ICT Sector Achievements in 2021

In 2021, the Ministry of Communications and Information Technology (MCIT) made great strides in implementing the Digital Egypt strategy, through which the country strives to adopt the latest technologies and foster innovation. The aim is to establish an all-encompassing digital society that will help build the Egyptian citizen, develop the state sectors, and strengthen Egypt's position on the global map of the ICT industry.

ICT Indicators

The ICT indicators were remarkably high, making the ICT sector the highest-growing state sector. In this regard, the most prominent achievements in 2021 were:

- The sector's growth rate rose to 16% in 2020/2021, compared to 15.2% in 2019/2020.

- The sector's contribution to the GDP increased from 4.4% in 2019/2020 to 5% in the fiscal year (FY) 2020/2021.

- The value of digital exports grew from $4.1 billion in 2019/2020 to $4.5 billion in 2020/2021.

- Egypt came among the Top 10 Improvers in Digital Inclusion, according to Bridging the Digital Divide report by Roland Berger

- Egypt moved up 43 spots in GSMA Mobile Money Regulatory Index 2020, ranking 36th out of 90 countries adopting this type of services, compared to 79th in 2019, becoming the country with the highest growth rate on the Index.

- Egypt moved up five spots in the Inclusive Internet Index 2021, ranking 73rd out of 120 countries (compared to 78th in 2020), and 4th out of 29 African countries, according to a report by the Economist Intelligence Unit (EIU).

- Egypt ranked high on the World Bank's GovTech Maturity Index (GTMI) in 2020.

- Several reports by reputable organizations, including MAGNiTT, Disrupt Africa and Wamda, highlighted the efforts made by MCIT and the Information Technology Industry Development Agency (ITIDA) to put Egypt at the forefront of the global entrepreneurship scene.

- According to the Global Startup Ecosystem Report (GSER) 2021, Cairo is:

    1- The #1 Regional Ecosystem Affordable Talent and among the top 15 Global Emerging Affordable Talent.

    2- The #2 Regional Ecosystem Knowledge. In this category, innovation is measured through research and patent activity.

3- The #3 in the list of Top 5 Performers in late-stage VC funding in MENA region in terms of funding, market reach and talent.

4- Among the Top 15 Global Emerging Ecosystem Funding.

5- Among the MENA region's four emerging ecosystems in the list of Top 100 Emerging Ecosystems in terms of performance. This Factor measures the size and performance of an ecosystem based on the accumulated tech startup value created from exits and funding.

- Cairo was the top African Tech Ecosystem in Foreign Direct Investment (FDI) strategy, according to the African Tech Ecosystems of the Future 2021/22 report by fDi Intelligence, a specialist division from The Financial Times Ltd.

- On Kearney's Global Services Location Index (GSLI) 2021, Egypt retained the top spot in the Middle East and Africa and the 15th globally, as an attractive destination for IT, Business Process Outsourcing (BPO), and offshoring services.

Digital Transformation

MCIT has been working to build Digital Egypt by implementing many projects in cooperation with the state sectors to digitize government services and achieve digital transformation in all sectors. The most prominent achievements in 2021 included:

- The launch of 65 new government services on Digital Egypt Platform, bringing the total to nearly 100 digital services. Citizens have access to services through multiple channels, namely Egypt Post, the hotline 15999, and mobile phone applications, with different e-payment methods made available.

- The number of subscribers on Digital Egypt Platform reached 4.2 million, with 14 million transactions conducted through the platform.

- The electronic litigation platform for the Economic Courts was launched in cooperation with the Ministry of Justice. The platform will facilitate litigation procedures without litigants having to visit the court, save time and effort, reducing paperwork, and serve companies and business owners outside Egypt.

- The soft launch of digital transformation services in the agriculture sector, in collaboration with the Ministry of Agriculture.

- The number of e-signature transactions increased from 170,000 in 2020 to 140 million in 2021.

- ITIDA licensed two companies in Egypt to use e-signature services, to help support digital transformation, achieve the Digital Egypt strategy, and connect government services to the private and civil sectors, which requires expanding in the e-signature system nationwide.

- A new e-signature program was introduced to start using the Advanced Cargo Information (ACI) system at the Egyptian Customs Authority to facilitate customs clearance procedures. In addition, a new e-signature application was introduced to implement the e-invoice system at the Egyptian Tax Authority, serving more than 3,500 taxpayers by providing more than seven million signed e-invoices.

Capacity Building

In 2021, the number of trainees increased, and the budget for technical training was doubled, from 148,000 trainees with a budget of EGP 400 million in 2020, to a target of 200,000 trainees with a budget of EGP 1.1 billion during FY 2021/2022.

Two CREATIVA Innovation Hubs were soft-launched, and five others were officially launched, bringing the total to seven Hubs. In addition, work is underway to establish nine more at a total cost of EGP 1.5 billion for the two phases of the CREATIVA Innovation Hubs projects, as part of a plan to establish a Hub in each governorate to provide technical training and foster innovation. The Hubs host brainstorming camps, business incubators and accelerators; trains employees of startups, and holds forums to bring entrepreneurs and investors together.

In this area, the most remarkable accomplishments included:

- Opening the Egyptian African Telecom Regulatory Training Center (EG-ATRC), an affiliated center to the National Telecom Regulatory Authority (NTRA), in Smart Village. The aim is to build the capacity if African telecom regulators.

- Launching the Digital Transformation Academy to ensure the sustainability of digital transformation, employ ICT to create a new business model within government institutions, build digital capabilities of heads and staff members at Information Systems and Digital Transformation units, and optimize government performance.

- Establishing five new applied technology schools in cooperation with the Ministry of Education to reach a total of six schools. They are the first smart ICT-specialized schools that aim to create a technical workforce capable of competing in the labor market.

- Cooperating with Microsoft in launching an advanced capacity-building scholarship to qualify 1,000 young graduates for future jobs in digital transformation, in areas including Artificial Intelligence (AI), data science, cloud management, advanced programming and database management.

- Partnering up with Amazon Web Services (AWS) to launch a scholarship to build 500 young people's capacities in data science and big data.

- Supporting the institutional development of the universal health insurance system in the governorates targeted within the first phase of the project, namely Ismailia, Suez, South Sinai, Luxor, and Aswan. This is in addition to putting into effect the cooperation protocol

with the General Authority for Healthcare, on bringing about institutional development and digital transformation at the Authority.

- Supporting the institutional development of the justice and law enforcement system in various judicial bodies, law enforcement institutions, and oversight bodies, including the Supreme Constitutional Court, the Court of Cassation, the State Lawsuits Authority, the State Council, the Public Prosecution, the Administrative Prosecution Authority, the Administrative Control Authority, the Central Auditing Organization, the Ministry of Justice, and Giza, Alexandria and Ismailia Security Directorates.

- The Institutional Development, Training and Human Capacity Building Sector at MCIT provided the necessary technical support and training for the creation and operation of information systems and digital transformation units in ministries, governorates, and public authorities.

- The Sector also trained 49,929 state employees, including those moving to the New Administrative Capital, staff members at information systems and digital transformation units, employees not moving to the New Administrative Capital, employees in governorates and surrounding districts, and those in charge of attaining the objectives of Decent Life national project for developing the Egyptian countryside.

- Raising awareness and building the digital capacity of 68,449 citizens in the villages targeted within Decent Life initiative, owners and workers of government service centers, and participants of the programs and initiatives targeting promoting digital literacy and attaining digital and financial inclusion, to build a safe, productive, and interactive digital community.

- The Information Technology Institute (ITI) trained more than 6,000 people on in-demand skills for future jobs, in areas including the Internet of Things (IoT), data analysis, AI, information security, embedded systems, business robots, and digital arts. The employment rate of ITI graduates reached 85%.

- The number of beneficiaries on ITI Mahara-Tech e-learning platform reached 300,000.

- Graduates of the "Freelancing and Remote Work Initiative" generated nearly $100,000 in revenue through the initiative.

- ITI concluded several partnerships this year, most notably:

  - ITI became a Member Institution of AWS Academy, making AWS Cloud Services available to ITI learners.

  - ITI was accredited by Apple Inc. as its first authorized training center in Africa.

  - ITI established an academic partnership with Unreal Engine, becoming its first Academic Partner in Egypt. The cooperation involves training developers and artists to create digital games and interactive art using Unreal Engine.

- ITI established a partnership with Red Hat in open-source software and different technologies such as data analysis, software development and system testing. More than 60 ITI trainees obtained Red Hat certificates, in addition, its educational content has been made available on Mahara-Tech platform.

- ITI established a partnership with Fortinet—a leader in cybersecurity solutions—which resulted in providing joint training programs in information security.

- The National Telecommunication Institute (NTI) concluded protocols and cooperation agreements with ministries, authorities, universities, and international companies specializing in ICT. NTI most prominent achievements included:

  - Holding workshops and seminars to introduce youth and employees in the telecommunications sector to emerging technologies.

  - Training 20,612 people in communications technology. NTI carried out a range of specialized training programs, most notably the Fiber Optics Training Program, the Digital Egypt Youth (DEY) initiative for training graduates and young recruits in ICT fields, B-Secure program, Wazeefa-Tech initiative, a training on VMware technologies, and the Summer Training program for students.

  - Implementing a project to measure the cellular base stations of Mobile Network Operators (MNOS) in Egypt.

  - Manufacturing Printed Circuit Boards (PCBs) through the PCB Laboratory, which is equipped with state-of-the-art technologies in this field. A total of 2,380 PCBs were manufactured.

- ITIDA trained 162,000 people through its initiatives and programs, most notably Next Technology Leaders (NTL) and Future Work is Digital (FWD). ITIDA also helped create 22,000 job opportunities.

- President Abdel Fattah Al-Sisi issued Decree No. 329 of 2021 for establishing a civil university called "Egypt University of Informatics - EUI" at the Knowledge City in the New Administrative Capital. EUI Board of Trustees was formed under the chairmanship of Former President of Egypt Adly Mansour. The University welcomed its first batch of students in October in four faculties: the Faculty of Computing and Information Sciences, the Faculty of Engineering, the Faculty of Business Informatics, and the Faculty of Digital Arts and Design.

- The Spring 2021 Semester of Digital Egypt Builders Initiative (DEBI) started in February. The Initiative grants learners a professional master's degree in six majors: data science and AI, cyber security, robotics and automation, digital architecture, digital arts, and financial technology, in collaboration with distinguished international universities. In 2021, DEBI achievements included:

- Establishing partnerships with tech giants, including IBM, Cisco, VMware, Microsoft, AWS, Dell, VOIS, Kaspersky, and Huawei Technologies. The aim is to hone the learners' technical skills, provide excellent training opportunities, and granting international certifications.

- Signing a cooperation agreement with the University of Ottawa in Canada to grant learners a Master of Electrical and computer engineering in AI, data sciences, robotics, IoT or cybersecurity.

- Signing a cooperation agreement with Korea's Pohang University of Science and Technology (POSTECH), which ranks #1 in Asia and #3 in the world's best universities with fewer than 5,000 students. POSTECH is one of the world's top 100 universities.

- Signing a cooperation agreement with Queen's University in Canada to offer learners an M.Sc. in data science and AI from Queen's School of Computing. Queen's University has placed first in Canada and fifth in the world in its global ranking of universities advancing the United Nations' Sustainable Development Goals (SDGs) within and beyond their local communities.

Artificial Intelligence

- Launching a special platform for AI under the aegis of the National Council for AI, as Egypt's official AI portal. It comprises the National AI Strategy; the events, news, and details of AI projects in Egypt; the capacity-building programs provided by various institutions; and Egypt's achievements in that field. The Platform provides an opportunity for exchanging views on AI matters and experiences among stakeholders; the government, public and private sectors; academia; and startups.

- Soft-launching Hudhud App, the farmer's smart assistant. This is an Arabic mobile application that capitalizes on AI to create more effective communication with farmers by providing digital guidance and useful advice on topics of interest to farmers and smallholders.

- Launching an AI-powered knowledge mining application for the Postal Museum. The application includes data on the museum's collection and displays information on each piece, capitalizing on machine learning algorithms, creating a seamless experience for visitors' by displaying information of good use to researchers and those interested in that field.

- Launching a virtual assistant application for visitors of the Postal Museum to facilitate access to a lot of information about the museum and its collection and respond to visitors' inquiries without the need to communicate with the museum staff.

- Signing a declaration of intent with the French Ministry of the Economy and Finance to strengthen cooperation in AI.

- Signing the AI Nations partnership with Nvidia, the company's first agreement with an Arab or African country. Under the partnership, the two sides organized the world's biggest training camp on the use of AI in scientific fields, joined by 280 students and graduates.

- Signing an MOU with Thales to develop AI and smart city applications. The two side also collaborated in fostering innovation, building local capacity in AI, supporting entrepreneurship, and conducting joint research on AI ethics.

- Signing a twinning agreement with AI Singapore (AISG) of the National University of Singapore. The aim is to cooperate to raise awareness of AI among all segments of society and transfer knowledge by establishing a governmental center of excellence (CoE) for AI to implement projects following the latest global techniques. The two sides also agreed on carrying out hands-on training for graduates and government employees in pragmatic AI.

- Training 100 government employees, experts in various fields, including agriculture, health, industry, planning, irrigation, and others, on the fundamentals of AI, in collaboration with Teradata. The aim is to help trainees identify relevant problems that AI can solve.

- Organizing C(4F)$_2$ Hackathon, Egypt's first AI competition, with the aim to reduce CO_2 emissions from vehicles and traffic, drawing on young techies' innovative ideas.

- Organizing a program in cooperation with Dell to create academic caliber in five Egyptian universities, training students to teach AI subjects.

- Co-implementing a program with Ain Shams University to prepare students for the labor market by undertaking applied projects in AI and data science.

- Leading the Arab AI Working Group of the League of Arab States (LAS). The Group is forging a single Arab AI strategy.

- Participating in UNESCO Intergovernmental Meeting of Experts (Category II) related to a Draft Recommendation on the Ethics of AI. Egypt also participated in the 41st session of UNESCO General Conference, at which the recommendation on AI ethics was adopted. Moreover, Egypt was elected Vice-Chair of UNESCO Ad Hoc Expert Group (AHEG) for the Recommendation on the Ethics of AI.

- Participating actively, in cooperation with the Organisation for Economic Cooperation and Development (OECD), in drafting the AI recommendations document, which entails the principles for the responsible use of AI, including capacity-building, governance, responsibility, humanity, transparency and other important principles. Egypt is the first Arab and African country to formally join the countries accepting the OECD document on responsible AI.

Information Technology Industry Development

ITIDA supported more than 1,400 IT companies in Egypt and carried out several activities to develop the IT industry. ITIDA most remarkable achievements included:

- Launching the Export-IT Program covering export proceeds of two consecutive years. ITIDA granted 131 companies a total of EGP 70 million on their export revenues in 2019. The export support on the total value added of exports in 2020 is to be granted soon for more companies.

- Selecting 16 small- and medium-sized enterprises (SMEs) to implement 15 digital transformation projects in government agencies at a cost exceeding EGP 43.5 million, as part of Our Digital Opportunity initiative.

- Collaborating with key players in the business and innovation sector, such as Massachusetts Institute of Technology (MIT), to boost the local startup ecosystem.

- Implementing several initiatives to help local startups access foreign markets. ITIDA also supported and sponsored many events, including Web Summit in Portugal, a global flagship technology exhibition; 4YFN in Barcelona; and The Next Web's Hangout with VCs, a live pitch event matching exciting startups with active investors and VCs.

- Developing an ambitious strategy in cooperation with Ernst & Young. The strategy aims to triple the size of BPO and ITO exports over the next five years, for the first time since 2010.

- Launching a range of training programs in cooperation with international companies and accredited language education institutions to hone the language and personal skills of young people, especially in underserved governorates, and cover employers' needs of employees with linguistic competence.

- Organizing and hosting major global events focusing on emerging technologies such as AI, cloud computing and smart cities, with the attendance of more than 35 speakers and international experts and 25,000 specialists.

- The Software Engineering Competence Center (SECC) of ITIDA developed a digital transformation framework for 27 national universities and trained 37 specialized officials. SECC also developed a framework and a reference architecture called "Digital Transformation for Software Development (DX4SW)" to support local companies specializing in software development and appraise 25 companies to boost their competitiveness.

- SECC appraised 26 small and medium-sized companies at the Capability Maturity Model Integration (CMMI®). SECC lead appraisers assessed and accredited 24 Chinese, one Saudi and one Egyptian company and provided consultancy and appraisal services in software engineering techniques and IT service management to about 56 software companies.

Technological Innovation and Entrepreneurship Support

- The volume of investments in startups in Egypt grew from $190 million in 2020 to $465 million in 2021, in view of the burgeoning entrepreneurship and startup sector, which contributed to the establishment of 335 new startups in 2021.

- The confidence of foreign investors and global VCs in Egypt's entrepreneurship and startup ecosystem increased. According to statistics for 2021, the number of investors in the Egyptian startup sector amounted to about 122, with foreign investments representing 60% of the total investments and financing deals.

- Continuing to support and encourage women entrepreneurs through carrying out the Women Entrepreneurship Program and training women and girls on the methodologies and concepts of managing and running early-stage projects and startups, so women can embark on an entrepreneurial journey. Around 300 businesswomen received support in the early stages of their entrepreneurial projects in 2021, representing a 60% increase in the number of beneficiaries of the program, compared with the three previous rounds of the program, which supported 500 women entrepreneurs in 2018-2020.

- Completing the African App Launchpad (AAL) initiative, which was launched by President Abdel Fattah Al-Sisi in November 2018 during the World Youth Forum (WYF), in Sharm El-Sheikh. Around 22 African countries participated in the initiative, which resulted in training 10,000 young Egyptians and Africans in 30 educational tracks in digital app and game development, in addition to supporting the creation of 100 African startups.

- Forging a comprehensive five-year strategy in cooperation with Deloitte and funded by the U.S. Agency for International Development (USAID). The aim is to make optimum utilization of startups, create an all-encompassing system for technological innovation, and boost the entrepreneurship ecosystem by matching innovative solutions with local, regional, and global demand and attracting more VCs to invest in Egypt.

- ITIDA Signed an agreement with Plug and Play, a worldwide leading company specializing in nurturing and upscaling startups. The aim is to establish a strategic partnership to help Egypt's entrepreneurship and startup ecosystem flourish.

- ITIDA supported ZEUS project, which involves locally designing and developing electric powertrain systems for public transportation buses. ITIDA support is represented in granting EGP five million to Brightskies, an Egyptian tech company carrying out the project.

- Organizing ibTIECar Marathon at CREATIVA by the Technology Innovation and Entrepreneurship Center (TIEC) of ITIDA, at CREATIVA Innovation Hubs in six national universities: Mansoura, Menoufia, Minya, South Valley in Qena, Aswan and Suez Canal in Ismailia, as well as in Egypt Makes Electronics (EME) Labs in Cairo, Alexandria and Assiut.

- Completing the first and second cycles of Startup Launchpad program, in collaboration with the American University in Cairo (AUC) Venture Lab, a member of Babson Collaborative for Entrepreneurship Education of Babson College.

- ITIDA collaborated with the Industrial Modernization Centre (IMC) and Siemens Egypt to establish the first Egyptian Industry 4.0 Innovation Center (IIC) at the Knowledge City in the New Administrative Capital. The Center will help employ Industry 4.0 and digital transformation technologies in the local industry.

Electronics Industry

- Contracting with Samsung to establish a factory in Beni Suef at a cost of $30 million to manufacture educational tablets, creating over 500 job opportunities. Pursuant to the contract, 1,000 technicians will be trained on the latest technologies. Establishing the factory is expected be completed by March 2022, where the manufacturing process will start.

- Funding and supporting projects through EME initiative of ITIDA, at the Knowledge City, with incentives for a period of three years. The aim is to advance the electronics and embedded software local industry to be one of the main pillars of economic growth in Egypt.

- Training 3,100 people on Industry 4.0 technologies at CREATIVA Innovation Hubs and EME Labs.

Infrastructure and Telecom Services Quality

- Connecting 15,000 government facilities through a fiber-optic network, bringing the total number of buildings connected to this network to about 20,000 out of a target of 33,000 buildings.

- Egypt's mean fixed broadband internet speed rose from 6.5 Mbps in January 2019 to 45.67 Mbps in November 2021, according to Speedtest Global Index, placing Egypt fourth in Africa in internet speed, compared to 40th in January 2019.

- Telecom Egypt signed a contract with Suez Canal Authority, in coordination with the Armed Forces Signal Corps, to create a new route for fiber optic internet cables between the Red Sea and the Mediterranean through Al Morshedeen Road.

- The National Telecom Regulatory Authority (NTRA) moved up 54 spots on ICT Regulatory Tracker by the International Telecommunication Union (ITU), ranking #41 out of 193 countries, up from #95 in 2019. NTRA also ranked #2 in Africa, up from #19 in 2019.

- NTRA was awarded the ISO 9001 - Quality Management Systems (QMS) Certification for regulating telecom services in the Egyptian market.

- NTRA made several efforts to render and improve telecom services. NTRA also took measures to attain governance, transparency, and free competition, most notably:

  - Starting to boost telecommunication in the Sinai Peninsula through financing the construction and operation of cellular base stations in 30 urban areas and four major roads, at lengths of up to 112 km. NTRA also started to provide mobile network coverage in five strategic roads.

  - Approving the operation of mobile networks at 40MHz of spectrum in the Time Division Duplex (TDD) 2600 MHz frequency band from the total frequencies that Vodafone Egypt, Etisalat Misr and Telecom Egypt obtained the right to use, with investments estimated at $1.170 billion.

  - Approving the construction and operation of 2,310 cellular base stations in 2021, representing an increase of 80% compared with 2020.

  - Introducing new regulations on switching Internet providers, allowing users to shift from one provider to another in 72 hours without incurring additional fees.

  - Instructing telecom operators in the Egyptian market to enable free-of-charge contracting on fixed broadband and landline services from home for people over 60.

  - Launching My NTRA, an interactive mobile application that facilitates access to telecommunication services for mobile phone users, individuals, and corporates. My NTRA is one of the top applications worldwide in terms of the services it offers to end-users.

  - Adopting the regulatory framework for establishing data centers and providing cloud services, with the aim to lure data center giants to the Egyptian telecom market.

  - Approving using voice calls over a 4G LTE network (VoLTE) services for the first time in Egypt.

  - Doubling the capacity of the Telecom User Complaint Center, phone number 155, and extending working hours to reduce the wait time for receiving complaints.

  - Introducing a new service involving receiving and resolving complaints in the sign language for Persons with Disabilities (PwDs). this is in addition to providing mobile phone lines to PwDs with 50% off on the monthly package across all MNOs.

  - Obligating fixed broadband Internet providers in Egypt to notify subscribers of their data consumption, deductions, and deductibles.

MCIT Role in 'Decent Life' Presidential Initiative

MCIT has started implementing several projects as part of its role in the first phase of the Decent Life initiative for developing the Egyptian countryside. The role of the Ministry includes upgrading

the information infrastructure in rural villages and promoting digital literacy to create an interactive digital society in a way that helps build Digital Egypt and empower citizens to use ICT effectively.

MCIT work in the Initiative stands on four main planks: installing fiber-optic cables in one million homes, at a cost of EGP 5.8 billion, to improve internet connection; developing 906 post offices and distribution outlets; equipping post offices with ATMs; and improving the quality of telecommunication services in villages through establishing 1,000 cellular base stations. In addition, MCIT is promoting digital literacy in villages, building people's capacity in technology, and raising awareness of the digital economy.

Egypt Post

The Egyptian National Post Organization (ENPO) is pursuing a strategy for the comprehensive development of post offices in terms of structure and purpose. Egypt Post has a pivotal role as a channel for rendering Digital Egypt services and a pillar supporting the implementation of the national plan for financial inclusion. Egypt Post's key achievements in 2021 included the following,

- Egypt, represented by Egypt Post, was elected as member the Council of Administration (CA) and the Postal Operations Council (POC) for a four-year term, in the elections conducted by the Universal Postal Union (UPU) during the 27th Universal Postal Congress.

- Establishing 200 new post offices, bringing the total number of post offices to about 4,200. This is in addition to developing 1,500 post offices, bringing the total number of developed offices to about 3,130.

- Equipping 49 post vehicles with advanced technological systems, as part of Egypt Post's plan to expand in postal outlets, bringing the total number of post vehicles to 89. The vehicles provide financial, postal, and governmental services to citizens.

- Opening the service control and operation center, which monitors the performance of Egypt Post services and detects, fixes, and offers proactive solutions to malfunctions in post offices nationwide and data centers as soon as they occur.

- Embarking on a plan for renovating historical post offices while retaining their architectural character and optimizing them. Egypt Post has several historical offices nationwide, some of which date back to 1870. In this regard, Egypt Post re-opened Aswan Old Post Office after renovating and equipping the historical building with eco-friendly materials, following an innovative vision to retain its architectural character and decorations. Moreover, the building was equipped with modern systems and technological solutions to deliver different financial, postal, and governmental services to citizens.

Digital Community Development and Technology Utilization to Build Inclusive Society

- Supplying 150 telemedicine units to the Ministry of Health. The units are being installed in specific areas after conducting follow-up and evaluation studies on the last phase. The units helped diagnose 3,500 cases so far, with that number expected to increase significantly after the installation is completed.

- Training 1,510 ladies through Qodwa-Tech initiative, which is aimed at empowering women and qualifying using ICT to start entrepreneurial projects. After competing with 155 projects, Qodwa-Tech came among the 2021 Finalists of "Leadership in SME Category" in Equals in Tech Awards.

- Launching the official platform of the National Network for Persons with Disabilities (PwDs) Services, in collaboration with the Ministry of Social Solidarity. The network matches PwDs with training and job opportunities based on their place of residence, type of disability, and qualification to help them find training opportunities and conduct job interviews without the need to travel long distances.

- Training 7,928 trainees and 280 trainers and developing 18 IT Clubs, as part of the institutional capacity building strategy of the "Activating the Role of IT Clubs in Community Development" project, which aims to enable access to ICT for all segments of society to bridge the digital divide.

- In an effort to promote e-learning, the E-Learning Competence Center (ELCC) created five e-contents and trained 638 people on e-learning. Through the training programs of the national network of e-learning centers, ELCC trained 1,010 people and accredited 20 new e-learning centers, 33 new instructors, and 22 administrative officers.

- Community engagement on Kenana Online platform increased to nearly 39,000 engagements. The platform enhances community knowledge and raises awareness of various economic, social, and cultural issues. The number of active portals created by individuals and institutions on the platform reached 455.

- The ICT for Comprehensive Community Development in Agriculture (ICT4CCDA) project of MCIT was selected as one of the Champion Projects of the World Summit on the Information Society (WSIS) Prizes 2021.

- The National Academy of Information Technology for Persons with Disabilities (NAID) organized more than 15 webinars to raise public awareness of the techniques used to develop assistive technologies (ATs) and of the uses and technological needs of PwDs. Target audience included PwDs, caregivers, developers and anyone interested in AT. The webinars aim to stimulate Research and Development (R&D) in AT using ICTs, addressing topics on Virtual Reality (VR), Integral Reality, AI, the role of technology in skill development, Down Syndrome and nutrition, 3D printing, learning difficulties, and others.

- MCIT renewed the protocol signed with the Ministry of Education to train 100,000 teachers and provide technical support for 1,600 schools. This is in addition to enabling technological accessibility and some ATs to facilitate PwDs education.

- NAID organized the AT Hackathon in collaboration with the Innovation and Entrepreneurship Center (iHub) at Ain Shams University, targeting small and medium-sized enterprises (SMEs). The Hackathon was part of the program for incubating startups, nurturing entrepreneurship and R&D in AT, empowering PwDs and supporting their inclusion.

- NAID organized the Summer Internship program in collaboration with iHub. Around 100 university students and fresh graduates at the Faculties of Engineering and Computer Science, participated the program where they received training on how to develop ATs.

- Carrying out an awareness program through Almentor platform for 6,200 people with hearing loss and their families. The program was within the framework of a cooperation agreement between MCIT and Etisalat Foundation for community development and welfare.

- Creating a digital library on NAID website, for the Digital Accessible Information System (DAISY) publications, targeting people with visual impairment, as part of the "Improving PwDs inclusion through improving information accessibility" project.

- Training more than 140 employees of the Ministry of Solidarity and affiliated care homes. The employees were trained to run the computer labs that will be created in those homes, which amount to nearly 50 homes in phase one of the project. Training will endure to cover the targeted number of homes, estimated at 150, through a cooperation protocol between MCIT and the Ministry of Social Solidarity on the technological development of social welfare institutions and orphanages, and the technological availability of the services offered by the Ministry of Social Solidarity to PwDs.

Cybersecurity

A new national cybersecurity strategy for the period 2022-2026 has been forged to fully secure the ICT infrastructure and create a safe environment where different sectors can render full electronic services. The strategy also aims to unify national visions to address cyber attacks, raise awareness of cybersecurity, advance scientific research, and promote innovation. The strategy will soon be finalized and adopted by the Egyptian Supreme Cybersecurity Council (ESCC).

Digital Environment Governance-Supporting Legislation

MCIT held several community dialogues with local and international tech companies in Egypt, MNOs, and sectors concerned with implementing the provisions of the Personal Data Protection

Law. MCIT is keen on raising awareness and holding meetings to discuss those provisions and ways to implement them through simple procedures included in the soon-to-be-enacted Executive Regulations for the Law.

International Relations

In 2021, MCIT made great strides in international cooperation, opening areas of bilateral cooperation for Egypt to learn from leading countries in technology and transfer expertise to less developed countries. The Ministry was keen on attracting foreign investments to the Egyptian ICT market, strengthening the country's presence and stance on ICT matters in relevant regional and international organizations, highlighting the remarkable progress achieved in the ICT sector and reflecting the country's foreign policy in those organizations, in collaboration with the Ministry of Foreign Affairs and bodies of authority.

On the bilateral front, MCIT established cooperation with 52 countries and 29 organizations. In this regard, the Ministry's achievements included:

- Organizing visits for ministers, experts and senior officials from Nigeria, Côte d'Ivoire, DR Congo, Sudan, Jordan, Iraq, Libya, Yemen, and Russia.

- Enhancing technical cooperation with several countries, most notably Germany and Japan.

- Paying a visit to Estonia to learn about its leading experience in digital transformation in government applications and public services.

- Participating in GITEX exhibition and Expo Dubai, meeting with international partners and multinational companies, and delivering a detailed presentation on the Egyptian ICT sector and the investment opportunities it holds.

At the multilateral level, MCIT most remarkable accomplishments included its active vertical engagement in UN organizations, most notably the International Telecommunication Union (ITU); and non-UN specialized organizations and trade agencies, including the European Union (EU), the World Bank, and the Organisation for Economic Cooperation and Development (OECD).

- Egypt was elected chair of the Arab Telecommunications and Information Council of Ministers (ATICM) Executive Bureau for two years (2021-2022).

- Egypt chaired the virtual meetings of the 48th and 49th Ordinary Sessions of ATICM Executive Bureau, which were organized by LAS Technical Secretariat.

- The ICT Minister chaired ATICM 25th Session.

- MCIT coordinated, supported, and arranged for forming the Arab AI Working Group under the aegis of ATICM. The Group developed a vision for a single Arab AI strategy.

- MCIT collaborated with LAS and the United Nations Economic and Social Commission for Western Asia (ESCWA) to develop the Arab Digital Agenda/ICT Strategy (ADAICTS).

- At the African level, the ICT Minister chaired the ministerial meeting of the African Union (AU) Specialized Technical Committee on Communication and Information Technologies (STC-CICT) Executive Bureau, in July. Egypt also chaired an Expert Session in October and was elected Rapporteur for the coming period.