergencies, partnerships are the only way to achieve success. Partnerships enable us to achieve more than we can by working on our own. In this regard, throughout the year, we built and sustained several internal and external critical partnerships. This work ties into the corporate strategy aimed at winning support for the cause of children from decision makers and the wider public.

We worked closely with our internal divisions (EMOPS, Innovation, Supply Division, Regional & country offices) as well as our external partners (ETC, ETSS, WFP, UNHCR, Luxemburg government, *inter alia*), represented UNICEF in humanitarian ICT forums, and major interagency emergency bodies such as Telecom Security Standards (TESS), which reassesses and redesigns country security systems. More than ten emergency locations benefited from onsite assessments and support (RSA, Burkina Faso, Mauritania, Senegal, Guinea Bissau, Bangladesh, Yemen, Sudan, Iraq, Nigeria, Malawi and Nepal) via this interagency workgroup.

We coordinated partner in-kind contributions to critical emergencies, including satellite and bandwidth installations in emergency locations. In Sudan and DRC, for instance, we provided solid connectivity (free satellites and bandwidth) for over ten months. Partners received free satellite services and bandwidth worth USD 100,000 on average and the percentage of requests for emergency response team support that were filled within three days rose from 70 to 90 percent.

We renegotiated interagency supply contracts with emergency delivery clauses for critical equipment and services, and under the new bilateral partnership with Amazon, we will be testing new equipment in 2019. The goal is to find innovative ways to ease the work of emergency response. One exciting prospect is the use of servers that work well offline in remote areas, but later upload to the cloud once connectivity is available. Drone use is also being conceptualized under this partnership.

We simplified emergency response kits using new technology, resulting in lighter, faster, cheaper, and more agile tools. In another novelty, we started purchasing solar kits for schools in ten pilot locations in Niger where we are learning how to size solar panels against community needs. The power supply is for mobile connectivity and is an example of our strategy to increase our programmatic partnerships and activities. The work is in partnership with education programmes.

In partnership with the Emergency Operations (EMOPS) division, we strengthened emergency preparedness through the launch of an intelligent platform for solid emergency preparedness planning (EPP project).

**Modernizing towards improved delivery and support**

UNICEF seeks to create versatile, safe and secure knowledge and information systems to harness the power of evidence as a driver of change for children. As a result, we restructured the sections that handle knowledge and information systems as well as data systems for evidence. This restructuring in our Solutions Center aimed to provide microservices of data, where data can be ‘consumed’ by any app. More crossover systems and cross cutting work means that data sets in one system can serve another part of the house.

Towards the corporate objective of harnessing the power of evidence as a driver of change for children, we created space to serve corporate big data needs. In collaboration with the office of
Innovation, we subsumed the team that pioneered such work (Magic Box) in the organization, so as to build on the institutional gains in that area. Leveraging new data sources and techniques allows for real time demographic information that can be applied towards early warnings, epidemic forecasting, infrastructure and settlements surveying, fast and affordable estimation of key indicators like poverty levels. The information can also lead to new technology partnerships and the capacity to drive research on new Big Data and AI methods for the most vulnerable.

The challenge with data platforms are more about understanding what data is needed, what could be done with it, and who could use it. We will need to build a set of methods and approaches that have the breadth and depth to capture different types of data management apps, anticipate what to use the data for, how to display and promote it, as 2030 (SDG deadline) approaches.

The Solutions Center also adopted new processes conducive to agile project management methodologies, an ICT industry trend that seeks to meet everchanging customer requirements. A key challenge and risk in developing and maintaining ‘versatile, safe and secure knowledge and information system’ is the tendency to underestimate the final scope of system functionality. This can lead to changes in project scope, mid-stream, or bad budgeting for long term support. While ‘agile’ is meant to address that, it is far from perfect. Also challenging is executing agile methodologies, particularly how to budget for projects as requirements change. We will increasingly work towards addressing project management training in 2019 and beyond.

In line with industry standards, we revised our ICT cost accounting methods to increase transparency and facilitate conversations between technology and business leaders about value of ICT.

Service and case management also gained a boost, in an ambitious project in partnership with GSSC. A new service management tool (Service Gateway) was completed (launched early 2019), consolidating several services and systems into a single state-of-the-art platform.

Among other notable achievements is the Enterprise Resource Planning (ERP) tool modernization, completed within time, scope and budget through the engagement of multiple stakeholders and partners, including the Division of Finance and Administration, the Division of Human Resources, the Global Shared Service Center and a number of headquarter, regional and country offices. The upgrade translates to improved performance, advanced processing and report generation, but also gave us a robust platform for the future.

Upgrades to the business intelligence platform (Insight) led to enhanced programmatic reporting, decision support for management and solid year-end results reporting and similar systems.

We were a proud partner in moving thirty country office sites from a legacy web content platform, to the new ‘unicef.org’ modernized replacement. This will be instrumental, as a piece in our Supporter Engagement Strategy to strengthen our engagement with the digital outside world, aimed to winning support for the cause of children from decision makers and the wider public. The objective of this Supporter Engagement Strategy (SES) is to bring 100 million supporters to UNICEF’s cause, including donors, advocates, and followers, including 14 million donors contributing $1.6 billion per year by 2021. SES took flight under a firm partnership with the Private Fundraising Partnership (PFP) division and the Division of Communication (DOC). Initially this means developing the next generation platforms for Fundraising, but later also enables new levels of engagement with volunteers and supporters.
Strengthening Enterprise Content Management (ECM)
Organizational assets and information are rapidly taking on a digital form, introducing new risks and concerns. Do users know where to find information? Are digital assets accessible and retained after custodians depart the organization? Is access to sites and libraries being managed well?

It is conceivable, in today’s world of intensifying change, that without intervention, an international organization like UNICEF could quickly become a conglomerate of ‘ones and zeros’ hosted not only on corporately-sanctioned spaces that retain institutional knowledge for the future, but also on unsanctioned, insecure, ‘off the radar’ spaces where institutional knowledge is lost forever and United Nations privileges and immunities are not honoured.

We not only mitigated such risks in 2018, but went further and created a digital workplace (means of organizing and storing updated, structured/unstructured content with high findability) and began cultivating a core digital workforce (digitally adept pioneers). The ECM initiative rolled out a document management platform, powerful tools for work collaboration and a modernized intranet. The opportunities open to this initiative are numerous, including transforming UNICEF into a fully digital and paperless organization with a digital archive.

Under this initiative, we worked alongside partners to develop policy on retention schedules (what to keep, how to keep it and for how long) and guidelines for digitalization, aimed at reducing costs of preserving and storing content.

Many challenges lie ahead, including addressing areas with less than ideal infrastructure. Another challenge, as well as a risk, will be how to continuously build a culture of using innovative technologies to work and collaborate better and to continuously engage existing digital pioneers into a digital workplace after the project ends in 2019.

Information security
The UNICEF Strategic Plan enabler number 4, ‘versatile, safe and secure knowledge and information systems’, addresses one of the greatest threats of our age. The specter of cyber-attacks continues to plague the world, beleaguering public and private sectors alike. As the breach onslaught continues and cybercrime becomes ever more lucrative, security awareness is growing globally and investments are pouring into security technologies.

Staff Awareness around information security and confidentiality was boosted by the issuance of new standards, and the introduction of a digital information security training package. By the end of 2018 over 10,000 staff had completed the training. In lock step, UNICEF filled a new Security Specialist position to strengthen services and started the development of a security operations center in partnership with GSSC.

Moreover, we released an information classification app (Classi) to help stakeholders and BRMs classify information systems based on known technical control requirements before procurement. Strong partnerships will be needed to make this paradigm work across the organization, including close collaboration with a new data protection officer recruited in the child safeguarding section of Office of the Executive Director. The risks of not having a strong security programme cannot be overstressed.
Robust and evolving technology infrastructure
Building a resilient infrastructure that promotes inclusive and sustainable operations, unequivocally summon ICT to provide the organization with a work-from-anywhere set of tools and connectivity options.

In 2018, our engineers continued to strengthen and enhance UNICEFs ICT infrastructure, transforming it into a resilient, futuristic one that not only supports our own operations, but that is equally intended for the innovative and programmatic expedience our partners. One example is the hosting of the Yemen cash transfer system on the UNICEF cloud. In 2019 we will build on that work and explore how tenable it is to use software as a service to scale up programmes.

Operationally, we had great success. For instance, we had one hundred percent uptime in our enterprise telephony systems and started the development of a next generation video conferencing service. It falls under a multiyear program for improving and modernizing virtual meeting capabilities. We envision delivering a comprehensive set of business grade, predictable, user-friendly and inclusive online meeting and collaboration solutions, consistent across the organization. Since the release of O365 Telephony in May 2017, it is estimated that around $1 million was saved, compared to traditional standalone IP telephony systems. There are also other unquantified savings related to duplication removals in local support contracts and consolidation of support functions worldwide.

In 2014-2017 ICTD introduced the LIGHT concept (work from anywhere) that also decreased the IT footprint by eliminating local data centers in more than 100 field locations (cuts in greenhouse gases can also be attributed to this – less electricity & cooling). IT services for these locations were consolidated in a handful of regional centers. From 2018 onwards, ICTD continued to further expand the consolidation and reduction of the IT footprint by moving more services to the cloud. The goal is to have, by end of 2021, least 60 percent of offices without any IT infrastructure. Expanding on this, we can estimate that between 2025 and 2030, UNICEF will be a cloud-only organization – adding to cost savings, efficiencies, and business continuity.

We will continue to build on this success to leverage new technologies for operational and programmatic excellence.
## Annex 1 2018 Results Table

### UNICEF Strategic Plan enablers and ‘hows’ (see column 2)

**Enabler #4**: Knowledge & information systems  
**How #7**: Harnessing the power of evidence as a driver of change for children  
**How #2**: Winning support for the cause of children from decision makers and the wider public

### ICT Strategic plan pillars (see column 3):

- **Pillar 1**: Operational Efficiency and Effectiveness  
- **Pillar 2**: ICT contributing Programme Effectiveness  
- **Pillar 3**: Innovative use of Technology (transform UNICEF through systems of innovation)

<table>
<thead>
<tr>
<th>Output / Results</th>
<th>SP How &amp; SP Enabler</th>
<th>ICT Strategic Pillar</th>
<th>Key performance indicators</th>
<th>Baseline (2017 actual)</th>
<th>Target value 2018 Target (actual)</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<tbody>
<tr>
<td><strong>Outcome 100</strong>: Better outcomes for children enabled through strong global transformative partnerships with stakeholders and use of innovative technology-enabled solutions</td>
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| **Output 100**: Leadership and oversight of ICT strategy to promote use of new technologies to more efficiently and effectively serve children  
- Three ICT board meetings, over 15 mil in projects approved  
- Statutory reporting requirements met in all instances  
- Strategic planning deliverables completed on time with high quality  
- Executive governance support provided to all committees, boards and teams  
- Leadership support during interagency and internal events  
- Establishment of editor panel. Increased amount of internal communication materials, at increasingly high standard. Support to communication of projects.  
- Project management support and PPM – Initiated improvement plan  
- Workshop with all project managers and BRM staff to strengthen project management procedures and guidelines | | Pillar 1 | Internal knowledge platform utility index | 0.6 | 0.7 (0.6) | 0.8 | 0.9 | 1.0 |
| | | | External Engagement Index | 0.6 | 0.7 (0.72) | 0.8 | 0.9 | 1.0 |
| | | | Percentage of requests for emergency response team support filled within three days | 70% | 90% | 100% | 100% | 100% |
| | | | Percentage of countries implementing proven real-time information innovations at scale, including adaptation for humanitarian response | 24% | 40% (61%) | 50% | 60% | 70% |
| **Output 200 – Enabling Management**: All core management systems and business processes are optimized to ensure maximum efficiencies, effectiveness and risk management for management cluster systems. Modernized our enterprise systems and entering into the mobile and connected world. Engaged as a key partner in UN reform and business operations initiatives (BOS), to identify areas of common efficiencies while safeguarding and promoting UNICEFs interests  
- Completed 3 business cases, i.e., Robotic Process Automation, Candidate Screening and Assessment Platform and Facility Management Tool; the first two were accepted by the ICT Board  
- Completed scripting governance and process procedure aimed to minimize, if not eliminate, the risk and impact of incorrect data update in ERP (Winshuttle)  
- BOS Common Services data collection and visualization tool  
- MS Forms for Global Staff Association  
- Provided value-add services and advice, responded to an average of over 60 requests/per month  
- Secured genuine buy-in and appreciation from the business partners | | Pillar 1 | | | | | | |
<table>
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<tr>
<th><strong>Output 300 – Enabling Field Results:</strong> UNICEF staff and stakeholders are provided with information and up to date business intelligence for decision making and transparent reporting. Enable business performance and increase transparency through timely and accurate corporate reporting platforms, and linking to Donor reporting and AITI. Support rollout of programme monitoring tools (eTools).</th>
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</table>
| • Annual workplans coordinated and aligned  
• Initiated and established governance for mWIMS, RAM Redesign  
• Development of 2 Business Cases for field results completed  
• Field results modules ready for rollout  
• Rationalization & alignment of in-country Travel with ERP  
• BAU – inSight enhancements, VISION (M&E), BI for AB,  
• RAM Redesign – integration of COAR  
• Launched field results app  
• Project governance – promoted structured approach and process uptake in projects  
• Technical oversight & accountability of filed results tool transferred to ICT  
• Promoted standard tools amongst Business divisions |
<table>
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<tr>
<th><strong>Output 400 – Enabling Programmes:</strong> ICT workforce is fully engaged in partnerships for real time monitoring, and the ICT function has contributed to and provided solutions and services to enhance program delivery. Delivering ICT system, tools, capacity and policies to enable programming for results in development and humanitarian settings. Delivering and scaling up solutions to gather and leverage real time information in development and humanitarian settings. Explore and develop frontier technologies to deliver Programme goal.</th>
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| • 5 installations delivered for child protection solution- Primero  
• Completed recruitment of consulting company for feasibility study  
• Developed business case for nutrition team  
• Environmental protection app stabilization, budget rationalization  
• Security incident reporting business case, first prototypes  
• Delivered Emergency Preparedness Planning application globally  
• Supported and rearchitected Cash Transfer Beneficiary Management solution in Yemen |
### Output 500 – Enabling Partnerships: Engagement and Communication solutions have been provided for supporters, partnering, advocacy, fund raising, capacity building and maximized program outcomes. Building an engagement platform consisting of a convergence of social media, relationship management, fundraising and a volunteer portal. Work with DRP to leverage the benefits of internal and external data sources and systems to improve management’s decision-making at all levels. Partnering with the private sector and the tech industry to identify opportunities for increased internal and external service delivery.

- Strategic project and initiatives enablement: supporter Engagement Strategy in early development phase. Both Business Case, project charter approved ICT Board.
- Helix project in development phase: Increase operational excellence and efficiency on existing IT initiatives.
- Digital governance process made available on service management tool.
- Converted over 50 users from using non-compliant 3rd party tools to through brown bag sessions and hands-on training.

### Output 600 - Enabling Humanitarian Response and Partnerships

- ICT leadership, technical support, oversight and stewardship has been provided for ICT related humanitarian and emergency response.
- Partnering with the UN family, the private sector and the tech industry to support emergency humanitarian ICT areas. Provide field offices with capacity building, to use technology for improved staff security and humanitarian action.

### Outcome 701 (Investment Project) Enterprise content management

- Enterprise content management and information management support services have been provided that measure favorably against industry best practices and interagency benchmarks. Introducing an Enterprise Content Management platform and a ‘revised’ ICON-Digital Workplace to enable knowledge management globally.
- New Icon implemented.
- Piloted intranet sites and document management systems in Malawi CO and 15 beta sites.
- Released digital workplace template and document management system tools for collaboration and communication sites.
- Continued with release of digital workplace and document management system implementation targeting 80 offices.
- Finalized review of 2,500 boxes in Secaucus.
- Advanced procurement of Trusted Digital Repository for digital archives.
- Solicited approval for retention schedules.
- Continue with content migration into the document management system from legacy storage systems.

### Key performance indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline (2017 actual)</th>
<th>Target value</th>
<th>2018 Target</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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Output 200: Ensure ICT Governance and Strategic Planning
### Strategy Risk and Governance

All UNICEF information systems and services were ensured governance, quality assurance, risk assessment, resource and strategy alignment before, during and after implementation to ensure reliability and quality results. Mitigating information security risks associated with operational and programmatic systems. Ensure governance for optimal resources allocation and value for money of ICT enabled initiatives, and that they are in alignment with UNICEF strategy.

- Statutory reporting requirements met in all instances
- Strategic planning deliverables completed on time with high quality
- Executive governance support provided to all committees, boards and teams
- Leadership support during interagency and internal events
- Establishment of editor panel. Increased amount of internal communication materials, at increasingly high standard. Support to communication of projects.
- Project management support and PPM – Initiated improvement plan
- Held workshop with all project managers and BRM staff to strengthen project management procedures and guidelines
- ISMS - formed of Information Security Program Forum
- Updated Information Security Policy, and transference of standards
- Follow-up Field Office vulnerability Test
- Global Release of Information security classification app
- Inter Agency Security event co-hosted
- Information / System Classification Inventory developed
- Vulnerability Management PoC built
- Field Office vulnerability reported on
- Increased Staff engagement and managers' investment in teams’ growth – evidenced in the PULSE survey
- Implement phase II of divisional realignment through managed change process
- Systematically reached out to Global ICT workforce for career planning and professional development
- Increasing financial management literacy on internal controls and financial management
- Workforce planning to deliver SWOT analysis and action plan for 2019
- Conducted ICT Annual Risk Assessment, updated inSight Register. Conducted ICT Project Portfolio Risk Assessment
- Reviewed ICT policies, conducted gap analysis, notified Managers
- Updated and published multiple ICT regulatory documents
- Translated selected ICT regulatory documents to French and Spanish languages (16)
- Developed new ICT Policy Manual, revised the Risk Mgmt Program
- Coordinated several Audit activities (All Recommendations closed timely)

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<tr>
<td><strong>Outcome 300:</strong> Highly Resilient and Effective ICT Infrastructure</td>
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Platform and Service Delivery - Highly resilient and effective ICT infrastructure and platforms have been delivered to all CO, RO & HQ locations resulting in increased productivity and efficiencies

- Enterprise Telephony systems: 100% uptime. Since the release of O365 Telephony in 2017, estimated $1m were saved. Adoption in 2018: 13 new offices adopted. Number of users increased by ~1600 users to reach close to 4800 users globally. Over 25% of UNICEF users.
- Enhanced authentication services, self-service licensing.
- O365 new services: Forms, Skype broadcast. Configuration, pilot and management of Teams and Planner, yammer analytics.
  4 partner organizations configured and managed. Governance: Formal ToA, access to sensitive resources and oversight of investigations. Delegation of resource creation and access control to Global Shared Service Center. New version of the regulatory framework O365 document (including SLAs with data, etc.)
- Conference services: overall solution and approach endorsed by PB. Zoom scaled up to 85 licenses distributed across regions. Released “one-click” join meeting process
- Completed Merali scale-up for serverless offices: consolidated purchase (30 POs)
- ICT Customer Support Services to 1400+ staff. Launched ICT Welcome Centre to support increased walk-in userbase service requests
- New York HQ LAN upgrade: fiber cabling and hardware design completed. Visibility and analytics design ToR completed. Hardware installation and cabling completed

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<th>ICT Strategic Pillar</th>
<th>Key performance indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enabler #4</td>
<td>Pillar 1:</td>
<td>Percentage of average availability of core ICT systems and services across UNICEF (less than five hours of downtime/month)</td>
</tr>
<tr>
<td></td>
<td>How #7</td>
<td>Pillar 3</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>How #2</td>
<td></td>
<td>100% (99.84%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100%</td>
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<td>100%</td>
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</tbody>
</table>

Outcome 400: Optimized management systems and business processes

Solution Center - All core management systems, business processes and productivity tools are optimized to ensure maximum efficiencies, effectiveness and risk management. Ensure sustained and user-friendly quality applications and information systems, and organizational capability that is fit for purpose.

- Restructure solution center to make it fit for purpose
- ERP modernization) completed within time scope budget with engagement and involvement of extensive set of stakeholders. Benefits: enhanced system accessibility, processing, reports generation. Universal licensing/self-service. Eliminated bottlenecks.
- Upgrades to Insight to enhance programmatic reporting; enhanced reporting tool (RAM 2.5) which has enhanced the capability of year-end results reporting
- Digital transformation project: moved 130 CO sites from legacy platform to new one. New platform improved our engagement with outside world through UNICEF.org, able to do coordinated online campaigns with global themes

<table>
<thead>
<tr>
<th>Output / Results</th>
<th>SP How &amp; SP Enabler</th>
<th>ICT Strategic Pillar</th>
<th>Key performance indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enabler #4</td>
<td>Pillar 1:</td>
<td>Percentage of staff having full access to all relevant core UNICEF information systems and are mobile enabled</td>
</tr>
<tr>
<td></td>
<td>How #7</td>
<td>Pillar 2</td>
<td>83%</td>
</tr>
<tr>
<td></td>
<td>How #2</td>
<td>Pillar 3</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>96%</td>
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<td></td>
<td></td>
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<td>100%</td>
</tr>
</tbody>
</table>
- New digital work place, intranet and document management system
- Power BI released for self-service
- Transitioned big data team from innovation: bring capability to further employ data
- Mobile Warehouse Management Information System: Ethiopia, Uganda, DRC early adopters. Mobile app integrated with SAP: involved end to end process for managing and organizing warehouses: from order to dispatch from warehouses for distribution
- Open source scaleup: 11 COs went through 1st mass scale up from innovation. PD, OI, ICTD, FRG: engaged in looping into specific initiatives for mainstreaming Open source for RTM and strengthening government institution capacity to adopt and run. Now have a model and 30 more COs ready to scale up based on the lessons learned
- Supporter Engagement Strategy: discovery work, building up resourcing. Looked at everything from taking stock of tools we have across UNICEF that can be employed and brought them into the fold to review for integration
- Enhanced and extended the capabilities existing non-SAP systems; development and support of apps for internal use in UNICEF (CIFDS, EPP, COR 2017, ACT, HAC, EDB, EMR Tracker, PRIME, OED Roundhouse, OSEB Correspondence). Made over eight internal apps available for business needs (EPP 1.1, ICT Office Profile 2.0 (Phase I), Helix Data Catalogue, HAC 2.0, PSEA, EISI, MENA Adolescent Fact Sheets, ACT)
- Programmes and field results: built and delivered field results app. Enhanced open source capabilities. Developed and delivered of programme delivery tools. Finalized and initiated technical workplan for big data. Establish common data pipeline for field results and open source dashboard needs
Annex 2 List of Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>BRM</td>
<td>Business Relationship Management</td>
</tr>
<tr>
<td>CIO</td>
<td>Chief Information Officer</td>
</tr>
<tr>
<td>CO</td>
<td>Country Office</td>
</tr>
<tr>
<td>DFAM</td>
<td>Division of Finance and Administration and Management</td>
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<tr>
<td>DHR</td>
<td>Division of Human Resources</td>
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<tr>
<td>DOC</td>
<td>Division of Communication</td>
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<tr>
<td>DRP</td>
<td>Data Research Policy</td>
</tr>
<tr>
<td>EMOPS</td>
<td>Emergency Operations</td>
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<tr>
<td>ERP</td>
<td>Enterprise Resource Planning</td>
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<tr>
<td>ETT</td>
<td>Emergency Telecoms Training</td>
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<tr>
<td>GDRP</td>
<td>General Data Protection Regulation</td>
</tr>
<tr>
<td>GSSC</td>
<td>Global Shared Service Center</td>
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<tr>
<td>HQ</td>
<td>Headquarters</td>
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<tr>
<td>IaaS</td>
<td>Infrastructure as a Service</td>
</tr>
<tr>
<td>IAM</td>
<td>Identity and Access Management</td>
</tr>
<tr>
<td>ICTD</td>
<td>Information and Communication Technology Division</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>KPI</td>
<td>Key Performance Indicators</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>Maintenance and Enhancements</td>
</tr>
<tr>
<td>O365</td>
<td>Office 365</td>
</tr>
<tr>
<td>OED</td>
<td>Office of the Executive Director</td>
</tr>
<tr>
<td>PBR</td>
<td>Programme Budget Review</td>
</tr>
<tr>
<td>PFP</td>
<td>Private Fundraising and Partnerships</td>
</tr>
<tr>
<td>PPM</td>
<td>Project and Portfolio Management</td>
</tr>
<tr>
<td>RO</td>
<td>Regional Office</td>
</tr>
<tr>
<td>SD</td>
<td>Supply Division</td>
</tr>
<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
</tr>
<tr>
<td>SES</td>
<td>Supporter Engagement Strategy</td>
</tr>
<tr>
<td>SME</td>
<td>Subject Matter Expert</td>
</tr>
<tr>
<td>T4D</td>
<td>Technology for Development</td>
</tr>
<tr>
<td>UNICCC</td>
<td>United Nations International Computing Centre</td>
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