رؤية VISION 2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

2021
1443 - 1442

Annual Report

وزارة الاتصالات وتقنية المعلومات
MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY

بسم الله الرحمن الرحيم

Custodian of the Two Holy Mosques

King Salman bin Abdulaziz Al Saud

Prime Minister

His Royal Highness

Prince Muhammad Bin Salman Bin Abdulaziz Al Saud

The Crown Prince, First Deputy Prime Minister and Minister of Defense

Foreword

H.E. Eng. Abdullah Amer Al-Swaha

Minister of Communications and Information Technology

The noble mission we aspire to accomplish is realizing the ambitious, yet achievable, economic vision meticulously developed by His Highness the Crown Prince. The ultimate goal of Vision 2030 is to enable the Kingdom to assume its rightful place as a pioneering and global model of success, a hub of technology, innovation and investment.

By the Grace of God, and thanks to the empowering support we receive from our prudent leadership, and through the dedication and concentrated efforts of my colleagues within the digital and technological transformation sector, the year 2021 was a landmark in the Kingdom's journey towards reinforcing its position as a regional center of technology and innovation. By the end of the year, the Kingdom achieved unrivalled growth and expansion of its digital economy.

Such a statement reflects the ultimate truth which is solidified by the Kingdom's leading position in the MENA technological market, where our national technological market represents the biggest in the region by a capital of USD 40 billion.

Building its capacities, the Kingdom has cemented its position as a market of huge promise and great potential, reflected in the number of jobs offered which exceeds 513,000 employment opportunities. The growth in jobs is not restricted to quantity, but signals an incredible increase in the quality of participation. Moreover, in 2021, the Kingdom recorded the highest women's participation with over 28%. the Kingdom is also leading in the cloud computing services through collaborations and partnerships with key international companies including Oracle, Ali Baba, Google, etc., in which we invested more than USD 2.5 billion.

In the digital economy, we are ranked one of the fastest growing countries in this field by the Global Competitiveness Report of The World Economic Forum. The Kingdom occupied second place behind China and is one of the top 10 countries achieving the fastest growth rate in financial technologies, digital content and electronic commerce.

Our Annual Report describes our performance and progress in more detail. The reader, therefore, is urged to continue reading the report where more information is available about the key outcomes and impressive accomplishments achieved in 2021 by my colleagues, leaders of the the digital economy in the Ministry.

Finally, on behalf of myself and my colleagues, I extend my sincerest thanks and deepest gratitude to the Custodian of the Two Holy Mosques, King Salman bin Abdulaziz and the Crown Prince, His Royal Highness Prince Mohammed bin Salman bin Abdulaziz, may Allah bless them, for their unqualified support and wise guidance, which were the main catalysts for a more prosperous and leading ICT sector community in the Kingdom.

Objective

This report presents a detailed overview of the Ministry of Communications and Information Technology (MCIT) and its achievements in enabling a thriving ICT sector during 2021. Further, it highlights the difficult challenges faced in the realization of the Ministry's strategic goals, and discusses its ambitious future aspirations, which are firmly aligned with the goals of the Kingdom's Vision 2030.

The annual report was prepared pursuant to the provisions of Article (29) of the Law of the Council of Ministers which stipulates that "All ministries and other government agencies shall submit to the President of the Council of Ministers within 90 days from the beginning of each fiscal year, a report on their achievements in light of the general development plan for the ending fiscal year. The report shall include the difficulties encountered and proposals to ensure the proper conduct of business."

Methodology

The data and information in the report were gathered in cooperation with various entities and authorities of the telecommunications and information technology sector in line with the rules, standards, models, methodologies and tools mentioned in the "Guide to preparing annual reports of public agencies" issued by the National Center for Public Agencies Performance Measurement (Adaa).

All the requirements were fulfilled by the Ministry by preparing data collection forms to ensure credible and transparent methods were followed to provide accurate data and reliable statistics. Additionally, the Ministry conducted workshops with its agencies to educate them on how to professionally collect and process data to reach the best possible results and to monitor the key performance indicators, challenges and solutions.

The procedures of collecting, reviewing and verifying data in cooperation with other ICT authorities were also documented and then incorporated into the report, which was structured in accordance with the Ministry's strategy.

Furthermore, the report includes a detailed account of the efforts of the ICT system during the fiscal year 1442/1443 H corresponding to 2021, which sought to establish a robust and advanced digital infrastructure that expedites digital transformation, and supports the ambitionsness of the Kingdom's Vision 2030, which aspire to consolidate the role of the ICT sector in building a digitalized society, an innovative digital economy and a prosperous future for the Kingdom.

The report also presents many graphs and statistical tables that help in understanding the Ministry's performance and achievements, illustrated data within the report wich in turn help support decision makers in designing plans, developing programs and taking appropriate decisions to achieve sustainable development for the ICT sector.

Mechanisms of data collection

01 Prepare data collection models

02 Prepare the report overall structure

03 Conduct workshops with the Ministry's agencies' entities and departments

04 Review and validate the information provided from the entities within the Ministry

05 Document the data collection process

06 Draft and review the report content

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1

Executive Summary

01

Executive Summary

The ICT sector is one of the main driver of sustainable development in the Kingdom as well as a key enabler in facilitating the work of all sectors to achieve the strongest and most efficient performance, in addition to improving quality of life and enhancing competitiveness,

Through the continued investments in tech infrastructure and digital platforms, MCIT achieved one of its primary goals by developing an investment-attracting digital environment which has attracted leading national and international businessmen. It constitutes a foundation for their expansion from the Kingdom into the global market by capitalizing on digital opportunities offered by MENA markets.

Capitalizing on its extensive human talents, qualitative programs and initiatives supporting digital transformation and emerging technologies' localization, the Kingdom occupied advanced positions on the various international indexes, which reflects our leading position in digital infrastructure, electronic government, internet speed and digital economy.

To promote an inclusive strategy that addresses all fields within the purview of the Ministry, we identified 5 main pillars of the strategy which achieved a number of goals during 2021.

01. Enhancing the efficiency of the communication market

LTE

97% of the Kingdom

Coverage ratio of 4G network

79% of villages and remote areas

Coverage ratio for wireless broadband networks

Increasing internet speed up to 100 Gbps

average local internet speed through the national internet exchange

Increasing the capacity of data centers

90 megawatts by the end of the year

SAR 450 million worth of the bilateral agreements

between Holy Makkah Municipality and telecommunication companies

02. Development of digital capabilities

+ 58% Saudization

of jobs in telecommunication and IT sector

175 leaders

graduated to lead digital transformation in the private sector

22 million beneficiaries

from the Attaa Digital Initiative

55K trainees

on digital skills

12 new economic activities

in the telecommunication and IT sector

+19 centers

launched in more than 7 areas to develop programs, applications and centers of neutralization and communication

+ 25 K cadres

of telecommunication and IT graduates received employment support

01

Executive Summary (Supplement)

03. Enhancing local content and developing technology market

SAR 9 billion

Investment in technology

SAR 2.5 billion

The budget of the National Technology Development Program

14 bodies

received support for accelerated technology adoption

28.8% the local content

in the telecommunication and IT sector

SAR 10 billion

Estimated revenues and 10 thousand jobs of the National Technology Development Program

SAR 2 billion

in partial capital investment

16 digital innovation labs

added to the innovation lab network of emerging technology and entrepreneurship

8 halls and 6 digital labs

in the main entrepreneurship center

Techstars Accelerator

550 applicants, 12 tech startups and +195 million market value of companies

4. Development of postal sector

3 international companies

entered the Kingdom's market, pumping investments worth more than **SAR 15 billion**

Launching and linking Short National Address

with e-commerce platforms and express shipping companies

3 leading positions

The Kingdom won the memberships of the UPU Board of Directors and the Council of Investment. It was appointed the Vice Chairman of the UPU Board of Directors.

Launch of the Saudi Academy

of Logistics to qualify and empower national cadres to localize jobs in the logistics sector

Approval of the PSP plan

for the telecommunication and IT sector with **7** projects

Adoption of the new postal law

to keep pace with local and international developments in the sector

01

Executive Summary (Supplement)

05. Achieving institutional excellence in the Ministry

90 emerging technologies

discussed within the forward-thinking reports

40% of the files

of the General Administration of Services digitally archived

12K electronic transactions

through the Sohail Platform in 2021

218 employees

within the Minister's Program for Leadership

90% Ministry performance

in the initiatives of the Vision programs

102% disbursement

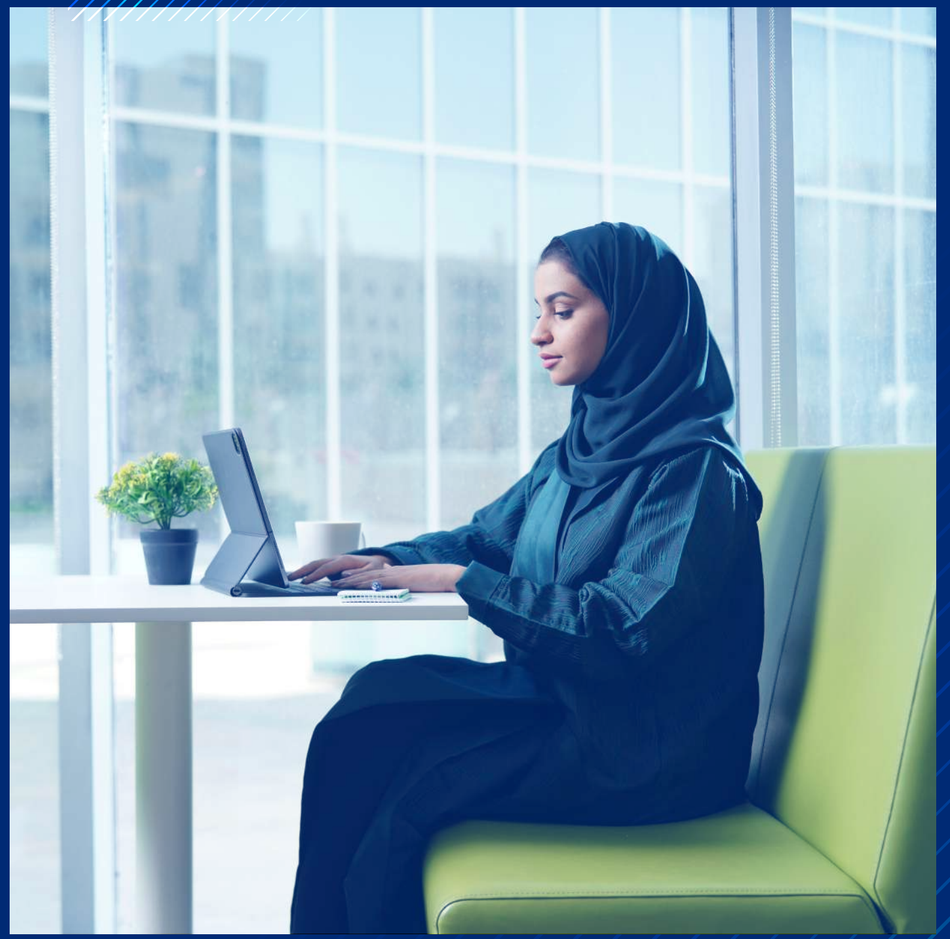
for Vision programs in 2021

In addition to this progress, the Ministry achieved the following in 2021:

- **Enhancing the legislative** and regulatory environment of the sector
- **Enabling** digital transformation
- **Contributing** to the successful Kingdom's presidency over the G20
- **Developing** a digitally-integrated system in response to the COVID-19 pandemic

2

Overview



02

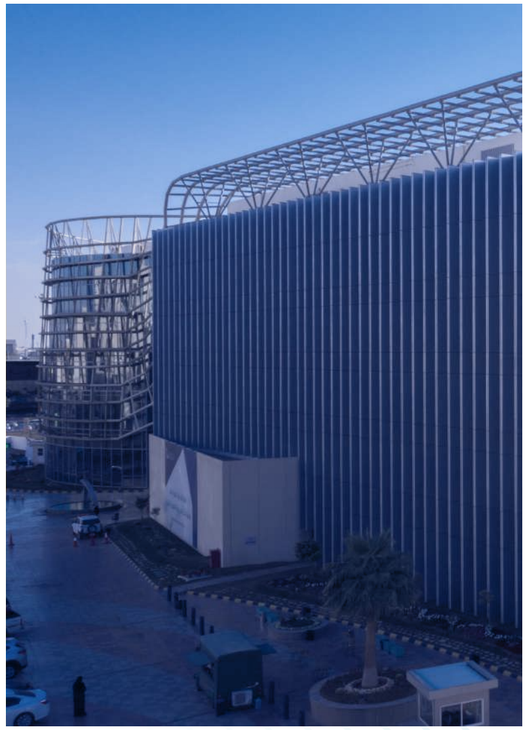
Ministry of Communication and Information Technology (MCIT)

The Ministry of Communication and Information Technology (MCIT) is the line supervisor of the communication and IT sector (CIT sector) in KSA. It also plays a crucial role in driving the Kingdom's digital transformation.

The Council of Ministers approved resolution 133 of 21/05/1424 H to reorganize MCIT to help the Ministry discharge its functions and responsibilities related to supervision over ICT sector in KSA. Under the Council of Ministers' resolution 403 of 12/07/1440 H, the scope of the Ministry's supervision widened to include the postal sector. Furthermore, the Ministry was charged with leading the digital transformation by virtue of the Royal Decree 59028 dated 18/11/1439 H.

In addition to its function of laying down the development plan for the ICT sector, the Ministry is working to build a world-class digital foundation able to generate job opportunities in the technological field and maximize its share of GDP. To this end, the Ministry is developing strategic plans in line with the most recent techonology trends of prevailing in national, regional and international markets. The Ministry is also working on honing modern digital skills to enable an advanced digital economy and efficiently support the government systems and platforms.

More information about the functions and responsibilities of the Ministry and other ICT authorities can be found in the annex.



02

Journey of the Ministry

MCIT's creation dates back to the foundation of the Kingdom by the Late King Abdulaziz when he, with his prudence and forward thinking, realized the urgent need for modern inventions and systems being expedient to the development and maintenance of our nation's security, internal and external alike. Thereupon, he issued decrees in 1345 H / 1926 to establish the Directorate of Post, Telephone and Telegraph (PTT) to provide different telecommunication services.

PTT started reporting to the Ministry of Transport after it had been established. However, in the light of its rapid growth and significant role in the development of nations, Royal Decree 236 of 1395 H / 1975 was issued to establish the Ministry of Post, Telephone and Telegraph to undertake the responsibility for the postal and telecommunication sectors.

The telecommunication sector went through radical shifts including the initiation of the first optical network. The Kingdom was connected to the other countries through the King Fahd Satellite Telecommunications City, operation of a mobile network and the introduction of a smart information transfer network.

Moreover, the Directorate of PTT became independent by virtue of the Royal Decree 35 of 1418 H / 1997, approving the establishment of a Saudi stock company under the name "Saudi Telecommunication Company" to provide the communication services. This was followed by the approval of the Telecommunications Act and the establishment of the Communications and Information Technology Commission.

It is entrusted with organizing the telecommunication sector to provide advanced and reliable communication services across the Kingdom through companies licensed in accordance with the Telecommunications Act.

In 1424 H / 2003, Royal Decree 2/A changed the name of Ministry of Post, Telephone and Telegraph with the Ministry of Communication and Information Technology (herein after referred to as "the Ministry"). This reflects our leadership's interest and support for to the ICT sector in order to achieving a digital-based society.

This positioned the sector on the right path towards further achievements under the supervision and with the support of the Ministry, to drive the technological integration and digital economy towards realizing the digital transformation ambitions of the Kingdom's Vision 2030.

The historical milestones of ICT in the Kingdom:

1344 H / 1925
Initiated works on the first wireless network

1345 H / 1926
The first Directorate of Post, Telephone and Telegraph was established

1351 H / 1932
Operated the first exchange in the royal palace of Riyadh with a capacity of 50 lines

1353 H / 1934
Introduced phone services

1371 H / 1952
Built a wireless network to link the different parts of the Kingdom

1380 H / 1960
Introduced the first Arabic-supporting telegraph

1395 H / 1975
Royal Decree was issued to establish the Ministry of Post, Telephone and Telegraph

1401 H / 1984
Operated the first optical network and established communication centers and complexes in the various parts of the Kingdom

1416 H / 1995
Provided mobile services to the public

1417 H / 1996
Operated a fibre optic cable network to cover different parts of the Kingdom

1418 H / 1997
Established a Saudi stock company under the name of Saudi Telecommunication Company

1422 H / 1999
Internet service providers became independent

1422 H / 2003
The Saudi Telecommunication Commission was established

1424 H / 2003
Changed the name of Ministry of Post, Telephone and Telegraph with the MCIT Provided communication services through satellites (VSAT)

1425 H / 2005
The information and mobile sector became independent

Licenced the second mobile network operator (Mobily)

1426 H / 2005
E-Government Program, Yesser, was established

1427 H / 2006
Launched a 3G network

Approved the Electronic Transactions Law

Anti-Cyber Crime Law was approved

1428 H / 2007
Licence for the third mobile network operator (Zain) was issued

1429 H / 2008
Investment in landline services was tendered

1432 H / 2011
The first project by the Universal Service Fund was initiated

1438 H / 2016
The national internet exchange was launched

1440 H / 2019
G5 service in the Kingdom was launched

1441 H / 2020
MCIT led the digital economy team's efforts during the Kingdom's presidency over the G20 Summit

1443 H / 2021
The Kingdom ranked second amongst the G20 nations in the Digital Competitiveness Report

02

Successive Eras in the History of ICT Sector

The eras of traditional technologies

- Postal services
- Information technology
- The limits of CIT
- Audio
- Communications
- Broadcasting

2000 -1990

2010-2000

The advent of transformation

- Internet
- Audio communications
- Information technology
- Broadcasting

Technological integration

- Data
- Emerging technologies
- Broadcasting
- E-Commerce
- Information technology
- Internet and communications

2020 -2010

2030-2020

Digital economy

- Health, education and agriculture
- E-Commerce
- Data and voice dialling
- Broadcasting
- E-Government
- Energy
- Internet of things technology
- Financing

Examples of developments requiring new policies to enable the ICT sector

- Phone calls fees
- Internet connection
- Open data, Voice-over-Internet protocol (VoIP) and the neutrality of network
- Smart cities, internet of things and machine learning

02

Highlights of 2021

During 2021, the Ministry continued to develop its strategic plans to rival the latest local and international trends. The Ministry seeks to create a digital environment in the Kingdom, improve its digital services and platforms, and raise the private sector's participation in digital transformation projects to achieve its ultimate goal of an integrated digital society and knowledge-based, prosperous economy.

Therefore, the Ministry has spared no effort in supporting cooperation and engagement activities with other countries in the region and worldwide. Furthermore, it seized all opportunities to actively take part in national and international events that seek the most effective solutions for challenges in digital transformation.

In addition, the Ministry concluded several Memoranda of Understanding (MoUs) in the areas of cementing infrastructure, 5G applications, developing Saudi digital talents, enriching the digital Arabic content, and disseminating digital culture in the region to further the Kingdom's position among the leading countries in CIT.

The Ministry's efforts were highly successful where the Kingdom led the G20 countries in terms of digital competitiveness during 2021, and won the membership of the UPU Board of Directors and Investment Council for the period of 2021-2025. Moreover, Riyadh is achieving distinguished and qualitative progress on the smart city index of 2021, where it moved up 23 positions compared to the year before. It became the third smartest city amongst the capital cities of the G20 countries and 30th worldwide.

The Ministry has also supported the localization plans of the ICT sector by launching several initiatives and competitions. These include a scholarship program, assisting and training Saudi talents to bridge the traditional gap between the job market and university graduates in ICT sector. Similarly, the Ministry has launched several initiatives to support technology start-ups and SMEs. It aims to enable them to implement their projects and expansion plans, encouraging them to localize communication and application-developing centers. In addition, the Ministry is supporting the growing E-sports sector, which is attracting more regional interest.

International achievements

- The Kingdom ranked second amongst the G20 nations in the Digital Competitiveness Report released in 2021 by The European Center for Digital Competitiveness
- The Kingdom won the membership of the Board of Directors and Investment Council of the Universal Postal Union for the period of 2021- 2025.
- Riyadh became the third smartest city amongst the capital cities of the G20 countries and 30th worldwide in accordance with the rating of the 2021 IMD index.
- Internationally, the Kingdom earned third place in digital skills according to the Digital Competitiveness Report released by the World Economic Forum.

Initiatives

- Launched a package of qualitative initiatives and technological programs worth SAR 4 billion in cooperation with the international Tech Giants
- Launched the Technology Development Financing Initiative to enable technology start-ups and SMEs to achieve growth.
- Launched 5 initiatives to support electronic games
- Participated in the fourth edition of the Investment Future Initiative. 14 meetings were held between H.E the Minister and the CEOs of the leading technology companies in the presence of their counterparts from the governments of other countries.
- Launched cooperative initiatives with four companies to develop and build large data centers in different parts of the Kingdom
- Launched the Tech Research Challenge Initiative to support tech companies to develop their products, build their capabilities and forge their relations with universities and research centers
- The Future›s Technologies Ambassador program was launched in cooperation with Stanford University and in collaboration with the Ministry of Education

Legislations and regulations

- The Council of Ministers approved the formation of the Council of Digital Content and the allocation of SAR 4.2 billion towarrds 36 initiatives to develop and provide jobs in four main fields including video, audio, electronic games and digital marketing.
- The Shura Council approved the draft law of ICT as amended in 261449/05/ H.
- Royal Decree M/22 dated 081443/03/ H was issued to approve the postal law. It covers developing the postal services sector in line with the goals of the Kingdom's Vision 2030 and keeps pace with national and international developments in the postal world. The law also comes in alignment with the steps taken by the Kingdom to establish an advanced service environment meeting the expectations of the recipients and investors. It organizes the clearance of postal materials, competition, licensing and identifying the obligations and responsibilities of both service providers and recipients.

Saudization, qualification and training

- Launching an initiative to stimulate the localization of applications, technical outsourcing and communication centers; to achieve sustainable economic development.
- The Future Skills 1.0 initiative was completed by training 55 thousand Saudi nationals and employing more than 25 thousand prior to launching the Future Skills 2.0 initiative.
- Full scholarships were offered to those wishing to obtain post graduate studies (master's degrees) in emerging technologies.
- The Technology Foresight Center launched a research competition in 3 technical and economic fields to develop digital capabilities.

4.2
SAR billion
allocated to developing digital content

4
SAR billion
allocated to enhance digital capabilities

8
programs and initiatives for Saudization, training and qualification

8
initiatives to support and grow technology

3.5 k+
recruitment partners

25 k+
employees

- A program was launched to qualify and empower those interested to work as freelancers in the sector, and introduce them to financing solutions and provide them with financial support. They are also offered training and qualification opportunities in the same field.
- The Future Champions initiative was launched to develop the digital capabilities of young people to create a conscious, creative and integrated society.
- A training management program targeting the trainers was launched to enrich the participants' experiences and knowledge about the field of their study and futher develop their capabilities.
- The second edition of the Future Skills initiative was launched, which will target 200,000 trainees and 30,000 employees by the end of 2025.
- An interactive campaign was launched to enable entrepreneurs to contribute to the digital transformation journey.

International cooperation

- Strengthening cooperation with the United Kingdom with aims to develop the digital economy in the region and support entrepreneurship
- Furthering partnerships with France, Italy, Germany, Japan and South Africa in the areas of innovation, technological transformation, digitization and space
- Signing an MoU with the Sultanate of Oman to develop the digital economy and launch the Digital Skills Initiative
- Strengthening ways of cooperation with Iraq in the areas of digital economy and E-Government
- Exploring ways of cooperation with India in the fields of digitization and electronic manufacturing, and developing the ICT sector
- Exploring areas of cooperation in the digital economy with Singapore and Estonia.

MCIT's participation in national and international events and forums

- Ministerial Meeting in Italy attended by Ministers of the Digital Economy
- The eighth meeting of the Virtual Community of the Regional Working Group within the World Economic Forum for the Middle East and North Africa (WEF)
- The participation of His Excellency the Minister in the 25th session of the Council of Arab Ministers of Communications and Information
- Fifth session of the Saudi-Portuguese Joint Committee
- The first ministerial meeting of the Digital Cooperation Organization
- The 76th session of the UN General Assembly at the Shaping an Inclusive Digital Future Conference
- The seventh session of the Russian-Saudi Joint Committee
- The second Islamic Summit for Science and Technology (virtual conference)
- Universal Postal Union meeting in Egypt
- Participation in a virtual event organized by the Embassy of India in Riyadh to consolidate cooperation in the field of information technology.
- Participation in a virtual seminar held by the Indian state of Telangana, in cooperation with the Saudi Center for International Strategic Partnerships and the Indian Embassy in the Kingdom.
- The first meeting of the Arab Team of Artificial Intelligence.
- The 24th session of the UN Commission on Science and Technology.
- The third session of Saudi-Portuguese Joint Committee.
- The fifth session of Saudi-Uzbek Joint Committee .
- Meeting with UNESCO.
- The US-Saudi Infrastructure Summit with the US Embassy.
- Participation in the Ibdaa Exhibition for Science and Engineering, and sponsoring Olympic Ceremony Knowledge (Mawhibah).
- Participation in the meeting of the National Competitiveness Center.

Memoranda of understanding

- Between the Makkah Region Development Authority and telecommunications companies to develop the infrastructure for the Al-Faisaliah project.
- With the Abdullah bin Ibrahim Al-Subaie Charitable Foundation to form voluntary units.
- With the Majid Association in the field of digital entrepreneurship.

- With Classera Company to build community partnership and exchange experiences to enrich digital Arabic content and disseminate digital culture.
- With the Human Resources Development Fund (Hadaf) for Saudization, employment, training, data exchange and social responsibility.
- With the National Development Fund to develop a framework of cooperation between the two parties to serve common goals that serve the public interest.
- With the Celtech IOT company to work on joint activities to enhance the Kingdom›s position in the regional innovation markets
- With Huawei to develop 5G applications and cultivate local talents.
- With Roshen Real Estate Development Company to accelerate digital transformation and develop digitally integrated residential neighbourhoods.
- With the Islamic Educational, Scientific and Cultural Organization (ISESCO) to eradicate digital illiteracy by enhancing joint cooperation, raising awareness about technology and enriching digital Arabic content.

Conferences and recognitions

- Leading the preparations for holding the international LEAP conference to attract more than 700 emerging tech companies to showcase their innovative solutions to the world. It is the largest tech conference and exhibition discussing the future and role of technology in society.
- Holding a virtual forum to raise awareness about electronic games in terms of programming, developing and investing.
- Recognizing the efforts of 30 Ambassadors of the Digital Attaa Initiative and 20 partners of different sectors for their role in the initiative.
- Celebrating the winners of the Make It Play It competition and honoring partners during "the Digital Conferences".

Visits and meetings

- The visit of His Royal Highness Prince Turki bin Talal bin Abdulaziz, Governor of the Asir region, to the headquarters of the Ministry. The visit included a meeting with H.E the Minister.
- Meeting between the Minister and the French Ambassador to the Kingdom
- Meeting of H.E the Minister with H.E the Ambassador of Japan.
- Meeting between H.E the Minister and the Chargé d›Affairs of the US Embassy
- Meeting between H.E the Minister and the Estonian Ambassador.
- H.E the Assistant Minister›s visit to the Qiddiya project.
- A delegation representing the Kingdom visited Eritrea to finalize the preparations for the first session of the Saudi-Eritrean Joint Committee.

- Visit to the Ministry by the Estonian Minister of State for Economic Affairs and Communications.
- His Highness, the Deputy Emir of the Hail region, met with His Excellency the Deputy Minister, to review the Ministry›s initiatives for strengthening the region›s infrastructure, promoting areas of innovation and developing digital human capabilities.
- H.E the Assistant Minister met with Chile's Deputy Minister of Foreign Affairs
- French technical companies visited the Ministry as part of the French technology tour
- H.E the Minister's visit to the UK
- H.E the Minister's visit to France
- H.E the Deputy Minister›s visit to Najran region and his meeting with His Highness Prince Jalawi bin Abdulaziz bin Musaed bin Abdulaziz, Governor of the region
- H.E the Deputy Minister›s visit to Al-Qassim Region
- H.E the Deputy Minister›s visit to Makkah Region
- H.E the Assistant Minister›s visit to Al Bahah Region
- H.E the Assistant Minister›s visit to Al-Qassim Region

02

Opportunities of digital economy post COVID-19 pandemic

The Ministry has played an increasingly pivotal role in supporting the precautionary measures prescribed by the competent authorities to limit the spread of the COVID-19 virus. It has provided advanced solutions to various vital sectors such as education, health, industry and tourism. The electronic platforms have helped education to continue, work to be conducted remotely and health care to be provided without interruption. Through these significant efforts, the Ministry made an invaluable contribution to overcome the overwhelming challenges of the pandemic.

The Ministry's contribution was not limited to providing its various services, which were indispensable for ensuring the continuity of various aspects of life in the Kingdom. The Ministry, in partnership with the public and private sectors, also continued its endeavours to accelerate digital transformation towards achieving the goals of Vision 2030 and strengthening the Kingdom's position among the digitally advanced nations.

The Ministry worked on implementing several projects, including the adoption of emerging technologies, such as artificial intelligence, drones, virtual and augmented reality, and the Fourth Industrial Revolution. These achievements are in consistent with a detailed plan for digital transformation and the development of a digital infrastructure that meets the ambitious requirements of Vision 2030.

Healthcare

In cooperation with the Ministry of Health, digital technologies have helped doctors follow up with their patients remotely, and broadcast live surgical operations from different regions of the Kingdom to seek the assistance of well-versed consultants in a unified center based in Riyadh.

Virtual tourism

The Saudi National Museum employed virtual and augmented reality technologies as well as drones to display its halls and enable visitors to enjoy virtual tours of archaeological artifacts in 3D representation.

Digital education

The education sector used the "Comprehensive Digital Transformation Plan" to accelerate the adoption of digital technologies and advanced tools offered by ICT sector, in order to address challenges and fulfil commitments and aspirations to advanced education.

Smart vehicles

The King Abdullah University of Science and Technology, in cooperation with the Digital Transformation Unit, launched an exploratory project to investigate the potential use of self-driving vehicles to provide "last mile" delivery services through artificial intelligence. The first phase aims to serve nearly 200 housing units at the university.

Delivery drones

A team from King Abdullah University of Science and Technology, in cooperation with the Digital Transformation Unit, has developed an exploratory project focused on using drones and artificial intelligence to deliver food orders at the university.

Emerging technologies

The Ministry has completed a study on the use of emerging technologies in digital education, digital tourism, and the Fourth Industrial Revolution, which coincided with the launch of the implementation project.

Digital initiatives

The Ministry has reviewed all initiatives and digital solutions offered by the implementation plans of the vision program to assess the need for them. This procedure aims to harmonize overlaps and address conflicts among initiatives to achieve concerted digital efforts and explore alternative financing sources.

National meetings

The secretariat of the National Committee for Digital Transformation held several national and executive meetings in 2021 in which the senior leaders made 26 resolutions and recommendations to support national digital transformation.18 of them have been implemented.

Enabling and application

The secretariat of the National Committee for Digital Transformation held several national and executive meetings in 2021 in which the senior leaders made 26 resolutions and recommendations to support national digital transformation.18 of them have been implemented.

2021 in Numbers

6 million

students used online education technology

1.7+ million

Benefited from the self-employment program

200 residential units

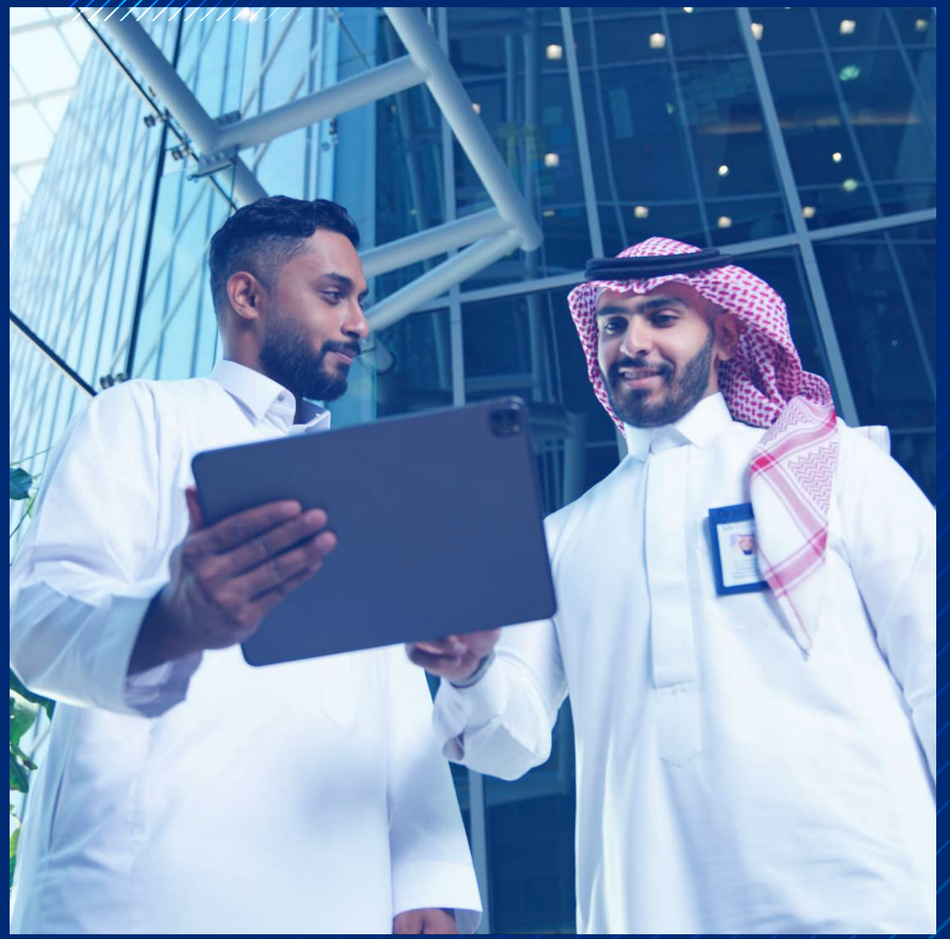
at King Abdullah University of Science and Technology used the smart delivery network

26 decisions and recommendations

Were made to support the national digital transformation drive

3

Strategy and Key Performance Indicators (KPIs)



03

Vision, Mission and Values

Our Vision

Laying down digital strategic pillars expedient to building a well-connected present and an innovative future.

Our Mission

Building a solid, world-class digital foundation and enabling innovative talents to seize the opportunities offered by the era of the fourth industrial revolution, to contribute to the Kingdom's efforts in achieving economic sustainability, assuming global leadership and improving the quality of life.

Values

Values are the driving force through which we realize our role in society. They include:

1. Trustworthiness

Honesty is one of the greatest morals a person may practice in their life, and therefore Islam highlighted its value. As mentioned in the Holy Quran in several verses including where His Almighty said: "Indeed, the best one you can hire is the strong and the trustworthy," and the Prophet was well-known with his trustworthiness prior to prophethood. All of these texts denote that trustworthiness is of paramount importance.

2. Loyalty

Loyalty is about dedication and devotion. It encourages you to exert your utmost energy and allocate your time towards what you love most, and also discourages you from negligence, violation or aggression against it in any way. The Prophet, peace and blessings of Allah be upon him, said: "Allah loves that when any of you does a job, he should perfect it."

3. Perfection

Islam truly champions the thought of perfection at work, but this is not limited to the goals or the conduct one must perfect. It is rather a broader civilized concept that constitutes a feature of civilization that Islam aims to instil into the society to achieve a prosperous human race, build civilizations and develop nations to enrich life and bring about a promising future.

4. Teamwork

Teamwork is an integral part of any successful organization. We all may know that God helps those who work in groups. Therefore, the greater the harmony between team members, the better the understanding and cooperation they have which, in turn, leads to achieving goals quickly and effectively.

The teamwork spirit is built on constructive interaction, clear communication and belief in the set goals.

5. Enjoyment of work

Enjoyment of work is the road to innovation and creativity. One can work hard and have fun at the same time, which results in more productivity and greater efficiency. Therefore, the Agency of Shared Services is keen to build the enjoyment of work foundations through the continuous development of the human resources system.

03

Strategy and Key Performance Indicators (KPIs)

Enhancing the efficiency of the telecom market

Boosting market performance and its competitiveness by improving networks of mobile communication service providers in the Kingdom and increasing internet speed services in addition to achieving financial revenues and expanding into new markets, which support digital transformation across different sectors.

KPIs

- Value of the telecom services market (billion Riyals).
- The capacity of the data centers (megawatts).
- The scope of 5G network coverage across the Kingdom.
- Fixed/mobile broadband speed (Mbps).

Achievements in 2021

- Data traffic through the internet exchange reached 100 Gbps (100% more than the previous year and exceeding the set target of 33%).
- The capacity of data centers reached 90 MW (9% more than the set target).
- The city of Riyadh ranked third globally in mobile internet speeds based on 5G technology.
- The approval of the Shura Council on the Telecommunication Act as amended.

Enhancing local content and developing the technology market

Developing a sustainable technology system able to compete, serve the local and regional markets and attract investment.

KPIs

- The volume of investments in the technology sector in the Kingdom.
- Value of the information technology and emerging technology market (billion Riyals).

Achievements in 2021

- Attracted more than USD 2 billion in technology investments
- Launched the National Technology Development Program NTDP
- Encouraged 14 authorities to accelerate their adoption of technologies; of which four have adopted emerging technologies while the remaining 10 adopted traditional technologies

Developing digital capabilities

Creating a digital society by upgrading tech and digital knowledge, and achieving inclusiveness in tech and digital awareness by promoting national talents and cultivating the skills required for future jobs.

KPIs

- The percentage of Saudization in the ICT sector (the workforce)
- The percentage of women›s participation (the workforce)
- The number of Saudi cadres being trained in the ICT sector.

Achievements in 2021

- The percentage of Saudization in the ICT professions and related sectors increased by more than 58%.
- The percentage of women›s participation increased by 28%.
- More than 25 thousand on employment track and more than 55 thousand on training track.

Postal sector development

Developing the legal and regulatory basis that serves the growth of postal and logistics in line with the local and regional developments in the postal world to reach a digital, competitive and innovative postal system.

KPIs

- Attracting 3 international companies to work in the Kingdom directly.
- Launching the Saudi Logistics Academy.
- Adopting a new postal law.

Achievements in 2021

- Adopted the postal law as amended.
- Approved the implementing regulations for the postal law.
- Attracted the first global logistics company to work directly in the Kingdom (FedEx).

Institutional excellence

To make MCIT a pioneering digital model that leads others inside and outside the Kingdom.

KPIs

- Performance sophistication (a measure of sophistication by one of the performance centers).
- Employee satisfaction rate.

Achievements in 2021

- MCIT is among the top 3 entities in terms of employee engagement levels.
- Graduation of the first batch of the Minister›s Program for Leadership.

03

The annual evaluation of the Ministry's Performance by the National Center for Public Agencies Performance Measurement (Adaa)

The Ministry achieved a level 4 rating in the measurement of public agencies' sophistication at the level of managing and measuring performance.

By analyzing the 4 areas of measurement, the Ministry achieved:

03

The Ministry's contribution to achieving the Kingdom's Vision 2030

The Ministry has contributed immensely towards realizing the goals of Vision 2030. It is responsible for building world-class digital infrastructure and enabling innovative talents to seize the opportunities offered by the digital era. Through these efforts, the Ministry can achieve economic sustainability, regional and global leadership, improve the quality of life and increase qualitative job opportunities, which leads to increased productivity and develops digital local content.

To achieve the Kingdom's ambition of being one of the top 20 innovative digital countries in the world, the Ministry is working to build a global-level competitive tech sector that achieves economic sustainability and leadership regionally and globally. It also works on building digital infrastructure by shaping policies, laying down regulations, and stimulating investment that enables the ICT sector to have a significant role in economic and social development.

In addition to enhancing the sophistication of digital regulations and legislation, the Kingdom has also made major leaps in building telecommunications infrastructure, developing digital capabilities and implementing mega digital projects. Such great strides are a result of the ICT sector's Strategy 2023, derived from the Kingdom's Vision 2030.

The Ministry's efforts have resulted in the Kingdom obtaining the second place in digital competitiveness amongst the G20 countries, as indicated in the Digital Competitiveness Report for 2021 issued by the European Center for Digital Competitiveness. The report derives its data from the Global Competitiveness Index issued by the World Economic Forum, the World Bank and the International Telecommunication Union.

Compared to the previous year, the Kingdom moved up 20 positions on the general index while leading the G20 countries by advancing 86 positions on the Digital Ecosystem Index. It also held third place amongst the G20 countries on the Digital Capabilities Index.

Out of 140 countries, the Kingdom ranked seventh globally on the Mobile Internet Speed Index, increasing by 7 ranks compared to its performance in 2020. With regards to telecommunications infrastructure, the Kingdom jumped 40 places to rank 27th globally amongst 193 countries.

By 2030, the Ministry aspires to reach a digital economy and e-government that supports investment in infrastructure and modern technological solutions. Achieving these goals would secure our nation an advanced position on the UN e-government index by extending the outreach of government e-services.

The Ministry is working to build a state-of-the-art solid digital foundation which contributes to creating more job opportunities in the field of technology and raising the GDP. It is developing strategic plans to keep pace with developments and modern technologies at the local, regional and global levels. In addition to offering strong support to government systems and platforms, the Ministry seeks to refine modern digital skills towards a prosperous digital economy.

MCIT is creating a conducive environment to ensure the quality of services it provides to the corporate sector, entrepreneurs and government bodies. It also works to enable the various sectors by enacting legislation, identifying the ambitious trends within the ICT sector, providing the necessary infrastructure, raising the efficiency of graduates, honing the ICT skills to meet the job market requirements, offering opportunities. The Ministry further contributes by providing facilities for investment in the Saudi market, concluding partnerships and enhancing cooperation with leading authorities and countries in this field.

Through the concerted efforts of the ICT system, the Ministry's initiatives obtained the green rating within the initiatives of the Vision's realization programs on the integrated platform of Adaa launched by the National Center for Public Agencies Performance Measurement for 2021. In 2021, the Center conducted four assessments with one at the end of each quarter. This contributed to achieving the objectives of digital transformation, e-government development and growth in the digital economy. These objectives are part of the National Transformation Program and constitute a step in our Kingdom's path towards its 2023 vision.

Ranked 1

amongst the G20 countries
as the largest renaissance on the **Digital Competitiveness** Index

Ranked 2

amongst the G20 countries
in the **Digital Competitiveness** Report

Ranked 3

amongst the G20 countries
on the **Digital Capabilities** Index

Ranked A7

globally
on the **Mobile Internet Bandwidth** Index

03

1. National Transformation Program (NTP)

National Transformation Program

The National Transformation Program (NTP) aims to develop the infrastructure essential to enable public, private and non-profit sectors to participate in realizing the Kingdom's Vision 2030 by focusing on achieving excellence in government performance, supporting digital transformation, contributing to the development of the private sector, enhancing economic partnerships, promoting community development and ensuring the sustainability of vital resources.

On the other hand, the NTP strategy aims to overcome the obstacles holding back the digital transformation of the public and private sectors by developing e-government and the digital economy, which ultimately improves government effectiveness. It also aims to encourage investment in information technology to improve digital and government services, and raise the quality of public and private services by strengthening the digital infrastructure of governmental bodies.

Furthermore, the strategy pursues the goal of qualifying and employing specialized Saudi talents to reduce demand supply gap in the ICT sector. It provides citizens with the knowledge and future skills required by the job market, and creates a stimulating environment for digital innovation to support entrepreneurs and local digital companies in developing digital economy. To achieve such goals, the program creates conditions favorable to innovation that can inspire and adopt digital ideas and solutions, to build tentative digital business models, establish emerging digital companies and attract technology investments.

The NTP strategy is the main driver ensuring the success of digital transformation in the Kingdom. This is especially considering that digital transformation is not limited to digitizing data from old systems to the IT environment, but also requires innovation and adoption of relevant policies and regulations. It further warrants understanding the public and the culture of both people and business. To capitalize on the opportunities offered by modern advanced technologies, the Ministry seeks to achieve the following strategic initiatives:

- Creating a sustainable environment for the advancement of the ICT sector and keeping pace with the rapid developments.
- Launching a comprehensive program with the goal of raising awareness, disseminating digital knowledge and qualifying national cadres.
- Developing the strategy, roadmap and basic enablers for digitizing sectors of priority.
- Encouraging and adopting digital innovation by supporting entrepreneurs and local digital companies.
- Implementing effective governance and common standards for e-government.
- Stimulating the expansion of telecommunications services by providing the frequency spectrum and facilitating a licensing mechanism.
- Launching shared smart systems and applications for government transactions.
- Enhancing ICT cyber security.
- Developing and activating inclusive and open government platforms.
- Launching the government cloud and enhancing government integration.
- Stimulating investment in covering remote areas with telecommunications and wireless broadband.
- Improving the quality and sustainability of internet services and developing an enabling telecommunications environment by updating regulatory frameworks and facilitating licenses.
- Monitoring government spending to prevent investment duplication in information technology.
- Stimulating investment in the deployment of fiber-optic networks in urban areas.
- Launching a comprehensive program to raise awareness, disseminate digital knowledge and train highly qualified national cadres to drive digital transformation.
- Implementing the legislative initiative to develop the basic components required to ensure the readiness of government entities to effectively respond to public beneficiaries.
- Providing support to governmental authorities to improve their services to the people.

Advanced digital infrastructure

Internet speed increased from 9 to 179.92 Mbps	Data traffic access through the national exchange reached 100 Gbps
97% of the Kingdom covered by wireless broadband (4G)	Over 6 million students continued their learning through digital platforms
55 thousand trainees studied qualitative disciplines in partnership with the private and non-profit sectors	97% of government services are provided electronically (over 5,300 digital services)
20 thousand beneficiaries of the digital citizenship initiative (Think Tech)	More than one million students and 11 thousand teachers received training on digital skills

Infrastructure to enable deployment of telecom networks

- Increased mobile broadband internet speed from 9 Mbps to 179.92 Mbps between 2017 and October 2021.
- Data traffic through the national exchange reached 100 Gbps by the end of the third quarter 2021.
- Wireless broadband (4G) covered more than 97% of the Kingdom in 2021
- Completion of updating the requirements of wireless communication towers and antennas to enable the deployment of communication networks in cooperation with the Ministry of Municipal and Rural Affairs and Housing.

Digital innovation and entrepreneurship

- "Fikra" is a national initiative that promotes digital ideas and projects which contribute to our nation's digital transformation, qualifying the Kingdom to become one of the leading digital innovation hubs around the world. The initiative aims to motivate the community to digitally solve challenges faced by various sectors and turn them into profitable achievements
- The Think Tech initiative aims to explore the future and raise awareness about the techniques of the Fourth Industrial Revolution to achieve sustainable development and qualify a conscious, creative and integrated young generation. The youth would have the skills required to deal with the current data. Moreover, the initiative creates an environment that attracts creative ideas and innovative solutions to transform them into successful future projects, while stimulating scientific creativity. It also seeks to disseminate a culture of innovation and invention and build a generation equipped with a mind-set dominated by education, productivity and science that can be utilized to enhance manufacturing and production. Think Tech adopts the launch of several initiatives, including virtual laboratories, future convoys and panel discussions.
- The "Pre-Accelerator Launched" program which enables entrepreneurs to develop digital projects by providing them with essential tools and training materials, in addition to pre-prototype services. The program also links the outputs with investors, companies and funds to attract investment opportunities that adopt program-supported projects. There were 485 applicants to the program with 30 approved projects for which appropriate investment opportunities are to be provided.

Economic growth and job creatiop

- 14.5%.
- The digital economy's share of GDP, which grew by 25% compared to 2017.
- 18%.
- The digital economy's share of non-oil GDP.
- The sector's share of non-oil GDP increased by 6.1% in 2020.
- The volume of the telecom market in the Kingdom is SAR 69.16 billion.
- The trading volume of the IT market in the Kingdom is SAR 64.85 billion.
- The volume of the emerging technology market in the Kingdom is SAR 10 billion.
- The volume of the postal market in the Kingdom is SAR 6.4 billion.
- The sector has created more than 290,480 jobs, with a 58% Saudization rate.

Digital capabilities and future jobs

- Number of the jobs in the sector reached approximately 318 thousand in 2021 compared to 246 thousand in 2017.
- The percentage of Saudization of the ICT professions exceeded 58% in 2021 compared 43.3% in 2018.
- The female participation rate increased to 28% compared to 16.2% in 2018, higher than the European average rate set at 17%.
- Trained over 55 thousand male and female trainees in qualitative disciplines such as artificial intelligence and cyber security in cooperation with our partners in the private and non-profit sectors.
- In partnership with the Ministry of Education, digital skills have been introduced into education, and more than 1 million students and 11 thousand teachers have received training on digital skills.

- The Saudi Digital Academy was established to invest in building capabilities. In cooperation with international universities such as INSEAD and Holt, 150 sector leaders have received training required to develop their capabilities.
- Launched the largest initiative for developing digital capabilities under the name of the Future Skills. It aims to identify skill gaps and localize training content. The initiative was highly successful, qualifying more than 55 thousand trainees. It also contributed to creating 25 thousand jobs during the year 2021.
- The Kingdom won the ITU EQUALS award in recognition of its efforts towards empowering women.

Digital society

By creating a solid digital infrastructure, the Ministry has enabled other sectors. E-education and e-health were shining examples of digital transformation in the Kingdom.

- More than 25 million virtual consultations in 2020.
- More than 70 million appointments were booked through the Mawd app during 2020.
- Such digitization efforts resulted in reducing clinic visits by 50% in the hospitals participating in the telemedicine service and the SEHA application. This also dropped waiting times for medical consultations from months to days.
- More than 6 million students continued their online education on digital platforms in 2020 and 2021.
- The Kingdom has implemented an AI-based experiment, which is the largest of its kind in the world, to proctor the tests of more than 250 thousand students in the admission stage.

Digital government

- 97% of government services are provided electronically, with over 5,300 digital government services
- The sophistication rate of e-government services reached 84% in 2021 compared with 60% in 2017, according to the United Nations e-Government Index (UN EGDI).
- With the support of our prudent leadership, the Council of Ministers approved the establishment of the Digital Government Authority to support government digital transformation. It will continue the Government's digital transformation journey by focusing on:
  - Creating an exceptional experience and with a focus on eliminating obstacles.
  - Accelerating the application of innovative business models through government digital transformation.
  - Increasing productivity by qualifying national cadres in the public sector and maximizing revenues from tech investments.
- More than 17 million users of the "Tawakkalna" application services
- Services on the Absher platform increased to 330, and serve more than 23 million subscribers. Additionally, the Ministry of Interior reduced the time required to finalize services from 240 minutes to only 3.
- By 2030, the NTP strategy aims to make the Kingdom one of the top 30 countries in the digital economy and a hub connecting continents digitally. It also aims to raise the digital economy's share of GDP to reach 19.20% by 2025. Assuming that the number of housing units in the Kingdom is 6 million, the strategy seeks to develop digital infrastructure required to provide 85% of the Kingdom's houses an internet speed of not less than 100 mbps, while providing 95% of houses a data speed of no less than 20 mbps.
- Another objective of the strategy is to stimulate investment in networks of basic communication services to cover all remote areas in the Kingdom and in high-speed wireless broadband networks to cover 70% of homes in remote areas through financial and regulatory support.

2. National Industrial Development and Logistics Program

National Industrial Development and Logistics Program

The program aims to transform the Kingdom into a leading industrial power and a global logistics hub by maximizing the value of the mining and energy sectors, and focusing on local content and the Fourth Industrial Revolution. Through these efforts, the program contributes significantly to maximizing and diversifying the economic impact of the targeted sectors while sustaining their growth, and helps them to lead the market by transforming them into attractive investment institutions.

The program aims to enhance the Kingdom's competitiveness and attractiveness as an ideal destination for investment by developing the infrastructure of its four sectors. In addition, this is expected to optimize the utilization of resources and improve policies and legislation for the sectors. Such steps help the program to achieve its objectives and enable national and international private sectors to invest.

The development of the digital economy constitutes an important enabler for enhancing the capabilities of the promising non-oil sectors that contribute to developing and diversifying our national economy, and realizing the Kingdom's Vision 2030. The Kingdom also seeks to raise the digital economy's share of the domestic product in line with leading global economies. The Ministry has launched several initiatives to develop the digital economy and maximize the value of the mining sector. These initiatives are considered strategic objectives that can support the National Industrial Development and Logistics Program. They include:

- The Fourth Industrial Revolution Infrastructure Initiative.
- The Digital Transformation Initiative for Mining.
- The initiative to develop postal logistics.

The program aims to accelerate the adoption of the Fourth Industrial Revolution, which relies on artificial intelligence, the Internet of things, robots, smart industry and mining, smart electricity networks, 3D printing and advanced technologies. This is expected to increase production and competitiveness, enhance sustainability, and qualify specialized human cadres. The human cadres represent an integral part as they will fill the generated vacancies. The program is committed to developing the infrastructure for communications and digitization technologies, as a major enabler for the growth and expansion of the applications of the Fourth Industrial Revolution.

3. Quality of Life Program

QUALITY OF LIFE PROGRAM

The program is concerned with improving the quality of life for individuals and families by creating conditions favourable to the development of new options that enhance the participation of population in cultural, recreational, sports and tourism activities, along with other appropriate patterns that enhance the quality of life, generate jobs, diversify economic activities, and cement the position of Saudi cities amongst the best ones worldwide.

The Ministry's role in achieving the strategic objectives of the Quality of Life Program is most visible in its contribution to arts and culture, in addition to its participation in developing and diversifying entertainment events to meet the needs of the population through two initiatives:

- The Home Entertainment Sector Development Initiative.
- The Saudi Program for Electronic Games.

Over the coming years, the program will continue its efforts to enable the sectors of culture and heritage, sports, entertainment and tourism, in addition to the amateur sector. The program also works on developing the municipal sector, by designing human cities, improving the urban landscape and upgrading services with a view to ensuring a high quality of life in the Kingdom.

During the year, the program made progress in the strategic indicators measuring the quality of life, and led to many achievements that support and enable quality of life across different sectors. It has launched 122 initiatives to be implemented by the competent executive authorities, while serving the strategic goals of the Kingdom's Vision 2030.

Among the indicators of the Quality of Life Program is "the number of the best titles produced," such as books and electronic games (within 3 months of their global publication). This is in line with the Vision 2030 goal of developing and diversifying entertainment events to meet the needs of the population. In 2021, this indicator achieved actual value of 72%, exceeding its target of 70%.

Creating an environment boosting the quality of life

100 k
beneficiaries
of the innovation culture program

%72
completion
in developing and diversifying entertainment events

9
start-ups
in electronic games were adopted

10
prototypes
in the field of electronic games

50
trainers
in the field of electronic games

4. Privatization program

Privatization Program

The privatization program aims to improve quality and reduce cost of services by paving the way for a greater contribution by the private sector in providing services. It also stimulates economic diversification, enhances business development and sharpens our competitive edge to keep pace with regional and international challenges and competitors. Moreover, the program seeks to attract foreign direct investment and improve balance of payments.

During the coming period, the program will focus on enhancing the role of the private sector in providing services, maximizing the value gained from government assets and raising spending efficiency. It will also continue to develop sectoral privatization strategies, including transportation, health, education and others, which will enable government efforts to refocus on legislative and regulatory efforts.

The privatization program strategy aims to tender state-owned assets for the private sector's participation and partnership by privatizing specific government services. The Ministry has cooperated with the program to privatize specific government services through an initiative aiming to accelerate the transformation of the Saudi Post. Among the most prominent goals of the program is to maximize the value of non-oil government revenues to reach SAR 143 billion by the end of 2025, and the value of public private partnerships to reach SAR 62 billion. In addition, it seeks to the maximize the financial value of government spending through partnerships to reach SAR 14 billion.

The Kingdom's privatization plans offer more than 160 different projects within its various sectors during 2022. The targeted sectors include the ICT sector, of which MCIT is part, in addition to the Digital Government Authority. Among the program initiatives, the Ministry contributes to the following, among others:

- Strategic initiative to privatize the ICT sector.

"The approval of the privatization plan of the CIT sector by the Board of Directors of the National Center for Privatization"

5. Human Capability Development Program

National Transformation Program

The program seeks to provide citizens with capabilities that enable them to compete globally, by promoting values, developing skills, increasing knowledge and focusing on building a robust, inclusive educational foundation that contributes to inculcating values at an early age. This will prepare the new generation for the future local and international job markets by promoting a culture of work. It also aims to develop citizens' skills by providing lifelong learning opportunities and supporting a culture of innovation and entrepreneurship, driven by developing policies and providing capabilities to strengthen the Kingdom's leadership.

The Ministry participated in the Human Capability Development Program to ensure that education meets the needs of the job market by building an integrated educational system through two initiatives:

- A program to develop the skills of founders of digital entrepreneurial companies.
- A digital skills program for adults.

5 camps

Organized within the digital Hemat Camp

647 graduates

From Hemam Camps joined the market

3500 trainees

Qualified from international companies

Employing 5402

After receiving e-training

6. Doyof Al Rahman program

Pilgrim Experienc Program

The role of the program is to enable the largest number of Muslims to best perform Hajj and Umrah. Therefore, it works on enriching and enhancing their experience by preparing the Two Holy Mosques, delivering the global message of Islam, adapting tourist and cultural sites, and providing the best services throughout the journey to Makkah and Madinah as well as the holy sites. Such endeavours reflect the shining and civilized image of the Kingdom in providing safe custody to the Two Holy Mosques and their visitors.

The services provided by the Ministry have contributed to success of the program. The most notable services include providing electronic visas for pilgrims coming from various parts of the world and the extending the Umrah season. Many other tech services were provided by the Ministry, of which the most effective are the "Return," "Smart Hajj" and "Hajj without a bag" initiatives. The Ministry has also provided the Doyof Al Rahman (the pilgrims) with a comprehensive health insurance plan.

In the near future, the program seeks to provide a transformative spiritual experience for the pilgrims by facilitating procedures to host a larger number of people, preparing Islamic historical sites to enrich their religious and cultural experiences, and achieving integration of all involved parties to upgrade the 16-track system of high priority services. Such formidable work would enable 30 million pilgrims to experience a transformative and faithful experience from the idea to the memory.

Among the major achievements of the program are the adoption of electronic visas for pilgrims and Umrah performers, reducing the time for obtaining a visa from 14 days to only 5 minutes. The waiting time for pilgrims at the ports also dropped to 15 minutes, as the Makkah Road initiative contributed to facilitating entry procedures of pilgrims through the Kingdom's ports. To support the program, the Ministry has established an e-training platform, Wefadah, to train and qualify workers in the pilgrim service sector and enhance the culture of hospitality among them.

Doyof Al Rahman tech services

Electronic visas

for pilgrims and Umrah performers

Robots to assist pilgrims & monitor

the compliance with precautionary measures

Smart Hajj Initiative

to establish a unified electronic track

Accessing apps

including Al-Maksid, Manasikuna and Tarwiah, without internet

Providing 5,400 access points

To use internet in Makkah and other holy places

03

The Kingdom's international ratings and the role of ICT sector

Digital Renaissance Report

European Center for Digital Competitiveness

The Kingdom ranked second globally amongst the G20 countries in the Digital Competitiveness Report for 2021 issued by the European Center for Digital Competitiveness. The report builds its ratings on two main pillars: the regulatory environment and digital culture. The index measures the progress in the field of digital competitiveness based on these two pillars by measuring the improvement in 10 sub-indicators. The Kingdom made significant progress by moving up 169 positions compared with the previous edition of the index.

Mobile broadband index

On the Mobile Broadband Index issued by SpeedTest by Ookla, The Kingdom occupied the seventh position globally out of 135 countries. The credit of such great an achievement goes mainly to the Deputy Ministry for Communication and Infrastructure, and the ICT Commission for their efforts to improve the Kingdom's communications infrastructure.

Smart Cities Index

The City of Riyadh made a major leap on the Smart Cities Index for 2021 issued by the IMD Institute. The city jumped 23 ranks compared to the previous year, becoming the third smartest city amongst the G20 capitals and the 30th city at the global level. This achievement reflects the various efforts of the communications authorities to develop communications infrastructure, government e-services, digital capabilities and others.

1st globally in 5G coverage

2nd amongst the G20 in digital competitiveness

2nd in cybersecurity

3rd on digital capabilities index

7th in mobile broadband speed

Global Innovation Index

In cooperation with Cornell University, Portolans Institute and some other parties, the World Intellectual Property Organization (WIPO) issues the Global Innovation Index annually to measure the ability of the countries to stimulate innovation. The index relies on 7 indicators including institutions, human capital, research, infrastructure, market sophistication, business sophistication, knowledge and technology outputs, and creativity outputs.

The Kingdom's score advanced to 31.8 and ranked 66th in the 2021 edition for the second year in a row, while its classification in the innovation production sub-index rose from 77 in 2020 to 72 in 2021. Additionally, it improved on many other sub-indexes such as research and development, 26, access to information and communication technology, 28, strength of investor protection, 3, and the growth rate of GDP, 6.

	2019	2020	2021
International rating on the index	68	66	66
Actual value of the index	32.93	30.94	31.8

UN E-Government Development Index

Issued by the UN, the e-Government Index is concerned with the extent of progress and development made towards the transition to electronic transactions in the governmental sphere. It also considers the digital transformation of services, the availability and deployment of the digital infrastructure essential to accessing these services, while also providing the public with skills and knowledge to use such services.

Formed by the Ministry last year in cooperation with the relevant authorities, the Steering Committee for the E-Government Index exerted productive efforts in analyzing the sub-indicators and assigning the task of improving each of them to the concerned authority. It developed an integrated an action plan to enhance the results of different indicators under the index. Such actions improved the index value and the Kingdom's rating as it moved up 9 positions to occupy the 43rd position globally.

	2018	2020	2021
Rating on the E-government Index	52	43	66
The value of the E-government Index	0.7119	0.79	31.8

World Digital Competitiveness

Issued by the International Institute for Management Development (IMD), the World Digital Competitiveness Index measures the readiness of countries to adapt to the developments of digital technologies as well as their ability to invest these technologies in supporting the economic transformation of businesses, government and individuals. The scale of readiness and capability of countries is assessed through three main indicators: knowledge, technology and readiness for the future.

	2019	2019	2020	2021
International rating on the index	39	39	34	36
Actual value of the index	69	69	67.9	64.35

Mobile Connectivity Index

Issued by the Global System for Mobile Communications association (GSMA), the Mobile Connectivity Index measures the enabling factors for internet connection through mobile networks. It evaluates the quality of mobile communications network infrastructure to provide high-speed Internet services, and the proportion of mobile communication subscription rates to income levels. It also assesses the knowledge and skills essential for individual access to the internet, and the availability of online content and services for the public. In 2020, the Kingdom moved up 3 positions to assume the 44th position globally, achieving excellence in the sub-index of coverage of 5G networks where it occupied the first place globally.

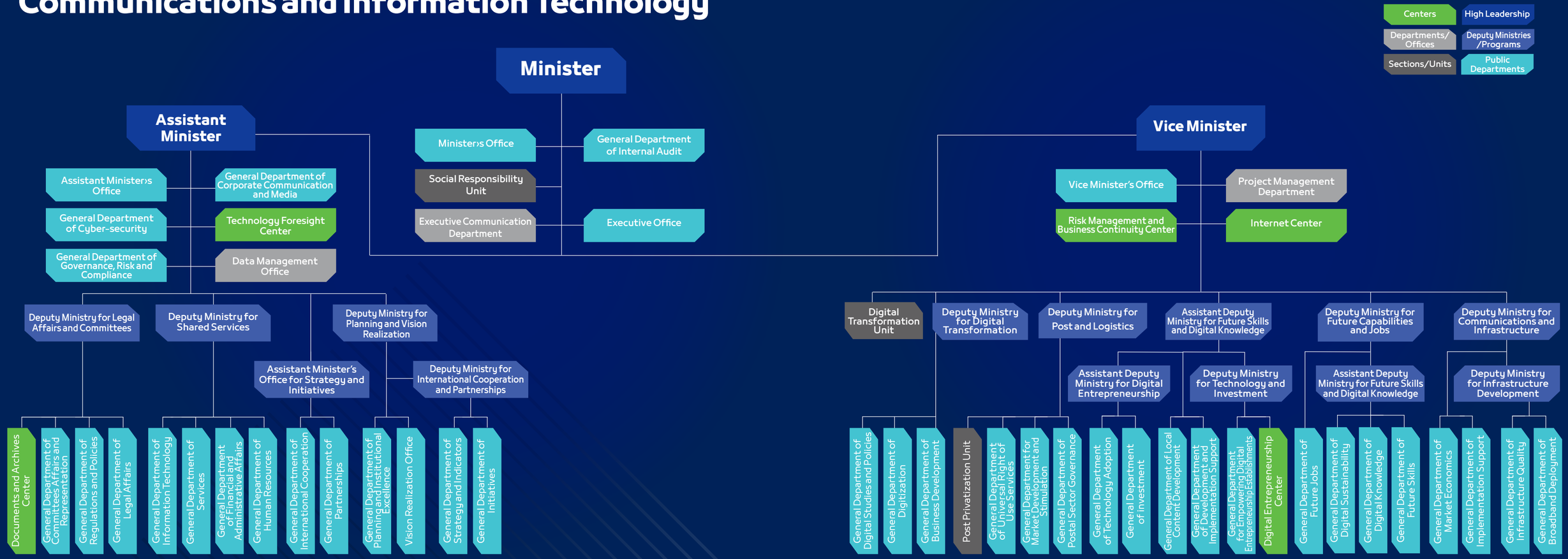
	2019	2020
International rating on the index	47	44
Actual value of the index	70.8	72.6

Network Readiness Index (NRI)

The Networked Readiness Index measures the capabilities of countries to seize the opportunities offered by information and communication technologies. The Kingdom's rating on the NRI, which evaluates the economic enablers of countries to leverage from ICT, rose to the 40th position in 2021.

	2020	2021
International rating on the index	41	40
Actual value of the index	57.97	60.23

Operational Structure of the Ministry of Communications and Information Technology



4

Achievements

04

Enhancing the telecommunications market

MCIT has partnerships with many government entities and private parties to accelerate the adoption of modern technology applications and enable access to smart solutions in various fields and sectors such as education, industry, agriculture, tourism and housing. This maximizes the impact of advanced technologies in realizing the goals of Vision 2030.

The Ministry's efforts throughout 2021 contributed to increasing the quality and speed of telecommunications services, especially in villages and remote areas. 4G networks covered approximately 97% of the Kingdom, while the local internet traffic speed through the national exchange reached 100 Gbps. These achievements are supported by the capacities of data centers, which reached 90 megawatts. The Ministry has continued its efforts to create an adequate infrastructure to ensure the continuity of internet services and provide stronger bonding abilities.

The Ministry has also laid the foundations of sustainability and growth to broaden the contribution scope of the telecommunications sector, being a pillar of the digital economy. The Ministry launched a guide for smart cities, addressed the gaps in the paid TV services, and achieved a kind of commercial success at the level of 5G and Internet of Things solutions. It adopted advanced applications such as apps providing remote health services and improving the visitors' experience. It also enabled apps of smart airport and agricultural development. In line with the objectives of the Kingdom's Vision 2030, the Ministry has localized a number of local and international services and networks used for disseminating content. Moreover, it concluded partnerships with mega projects such as "NEOM" and "Roshan" to develop their digital infrastructure, while delivering fibre-optic service to a number of residential projects. It started experiments with the delivery of pneumatic fibre optic service to homes.

6
champions
of the biggest e-champions received sponsorship

6
million subscribers
benefited from special packages available to gamers

100k
gamers
received technical support

Digital infrastructure in mega projects

The advanced digital infrastructure in mega projects provides an attractive atmosphere for foreign investments and is one of main drivers of the Saudi economy that help the Kingdom assume a leading regional and global economic position. The Ministry has succeeded in developing business models to enable the deployment of digital infrastructure for mega projects such as NEOM, where the airport has been provided with 5G services. A feasibility study was made to establish data centers and presented to Roshen Real Estate Company. The study aimed to increase the number of Public Investment Fund mega projects in hosting data centers and stimulating their growth. It also seeks to overcome regulatory challenges facing deployment of ICT services in mega projects and smart homes. It also raises awareness about CIT's role in improving the quality of life of individuals and the digital society.

Digital infrastructure

Digital infrastructure is an integral part of the Kingdom's Vision 2030 and its concomitant National Transformation Program. It also constitutes an essential element in sustainable economic growth as its investments exceeded SAR 55 billion over the last years. Such investments contributed to the growth of all sectors and the progress of the Kingdom in the global indicator of mobile internet speeds.

The Ministry has laid the foundations for the sustainability and growth of the ICT sector being the base of the digital economy. It increased the efficiency of investments in the sector and stimulated the adoption of emerging technologies. This is expected to contribute to the growth of non-oil GDP, increase service exports and enable digital transformation in other economic sectors.

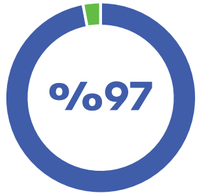
Infrastructure policy

The digital infrastructure policy is a subsidiary of the digital economy policy and focuses on the aspirations of the infrastructure sector. The policy aims to improve the regulatory framework of the Kingdom's ICT sector by reviewing and formulating the necessary policies, legislation, procedures and rules to contribute to expanding and enabling the digital infrastructure, and improving the sector's quality in general. This helps increase the sector's attractiveness for investments and maximize its returns.

Smart Cities Guide

The Ministry launched a guide in line with Vision 2030 encouraging the use of technology and artificial intelligence to enhance infrastructure towards achieving the welfare of the Kingdom's population by providing pollution-free smart cities. The Guide directs the architecture of smart cities and standardizes the implementation process in line with the smart city program, which drives economic growth and improves quality of life.

Adopting modern technologies



of the Kingdom covered with 4G network

of homes in villages and remote areas covered with broadband services

Adopting modern technologies

5G technology has brought about a qualitative leap in the services provided by mobile communications networks in the Kingdom. It has also become a major enabler for modern applications including smart cities, homes and vehicles. In line with this, the Ministry has begun facilitating the adoption of modern technology applications in cooperation with various bodies and authorities. It is also working with various government agencies to experiment 5G applications which contribute to achieving growth, development and tech transformation as well as stimulating the demand for future technologies.

To realize this objective, the Ministry, in cooperation with King Saud University and the private sector, established the National Center for Future Network Technologies to develop 5G applications. This center aims to provide the necessary platforms and opportunities to accelerate the adoption of the best 5G practices recognized by the world. The Ministry has also developed a hackathon plan for 5G experiments to raise awareness and enable young talents to keep pace with emerging technologies.

The 5G observatory was also established to be the unified reference for monitoring all aspects of Internet of Things and 5G applications in the Kingdom. Additionally, the Ministry has signed memoranda of understanding with the private sector to develop several 5G experiments in various sectors.

Data centers' capacity reached 90 MW

During the year, the Ministry worked on increasing the capacities of data centers to 90 MW compared to 60 MW in 2020. Its aim was to acquire the ability to host international internet content and services, a main enabler for the Kingdom to become a global digital hub. To obtain this objective, 7 preliminary agreements were signed with local and international companies to build data centers.

Paid TV strategy

With the growing demand for paid-TV services in Saudi Arabia, especially from the youth segment who represents the largest portion of the Saudi society, the Ministry is keen to provide an infrastructure that enables paid-TV companies to switch to modern operational models. Accordingly, the Ministry has developed the national strategy for the paid-TV sector which addresses the gaps to maintain the sustainable growth of media sector. The strategy also ensures governance and a regulatory framework, while providing incentives and offering the initiatives required for the paid-TV sector in the Kingdom.

90 MW

increase in data center capacity this year

SAR 450 million

value of the bilateral agreements between Makkah Secretariat and telecommunication companies

7 agreements

to build data centers

82%

improvement in average response time of e-games platforms

Strategic partnership with the municipal sector

Within the Ministry's efforts to achieve a qualitative leap in telecommunications services in different parts of the Kingdom, especially the Holy City of Makkah, which is given special attention from leadership as part of its custody of the Two Holy Mosques and the worshipers, the Ministry has cooperated with the Secretariat of Makkah to overcome the challenges facing the deployment of telecommunications services in the holy city. It aims to provide an attractive and enabling environment for investment in Saudi cities in line with the objectives of the Kingdom's Vision 2030. A series of bilateral agreements worth SAR 450 million were signed between the Municipality of the Holy City and a number of telecommunications companies operating in the Kingdom.

These agreements are part of the efforts to raise the private sector's share of the city development, and to enable digital transformation which provides the necessities of smart cities and raises the efficiency of municipal real estate investment. This will have a positive impact on the levels of financial sustainability of cities while improving the quality of services provided.

Residential projects support

Within the Ministry's ambitious initiative within Vision 2030 and as part of the National Transformation Program, the Ministry is working to provide broadband services by deploying the FTTH fiber-optic networks in the cities and villages of the Kingdom.

The Ministry signed an agreement with the Ministry of Municipal and Rural Affairs and Housing to deliver fiber-optic services to residential projects in cooperation with service providers. The Ministry also signed an agreement with SM Company to implement 6 housing projects and deliver the service for the Buraidah and Arar housing projects.

The fiber-optic network will enable subscribers to exchange data and enjoy reliable access to the internet at high speeds, which supports and accelerates the digital transformation of various life applications in the Kingdom and paves the way for new job opportunities.

Pneumatic optical fiber

The Ministry is currently working to deliver aerial optical fibers to 1,500 homes in Hotat Sudair of the Central Region, and 2,680 homes in Al-Aqiq of Al-Baha region, as part of a pilot project to deploy pneumatic optical fibers. This type of fiber saves 40% of the cost and accelerates deployment as limited excavation is required.

04

Development of digital capabilities

First: Supporting the organization and localization of ICT professions

In cooperation with many public and private parties, the Ministry continues its efforts to encourage Saudizaion of jobs in the ICT sector, provide quality job opportunities for national cadres and develop enabling programs that stimulate the private sector.

The Ministry has placed its full confidence in the youth of our nation to participate in realizing its ICT goals and lead the digital transformation process forward. Therefore, the Ministry is taking the necessary steps to offer them decent job opportunities, provide them with an appropriate and inspiring work environment, and elevate their skills to occupy leading positions to help the private sector grow. To that end, the Ministry is removing all obstacles faced by the Saudis and the companies operating in the ICT sector.

Working with the Ministry of Human Resources and Social Development, the Human Resources Development Fund and the ICT Committee of the Federation of Saudi Chambers, the Ministry has invoked the decision to localize professions in the ICT sector. For establishments that have 5 or more employees, the process takes 3 tracks (CIT engineering, ICT Programming, development and data, and ICT technical operation and maintenance). The Ministry aims to provide 9 thousand job opportunities. The remuneration calculated for localizing communications and information technology jobs was set as a minimum at SAR 7 thousand for specialized professions and SAR 5 thousand for technical professions. In addition, this supports employment and training in the ICT sector.

To address the challenges of gathering data about ICT job market, the Ministry began developing an observatory for ICT jobs to support decisionmakers in designing and building initiatives and policies that enable and drive the Kingdom's Vision 2030. This will support in to achieving its goals of cultivating capabilities, supporting employment programs, enhancing training and qualifying national cadres.

Moreover, the private sector stimulation initiative was launched to localize software and application development centers as well as outsourcing and communication ones. It assists in building and expanding more than 19 centers in 7 different regions, a contribution that supported the employment of more than 1,000 national cadres, by encouraging the private sector, especially tech companies, to expand into underprivileged areas lacking job and business opportunities and suffering from a high unemployment rate. It aims to localize technology in these regions, which achieves regional economic development and raises the non-oil domestic product. Additionally, it seeks to improve digital local content by stimulating the localization of technical centers specialized in developing applications and software as well as outsourcing and communication centers. This is expected to create qualitative jobs in a number of regions of the Kingdom. The Ministry added 12 new economic activities to the ISIC4 national classification of economic activities in ICT to keep pace with the fourth industrial revolution and the emerging technology it develops.

58% rate of ICT Saudization

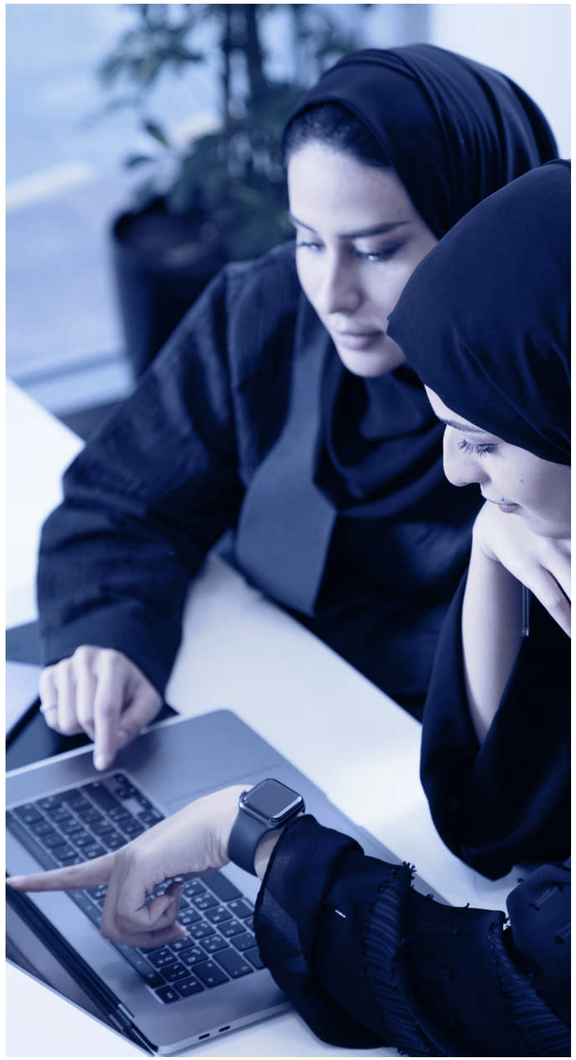
During 2021, Saudizaion of ICT professions increased to 58%, as the decision to localize ICT professions contributed to increasing the percentage of Saudizaion by 25%. The decision aimed to enable ICT national cadres to obtain qualitative and rewarding jobs to take share in developing the private sector and digital transformation process. Implementing the decision, the Ministry aimed to provide 9,000 job opportunities in the ICT sector, maximize its growth, and set the minimum wage calculated for the localized jobs at SAR 7,000 for specialized professions and SAR 5,000 for technical ones.

12 New economic activities

In cooperation with the General Authority for Statistics, the Ministry added 12 new ICT economic activities to the ISIC4 to keep up with the Fourth Industrial Revolution technologies, which include user interface and experience design as well as technologies in the fields of autonomous mobility, robotics, 3D printing, and virtual and augmented reality. As a result, actions were taken to reorganize the ICT sector by developing an organizational structure and linking the entities them to sub-activities in line with the ISIC4.

Programs supporting employment and training

The Ministry launched 7 programs to support employment and training in the ICT sector. It signed a cooperation agreement with the Human Resources Development Fund (HADAF) which increased financial support to professions. This agreement also created freelance jobs to meet the requirements of the self-employment program, leaders' specialized training and on-the-job-training program. In addition, the jobs introduced fulfil the requirements of the other programs that support professional and specialized certificates, e-training "Doroob" and strategic partnerships with institutes.



Observatory of ICT jobs

In cooperation with the Ministry of Human Resources and Social Development, the Saudi Data and Artificial Intelligence Authority, the General Authority for Statistics, and the Ministry's Technology Foresight Center, the Ministry is designing an observatory of ICT jobs. It aims to address the challenges of gathering data about the ICT job market. It also seeks to identify and standardize indicators in terms of their definitions and measuring mechanisms. The observatory supports decisionmakers in designing and building initiatives and policies that enable and drive the Kingdom's Vision 2030 to achieve its goals of building capabilities, support employment programs, enhance training and qualify national cadres.

Future skills

By the end of 2021, the Future Skills Initiative exceeded its targets by supporting the training of more than 55,000 trainees and employing more than 25,000 national cadres of newly graduated students. These are also individuals that were out of work for over 90 days in more than 3,500 local and international companies. Through the Ministry's initiative at the beginning of 2020, and in partnership with government authorities, local and global leading private sector companies, entrepreneurs and the non-profit sector, the Ministry worked to qualify and enable national cadres by building a sustainable model to bridge the gap between supply and demand for digital skills in the job market. The initiative also provided training programs in several disciplines including data, artificial intelligence, software design and development, infrastructure, the Internet of Things and cybersecurity.

Among the activities of the Future Skills Initiative:

Future Skills Camps: Intensive training camps were organized to equip job seekers with the skills required for jobs offered by the most promising tech areas. The training was supported by several local academies, such as the Saudi Digital Academy and Tuwaiq Academy, and conducted in partnership with public and private parties, including the Ministry of Industry and Mineral Resources.

Specialized Training Courses: qualitative training courses were developed in partnership with the best training partners. They aim to hone the digital skills of employees and ICT job seekers.

Cooperative Training: Training programs meticulously designed to include a series of educational and applied activities that meet the requirements of the job market and of university cooperative training. They are conducted in cooperation with local or international training bodies.

Future Tech Ambassadors: In cooperation with Stanford University, the program aims to harmonize educational outcomes by introducing the Technical Discipline 101 in Saudi universities. It also seeks to qualify ambassadors in partnership with 38 universities throughout the Kingdom.

Launching the specialized Freelancer Program: The program aims to increase the number and market share of Saudi freelancers. Additionally, it raises awareness about the concept of self-employment and the opportunities available. This boosts localization by satisfying the market requirements, raising the revenues of local activities and creating new job opportunities to meet the needs of different work patterns.

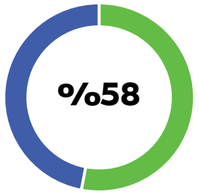
Localization of application development, technical outsourcing and communication centers

The Ministry launched an initiative to stimulate the private sector to localize centers of software development, outsourcing and communication. The initiative assists in building and expanding more than 19 centers in 7 different regions, a contribution that supports the employment of more than 1,000 national cadres. It does so by encouraging the private sector, especially tech companies, to enter new regions, in line with the aspirations of Kingdom's 2030 Vision.

Supporting the employment of 2,000 job seekers

The Ministry's efforts contributed to employing more than 2,000 young national cadres who recently graduated from communications and information technology colleges. It organized a virtual employment fair in partnership with 130 partner entities and trained more than 3,000 individuals. The panel discussions achieved great success, reaching more than 1 million views. The success was also crowned by a ceremony held end of 2021 and attended by our private sector and strategic partners to celebrate their achievements and recognize distinguished efforts.

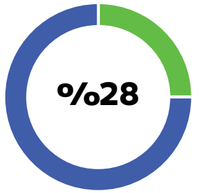
The ICT sector is in national hands



Saudization of the ICT professions

9k
job opportunities
for national cadres

12
new economic activities
in CIT



Women's participation in the ICT professions

25,000+
national cadres graduated
Supported at the Future Skills Initiative

	2020	2021
Total of ICT jobs	232.914 jobs	290.480 jobs
Women's participation in ICT professions	24.1%	28%

04

Development of digital capabilities (Supplement)

Second: Digital leadership

The Ministry seeks to enhance national digital capabilities and encourage innovation to enable the Kingdom to assume a leading position and become a regional tech hub for the prominent pioneers, innovators and programmers from the region and the world. Therefore, it is working on localizing technology and qualifying 1 programmer for every 100 citizens by 2030.

The Ministry is keen on digitally developing young national cadres, promoting tech entrepreneurship and championing a culture of innovation. It has launched many programs and initiatives and concluded partnerships with global parties such as Digibin Institute of Technology, Huawei and Google, to make our nation a regional leading technical hub.

The Ministry's initiatives contributed to enabling digital national potentials as they accelerate the digital transformation process and contribute to achieving the strategic ambitions of the Kingdom's Vision 2030. The initiatives include the "Future Skills", "Digital Ataa" and the Digital Entrepreneurship Center "Code". The latter aims to serve the founders of tech startups and help them achieve effective and sustainable growth. It supports them in the project initiation and execution phases and throughout to the stage of growth and expansion into a tech giant.

The Ministry heavily participated in the international digital forums where our national cadres occupied leading positions in events such as the G20 Summit Innovation League held in Italy, the WebSummit event held in Portugal, and other events.

Qualification and training

Through its investment in developing the ICT skills of national cadres, the Ministry is committed to keep pace with the local tech progress and developments. It qualifies the citizens for work in this vital and promising sector by organizing several programs and training courses. Such training events help them acquire the skills and knowledge that increases their employment chances. They also enable them to play an effective role in advancing innovation, development and digital transformation.

Among the programs developed by the Ministry is the electronic training program with more than 50 specialties such as cybersecurity, Internet of Things, penetration tests, artificial intelligence and several other promising ICT digital disciplines. The programs activated more than 13,000 training licenses.

The Ministry concluded partnership with 39 local and international educational institutions to train more than 1,100 students through the remote cooperative training program. Its objectives include tackling the shortage of training opportunities available to Saudi university students in the ICT field. The program served as an alternative, yet sustainable, solution to traditional cooperative training, by providing qualitative training strategically designed to offer a series of educational and applied activities meeting the market requirements as well as those of cooperative training in universities.

Acting responsibly to harmonize the psychological, social, educational and professional aspects of the trainees, the Ministry conducted guidance and counseling sessions attended by more than 23,000 trainees. The sessions enabled them to learn about themselves, explore their potential and develop their capabilities.

To enhance national digital capabilities, the Ministry organized 680 quality training courses attended by more than 17,000 citizens. These courses were designed to provide beginner, intermediate and advanced training in modern and emerging technologies, in addition to traditional and supportive techniques.

Building and qualifying digital capabilities of job seekers to meet international standards, the Ministry organized 60 training camps under the umbrella of the Future Skills Initiative. The total number of trainees was 2,500, of which 1,000 trained in Tuwaiq Camp (Alef), which represents one of the largest tech events in the Kingdom. It aims to enable 1,000 young men and women across more than 13 regions.

13+k

training licenses activated

680

Graining courses

attended by 17 thousand citizens

50

specialties electronic training

Specialized Programs

A. Freelance work

Maximizing its contribution to preparing more Saudi freelancers for the job market, the Ministry launched a specialized program to qualify and enable 1,500 ICT freelance trainees selected from university students, independent professionals and job seekers. The program aims to raise awareness about the concept of self-employment and the opportunities available. This boosts localization by satisfying market requirements, raising the revenues of local activities and creating new job opportunities to meet the needs of different work patterns. 477 participants graduated from the program.

B. Digital skills

Enhancing its role in localizing digital jobs across various sectors, the Ministry launched the Digital Skills Program for the industrial sector in partnership with the Ministry of Industry and Mineral Resources and the Federation of Saudi Chambers and several international companies. The program conducted a number of training events and workshops to develop digital skills, raise awareness about market requirements and activate innovation laboratories. It was attended by 700 citizens.

C. Future technology ambassadors

As part of its participation in aligning tech educational outputs with the market, the Ministry, in partnership with 38 universities, launched the Future Technology Ambassadors Program to qualify 235 ambassadors. The program aims to keep pace with the requirements of tech job market by identifying and evaluating the current gaps, qualifying national cadres and linking them to qualification and employment programs. It also creates opportunities and pathways in the field of innovation and entrepreneurship to achieve alignment with the Kingdom's digital transformation. 512 citizens benefited from the program.

think tech

Thinktech Digital Citizenship Initiative

Within the Ministry's development vision on improving the quality of life through digital technology, the Ministry launched the Thinktech Digital Citizenship initiative to develop citizens' skills. It aims to qualify citizens to take part in the digital transformation process in line with the Kingdom's Vision goal of raising community awareness about basic digital skills. Those skills are essential for accessing and using information in an effective manner. The citizens would be able to use advanced digital services and benefits and feel confident and comfortable in digital environment.

Several meetings and programs were organized under the initiative. All members of society were targeted to promote their responsible and safe use of internet and technology. The programs include:

A. Glossary of technical terms

In order to enrich the Arabic content with technical terms, the second version of the glossary of Technical Terms was launched in cooperation with a number of academics, technical specialists and telecommunication companies. The total number of terms was 1,700 while the glossary's website traffic reached 6,600.

B. Digital gatherings

Raising the digital awareness of all members of society, the Ministry organized 26 digital meetings with the participation of 60 experts and the support of more than 30 partners including NEOM, Microsoft, Devoteam, the National Cybersecurity Authority, the Saudi Federation for Electronic Sports, the Saudi Space Authority, the Riyadh Chamber and the Center Foreseeing technology. The events were attended by more than 3 million people.

C. Expert videos

Given the significant impact of emerging technologies on all walks of life, the Ministry saw the need to familiarize the community with such technologies and their various applications. In cooperation with a number of academics and specialists, the Ministry prepared 6 videos on different topics such as cloud computing and its future in the Kingdom and the world, the role of artificial intelligence in main tech developments, vital role of cybersecurity in health care and self-driving cars. One of the videos addressed the prevailing role of cybersecurity in securing everything in our life. The videos were published and achieved more than 500,000 views.

D. Make it, Play it

The Ministry aimed to qualify juniors (aged 12 to 17) to offer them different experiences with the aim of enriching their knowledge about the tech aspects of developing games. In partnership with the Saudi Federation for Electronic Sports, Zain Saudi Arabia, and the King Abdulaziz and His Companions Foundation for Giftedness and Creativity, the Ministry launched the second edition of the "Make it, Play it" competition at the Players Without Borders 2021 event. It aims to train them to use various development environments while being observed by a group of expert mentors. More than 4,600 participants registered for the competition.

E. Virtual lab

To support scientific research and tech innovation, the Ministry made available a digital manufacturing lab which allows building innovations and converting theoretical ideas into real prototypes. The lab comprises various manufacturing devices that enable users to transform their ideas into a tangible, realistic design by uploading them via the website. It was used by 9 thousand who applied 453 projects.

F. National Day

On the National Day, the Ministry saw an appropriate opportunity to send a message to citizens inspiring them to think and program. The message was delivered through a video titled "Think tech, so our culture wins". It aims to spread culture, pass on knowledge and highlight the most prominent emerging and modern technologies in electronic games. 4 million people received the message.

G. Interactive exhibition

Within the digital citizenship initiative, the Ministry participated in the interactive exhibition titled Gtel. It was organized by the Saudi Electronic University in cooperation with a number of authorities and conducted through augmented reality technology and 3D designing.

H. Makkah days

To help find digital solutions to enhance the digital transformation progress in the Makkah region and its governorates, the Ministry participated in the Makkah Programming and Artificial Intelligence Days, one of the pioneering events launched by the Makkah Cultural Forum within Makkah digital projects. The events witnessed a high turnout of more than 5,000 people.

8
million benefited
from the Digital Citizenship Initiative

22
million
participated in Digital Ataa Initiative

Education support:

The Ministry plays a pivotal role in preparing ICT national cadres. It refines their skills to provide them with professional capabilities and competencies in line with the requirements of the job market. Through Education, the Ministry contributes to bridging the skills gap, and overcoming challenges to sharpen the Kingdom's competitive edge at the regional and global levels. The Ministry believes that this goal can only be achieved by supporting tech education.

A. Talent Development

Enhancing the role of students in building the digital economy, the Ministry participated in the Huawei "Seeds for the Future" program, which aims to develop tech talents and build a more sustainable technology ecosystem. 60 students joined remote training sessions titled 5G technologies, artificial intelligence and cloud computing.

B. Sarawat hackathon

In partnership with the Social Cultural Club at King Saud University, the Ministry organized the Sarawat Digital Hackathon which was attended by 209 participants.

C. ISEF competition

In cooperation with the Ministry of Education, the Ministry sponsored the camp of the Kingdom's national team participating in the ISEF International Competition 2021. 60 Saudi students participated in the competition.

Initiatives:

A. Future Champions

To enhance tech capabilities of the youth and raise their awareness about digital citizenship, the Ministry, in partnership with the DQ Institute, CyberX, CyberKids, Zain, Mawhiba, Huawei and Classera, launched the Future Champions Initiative. It contributes to creating a conscious, creative and integrated society equipped with the skills that qualify its members to meet the tech needs and lead the future. 238,000 people participated in the initiative.

B. Digital Ataa (Digital Giving)

Building on its role in raising awareness, disseminating digital knowledge and preparing highly qualified national cadres to drive the digital transformation process and realize the Kingdom's Vision 2030, the Ministry launched the second phase of the Digital Ataa Initiative. It is a unique voluntary initiative specialized in the tech field to raise public awareness. In 2021, The initiative served more than 22 million thanks to the efforts of its 270,000 members, while more than 2.5 million attended the courses it offered.
During the initiative, a digital webinar delivered electronic tech lectures on various topics including a number of awareness-raising lectures. This exceeded 460 webinars. Further, agreements were signed with the Islamic World Educational, Scientific and Cultural Organization (ISESCO) and with Classera to launch the Digital Ataa Initiative Academy. A partnership was also concluded with a number of Google programs in addition to establishing the Digital Giving Association.

Within the initiative, 3 camps were launched for cybersecurity training to educate the community about its risks, with 16 thousand total attendees. In addition, an Ataa challenge was launched on the initiative's Twitter account to disseminate tech information through interaction with the followers whose total number exceeded 11 thousand people.

Under the initiative, the Ramadan Digital Giving Nights campaign was launched for the third year in a row. It aims to promote digital events and interactive competitions. About 100,000 took part in the campaign. In addition, the Digital Career Program was launched, targeting fresh graduates of secondary and university levels. The program helps them choose their digital specialties by preparing an integrated program that explains and simplifies the digital majors offered by Saudi universities. It also offers expert and specialized advice in a simple and adequate manner.

Campaigns:

A. Teach and relax

In light of the increase in electronic platforms, especially in video games and social networks, the Ministry felt obliged to help parents learn about cyberbullying, and how it adversely affects children the virtual world. Acting out of its social role, the Ministry launched a "Teach and Relax" campaign to raise awareness about cyberbullying and ways to prevent it. The campaign was organized in cooperation with more than 70 partners from public, private and non-profit sectors. The campaign, which benefited 3.2 million people, aims to raise awareness about cyberbullying in online gaming space, and guide the target groups of parents and children how to properly deal with bullying to reduce its negative impact. As part of the campaign, the Ministry published educational materials and animations, in addition to launching a short entertainment and awareness program under the name of "Anti-bullying Squad."

B. Tech for all

The Ministry continued its role in spreading digital knowledge, eradicating digital illiteracy and promoting the concept of digital inclusion. In cooperation with more than 55 partners from public, private and non-profit sectors, the Ministry launched the "Technology for All" campaign to spread digital knowledge, enhance digital literacy and promote the concept of digital inclusion.

The initiative, which has benefited nearly 9 million people, aims to educate senior citizens about the role of technology in making their lives easy, and guide them to use tech applications without assistance, in addition to teaching them how to use the key relative applications and programs. This would enhance their self-confidence and their ability to keep pace with technology, and motivate the community to educate the elderly about technology. It sheds light on the role of the community in helping and encouraging the elderly to use technology and its features. For example, simple and direct means of education should be adopted in the areas of health, public services, and mobility.

The initiative included a video highlighting the importance of technology and introduced a weekly program entitled "A Window on Technology". It also launched a technology guide providing basic information on the most important tech applications.

Raising awareness

3.2 million people

about cyber bullying

Nurturing talents:

The Ministry is increasing its efforts in nurturing tech talents. It introduced activities aimed at supporting them and contributed to developing and marketing their capabilities as part of its strategy to invest in talents. The activities aim to raise the level of performance and improve outputs in the tech sector in line with the objectives of the Kingdom's Vision, which place emphasis on nurturing and supporting talent and creativity. These elements are essential for transforming the Kingdom into a society of knowledge and sustainable economic development.

In cooperation with Huawei, the Ministry launched the fifth edition of the ICT competition to nurture local talents to lead the future of technology in line with Vision 2030. It inspires university students to innovate, and accelerates their integration with advanced technology. The goal is to enhance their capabilities and hone their skills and expertise with a view to supporting the digital transformation process in the Kingdom. The competition witnessed a high turnout of thousands of university students. It was conducted virtually, and certificates were awarded by Huawei to the winners of the regional qualifiers, providing them with further learning and training opportunities in the future, in addition to other cash and in-kind prizes.

9 million people

are digital literate

Non-profit sector:

A. Foundation

During the year, 6 tech entities were established in different regions offering multiple specialties as part of the Ministry's plan to enable the non-profit tech sector and achieve a greater impact on both society and economy. The entities aim to develop the sector's capabilities.

The entities include the Technical Education Association for Qualification and Training (TACAD), the Qassim Technical Association, the Digital Media Association, the Technical Systems Association, the Kayan Association for Technical Services and the Digital Transformation Leaders Club.

The Ministry supported the entities during the project incorporation phase by providing specialized consultation and assistance in setting realistic goals, laying down simplified guidelines for the incorporation process and developing criteria for accepting associations.

The number of tech entities supervised by the Ministry has reached 27 non-profit tech entities.

B. Enabling entities

To help the non-profit tech sector advance, its entities need to possess the best organizational knowledge and expertise that improves their sustainability and maximizes their role to overcome societal obstacles. Therefore, the Ministry has enabled many non-profit entities by supporting and sponsoring their activities and initiatives.

This support included sponsoring the inauguration ceremony of the Hayat platform introduced by the Tawasul Association for Assistive Technologies for People with Disabilities. The Ministry also sponsored the annual ceremony of the Children's Cyber Security Association, in addition to supporting the implementation of the first and second phases of the tech Attaa initiative by the Aoun Technology Association in partnership with the Saudi Post.

The Ministry also provided consultations to the Technical Education Association for Rehabilitation and Training in the "Techead for Training and Qualification for the Job Market" initiative, in addition to media sponsorship of the training program titled "Free" in the Internet of Things offered by the Technical Education Association for Rehabilitation and Training. It has also organized a workshop for non-profit tech entities entitled "concession of government services to the non-profit sector."

C. Supervision

The Ministry's role is not limited to establishing and enabling the non-profit sector, but extends its support through supervision and follow-up phases. The Ministry coordinated with the Ministry of Human Resources and Social Development to address the tech challenges facing associations in entering data on the digital volunteer platform, in addition to following up and assisting tech entities to meet targeted KPIs. It also followed up on the performance of associations that were granted certain government services such as training. In addition, the Ministry carried out field visits and circulated special tech instructions to the entities, while creating standards for granting them concession of government services.

Entrepreneurs:

A. Tech Champions 2.0

To enable entrepreneurs to devise digital solutions for a more advanced digital future, the Ministry launched the Tech Champions Program to support entrepreneurs to develop new solutions through the "business incubator track". The program also assists with the development and growth of emerging projects through the "business accelerator track".
The program provides financial aid to Saudi entrepreneurs to set up projects that serve the Kingdom's vital sectors. The project may receive an aid amounting to SAR 1 million. The Ministry organized a closing ceremony, celebrating projects which came out on top of both tracks. These projects target innovative entrepreneurs by providing them with necessary tools, and supporting them in the tech, administrative and financial aspects. This support is offered by the Ministry's key private and semi-governmental partners.

- 4,000 applicants
- 30 digital prototypes
- 12 startups

B. One game competition

To inspire entrepreneurs to develop world-class games on smartphones, the Ministry organized the One Game Competition for the single game companies, to help them expand and access local and global markets. The number of tech game prototypes reached 100 models.

C. Developers Zone Competition

The Ministry organized the Developers Zone Competition to invite game programmers from around the world to share their achievements and compete through creativity and innovation. The Ministry's goal was to encourage programmer entrepreneurs interested in developing electronic games and emerging entrepreneurs in electronic games' production. This would motivate single game companies and help them expand their business and access local and global markets. The competition aims to solicit game programmers to show the world more creative details under the slogan "Code, develop, create and push boundaries". The competition's closing ceremony was held virtually, where the Ministry delivered a speech. In the ceremony, the 10 winners were announced and awarded prizes worth SAR 375 thousand.

D. Center of Digital Entrepreneurship

To provide services that inspire emerging tech companies to adopt effective and sustainable models, the Ministry launched the Center of Digital Entrepreneurship. The Center aims to serve leading tech entrepreneurs during the phases of foundation, execution, growth, until they become tech giants. Moreover, it helps entrepreneurs find the right investor, adopt an optimal business model, and provides the expertise needed to accelerate growth. The main entrepreneurship center has been duly equipped and is fully operational. It includes:

- 7 services
- 630 registered entrepreneurs
- Annual Report 2021

E. Anan Bootcamp

To contribute to the organizational needs of the tech camps, the Ministry participated in organizing the Anan Bootcamp of King Saud University, where the tech entrepreneurship camp is the first of its kind in the history of the university.

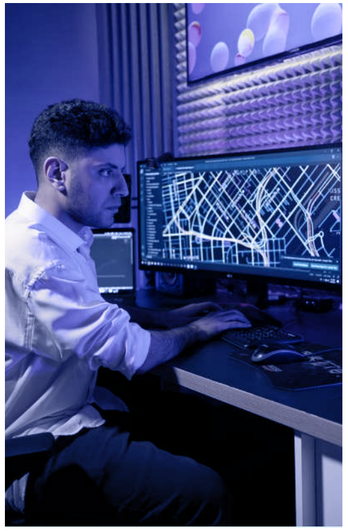
Through the university's partners in the sector, the camp directs the efforts of its Digital Innovation Unit to supporting and stimulating digital innovation to enable entrepreneurs, including students and faculty members, at the university. They join the training camp and leverage many of the services it provides. After completion, they join the incubator of the Institute of Entrepreneurship (steps) at the university where the winning projects obtain financial aids. Details of participation include:

- 500 applicants
- 10 new digital business models
- 5 winning entrepreneurial projects

Digital Entrepreneur Council

To conduct more open and inclusive constructive dialogue, the Ministry launched the Council of Entrepreneurs for the financial technology and electronic games sectors. The Council aims to share visions and ideas to enhance the digital entrepreneurs' share of economic growth and technological development. It helps establish direct link between entrepreneurs, ICT and government decisionmakers.

- 3 councils
- 39 participants
- 46 challenges discussed
- 33 challenges solved



Game Changers:

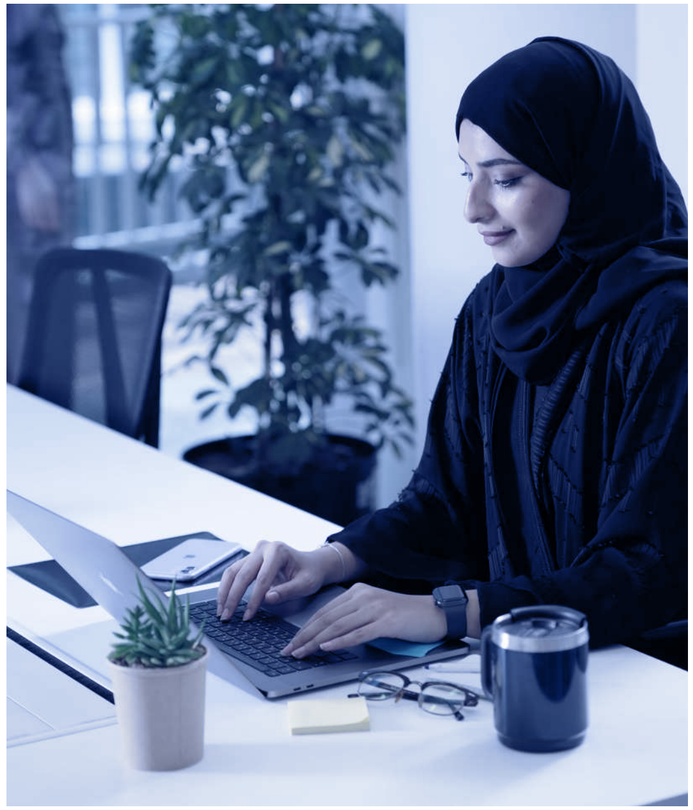
Within the initiatives of the Kingdom's Vision 2030 that are assigned to the Quality of Life Program, the Ministry launched the Game Changers Program to support the creation of new sectors that enhance our national economy, generate jobs and increase local content. In addition, it equips Saudi men and women with skills essential for achieving excellence and creativity globally. By providing appropriate skills, training and corporate aids, citizens can participate in the world of electronic games.

As an integrated program for game developers, it begins with intensive training and ends with employment or incubation of ideas. The program is conducted by the Digbyn Institute of Technology, which is the world's most famous game developer, in cooperation with the Advanced Initiative Company.

Techstars

Based in Riyadh, The Riyadh Techstars Accelerator unique programs provide excellent opportunities for startups to learn directly from its experts, including an elite group of ICT pioneers and experts.

The Accelerator will support 10 startups to expand their business and enter into partnerships. Through partnership with the Raed Ventures Investment Fund, the participating projects will also receive SAR 450 thousand in funding. Raed Fund is a venture capital fund which focuses on investing in the initial stages of projects from the conception phase to rapid growth. It aims to enhance the success of startups in the Kingdom.



The Riyadh Techstars Accelerator concentrates on incorporating and growing startups in the MENA region:

- 550 applicants
- 12 startups
- The market value of the companies exceeds SAR 195 million

Digital challenges

Blockchain technology has changed the future of the internet by providing the ability to adapt technologies to conduct transactions in easier and more secure ways. It helps provide economic opportunities for all sectors, which supports the Kingdom in leading the field of smart economy that encourages entrepreneurship and enhances global competitive capabilities. Realizing the impact of this technology, the Ministry has launched the Blockchain Digital Challenges Initiative, which consists of a series of challenges focusing on emerging technologies. Each challenge contains several stages and relates to a specific technology.

Digital Innovation Lab

To stimulate the innovation and entrepreneurship ecosystem, 16 emerging technology and entrepreneurship laboratories joined the digital innovation laboratories network. This enables government and private sectors to create an integrated innovative environment that creates job opportunities for national digital cadres. The labs served 37,765 people.

Among those laboratories are Huawei Internet of Things Lab, Oracle Innovation Lab, Deloitte Center for Digital Solutions, Taibah Valley Innovation Center, Khobar Intelligence Center, KAUST Innovation Center, KPMG Center for Data Analysis and Artificial Intelligence, Inspirio Center for Digital Business Solutions Development, Riyadh Front Intelligence Center, Devoteam Center, Zain Center, Hub 71 Center, Institute of Entrepreneurship at King Saud University and the FutureX Center for Artificial Intelligence of Prince Muqrin University.

Digital Innovation Award

The Digital Innovation Award aims to promote a culture of innovation, research and development by inspiring researchers and holders of leading digital patents. Furthermore, it builds capabilities, develops digital entrepreneurship and works to transform digital research projects and inventions into digital operating models that can be developed into lucrative business opportunities.

- 1,670 applicants
- 30 new digital operating models
- 10 winning entrepreneurial projects

Digital posts

To develop digital skills in the ICT sector, the Ministry participated in many local and international digital events. It seeks to support innovation and encourage entrepreneurship as digital competency is a main driver of the Kingdom's digital transformation.

The Ministry participated in the Innovation Competition of the G20 Summit in Italy. Its contribution to the event included 5 capital funds and 5 startup companies. A delegation from the Ministry also took part in the WebSummit in Portugal, with 3 startups.

The Ministry also set up a camp to train high school girls on building website prototypes. During the camp, several periodic meetings were conducted to connect and link entrepreneurs with those interested, transfer outstanding experiences, and create a pioneering community capable of innovation and development.

7350
entrepreneurs

170
prototypes

33
startups

195 +
SAR million
in market value of the startups

04

Development of digital capabilities (Supplement)

Third: The Saudi Digital Academy:

The Saudi Digital Academy aims to build and develop digital capabilities in modern and advanced technologies. This helps bridge the gap in the job market and build a skillful and capable generation able to compete in the market and participate in the future of digital transformation. The Academy invests in developing the digital capabilities of our workforce and harmonizes their skills with ICT future professions. It seeks to prepare a young generation of innovators and leaders to keep pace with technological developments of the Fourth Industrial Revolution.

As such, the Academy developed unique, specialized programs designed according to the latest practical and applied training methods. Since its inception, the Academy has organized 32 camps as part of the "Hemam Digital Bootcamps". In line with the Kingdom's Vision 2030, the camps aim to qualify graduates and job seekers through various and intensive (qualitative and specialized) training models that prepare young leaders to keep pace with the developments of this era and meet the requirements the job market. The Academy's programs focus on developing the trainees' digital and professional capabilities, as well as basic work skills. They provide them with world-class experiences qualifying them for the job market, freelance work and tech entrepreneurship.

Leadership training

To localize ICT leading positions by empowering national leaders and ensuring excellence, sustainability, influence and knowledge sharing, the Academy launched a leadership training program to qualify private sector leaders to lead digital transformations in their organizations. This contributes to building the digital foundation of a connected and innovative Saudi future. The program enabled the trainees to effectively lead digital transformation and strategic change within their organizations. They achieved strong performance and implemented digital strategies. 175 of private sector leaders have graduated from the program to drive the kingdom's digital transformation.

Employment camps

To enable and qualify graduates and job seekers through multiple intensive, qualitative and specialized training camps, the Academy launched the Leadership Training Program to localize ICT leading positions by ensuring excellence, sustainability, influence and knowledge sharing.

The camp training materials have been prepared in line with the modern and innovative trends in education and training methods of emerging, modern and advanced technologies to link the graduates with future skills and job requirements. In line with the Kingdom's Vision 2030, the camps aim to qualify young leaders to keep pace with the developments of the era and meet the requirements of job market.

The total number of trainees in the 32 training camps reached 1,611. Of them, 1214 graduated, while 647 joined the job market. The Academy seeks to achieve a graduate employment rate of more than 90% within 3 months of the end of the training.

Developing workforce skills

To qualify and train job seekers and employees, the Academy developed 6 training programs. The programs enable workforce members to occupy qualitative job positions in the areas of emerging and modern technologies related to the Fourth Industrial Revolution. The Academy seeks to enable job seekers to use the job seeking period to develop their capabilities and upgrade their skills.

Taking advantage of e-learning and distance learning technologies, the Academy can reach all segments of society to align and enhance their capabilities as required for the ICT job market. It focuses on qualitative functional positions in emerging and modern technologies related to the Fourth Industrial revolution by remotely providing digital training materials, and expanding qualitative and professional training to meet the needs of the market and digital development. Such efforts qualify youth to join the job market, work as freelancers or start their own tech entrepreneurship.

Further, the Academy granted professional certificates to trainees in cooperation with the program providers. The programs, in which 11,500 participated, focused on tech specialties in demand of job market such as data science, artificial intelligence and big data, digital marketing, cybersecurity and programming, In addition, they covered MEAN MERN, JAVA, .NET, Python, R, data analysis and business, software operations, DevOps, software quality, software testing, digital project management, cloud computing and electronic game development. Having completed the e-training, 4,578 were employed while 16,209 training opportunities were offered through the integrated training system. Around 6,817 completed their training while more than 9,096 are currently being trained. The number of training hours in this program has reached more than 1 million hours.

On-the-job training

To develop trainees' digital and professional skills, the Academy launched the remote on-the-job training (OTJ) program. The Academy seeks to provide employees with the required job skills and global experience enabling them to work remotely. The program aims to bridge the gap in the job market and build a generation equipped with digital skills to compete in the market and lead the future of digital transformation. The program consists of OTJ supportive activities to achieve the maximum benefit from the program period. The activities include guidance sessions for choosing the appropriate career path, sundry training courses to enhance the trainees' skills, and various meetings to build a network of relationships. The Academy aims to remotely train 3,500 trainees at work in international companies located in the Kingdom. So far, the program has obtained a satisfaction rate of 91%.

175 leaders
graduated to lead digital transformation in the private sector

21K
joined Saudi Digital Academy's programs

32
training camps organized

04

Development of digital capabilities (Supplement)

Fourth: Women's Empowerment:

The Ministry attaches great importance to empowering women in the ICT sector by qualifying female cadres in digital transformation and stimulating their effective participation in the job market. Empowering women is one of the pillars of the ICT sector strategy, which aims to build a digital system that embraces, develops and attracts women's minds and skills that can enhance digital transformation and increase the sustainability of ICT qualitative jobs available for women.

The Ministry's Women Empowerment Program aims to activate women's roles through 5 tracks: awareness raising, digital skills, innovation and entrepreneurship, empowerment in ICT leadership, and increasing ICT female cadres through employment programs and initiatives.

During the year, the Ministry launched the third edition of the Forum of Empowering Women in the ICT Sector. The Forum aims to build a digital system that embraces, develops and attracts minds and skills that support digital transformation. It also increases leading job opportunities available for women which, in turn, contributes to raising national productivity, developing digital local content and building a world-class tech sector that achieves economic sustainability. The forum, with 10,000 participants, represented a platform to enhance women's participation in the sector, guide their capabilities to join the telecommunications sector, and reviews the best experiences and expertise during panel discussions, workshops and consultations.

Supporting women›s skills:

A. Gaining skills

To realize the Vision 2030 goal of empowering women in the ICT job market to maximize their participation in the sector, the Ministry held many events shedding light on experiences and expertise that help them acquire tech-related skills. Among the events was the third Women's ICT Empowerment Forum, held in conjunction with International Women's Day. The forum included 9 workshops and 3 panel discussions, and was attended by 40 mentors and more than 10,000 participants.

B. Annual gathering

The Ministry worked on developing digital skills of female job seekers and employees. It provided training on modern, traditional, emerging technologies and other topics in various parts of the Kingdom. It organized an annual gathering that aimed to qualify women to meet current and future requirements of job market. The gathering was attended by more than 19,892 women during the year.

C. Global gathering

In partnership with the counterpart global event by Stanford University in the United States, the Ministry organized the Women in Data Science Gathering 2021 (WiDS2021). It is an opportunity to listen to the latest research and applications in various areas of data science. KSA WiDS is a local event organized by the Bayan community affiliated with the Bayan platform, and in coordination with WiDS ambassadors across the Kingdom. It was attended by data academics and experts in the government and industry sectors as well as students and researchers who presented their work in the fields of data science and data analysis.

The Ministry set up a camp to train high school girls to build prototypes for large websites

04

Enhancing local content and developing the technology market

The Ministry constantly strives to support tech companies by removing obstacles they may face and expanding their businesses in the Kingdom. At the same time, it increases efforts to attract local and international companies to invest in the promising tech sector. The Ministry provides several incentives to localize technology and raise the sector's share of the GDP.

Furthermore, the Ministry provides significant support to the private sector, especially to small, medium and emerging enterprises and startups. It offers the services and incentives they need to grow and develop their businesses, and links tech entities with one another to drive innovation and contribute to transforming the Kingdom into a strong regional and global tech competitor.

In line with its efforts to support the localization of technology and innovation, the Ministry launched an initiative to reduce the electricity consumption tariff for cloud computing businesses by 40%. This contributes to the growth of the IT sector and raises the ICT local content to more than 28%.

The Ministry further developed a business model to stimulate 3D printing technologies, in addition to 11 digital business models for traditional technologies to help institutions, government, start-ups and entrepreneurs solve current problems that impede workflow, as well as meeting future needs.

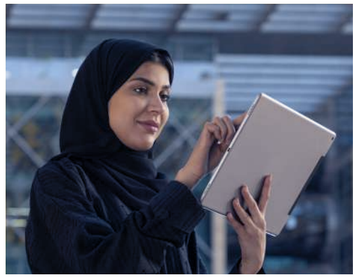
In addition, the Ministry adopted an operational strategic plan of emerging technologies to help study and analyze the best international experiences. Moreover, it launched the National Technology Development Program (NTDP) with a budget of SAR 2.5 billion. The program aims to support and enable tech entrepreneurs, companies and potential tech giants. As a result of the Ministry's efforts to enable the IT sector, the total investment volume in the sector reached SAR 9 billion in 2021, while the number of start-up transactions reached 139, growing by 54% compared to 2020.

Overcoming obstacles for technology companies:

To transform the Kingdom into an attractive market for ICT investment, and to localize emerging technologies, the Ministry has endeavored to eliminate obstacles that leading Saudi tech companies and venture capital investment funds face. It has done so by conducting a detailed study of the major obstacles that may harm and limit their business' ability to survive. Through the Ministry's efforts, the companies and funds can continue to expand their business in the Kingdom.

The Ministry conducted its study in cooperation with more than 11 government agencies and 40 representatives from the private sector. Many meetings and workshops were organized in partnership with the concerned parties, including the public and private sectors as well as experts in the field. The study resulted in identifying the most serious gaps that may dissuade startups and investment funds from investing in the Kingdom's market. Having analyzed the regulatory frameworks, legislative tools and existing practices, the study concluded that there are systemic and legislative challenges affecting companies, in addition to tax transactions, financing, banking services and quality of life.

To solve these challenges, the Ministry cooperated with the relevant authorities to evaluate existing efforts and their



contribution to overcoming these obstacles, and to propose short and long-term solutions. Recommendations have been introduced to help these companies and funds continue their businesses in the Kingdom.

Technology adoption strategy development:

To realize the Kingdom's Vision 2030, its goals of meeting national requirements and keeping pace with global developments, the Ministry contributed to increasing productivity and quality of life in the Kingdom by promoting innovation to develop emerging technologies, and formulated policies and regulations to advance the ICT business.

To support emerging technologies, the Ministry developed a strategic operational plan for emerging technologies. It studies and analyzes the best relevant international experiences to understand the current situation and the future of emerging and traditional technologies. The plan also analyzes gaps, opportunities, focus areas, techniques, standards, strategic plans, governance and business models, sustainability models, strategy updates, and the governance and activation of the experts and strategic partners' committee.

The Ministry finalized technology use cases and the mechanism of activating them. It also completed a roadmap guiding the adoption of technologies in addition to a proposal to adopt technologies of priority for the targeted sectors. The roadmap conducts an analysis of gaps and opportunities, focus areas, enablers, the implementation mechanisms and initiatives as well as their governance. To leverage this strategy in using technology, the strategy will launch 18 effective initiatives, 20 use cases, and 11 recommendations for the key sectors.

Local content in the ICT sector reaches 28.8%:

Realizing the promising future of the ICT sector and its significant contribution to sustainable development and local content, the Ministry is committed to its approach to achieve the Vision 2030 goal of increasing ICT local content. Through the Ministry's efforts, ICT local content reached 28.8% in 2021 compared to 26% in 2020, where the local content reached 24.2% in the technology sector and 34.5% in the communication sector. Moreover, the number of tech companies invited increased to 119 while 64 companies participated in the sector.

40% cut in electricity tariff for cloud computing companies:

Having approved the regulations and regulatory frameworks for cloud service providers a pillar of modern tech solutions that includes artificial intelligence, blockchain, cryptography, augmented reality, wireless services and technical devices, the Ministry found that these activities are high power consumers with prohibitive cost on companies. This ultimately impacts the consumer. Respondingtothischallenge,theelectricity tariff for cloud computing activity was reduced by 40% after approval from the Council of Ministers. This step supports the growth of the IT sector, as cloud computing raises the GDP growth rate and creates a fertile environment that attracts investors looking for low operating costs, high levels of information security and ease of access. The companies operating in this sector and those who apply to connect their electricity before the end of 2023 will benefit from the reduced tariff.

Low carbon future

Realizing the close link between the development of technology and the reduction of carbon emissions, the Ministry, in line with sustainability goals, encourages innovation in emerging technologies to enable all vital sectors and industries in the Kingdom. Through the CO2 Emission Trading Scheme Platform, the Ministry has conducted research to develop a business

model for lowering carbon emissions by shifting carbon emissions quotas of different sectors and businesses.

Promoting 3D Printing Technologies

Keen on satisfying life needs at a low cost, the Ministry keeps pace with the developments in innovative technologies including 3D printing. It is one of the manufacturing technologies known for being highly time and cost effective and more friendly to users than other technologies. Therefore, the Ministry has developed a business model to stimulate 3D printing technologies with a view to growing the 3D printing market. It conducted workshops with service providers, platform developers, design and reverse engineering companies to understand the current situation and develop a business model that better serves the sector.

Development of traditional techniques

As part of the Ministry's endeavor to assist institutions, the government, start-ups and entrepreneurs in developing their digital businesses to increase their profits, it has developed 11 digital business models for traditional technologies that help solve current problems that hinder work.

Technology adoption by 14 entities

The Ministry is committed to promoting the adoption of technology in all governmental and private sectors. It aims to help them increase their efficiency in providing services, while maintaining the highest quality standards using unconventional patterns and the employment of emerging modern technologies. These include artificial intelligence, Internet of Things, cloud computing and virtual reality applications. Combined with the other steps, this constitutes a qualitative leap that strengthens the performance of both public and private sectors.

During the year, the Ministry targeted 92 companies to adopt technology, of which 26 cooperated. Its efforts resulted in the adoption of technology by 14 entities, 4 of which adopted emerging technologies while the other 10 adopted traditional technologies.

Offering 12 opportunities on the "Invest in Saudi" platform

Considering that the Kingdom has become the largest technology and digital market in MENA, the Ministry attempts to cast light on the promising investment opportunities in the ICT sector to attract local and international investors by participating in local and international forums. To increase the ICT sector's share of the GDP, the Ministry developed and approved 4 investment opportunities during the year, increasing the ICT opportunities on the "Invest in Saudi" platform to 12.

The Investor Pitch

The Ministry values the Kingdom's competitive edge as a digital and logistical hub connecting continents, in addition to the advantages it holds in the field of research, development, innovation and space economy. The Kingdom offers the ideal investment environment for accessing the MENA markets.

To stimulate the ICT investment environment to attract local and international investors, the Ministry launched the Investor Pitch to raise the interest of global investors by leveraging its solid digital infrastructure and promising market in the Middle East. The pitch provides the investor with a brief on the Saudi social and economic situation, the

extent of the growth of the IT sector and key opportunities, in addition to providing support to investors and sharing ways to contact the investment team.

USD 2.4 billion worth of investment in technology

Contributing to a prosperous digital economy and accelerating digital transformation, the Ministry is building robust and advanced digital infrastructure in line with our national vision. This is consistent with the Ministry's strategy to accelerate the growth of the ICT sector and raise its share of the GDP by increasing the volume of tech investments. During 2021, the volume of tech investment reached around USD 2.4 billion, compared to USD 1.5 billion in 2020 – an increase of USD 900 million. The number of companies investing in the Kingdom's technology sector has exceeded 50, with investments of 1 of them around USD 1 billion, with others distributed among the rest of the companies.

Solutions to private sector challenges

Anxious to help the private sector contribute to the development of the Kingdom by investing in the technology sector, the Ministry conducted a study to reveal the challenges impeding the growth of tech companies of private sector. 29 challenges were identified, of which 11 were solved this year in an effort to create a conducive environment the enables the private sector to provide high quality services.

Among the challenges were the poor services of virtual mobile network operators, the absence of a platform for registering and classifying telecommunications and information technology companies, the lack of funding for technology companies and the need for experimental environments, in addition to the governance and monopoly of government platforms and the need to ease importing procedures of tech devices.

Workshops and seminars:

A. Electronic marketing of agricultural products

As part of its efforts to provide all sectors with secured electronic commercial services and quickly respond to market demands through interaction with customers, the Ministry participated in the "Agricultural Marketing and Electronic Applications" workshop organized by the Ministry of Environment, Water and Agriculture. The workshop was also attended by the Ministry of Commerce and Agricultural Development Fund. It aimed to highlight the role of technology in marketing agricultural products through electronic application by achieving short delivery lead-times, increasing the size of the information technology market, raising its share of the GDP and improving the services provided to the community.

B. The future of smart vehicles

The Ministry seeks to localize emerging technology, smart vehicles in particular, in different walks of life in the Kingdom. Smart vehicles facilitate the lives of its users and make roads safer. As part of its efforts in this field, the Ministry is keen to participate in seminars and conferences on localizing this technology. Among these events is the "The Future of Autonomous Vehicles in the Kingdom" symposium organized by King Abdullah University of Science and Technology, with the participation of the Public Authority for Transport and King Abdulaziz City for Science and Technology. Its objective was to grow the volume of the IT market to increase its share of GDP. It contributed to raising awareness about emerging technology applications and services.

C. Local content

The Ministry organized multiple workshops, online and in person, with the participation of 119 companies specialized in software, hardware, devices and information technology services. It aimed to educate them about the methodology of measuring local content, and its role in the developing software, hardware and equipment, as well as information technology services.

National Technology Development Program (NTDP)

Onset:

Reiterating the importance of digital transformation and application of technology in all business sectors and life aspects, the Kingdom launched the National Technology Development Program (NTDP) within the "Launch" event, which comes as part of a package of qualitative technical initiatives and programs. In line with Vision 2030, the program aims to expedite IT development in the Kingdom towards its ambitious global to become a global IT hub as one of the 20 largest economies in the world.

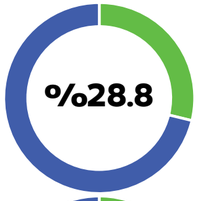
SAR 10 billion and 10 thousand jobs:

The program aims to create an environment that supports and enables IT development in the Kingdom through coordination with government agencies to ensure that their activities are aligned and integrated to assist entrepreneurs and tech companies. This is expected to stimulate research, improve technical innovation, build digital skills, attract technical capabilities and enhance scientific research in the Kingdom. The program is forecast to generate revenues of SAR 10 billion and 10 thousand jobs by 2026.

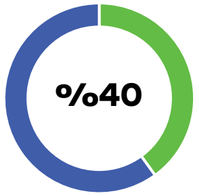
SAR 2.5 billion worth of program budget:

The program's budget is SAR 2.5 billion dedicated to support and enable technical entrepreneurs, tech companies and potential tech giants. Additionally, it contributes to developing technical talents, promoting innovation and boosting research. The program targets local and international tech companies, tech researchers, innovation centers and tech entrepreneurs.

The Kingdom is a promising tech market



CIT local content



cut in electricity tariff for cloud computing companies

21 investment opportunities

12 opportunities approved on the "Invest in Saudi" platform

14 entities

adopt traditional and emerging technologies

USD 2.4 billion

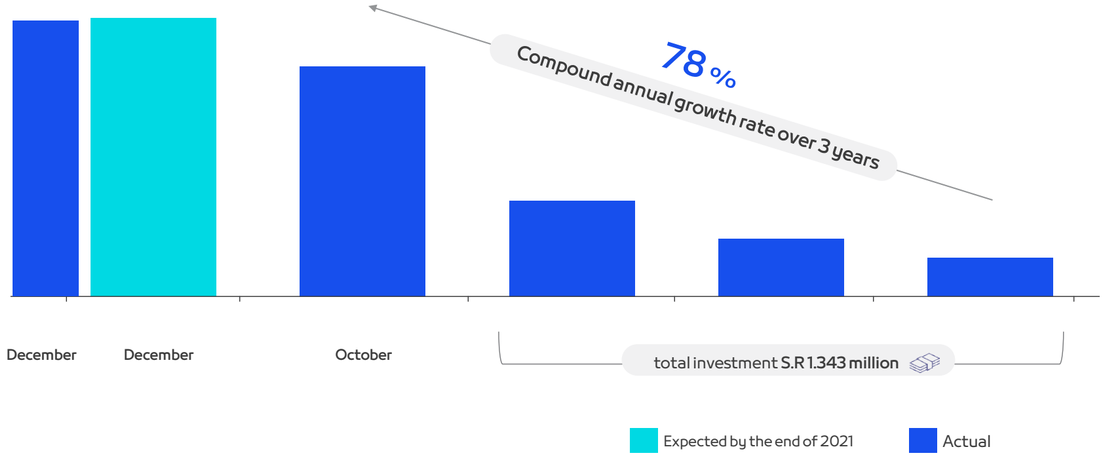
investment volume in technology

SAR 2.5 billion

NTDP budget

SAR 10 billion 10 thousand jobs

expected returns from the development program



Venture capital investment in 2021 exceeded the total investment of the years 2018 - 2020

04

Postal sector development

Considering the postal sector's crucial role in enabling services such as e-commerce, e-government and logistics, that contribute to advancing our national economy, the Ministry is working to develop the postal logistics sector in a manner that achieves the goals and objectives of Vision 2030. Leveraging global experiences to meet the needs of customers and service providers, the Ministry continues developing postal service and logistics to keep pace with the local and international developments and achieve the desired economic and social returns for the nation.

During 2021, the Ministry explored several avenues to develop the postal sector. It aims to raise the sector's share of the GDP, improve customer experience and ensure a healthy environment that elevates the competition among postal companies in the Kingdom. Among these is the issuance of the new postal law that encourages and supports flow of investments and capital to the sector. As a result of the developments in the postal sector, the Kingdom became an active member of the Universal Postal Union. It won two memberships in the Union's Board of Directors and the Investment Council for 2021-2025. It also holds the position of the Vice Chairman of the Board of Directors for the Asia and Oceania Group for the 2022-2025 session.

In addition, the Ministry aims to solicit the private sector participation in providing ICT services by developing a privatization strategy and identifying appropriate PSP projects. During the year, the postal sector made a qualitative leap as the Ministry launched the pilot project of electric bicycle delivery. Moreover, it supported, enabled and motivated the postal SMEs and attracted international companies. It also launched the short address service.

The new postal law:

Building on the international experiences in organizing postal logistics, the Ministry seeks to develop the postal logistics sector in the Kingdom to meet the needs of recipients and service providers, with aims to achieve the desired social and economic returns for the Kingdom. The Ministry's endeavors led to the Council of Ministers' approval of the new postal law by the end of the year. The law aims to develop the sector in a way that achieves the goals and objectives of the Kingdom's Vision 2030 which aspires to enable a vibrant society, a prosperous economy, an ambitious nation and an effective government.

The law responds to the sector's local and international developments to create an advanced service environment that lives up to the expectations of the Kingdom's population. It aims to improve customer experience, preserve rights, raise the postal sector's share of the GDP, and ensure a healthy environment that raises the level of competition among postal companies in the Kingdom. It also contributes to the growth of e-commerce and development of the postal logistics sector, encouraging business and attracting investments.

The law consists of 37 articles setting forth provisions for organizing licenses, competition, obligations and rights of service providers and recipients, in addition to clearance of postal items, responsibility and confidentiality, control and inspection, violations and penalties, and identification of postal services types.

Key positions in the Universal Postal Union:

A. The memberships of the boards of directors and the Investment

Council crown the achievements of the postal logistics sector. Like all other sectors, it receives unrivaled support and due attention from our prudent leaders. In the Abidjan Conference 2021, the Kingdom won membership of the UPU Board of Directors and Investment Council for the period of 2021-2025. It is now a member of the Board of Directors that comprises of 41 elected out of 192 countries.

These memberships maximize the Kingdom's role in organizational and legislative decision making and participation in UPU projects and working groups. They also grant the Kingdom the right to vote on decisions, which will serve its strategic directions. The memberships further enhance the UPU's role in stimulating sustainable development and effective cooperation between member states. Such advantages contribute to the success of the UPU strategies and further cooperation in all areas of postal services. Memberships of the Board of Directors and the Postal Investment Council also represent a real opportunity to contribute positively to the UPU's ability to make critical and vital decisions that affect future trends and strategies of postal business.

B.The position of Vice Chairman of the Board of Directors

During the year, the Kingdom was appointed to the position of Vice Chairman of the Board of Directors for the Asia and Oceania Group from 2022-2025 for the first time since its accession to the UPU in 1927 in. This remarkable achievement grants the Kingdom the right to vote and make decisions that support and develop the postal sector. The Kingdom's appointment emphasizes its influential and impactful role in the UPU and its strong economic and political position in the international arena.

Global participation:

Affirming its active international role, the Kingdom participated in the 27th UPU Conference, held in the city of Abidjan, Côte d'Ivoire, where a number of strategic topics were adopted. Most notable are developing a postal strategy for every 4 years, setting up a business plan for each strategy, and the adoption of the Union's policy in the field of cooperation for development. The latter considers the level variations within the UPU's comprehensive field framework.

The conference discussed the extent of the impact of the COVID-19 pandemic on the postal process. It also developed strategies to ensure business protection and continuity. In addition, it addressed the challenges facing the Union in bridging the gap between advanced and developing countries through the digitization of the postal sector. During its meetings, the conference touched on the documents of the Union and the Abidjan postal strategy for the period 2022-2025, as well as the integrated product plan and the integrated wage system. It also reviewed proposals of the Board of Directors and the Investment Council, proposals of the member states in terms of the Union's documents, including the constitutions, the internal bylaw, public order, the Universal Postal Convention, and the Agreement on Postal Payment Services.

Privatization of the ICT Sector:

The Ministry realizes the significant role of privatization in achieving sustainable development, improving administrative performance, increasing productivity, and developing human capital by training workers and equipping them with broader knowledge and new technologies. Privatization also improves salaries, job benefits and quality of services. Moreover, it increases participation of service providers, which lowers the prices of services.

Within the initiatives, projects and objectives of the National Transformation Program and Vision 2030, the Ministry aims to involve the private sector in providing ICT services by developing a strategy to identify appropriate PSP projects and accelerate the transformation and privatization strategy of the Saudi Post. The strategy aims to reduce costs and raise the efficiency of government spending to unlock greater value for the government, private sector and the community by raising the quality, efficiency and inclusiveness of services. This creates a competitive environment to build an effective system for growth and development, shifting government efforts towards its legislative and regulatory role and engaging private sector companies to leverage their experiences.

Supporting SMEs:

During the year, the Ministry took vigorous actions in supporting tech innovation considering that innovation and an integrated digital society are interdependent. As it is essential to the Kingdom's regional and global position, tech innovation has always a high priority for the Ministry. The Ministry adopted many initiatives that would help and stimulate ICT SMEs to search for the best solutions to the obstacles and challenges they face. These efforts led to the establishment of 4 key companies currently operating in our market.

Attracting international corporations:

The Ministry aims to enhance the competitive edge of the Kingdom's postal and logistics sector by issuing a package of policies and legislation to attract international companies to the Saudi market. The Kingdom is an ideal destination for large corporations supported by its unique geographic location, strong digital infrastructure and favorable investment policies.

During the year, the Ministry attracted 3 international companies operating in the postal and logistics sector, namely FEDEX, J&T and SF Express. This achievement improves services, lowers prices, raises competitiveness, reduces shipments lost for neighboring countries, and contributes to the localization of the supply chain with total investments exceeding SAR 1.5 billion over 10 years.

100 electric bikes to deliver orders:

With aims to elevate logistics by introducing new, light transportation models at reasonable costs, the Ministry has adopted the model of electric bicycles for order delivery services by launching a pilot project of 100 electric bicycles on delivery applications. The results of trial were reviewed periodically and aligned with the relevant government agencies to help improve legislation, monitoring and quality of service. This new method will reduce carbon emissions, traffic congestion, pollution, costs and delivery times. The electric bike delivery service is expected to radically change the way families think about their daily shopping activities. It also relieves citizens' burden of planning, checking products and preparing for shopping ahead of time. In addition, it saves time and gives them the opportunity to enjoy what they need right away.

The new postal law

Keeping pace with the local and international postal developments

3 leading positions

in the Universal Postal Union

Strategy developed

to privatize the ICT sector

Electric bicycles

for delivery services

Supporting and enabling

SMEs

Attracted

3 international companies to the sector

17+ million customers

registered in the national address

04

Short Address Initiative

In a step to facilitate people's lives, traditional addresses were converted into short ones that are easier to note and remember. In cooperation with several logistics agencies, governmental bodies, delivery applications and electronic stores, the Ministry launched a free of charge short address service for individuals, corporate and government sectors in order to facilitate the delivery of documents and parcels based on the registered location's identity of the recipient. The location's identity consists of 4 distinctive letters and 4 unique numbers derived from the geographical coordinates. The service resulted in an increase in the total number of registered national addresses to 16 million and required concerted efforts by more than 800 government bodies and national platforms, and 353,381 entities from the business sector. The initiative covered 7.6 million new sites and corrected more than 2 million addresses. The average number of national address updates has increased to 9,000.

	2020	2021
Average of national address upgrades	2,800	9,000
No. of companies adopting national address	6	30
No. of inquiries about national address (delivery sector)	20 million	30 million
No. of inquiries about national address (e-commerce and logistics sector)	50 thousand	360 thousand

04

Institutional Excellence

First: Efficient planning and implementation monitoring

The Ministry is keen on achieving the goals of Vision 2030, which seeks to raise the ICT sector's share of the Kingdom's GDP, and to enhance the Kingdom's position as a hub for technology and digital business in the MENA region.

The Ministry supports the Kingdom's digital transformation as a main pillar of achieving our national vision, which aims to secure the Kingdom's leading position among the ranks of digitally advanced countries, making it a global hub of technology.

In partnership with the public and private sectors, the Ministry is working at a fast pace to digitally solve the challenges faced by these sectors, by contributing to building, updating and reviewing strategies that organize their ICT business. It aims to continue building a world-class, advanced digital infrastructure that contributes to providing high-quality tech services, securing our nation's ambitions of achieving a better future for the Kingdom.

The Ministry is investing in initiatives that will transform the Kingdom into a new global hub of technology, being the largest in market size and the highest in talents, with the fastest growing venture capital investment in technology and digital fields at the regional level.

As a result of the Ministry's planning, the ICT and postal sectors' share of the GDP is currently at 5.5%, and the Kingdom holds a number of leading global positions. This includes the first place globally in the average speed of 5G, supported by more than 12 thousand 5G towers. It also holds the first place amongst the G20 countries in digital competitiveness, second place in corporate cybersecurity and ninth place in the application and development of technology on the Global Competitiveness Index.

The Ministry's achievements during the year were obtained by applying the OKRs strategic approach for measuring performance, which helps define strategic priorities. It divides the strategy and its implementation method into two main parts: the objectives and the key results.

The approach, introduced by Andy Grove in the early 1970s, helped the Ministry define its goals, support its vision, measure results and how much actual performance was achieved. This assisted the Ministry on the right path to continue to encourage innovation.

The approach also contributed to enhancing employees' participation in setting goals in line with Ministry's vision, strategy and priorities, so they feel connected to their work. It has also guided employees in the right direction and raised senior officers' awareness of the course of business to take all actions increasing productivity. This helps them understand and achieve the goals and priorities of the current stage. The whole process is dominated by team spirit, responsibility and transparency, which enabled each individual to discharge his obligations and make the most effective decisions in setting goals.

The Ministry's efforts were not restricted to using the OKRs approach, but this was rather integrated with the balanced scorecard, which is one of the most successful approaches of planning and strategy management at the present time. It aims to consolidate and build a clear knowledge of the vocabulary, principles and basics of strategic planning, in addition to providing the Ministry's employees with the skills required for implementing all phases of the strategic planning. In addition, it helps them set their goals based on their primary roles and responsibilities.

Consolidating and building clear knowledge of the vocabulary, principles and basics of strategic planning

The Ministry's efforts focus on strategically integrating and aligning the objectives of the approach with the key achievements to make the Kingdom a leading ICT market.

Through change management and senior officer support, two pillars of the OKRs approach success, the Ministry has paved the way for the application of this approach. In addition, the Ministry sought to broaden knowledge through specialized courses in OKRs and cooperated with a specialized think tank before starting the application.

Among the factors leading to its successful application, the Ministry applied the approach in a pilot project with a selected sector or department before expanding it. This helped avoid challenges in the future. In addition, everyone was invited to participate in defining OKRs throughout all stages. This encouraged employees and enhanced their confidence in change.

Moreover, the approach does not link OKRs with employee performance management. This incentivized employees to innovate and offer their best, while developing electronic system requirements in an integrated manner and building internal capabilities throughout the process of changing and improving the system.

Throughout its journey in managing strategic performance, the Ministry held workshops to introduce OKRs to all employees and to the Ministry's leaders and bodies. This concurred with the beginning of work on the OKRs platform to link the key results with projects and initiatives. The Ministry worked, at the same time, on developing the OKRs for 2022 and created a guide to help employees formulate key objectives and results.

Implementation of vision initiatives

As part of its efforts to help the Kingdom consolidate its regional and global leadership in the various technology sectors, the Ministry is keen to implement the ICT initiatives of the Vision Programs and ensure all parties fulfil their commitments to reach milestones and outputs according to the planned timeline. This improved the Ministry's performance of the initiatives designed by the Vision Programs by more than 90%. The General Department of Initiatives in the Ministry also contributed to achieving a disbursement rate of 102% of the 2021 allocated budget. It also enabled the Ministry to finance 9 new initiatives within three executive programs of the Kingdom's Vision 2030.

Alignment with the strategies of third parties

To best perform its role in leading the Kingdom's digital transformation, a main pillar in the realization of the Kingdom's Vision 2030, the Ministry continues to support other ministries to digitally transform their services with a view to achieving a digital society and a fully digital government by 2030. Through the services it provides, the Ministry contributes to building, updating and reviewing ICT strategies of several entities including:

Ministry of Industry and Mineral Resources:

The Ministry participated in updating the ICT aspects of the national strategy for industry.

Saudi Export Development Authority:

The Ministry worked to align its objectives with those of the Authority.

Ministry of Information:

The Ministry worked to harmonize its objectives with the Ministry of Information by organizing joint workshops.

%90
The Ministry's performance
in implementing the initiatives of the Vision Programs

Ministry of Investment:

The Ministry participated in developing the ICT aspects of the investment strategy in terms of activities, tariffs and targets.

Digital Government Authority:

The Ministry contributed to aligning the Authority's strategy with the Doyof Al Rahman Program, The Human Capability Development Program, and the National Industry Development and the Logistics Program.

Application of the OKR approach

The Ministry's application of the OKR approach has considerably changed performance and developed the work within the ICT sector given the continuous assessment of the status quo and the periodic review of priorities. This is a radical change from the previous work techniques, which required a quarterly evaluation of some indicators and annual evaluations of the others. Applying the OKR approach contributed to creating a greater alignment of governmental efforts under the umbrella of ICT priorities, a newly introduced factor accompanying the new roles and responsibilities of the entites within the ICT sector on a regular basis. The former working mechanism was marred with overlapping functions and role lack of coordination of the entites involved in ICT sector . It has been replaced by a comprehensive vision that facilitates obtaining support from strategy management and leadership.

The Ministry's application of the approach led to a higher sense of responsibility and maturity. Unlike before, it improved the flexibility of the organization in the face of changes and external influences to a greater degree than public counterparts. There was no clear vision of a strategic management that regulates the roles and responsibilities of other entites operating in the ICTsector , and the focus was only on completed outputs without evaluating their short-term impact.

Periodic meetings

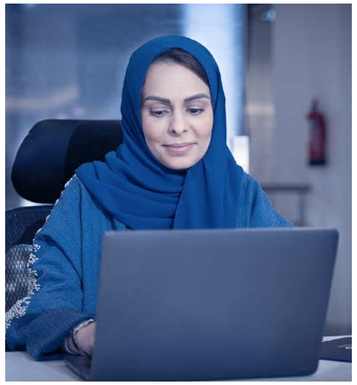
Emphasizing its commitment to implementing tech initiatives in line with the Vision Programs, the Ministry holds periodic meetings with the implementing enetites to periodically assess the initiative's completion rate and implementation plan against the roadmap of each initiative. Additionally, it reviews the requests for proposal (RFP) to ensure they are in alignment with the initiatives' scope of work. The Ministry also tackles certain deficits in initiatives' budgets and aids several entities to add projects that serve the initiative objectives. Quarterly meetings with the Leadership and owners of the initiatives are conducted to review the performance of the initiatives and request support as needed, in addition to holding weekly meetings with programs through which cases of initiatives are reviewed and support is requested. The Ministry also approves the financing of new initiatives by working with the contracting authority to fulfill all requirements to be submitted to the program office.

Weekly Reports

The approach helped the ICT authorities to update 32 key results on a weekly basis. Their performance is reviewed at the weekly meeting at a high level against a measurement model.

A platform for objectives and results

The approach helped the Ministry to activate the objectives and key results platform, where more than 12 introductory workshops are conducted. Through the platform, data gathering and evaluation were initiated.



%102
disbursement rate
for the initiatives of the Vision Programs in 2021

9 nitiatives
were funded within the Vision's 3 executive programs

A guide
to help employees formulate objectives and key results

04

Second: Technology Foresight

TTo enable leaders and decisionmakers to make informed and data-driven decisions on vital and critical issues, the Ministry supports the ICT sector with an advanced database updated periodically to measure the impact of completed projects. The Ministry provides the ICT system with the sector's developments and their potential economic effects, as well as recommendations that help decision making. To perform this role, the Ministry conducts in-depth tech and economic research in various sectors. It also carries out several studies to analyze the future trends of modern and emerging technologies to provide predictions.

To develop digital capabilities, promote the spirit of competition and enhance the culture of research and development in different technologies, the Ministry launched a research competition in 5 tech and economic fields in 2021. Additionally, it published a forward-looking report on ten emerging technologies to raise awareness about these fields, and identify their key challenges and expected trends. The Ministry also published a report on enhancing women's participation in the ICT sector within its efforts to enhance women's contribution. In addition, it published 12 quarterly sectoral bulletins to keep decision-makers informed of developments, and introduced panel discussions that are open for the public and those interested in the sector.

Publishing a forward-looking report on 10 selected emerging technologies

In developing its plans, the Ministry relies on well-established scientific foundations supported by future studies that anticipate expected changes based on the current data. Considering the importance of tech developments, especially in emerging technologies. the Ministry aims to respond to such developments and adapt its current and future work models accordingly. It also seeks to raise awareness of the other parties about future developments to motivate their adoption.

During the year, the ministry published a forward-looking report on 10 emerging technologies under the title "What can we see on the horizon?" to keep up with developments, adapt its current and future work models appropriately and raise awareness. The report also seeks to identify key challenges and expected trends making recommendations that serve both national development and the leading local tech sector. Emerging technologies discussed in the report include extended reality, digital twin engineering, data technologies, privacy-enhancing technologies, distributed ledger technologies, future communications, biotechnologies, additive manufacturing, advanced materials and quantum technologies.

Publishing a report on women's participation in the sector

Considering women's potential and capabilities to achieve substantial progress in the business environment, as envisaged by the Kingdom's Vision 2030, the Ministry attaches great value to empowering women in tech leadership. This strategic direction is evident in the Ministry's support of developing girls' capabilities, skills and knowledge to ensure they continue to achieve more in this vital and crucial sector.
to underline the most noteworthy efforts, related opportunities and challenges, the Ministry published a report entitled "Enhancing Women's Participation in the

ICT Sector". The report touched upon the basic concepts, key indicators, and main reasons for low women's participation in the sector, as well as current efforts to enhance such participation. The report recommended the preparation of interconnected, progressive training programs to qualify effective leaders. It also recommended introducing paternity leave for men, increasing training on communication skills and allocating quotas for women in various positions of the sector. The Women's Empowerment Forum, which was held by the Ministry, also discussed the efforts to empower women in the sector in terms of removing obstacles, helping them strike a balance between life and work, raising their participation rate, and launching comprehensive empowerment programs for working women.

Panel Discussions

Recognizing the particular significance of panel discussions and their impact on the audience and the panelists , the Ministry has introduced monthly talk sessions under the name "TFC Talks". They aim to spread knowledge and raise awareness about tech topics. For each session, a topic is selected for discussion in the presence of a group of relative experts and specialists. The event is open for the public and anyone interested in attending and listenining to discussions about the targeted topics, which include post-pandemic privacy, technology in sports, educational content on social networks and virtual tourism.

Economic indicators and risks

The Ministry realizes the powerful impact of economic indicators on developing business and attracting investments, since they are used to evaluating the countries' economic performance. Therefore, they play an influential role in introducing reforms that improve the economic competitiveness on several levels. In addition, the indicators can cause changes that boost investment and the business environment leading to economic development.
To enhance the sector's contribution to the prosperity of the kingdoms national economy and to keep up with progress in this field, the Ministry prepares a quarterly report that highlights developments and potential risks in both local and the global economies with an emphasis on the ICT sector. The report presents a set of detailed data and information, and offers recommendations for leaders and decisionmakers in the ICT sector.

Analytical reports

The Ministry is aware of the importance of reports on local and global risks in the sector, their role in describing the expected changes and in developing strategies to mitigate future risks by assessing the current situation through surveys. This emphasizes the urgent need to forecast opportunities and risks accompanying technologies and its latest developments. The reports also highlight the necessity of adapting to these developments to leverage modern technology opportunities and to avoid their risks.

As such, the Ministry prepared the "Modern Technologies Monitor Report" to monitor modern technologies, analyze expected tech and economic effects, and analyze their impacts on Vision 2030 and its associated programs and strategies. The report also provides the necessary recommendations to enhance the Kingdom's competitiveness. The Ministry publishes monthly and semi-annual reports that review modern technologies in various fields, such as the medical sector, land transport, air transport, cyber security and other fields.

Statistical releases

In appreciation of the role of statistics in providing integrated and comprehensive data on all aspects of the sector, the Ministry was keen to build a database for the ICT sector with periodic updates to include the latest data. This database will contribute to the success of the Ministry and CIT-related entites efforts and activities towards regulating and developing the sector. Data has a decisive role in identifying the important aspects of the business and measuring the impact of the achievements. 24 bulletins were published by the Technology Foresight Center in 2021 to keep decisionmakers informed of developments that aid the decision making process. The bulletins dealt with various topics such as the postal sector, digital government, subscriptions and human capital, in addition to a comprehensive statistical bulletin with all relevant data.

Weekly sector reports

The weekly reports help the Ministry to provide a clear picture of the sector's developments and its achievements. They highlight the efforts made towards developing performance and how successful these efforts were. Moreover, they assess the means and methods used, identify strengths and weaknesses, and how they can be best employed in the future. To enable its employees to keep abreast of all developments in the sector and help them fulfil their roles appropriately, the Ministry, starting from the second quarter of 2021, has prepared and published weekly reports that review the latest events and news in the sector. The reports also touch on other developments in the sector such as the most prominent economic indicators, the latest local, regional and global news, and an analysis of the most prominent topics emerging in the sector.

The first research competition by the Technology Foresight Center

In appreciation of the role of scientific research in gathering facts through clear evidence, the Ministry launched the Research Technology Foresight Center competition to study and highlight new researches conducted in the various technical and economic fields. It seeks to stimulate research in modern technologies and their economic impact in a view to supporting decisionmakers and realizing the Kingdom's Vision 2030. The competition aims to develop digital capabilities, disseminate a culture of research and development, and promote a spirit of competition in the various tech fields. 5 research areas have been identified for the competition: the digital economy, technology and inclusive growth, future technologies, technology and economics, and the freelance market.

Consultations

The Ministry is confident that advisory services contribute to solving challenges and problems facing the ICT sector, enhance development and provide ways to make a positive change in the work model. Additionally, consultations offer new ideas to revive productivity, present potential future challenges and propose solutions. To achieve its role of supporting leadership by offering expertise and advice on the sector's issues, the Ministry presented many economic and technical advisory services and data analyses in the various fields of the sector. This role is undertaken by the Technology Foresight Center team which consists of a group of economists, technology experts and statisticians with experience in the sector and its related areas. The Ministry provided 190 consultation services, including preparing reports and presentations, collecting analytical data and providing advice to leaders and decisionmakers on the issues of the sector.

Modern Technologies Monitor Report

In an effort to develop all techniques and traditional means to fulfil the highest standards and keep pace with the latest developments, the Ministry worked, in cooperation with King Abdulaziz City for Science and Technology and the National Cybersecurity Authority, to prepare a "Modern Technologies Monitor Report". The report forecasts the opportunities and risks associated with modern technologies and their developments and explores avenues to adapt to those developments, leveraging opportunities and avoiding the risks associated with modern technologies. The report is concerned with monitoring modern technologies, analyzing the expected tech and economic effects and their relation to Vision 2030 and its programs and strategies. It also provides recommendations to enhance the Kingdom's competitiveness. The Ministry publishes monthly and semi-annual reports to discuss modern technologies in various fields, such as the medical sector, land transport, air transport and cybersecurity.

Foreseeing the future of technology

Periodic analytical
economic reports

Forward-looking report
10 emerging technologies

Research competition
in 5 technical and economic fields

190
tech and economic consultations

24
quarterly sectoral brochures

Weekly reports
on the sector's developments

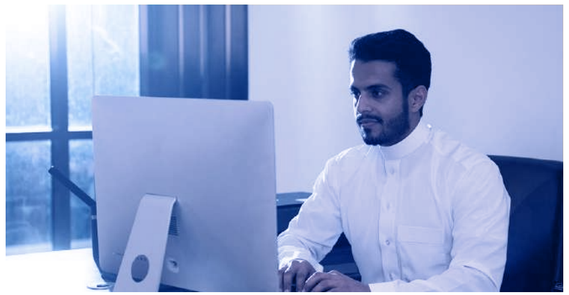
04

Development of digital capabilities (Supplement)

Third: Cyber Security:

Realizing that strengthening and regulating cybersecurity increases confidence in the safety and resilience of the ICT infrastructure and protects public and users' interests, the Ministry takes all measures to maintain the confidentiality and security of communications and information, meeting the highest standards of quality and security. In addition to other strategic goals, the Ministry seeks to enhance cyber security in the sector, especially with the Kingdom's further reliance on technology in conducting its financial, commercial, industrial, health, educational and other transactions.

During the year, several events were organized by the Ministry to raise its employees' awareness on cybersecurity. The Ministry also obtained the international accreditation of the ISO 27001 certificate and operated the Cyber Security Operations Center around the clock to quickly respond to cyber incidents and protect the security of its assets. To protect the Ministry's tech assets from penetration, penetration tests and vulnerably assessments are conducted periodically on all assets within the network and on websites and applications periodically, before and after launching.



Cyber operations center:

To enhance the protection and security of the Ministry's networks against cyber-attacks, the Cyber Security Operations Center operates around the clock to monitor networks and websites, respond to cyber incidents and protect the security of the Ministry's assets. The Center applies a set of best practices and guidelines to address security threats, and bridge the gaps with a view to protecting the Ministry's information infrastructure. It also provides support for all operational systems, applications and services managed by the Ministry. The number of responses to security incidents during the fourth quarter amounted to 276, compared to 108 during the same period in 2020, which reflects the improvement in the management of cyber operations.

Penetration testing and vulnerability assessment:

With the increase in cyber-attacks the world has witnessed recently, the Ministry has paid particular attention to strengthen the cyber security of all its tech assets against any malicious attacks that could lead to catastrophic results. The Ministry developed proactive disaster recovery schemes, prepared defensive plans and strengthened its systems and networks. This improves the Ministry's readiness to respond to cyber-attacks.

During the year, the Ministry conducted penetration tests and periodically assessed vulnerabilities of its network of tech assets, websites and applications before and after the launch. Afterwards, periodic reports were published to detect gaps and vulnerabilities. Reports reviewing penetration testing and vulnerability assessment increased to 122 tests and reports, compared to only 30 in 2020.

Raising cyber awareness:

Currently, awareness of cyber security is more important than ever before, especially with the increase in global cyber-attacks. This prompted the Ministry to take all preventive and precautionary measures as it is responsible for the ICT sector. the Ministry works to enhance the Kingdom's efforts to raise awareness about cybersecurity. During the year, the Ministry took several steps to educate its employees, such as organizing 9 workshops, publishing 3 video clips and posting 9 awareness messages on its internal portal, screens and screen savers of devices. In addition, it published the approved policies and procedures, and launched 3 phishing campaigns via e-mail, which increased the awareness rate of its employees to nearly 90%.

Meeting ISO certificate requirements:

To identify the strengths and weaknesses in its performance and the pros and cons of its evaluation, as well as correction mechanisms, the Ministry worked to meet the ISO certificate requirements to demonstrate its ability to utilize sound scientific grounds to achieve its goals. These actions earn the people's trust and elevate their satisfaction with the Ministry's services. During the year, the Ministry obtained the international accreditation of the ISO 27001 certificate as a for its commitment to the requirements and controls prescribed by the accreditation. By obtaining the certificate, the Ministry ensures compliance with the ISO framework, which is based on the highest international standards and practices. It also contributes to provide a reliable, safe and cyber-enabled environment.

Exceptional achievements in compliance with cybersecurity controls

Within its efforts to enhance cybersecurity in the Kingdom, to protect vital interests of its clients and maintain digital infrastructure security, the Ministry has made a leap in its compliance with national cybersecurity controls and standards. It also demonstrated strict compliance with the controls, frameworks and guidelines issued by the Cyber Security Authority to provide a secure environment for data and digital operations.

A shield against cyber attacks

%90 awareness

of cyber security among the Ministry's employees

122

penetration tests, reports and vulnerability assessments

276 responses

to cyber incidents within 3 months

04

Development of digital capabilities (Supplement)

Fourth: A work environment promoting excellence:

Recognizing the vital role of the ICT sector in the realization of the Kingdom's Vision 2030, the Ministry is keen to support and empower national human cadres to build a creative generation equipped with essential digital skills and able to meet the requirements of the job market. The Ministry provides an inspiring work environment for its employees and provides them with the necessary support through its various departments. Through these efforts, its employees would drive the Kingdom's digital transformation across all sectors.

During the year, the Ministry adopted many initiatives and programs to qualify its employees in a way that suits its objectives and strategy. These initiatives provided them with knowledge, facilitated the course of business and prepared a work environment conducive to excellence by developing workplaces infrastructure. The Ministry cooperated with a number of authorities to rehabilitate and train its employees and provide a smart work environment that helps creativity and effective participation in line with the directives and aspirations of the Kingdom's leadership. The Ministry achieved a job engagement rate of more than 82%. It focused on developing current leaders and building the second line of leaders through partnership with major educational and training institutes specialized in building and developing human capabilities and creating successful community leaders.

As part of its efforts to rationalize consumption and preserve the environment, the Ministry worked to link system programming projects to the building management system and replaced traditional lighting systems with the energy-saving LED. It also scheduled working times of the air conditioning units outside official working hours along with motion sensor lights.

Digital Excellence:

The Ministry harnesses the latest technologies and digital solutions to provide its employees with a world-class experience that relies mainly on innovation as a basis for government work systems and practices. This enables the employees to fulfil their roles and discharge their responsibilities seamlessly through friendly user digital channels, in addition to several electronic services launched. These services include:

Services

The Ministry launched its own cloud file sharing system which allows employees to share and exchange files of any size from any location using any device with a high level of confidentiality.

Activated the data warehouse system to organize and restructure data and the mechanism of extracting them from the central systems. It also displays reports and business dashboards across all business units of the Ministry and decisionmakers. More than 50 dashboards have been activated.

Continued to automate procedures and services by increasing 20 documented and automated procedures. 17 new e-services were added.

Initiatives

As part of its efforts to adopt emerging technologies and transform into a smart work environment, the Ministry worked on a package of initiatives including: the virtual assistant to provide electronic services automatically, the digital identity to manage attendance, business cards and mobile application to manage visits. To improve the experience of new recruits and guests, the Ministry is working on an initiative applying virtual reality technology to review induction materials and the Ministry's achievements in an innovative way. It launched a pilot project of Robot Process Automation (RPA) application to automate two processes to achieve tech integration and exchange data with a number of government agencies and service providers. The Ministry has completed the tech linkage with social insurance to provide the employment data of the ICT employees who benefit from the Ministry's digital initiatives. In addition, it established a link with the Efaa platform of the National Information Center, further linking it with the Statistics Authority and the Board of Grievances.

Upgrading the infrastructure

Believing in the importance of building a robust work organizational structure and its impact on productivity, excellence and effectiveness to raise its staff performance and quality of services, the Ministry worked on developing the organizational infrastructure. This includes the behavioral and tech worthiness framework. It also launched the matrix of benefits, compensation and job description cards, which exceeded 300 cards.

17
new e-services

50+
active dashboards

Suhail platform

Observing the concept of government digital transformation as adopted by Vision 2030 to phase out traditional processes and replace them with digital ones, the Ministry launched the Suhail platform to help provide working groups and committees with administrative communication services, including electronic signature. It also established a link between users, appointments and the internal systems of the Ministry. It aims to ensure achieving the goals with high quality and efficiency to create an integrated digital government that facilitates all services.

The platform is one of the enablers of the Ministry's digital transformation through automating procedures, standardizing user experience, linking systems electronically and providing the necessary reports and statistics of all services provided. The platform is available on computer and smart mobile devices, while the executive version is exclusively available for senior leaders and decisionmakers to review transactions in a concise manner. This version comes with advanced features such as voice guidance. Transactions carried out through the platform leaped to more than 12 thousand, in addition to 267 tasks, of which 172 were completed, 50 committees, and 3 meetings.

12 K
new e-service transactions

Issuing Ministry of Finance statements on an accrual basis

Implementing the Royal Decree 13059 dated 16 Rabi' al-Awwal 1438 H, which requires all government bodies to transform from cash basis to accrual basis accounting, the Ministry issued its financial statements on the accrual accounting for 2020. The draft was sent to the Merit Center at the Ministry of Finance for approval. The Ministry was among 4 entities that carried out the pilot application in cooperation with the Ministry of Finance in preparing financial statements for 2019.

High level of employee engagement

Keen to create an inspiring and well-equipped work environment for its employees to raise their productivity, the Ministry's employee engagement was more than 82%. This is one of the highest levels within the program for measuring employee engagement in public sectors, which serves the Kingdom's Vision 2030.

Leadership development program

Realizing the value of effective participation in building a leadership system based on a culture of constructive communication, the Ministry launched the Minister's Leadership Program (MLP) which focuses on developing current leaders and building the second line of leaders through partnership with major educational and training institutions specialized in building and developing human capabilities and effective community leaders. The program aims to achieve the vision of H.E the Minister to build ambitious leaders that adopt creativity, innovation and responsibility. The 9-month program considered the diversity of capability-building opportunities and essential support required to provide the best learning environment for the targeted audience of 218 trainees. The initiatives included a training program of leadership development by Harvard University, training by inspection, career guidance, extended assignments and e-training through the Coursera platform.

Training and development of the Ministry's employees

To develop the employees' capabilities and help them perform their functions efficiently and effectively, in addition to keeping them informed of the CIT's various changes, the Ministry was keen to enhance training and development initiatives offered to its employees by launching initiatives to train them through global electronic training platforms.

Among the most prominent training and development initiatives adopted by the Ministry are the internal knowledge transfer programs, titled "My Experiences", the global electronic training platform, "LinkedIn Learning", training tracks in cooperation with the Saudi Digital Academy, basic English language training and specialized individual training programs. These initiatives offered 1,170 training seats and gave opportunities to about 504 trainees, with a passing rate of more than 80%.

Currently, there are certain programs still under process, such as the second edition of Minister's Program for Leadership. in addition to others launching soon, including specialized and general training programs and intensive English language training to benefit more than 700 trainees. The Ministry also concluded a cooperation agreement with the Human Resources Development Fund (Hadaf) to participate in the Tamheer program. The cooperation resulted in qualifying 50 trainees who received different experiences that qualify them to participate effectively in the job market and increase their chances of obtaining suitable jobs.

1170 eats

504 recipients

Employee services

To provide a comfortable work environment supportive of achievements to motivate its employees to perform their roles efficiently, the Ministry provided them with several auxiliary services including telephone service before starting work. The number of requests for this service during the year increased to 315 compared to 254 in 2020. They also have access to their office extension on the personal mobiles. This service is available for 133 employees, and 67 requests were received to activate the local zero feature, in addition to 70 maintenance requests applied through the internal portal of tech support. In addition, 510 reservations for the Ministry's employees were organized and coordinated through contact channels of the Public Surveys Department to use 14 internal facilities of the Ministry's building in the digital city. About 7,806 people benefited from the efforts of this coordination. The Ministry's office areas were allocated in accordance with the relevant approved policy. 625 temporary trainees received this service.

Rapid response

With aims to interact with its customers and respond to their requests efficiently, the Ministry responds to the calls it receives through the Call Center, which transfers transactions to the relevant departments. During the year, the Call Center received more than 10,000 calls, to which the Center responded quickly by assigning each one a ticket number to be transferred the relevant department, who then follows up on it until it is closed. In addition, 70 escalated transactions were investigated, for which technical reports were drafted and exported through "Suhail".

Files and reports

The Ministry took efforts to phase out the paperwork system and associated procedures and replace them with an integrated electronic environment. This would support the Ministry's services to gain the maximum desired benefit and boost productivity compared to traditional means. As such, 40% of the files of the General Administration of Services have been archived, and 289 reports were developed about the transactions completed through electronic tickets and the speed of completion. The reports also discuss counting and monitoring the Administration's work.

Ministry facilities

To create a professional work environment that satisfies the expectations of employees and supports achievement, the Ministry focused on improving the readiness of its facilities to smooth the work for its employees and help them carry out their roles seamlessly. This raises the quality of services provided to all recipient sectors, governmental and private alike. To that end, the Ministry has uniformly decorated its headquarters offices to facilitate movement and create a distinct aesthetic view for different sections of the building by allocating uniform colors for each area and its work stations, independent offices, floors and furniture items.

A package of procedures has also been developed for managing facilities and services. it aims to facilitate employees' access to services, document achievements, and monitor and develop work process through automating services. The services and procedures developed include office entitlement services, reserving and equipping internal facilities, sports club subscription and business center service development.

To create a professional work environment that satisfies the expectations of employees and supports achievement, the Ministry fulfilled the needs of 136 employees of office furniture in its building, and enhanced security coverage by installing an additional 284 cameras inside the building to monitor indoor, outdoor and basement parking areas. This enables the Ministry to maintain documented records for reference when needed.

To complete the development of the Ministry's facilities, the corridor lighting halogen system inside its building was replaced with LED. 1,200 lighting units were installed in line with the energy efficiency requirements for the governmental buildings to reduce electricity consumption. To raise the efficiency of the systems, electrical and electromechanical systems were supplied and installed in the Ministry's office in Digital City. Currently, the Ministry is working to apply backup power generators to cover 100% of the power needed by its main building to continue work in the event of a power outage, as well as powering the Minister's office in Jeddah.

The Ministry is developing the physical work environment in the building by improving indoor and outdoor areas, seating and dining facilities, in addition to increasing the green landscape and introducing security enhancements for the safety of employees.

Fulfilling the requirements of ISO certificate

To develop internal operations in facilities and buildings, the Ministry aims to obtain the ISO certificate ISO41001-2018 for facility management, which contributes to developing the work team and improving service provision, documentation and control.

Staff support

Striving to create an ideal work environment for its employees, the Ministry spares no effort to make all essentials available, helping them perform their roles perfectly without obstruction. It also places a special emphasis on preserving their physical health. The Ministry encourages employees to use the sports amenities provided by the gymnasium center by launching several initiatives including the "We help you make your routine" and "Your workout in your office" initiatives.

A specialist trainer is always present in the gym center, and certain fitness classes are allocated for the employees. This increased the number of club subscribers to 389 people, including 75 women who receive fitness classes via remote live broadcast throughout the week.

To diversify the dining options offered to the staff, the Ministry invited 28 catering companies. During the year, three internal events were organized, including the summer recreational event in partnership with the Internal Communication Administration, the MCIT Shopping event and the perfume exhibition.

In efforts to offer more efficient nursery services, the Ministry provided educational and recreational classes and gave monthly and quarterly discounts with the pupils dismissed by the end of working hour. During the year, 148 of employees' children attended the nursery located in the Ministry's building.

With regards to permanent facilities such as restaurants and cafés, they are used by 4,356 people, while 955 received the services of the Business Center, which provides office and stationery support to the Ministry's employees.

Prevention, protection and precautionary measures

In cooperation with the Civil Defense, the Ministry organized a rehearsal evacuation plan, during which people were transferred and directed inside the facility, away from danger to safe points. It also conducted inspection tours of its main headquarters to ensure that precautionary measures are followed with a view to preventing the spread of COVID-19 among its employees. More than 90 violations have been issued.

Developing the design of the complex transmitter

Acting responsibly towards its buildings, and to increase the actual utilization of its facilities, the Ministry has completed the development of the design of the complex transmitter and its location in general. It also built a large building that connects the existing buildings to serve as a common area that meets the needs of the buildings. This building provides the necessary privacy for the projects, initiatives and the Ministry's academies. Developing the design will contribute to raising the office capacity of the complex from 835 people to 1,655 people. Moreover, it adds 600 new parking spaces to the public site, which currently holds 435. The Ministry is working to develop its buildings in the Complex Transmitter by establishing headquarters for the Digital Innovation Center, the Saudi Digital Academy and the Digital Ataa Club.

955 employees served

by the business center

Transmitter capacity

Increasing the Complex Transmitter capacity to 1,655 people

A work environment that inspires excellence

Planting **667** indoor plants and **19,460** seasonal flowers

28 companies provide food services to the Ministry's employees

500 M² green landscape around the Ministry building

457 temporary permits issued to enter the Ministry's headquarters

28.71% energy savings compared to previous years

1,225 vehicle plates allowed into the Ministry

662 visitors to the Ministry's headquarters during the year

Archiving **40%** of the files of the General Administration of Services

5

Creating a supportive legislative and regulatory framework for the sector

05

Creating a supportive legislative and regulatory framework for the sector

MCIT realizes that the ICT sector has become a key driver of progress and efficiency, unlocking greater value for all economic sectors in the Kingdom. The Ministry further believes that the maturation of the legislative body contributes to the sector's growth and development, and attracts investors from home and abroad. This raises the ICT sector's share of GDP, promotes and sustains growth, enhances digital trust and inclusion, and effectively increases digital capabilities.

As such, the Ministry exerts its utmost efforts to update laws, regulations and policies organizing the operations of the ICT sector. Its goal is to improve the quality of the sector's services, develop its infrastructure and enhance its cyber security. These reforms will help the sector maximize its potential for development in the future. During the year, the Ministry also worked on developing, preparing, reviewing and evaluating other related laws, regulations and policies to establish clear guidelines for the business in the sector. The guidelines aim to create a regulatory framework essential to advancing national development and our vital sector as well achieving our nation's desired growth.

Building on these foundations, the Ministry issued several manuals and explanatory notes to organize and clarify the work mechanism of the sector, and to bridge the gap between theory and practice. In addition, it updated and issued bylaws and regulations to support the Kingdom's position as a global logistics center. MCIT took crucial steps to raise the efficiency of the relevant sectors, realize their full potentials, and instill the principle of quality throughout.

> **"The maturity of the legislation body contributes to ICT development and growth, enhances trust and inclusiveness, and effectively builds digital capacity"**

To pave the way for a strong sector, the government is working on enacting laws, policies and regulations. It laid down various regulatory frameworks, including policies, governance frameworks and laws to support and enable the business model and create a competitive environment that attracts investment in the digital sector. By building a robust sector, the government will be able to activate joint work between the relevant authorities engaged in the ICT sector, enhance their roles in the digital economy and create a highly productive, collaborative atmosphere that coordinates roles and responsibilities among the relevant authorities. This will allow them to perform their roles in developing an effective technological community.

In developing these policies, legislation and regulations, the government strived align the Kingdom's principles and directions with best practice. Therefore, one of the legislative and regulatory priorities is to ensure that all members of society firmly commit to the safe and optimal use of technology and digital services, without endangering national security or sovereignty. Technology must be used in a safe and fair manner by all members of the community without prejudice to their interests. In addition, extremism and cyber-bullying are condemned, valuing the principle of privacy of others, which warrants the knowledge and prior consent of the concerned parties before using their information and data in any fashion that may affect them.

In line with best practice, all information, data and applications designed or published by natural or corporate persons are subject to intellectual property rights, regulations and laws in force in the Kingdom. They are also governed by the international agreements to which the Kingdom is a signatory. In drafting laws and policies, the government prioritized the needs of the society and individuals, to enable them to contribute to the development of services and policies. In addition, the government emphasized the role of society in expressing their views on digital laws and policies in a way that helps the digital ecosystem advance.

Draft Telecommunications law

The Ministry pays due concern to the needs of the market and keeps pace with industry trends and international standards. It seeks to provide an attractive environment for investment and innovation by expanding the scope of the ICT sector. Therefore, the Ministry is working to modernize the ICT ecosystem to further the sector business model, improve its services, develop its infrastructure and enhance its digital security. The ICT sector derives its weight from its position as a critical component of progress, efficiency and value creation across the Kingdom's economy. The Shura Council approved the draft Telecommunications law, as amended.

Regulations for implementing the draft Telecommunications law

MCIT worked on developing the implementation regulations of the Telecommunications law to achieve its goals of promoting fair competition, providing advanced telecommunications services at reasonable prices, protecting the interests of both users and investors, addressing the technical details of the law and expediting settlement of any related issues. The Ministry aims to outline the provisions and articles of the law, facilitating its practical application which aims to contribute to raising the efficiency of the relevant sectors and achieving their full potential, emphasizing the principle of quality.

Development of four legislative policies

The development of legislative policies for the ICT sector is a cornerstone in the Ministry's efforts to enhance its regional and global competitiveness. This is especially considering that improving and developing the legislative environment is an extremely effective enabler of attracting investments, increasing the contribution of the private sector and SMEs, and developing capacity which enhances the sector's services and share of GDP. During the year, the Ministry worked on preparing and developing four policies submitted for ratification. The policies included the ICT policy, the general policy of the Kingdom's postal services, the digital entrepreneurship policy and the digital infrastructure policy.

These policies serve the purposes and fundamentals of the digital economy as they enhance the sector's sophistication. Policy fundamentals are applied to government entities, the private sector and individuals. They seek to align the principles and directions with the relevant strategies, both existing and emerging, initiatives and programs, which would guide the operation of the sector, advance national development in the short run, and promote ICT sector to achieve the desired growth. The policies are expected to strengthen the sector and raise its contribution to economic and social development. This will improve the quality of life, develop digital capabilities and infrastructure, which bridges the digital divide and achieves inclusion. The policies are also expected to support the creation of further job opportunities within the ICT sector.

Postal law amendment

The Ministry saw the need to amend the postal law in force since 1406 H to compete with the developments and changes occuring within the Kingdom, and to create an advanced environment to provide quality services that live up to public expectations. In addition, the law was amended to encourage businesses and investment, and create a competitive environment among companies operating in the sector. This will raise the postal sector's share of GDP.

The Ministry has introduced amendments to the postal law which were approved by the Council of Ministers on 6/3/1443 H. The amendments sought to develop and advance postal logistics to solidify the Kingdom's regional and global leadership in the postal sector and e-commerce. Further, they aim to consolidate the Kingdom's position to become a global logistics hub by upgrading all transportation services and means at an accelerated pace that promotes both integration in the logistics community and modern modes of transportation to support development.

Developing guidelines

Guidelines for developing public policies

- The Ministry provides its employees and clients, whether public agencies, private sector or individuals, a detailed explanation of its public policies to facilitate business performance. It issues guidelines connect theory and practice and emphasize the significance and purpose of public policies, in addition to their relationship and integration with other official instruments. Moreover, the guidelines highlight the recent trends, and describe the practical process of developing and implementing those policies.
- To that end, the Ministry has prepared draft guidelines to develop public policies and describe the applicable rules, including those related to analysis, preparation, implementation, revision, application and assessment. To facilitate this, MCIT defined the methodology and general frameworks of public policies in theory and practice, due to their central role and direct impact on public and private interests, and since the policies reflect the Kingdom's direction.

Knowledge administration

- The Ministry established the Knowledge Administration to transform information and intellectual assets into a permanent value for the beneficiaries, and to create a participatory knowledge environment. The Administration is concerned with investing intellectual capital (both explicit and implicit) efficiently and effectively.

This builds on the Kingdom's interest in transforming into a knowledge society, with the lowest cost and in line with the highest global standards. In addition, it supports the efficient provision of information and services that improves practices and removes overlaps and conflicts of functions through the optimal use of knowledge.

- The Administration aims to make all knowledge and information accessible to everyone in the Ministry by building an integrated knowledge system and creating an appropriate environment that facilitates knowledge sharing to benefit employees.
- The Ministry also worked on designing an online portal to build a central knowledge base by documenting information, sharing it and making it available to its employees in the appropriate form and manner. The completion rate of the portal reached 95%.

Affidavit request instructional manual

With urgent need for a mechanism organizing the requests for internal affidavits related to topics of the committees and councils within the purview of His Excellency the Minister, the Ministry has prepared an instructional manual that governs requesting statements from the agencies. The manual includes a detailed outline of the procedures, a description of the steps, as well as the process from referring the transaction to the specialized committee and studying the transaction to dispatching the request.

Guidelines to forming internal committees

Facilitating the internal procedures regulating its business and operation, the Ministry has prepared guidelines organizing the request for forming internal committees and authenticated documents. The guidelines clarify the mechanism used to request the formation of an internal committee within the ICT ecosystem by providing a detailed outline of the procedures and describing steps including: submitting a request to form a committee, studying the request and ending with preparing the formation decision.

Preparation
5 guides

Indicative and illustrative

Ministry representation guidelines

MCIT approved special guidelines that provide a detailed procedural plan. The guidelines describe procedures from receiving the representation request to referring the request to the concerned department, nominating the representative of the Ministry and preparing the nomination letter.

The guidelines also include procedures for preparation and follow-up of the delegation representing the Ministry, along with a detailed, step-by-step instructions on the procedure. The guidelines outline the procedures related to preparing the representation, writing a report on the meeting and its outcomes, and studying these outcomes and the correspondences with the entity responsible for the event.

29 laws
and regulations

of government agencies reviewed

Committee and board secretaries' guidelines

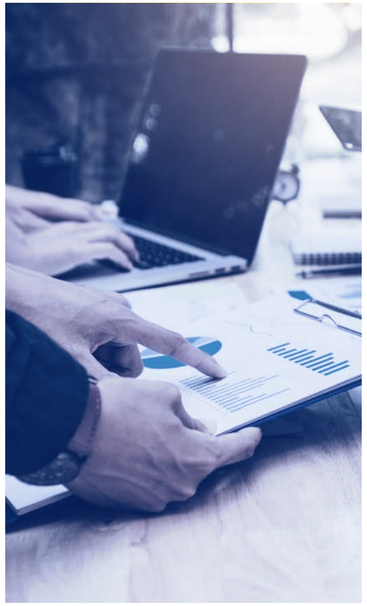
- To organize and clarify the functions between the General Administration of Committees and Representation Affairs and the secretariats of committees and councils presided over by His Excellency the Minister, the Ministry has prepared guidelines for secretaries of committees and boards chaired by His Excellency. The guidelines clarify the actions related to the meetings conducted to improve cooperation and coordination frameworks and raise work efficiency and outputs.
- The guidelines include the functions of the secretaries, the mechanism of meetings, means of communication, preparation and approval of minutes, follow-up on the implementation of decisions and a checklist of the secretaries' key functions.

4 million

provisional documents destroyed

Dashboard of ICT transactions

- The Ministry launched a dashboard for ICT transactions, which is an interface to display and follow-up on transactions that have an impact on the government position.



digitized
and archived

350K documents

Documents and archives

Electronic archiving

- In line with the initiative of a paperless ministry and digitalized transactions, the Ministry digitized 70% of the Documents and Archives Center, by applying comprehensive content management systems and electronic archiving based on a single software platform records management, content management and paper management.
- The Ministry also organized several workshops to train its employees on the use and management of the archiving system.

Archiving 1 million documents

- As part of its digitalization plan to improve work performance, the Ministry launched a project to digitize and archive 1 million documents stored in the files of the Minister's office and the Ministry's departments. During the year, it completed the archiving of 350 thousand documents, which enhanced the efficiency of research, saved storage expenses and made documents safer and easily accessible.
- The Ministry also identified and named 50% of the specialized documents that are related to MCIT's core business. Afterwards, they were submitted to the National Center for Documents and Archives for approval.

4 million provisional documents destroyed

- To dispose of documents, the Ministry destroyed 4 million provisional

documents during the year. The documents had completed their preservation statutory period. The process aims to save costs, spare human efforts and avoid damage of keeping old documents. It also provides a storage space in the permanent archiving headquarters (Al Fayziyyah Warehouse).

Identifying and naming specialized documents

- To measure the deliveries, results and statistics of the specialized administrations, the Ministry has named the documents that express its core business to distinguish them from those of the auxiliary departments. They were submitted to the National Center for Documents and Archives for approval.).

The G20 Summit and the GCC

- The Ministry enriched the discussions during the meetings of the G20 Digital Economy Working Group by highlighting achievements, views and recommendations that contribute to resolving the issues related to the topics at hand, and to study and analyze the final communiqué. This was especially on items related to the digital economy and the position of the Kingdom as well as those related to the G20 members. In addition, MCIT studied and analyzed the ministerial statement and submitted a report outlining the positions of the Kingdom and the G20 countries on topics and issues discussed during 2021.
- The Ministry also participated in meetings discussing the legislation and regulation of online applications and services in GCC countries. It took part in the discussion of the developments in legislation and regulations governing online applications and services.

Reviewing policies and strategies

During the year, the Ministry reviewed several policies, strategies and files related to the ICT sector. These included views on digitization and digital transformation of smart cities, draft policies of local content for machines and equipment, digital government policy, draft policy of revenue generating data and local content. The latter came within the presentation of the National Industrial Development and Logistics Program Committee.

Awareness and culture

The Ministry organized workshops to educate its employees on its role in developing policies and their impact on the growth and prosperity of the ICT sector. In one workshop on ICT policies, the attendees received an overview on public policies, their origin, advantages, challenges and importance, and learned the difference between policy documents and other legislative or regulatory instruments. The workshop also covered the ICT policies and the developed policies by giving examples of those that may be developed in the future, in addition to providing a detailed presentation on the policy development methodology and its various stages. This introduced the participants to the mechanisms and steps for developing policies and raised their awareness of the process.

Review and feedback

Assisting government agencies, the Ministry reviewed and provided feedback on 29 laws and regulations it received from government agencies. The presented instruments include the laws of conciliation, penal order, the state's rental and eviction of properties, penalties, civil transactions, state properties, measurement and calibration, in addition to the bylaws of shipping brokers and transport users' rights and obligations.

Governance of tender documents

To align the mechanisms of tendering, awarding and contracting of the Ministry's projects with the Tenders and Procurement Law, its implementation regulations and the Local Content Preference Regulations, the Ministry adopted tender document forms, direct purchase policy, and national transformation projects to establish the governance framework of rendering documents. To that end, the Ministry participated in series of tender processing with relevant committees, taking part in reviewing the submitted bids to make appropriate recommendations.

Legal studies and consultations

The Ministry is keen to provide all organic and inorganic bodies with legal support services through an expert team. The team reviews the requested documents to support its decision-making. The Ministry secures all the relevant approvals before reporting back to the requesting authority.

%70 automated

Services and operations

Legislative studies

The Ministry has prepared a set of legislative and benchmarking studies to develop the legislative ecosystem of the ICT and postal sectors. The studies produced recommendations for the public authorities to reconsider the laws and legal provisions in adopting the Hijri (Lunar) calendar, as well as to review the benchmarking study of postal services legislation.

Governance of partnerships

To best build partnerships with relevant local and international bodies on legal bases, the Ministry's legal administration has framed the scope of partnerships and agreements within its approved models, and reviewed commitments and their consistency with the applicable laws and regulations for approval.

Induction letters

The Ministry has prepared induction letters for its employees. These will introduce them to the internal committee and its functions, the duties of the representatives of the Ministry, and the mechanisms of expressing reservations and practicing signature authorization.

6

Social Responsibility

06

Social Responsibility

The Ministry highlights social responsibility as being fundamental to the core of its strategy. Its responsibility is not limited to a certain segment of society, but rather its programs provide support and care for all social classes and groups, especially those with special needs who receive special care and attention in the Kingdom. The Kingdom seeks to integrate them into society and public life, to showcase their potential and capabilities so they may contribute to social development productively.

Considering that social responsibility has become even more important in the ICT sector, the Ministry is working to enhance its contribution to promote the progress and prosperity of the society. For example, in education, which receives great attention, MCIT focuses directly on the human element as the foundation of sustainable development in any society. The Ministry gives high priority to the disabled and the terminally ill from a humanitarian, educational, social and cultural standpoint, signaling its confidence in their capabilities and potential. It strives to offer them the opportunity to compete in various fields.

During the year, the Ministry launched several initiatives to help these groups lead normal lives filled with joy and happiness.

Smartphones for Cancer Patients" initiative

Showing sympathy and support to cancer patients, and enabling them by providing them with necessary care, the Ministry, in cooperation with the "Wareef Charitable Association" of the King Faisal Specialist Hospital and Research Center, launched the "Smartphones for Cancer Patients" initiative. Through the initiative, the Ministry cooperated with Motorola to hand over 50 smart phones to the patients.

This initiative enables digitization, helps the community and assists patients to leverage technology and the essential applications including "Tawakulna", "Space" and "My Health". It further seeks to motivate patients to benefit from the technology. This includes accelerated admission by filling in and documenting their data through approved electronic applications and by controlling the medical process through modern methods. The applications become patients' gateways to the world of the internet with its wide horizons, supporting them in critical stages of their lives until they reach full recovery.

The "E-Quran for the Visually Impaired" initiative

- People with special needs loom large in the Ministry's strategy, so it is always keen to provide them with tech services, improving their ability to rely on themselves to engage with their surroundings.
- Within this framework, The Ministry cooperated with the General Authority for Endowments through the Waqf platform. It also launched the "E-Quran for the Visually Impaired" initiative in cooperation with the Authority for Persons with Disabilities and the National Association of the Blind.
- The initiative aims to provide innovative solutions to the challenges faced visually impaired people in the Kingdom. It enables them to recite and learn the Qur'an through a braille script system, saving them the need to carry the standard, six heavy-weight volumes. The device is identical to King Fahd's version of the Qur'an. It helps users flip through the Qur'an easily and quickly, to the right page, surah or chapter, and enables them to share Quranic sessions with others.
- The E-Quran translates the letters of the Noble Qur'an into Braille, which makes it easier for 8 million visually impaired Muslims around the world and more than 150,000 blind people in the Kingdom to recite and learn the Holy Qur'an through rote learning. It eliminates the challenges they face when using the scarce and expungable traditional paper versions printed in Braille, which come in 6 large volumes.
- The E-Qur'an utilizes high technology, as it converts fixed Braille characters into mobile ones which are formed electronically according to the verses and pages of the Noble Qur'an as well as the Arabic characters.

Improving the quality of life for people with special needs

Out of the Kingdom's support for people with special needs, the Ministry spares no effort to ensure that they enjoy their prerogatives and are best served by providing means of technology that address their current and future needs. In addition, the Ministry aims to improve their quality of life, as well as the elderly's, by providing appropriate tech services. As part of its social responsibility, the Ministry sponsored the Tawasul Tech Forum to improve the quality of life for people with special needs. The Forum was organized by the Tawasul Association on the International Day of Occupational Therapy.

The Ministry participated in the panel discussion on the role of tech institutions in facilitating digital access for people with special needs. It asserted that providing technology to people with special needs is not a luxury but rather a necessity.

- During the forum, the "Hayat platform" was launched to serve people with special needs to educate them on the techniques that help them lead their everyday lives, access rehabilitation centers, benefit from specialists, trade unnecessary devices in the electronic market and attend workshops and training courses on assistive technology. In addition, the forum provided advice on home care and the use of assistive technologies.
- During the forum, the first technological endowment for people with special needs was launched in line with the Kingdom's Vision 2030 to serve all segments and groups of the society, including people with special needs and the elderly.
- The endowment provides integrated digital solutions by bringing several disciplines under a single umbrella, including digital engineering, occupational therapy, physical therapy, internet of things and electronics, special education and occupational and behavioral therapy

Teach and relax

- to raise the social awareness about cyberbullying and the harmful and perilous use of the internet and related technologies, the Ministry launched a "Teach and Relax" campaign to raise awareness about cyberbullying and ways to prevent it. The campaign was organized in cooperation with more than 70 partners from public, private and non-profit sectors.
- The campaign, which benefited 3.2 million, aims to raise awareness about cyberbullying in online gaming space, and teach target groups (parents and children) how to properly address bullying to reduce its negative effects. These include potential depression for those who do not receive immediate help or support from others. Individuals may resort to isolation, as is common with young people and adolescents. They may also suffer from distraction, anxiety, paranoia, or poor educational performance in school or university.

3.2 million benefited

from the cyber-bullying awareness campaign

Launching the "Hayat Platform"

To serve people with disabilities

8 million Muslims benefited

from the "E-Quran for the Visually Impaired" initiative

7

Challenges and Recommendations

07

Challenges and Recommendations

Challenges	Recommendations
Increased and diversified scope of the Ministry's business and functions, in addition to the nature of the current contracts and the lack of specialized cadre in the Ministry's entities . This poses a challenge in attracting qualified candidates for the next phase of the digital economy.	Allocating a new cadre to the Ministry with competitive advantages that focus on attracting the specialized competencies needed to transition towards a digital economy.
Limited channels for releasing grants allocated to research and innovation projects, as well as direct aids by the National Development Fund and its affiliated funds to entrepreneurs. This may delay implementation of initiatives due to the different assignments entrusted to the entities, which are not aligned with the objectives of the National Technology Development Program.	Giving the program the authority to directly disburse grants and aids to the beneficiaries in line with a mechanism and governance framework approved by the program's supervisory committee.
The limited lifetime of the National Technology Development Program compared to the economic cycle of the tech sectors and the objectives of the Kingdom's Vision 2030.	Extending the life of the program until 2030 to provide greater support to the sector and achieve the Kingdom's ambitious goals.
The high costs of investment in telecommunications infrastructure, which may hinder the digital transformation process.	Encouraging investments in telecommunications infrastructure through catalytic solutions that achieve sustainable investments.
The high financial costs required to deploy digital infrastructure, which impede digital transformation and affect the ability of the Kingdom to become a global digital hub.	Stimulating investment in digital infrastructure through incentive packages that enable the development of all components of digital infrastructure.
The reluctance of the private sector to invest in the different regions of the Kingdom, which affect the number of jobs and localization rates in those regions.	Supporting initiatives aimed at stimulating the private sector, specifically technology companies, to expand the scope of their business to the regions suffering from high unemployment rates and low business opportunities. This will localize technology, achieve regional economic development and raise the non-oil domestic product in addition to increasing local content.
The impact of the COVID-19 pandemic on existing and future projects' contracts, especially the delay of completion and handover as many of the projects are associated with affected sectors or services, such as logistics.	Develop flexible frameworks for amending projects in line with the evidenced impact of the challenges resulting from the pandemic. A circular to that effect should be issued to authorize procurement administrations in governmental agencies in a way that does not affect the course of business.

07

The Ministry's outlook for 2022

A leading digital country by 2023

Raising the Kingdom's ranking

in fixed wireless internet speeds to be one of the top 20 countries, while maintaining its rank amongst the top 5 in mobile internet speeds

Employee retention rate

is 95%

Reaching out to over 250K

beneficiaries to provide activities that raise awareness and share digital knowledge with all segments of society

Obtain accurate

updated and reliable information within less than 2 minutes

Improve community participation

in decision-making by raising the e-participation index (EPI) to 78%

Among the top 35

digital economies in the world 2022

Among the top 38

digital governments by 2022

Among the top 30

digital communities by 2023

Best government ecosystem

ecosystem in the Kingdom by 2023

The digital economy's

share of GDP will reach 16.8% in 2022

Raising the customer

satisfaction indicator to more than 20% higher than the benchmark

Creating 24K quality jobs

in priority areas for the digital economy within the main areas of the ICT sector

Among the top 5 positions

in institutional excellence across the Kingdom

Increasing exports

of ICT services by 14%

Raising government

efficiency and compliance rates by more than 20% higher than the benchmark

Increasing competitiveness

and enhancing institutional maturation of 46 administrative units based on global standards

Increasing investments

in the digital economy to SAR 13.6 billion

Raising government

efficiency and compliance rates by more than 20% higher than the benchmark

Increasing Saudization

of ICT professions to 60%

07

Conclusion

The annual report for 2021 has been prepared pursuant to the provisions of Article (29) of the Law of the Council of Ministers. It has presented a detailed overview on the MCIT, its strategic direction and its achievements in enabling a thriving ICT sector and enhancing the efficiency of local content. This is in addition to advancing the technology market in the Kingdom.

With the generous endorsement of the Kingdoms Leadership, Saudihas attained advanced global digital positions. In 2021, the ICT initiatives have achieved green ratings in the initiatives of the Vision Realization Programs on the integrated platform of Adaa of the National Center for Public Agencies Performance Measurement. During the year, the Ministry continued its successive achievements in infrastructure, deployment of communications networks, development of national talents and cooperation with global partners. Such achievements contributed to supporting and stimulating the innovation and digital entrepreneurship sector and qualifying the Kingdom to become the largest in market size, the highest in talents and the fastest growing in venture capital investments of technology in MENA.

Inspired by the efforts and innovation of our prudent leaders, the Ministry is working to lay down strategic digital foundations to enable an interconnected present and an innovative future. This is founded on digital infrastructure and supported by a strong and thriving economy that attracts global investments, to capitalize on opportunities offered by the promising ICT sector.

8

Appendix

08

Appendix

A. Financial and Administrative Affairs
- a. budget
  - Expenses
  - Revenues
- b. Human Resources

B. ICT
- a. MCIT
- b. Digitization Unit
- c. Digital Government Authority
- d. Communications and Information Technology Commission (ICTC)
- e. Saudi Post

C. Digital transformation ecosystem
- a. Governance of digital transformation
- b. Digital transformation framework
- c. The role of the ICT ecosystem in digital transformation

D. ICT sector strategy
- a. ICT sector strategy
- b. The strategy of the MCIT

E. Initiative Cards of the Kingdom's Vision 2030 Programs
- a. National Transformation Program Initiatives' Cards
- b. National Industrial Development and Logistics Program Initiatives' Cards
- c. Quality of Life Program Initiatives' Cards
- d. Privatization Program Initiatives' Cards
- e. Human Capability Development Program Initiatives' Cards

F. Terms and Definitions

Appendix (A)
Financial & Administrative Affairs

a. Budget

Expnses:

Budget item	Original Appropriation	Transfers		Adjusted Appropriation	Spent Amount	Saved Amount	%
		From	To				
Employee compensation	268,613,000.00	6,242,000.00	20,422,217.00	282,793,217.00	268,416,570.25	14,376,646.75	%94.92
Goods and services	2,668,779,599.00	345,942,520.00	361,735,681.00	2,684,572,760.00	2,548,091,708.11	135,481,051.89	%94.92
Other expenses	179,999,000.00	14,824,886.00	48,575,652.00	213,749,766.00	212,456,824.99	1,292,941.01	%99.40
Non-financial assets	65,582,000.00	33,603,584.00	2,518,000.00	34,496,416.00	29,775,478.31	4,720,937.69	%86.31
Total funds from the budget	3,182,973,599.00	400,612,990.00	433,251,550.00	3,215,612,159.00	3,058,740,581.66	155,871,577.34	%95.12
Use of goods and services	750,000,000.00	0.00	0.00	750,000,000.00	750,000,000.00	0.00	%100.00
morf sdnuf latoT seunever s'CTCI noitairporppa) (eunever tsniaga	750,000,000.00	0.00	0.00	750,000,000.00	750,000,000.00	0.00	%100.00
Gross amount	3,932,973,599.00	400,612,990.00	433,251,550.00	3,965,612,159.00	3,808,740,581.66	155,871,577.34	96.04%

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Appendix (A)
Financial & Administrative Affairs

a. Budget

Revenues:

Revenue Type	Estimated Revenue	Actual Revenue
The government's share of the ICT sector's net revenues	0.00	750,000,000.00
Housing rents and premiums	97,400.00	142,400.00
Selling documents and systems	450,000.00	301,900.00
Other sales	0.00	232,000.00
Penalties and fines	1,000,000.00	999,358.92
Amounts recovered from previous	0.00	0.00
years' expenses	0.00	1,236,138.82
Total	**1,547,400.00**	**752,911,797.74**

Appendix (A)
Financial & Administrative Affairs

B. Human Resources

Saudi employees represent

%96.2 of the Ministry's staff

The number of Saudi employees is 968, which represents around 96.2% of the Ministry's workforce totaling 1,006 employees. Women occupy more than 30%, with 223 female employees compared to 735 males. Moreover, the number of non-Saudi nationals is only 38. The number of jobs available during the fiscal year 2021 increased by 98 to reach 1,453, compared to 1,355 jobs in 2020, of which 466 are vacant jobs.

08

Appendix (B)

ICT ecosystem

MCIT

وزارة الاتصالات وتقنية المعلومات
MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY

MCIT is the supervisory authority directly responsible for the ICT and postal sectors in the Kingdom of Saudi Arabia. The Council of Ministers issued resolution 133 dated 21/5/1424 H to reorganize MCIT in line its roles and functions with regards to overseeing the development of the Kingdom's ICT sector. Additionally, the Ministry took over responsibility for postal sector pursuant to the Council of Ministers resolution 403 dated 12/7/1440 H. The Ministry was also assigned to lead the digital transformation by virtue of Royal Order 59028 dated 11/18/1439 H.

MCIT's roles and functions:

- Develop strategic plans, policies, draft laws and regulations for the development of the ICT sector and digital transformation in the Kingdom.
- Supervise the postal sector, implementing its public policies and development plans, and propose draft laws and amendments to them. Additionally, coordinate with stakeholders regarding services provided to government agencies, whilst representing the Kingdom in local, regional, and international bodies within the postal sector. Keep track of the Kingdom's obligations in this regard.
- Establish executional mechanisms and programs to accelerate the deployment of wired and wireless broadband services, as well as ensuring the urgent implementation of its infrastructure necessary to guarantee as much broadband coverage as possible for all regions of the Kingdom; furthermore, stimulating national and international companies' participation in broadband projects.
- Establish executional mechanisms and programs to accelerate the development of digital capabilities in the Kingdom and raise digital awareness. These activities include general and specialized digital capabilities, with a focus on emerging technologies, in line with the various needs of the sector.
- Establish executional mechanisms and programs to build a competitive global IT sector that develops local technical content and achieves economic sustainability, entrepreneurship and innovation at the regional and global levels.
- Establish mechanisms to stimulate and encourage investment and innovation in the ICT sector and digital industries.
- Seek to attract foreign investments and leading global ICT companies to the Kingdom.
- Support emerging local technology startups and SMEs, building their capacity to reach global markets in coordination with the relevant authorities.
- Supervise enforcement of the Electronic Transactions Law and set technical and contractual standards and guidelines for government agencies to use when entering contracts of digital government-related projects.
- Oversee and manage digital certification issuance duties.
- Conduct studies in the field of ICT and digital transformation.
- Coordinate with government agencies, the private sector and other relevant entities, and establish strategic partnerships in relation to communications, information technology and digital transformation.
- Represent the Kingdom in local, regional and international bodies operating in the ICT and postal sectors.

National Digitization Unit

وحدة التحول الرقمي
National Digitization Unit

The National Digitization Unit is a "center of excellence" established under Royal Decree No. 49584 dated 291439/10/H [72018/13/]. It aims to accelerate digital transformation in the Kingdom to achieve the Saudi Vision 2030 objectives through cooperation with the public and private sectors. The goal is to elevate the Kingdom's position to the level of the digitally developed countries and contribute to sustainable economic development based on supporting the values of innovation and investment in young talents.

The National Digitization Unit is responsible for the following duties:

- Prepare a draft national strategy for digital transformation.
- Develop digital transformation policies by implementing a comprehensive, unified framework and mechanism for implementation.
- Implement actions required to activate the legislation necessary for digital transformation.
- Activate digital governance and ensure its alignment with national strategies and priorities.
- Determine the priorities necessary to effect digital transformation and determine the support essential to ensuring prompt achievement of the desired objectives.
- Approve and fund initiatives related to digital transformation.
- Prepare periodic reports on digital transformation.
- Review and evaluate current digital transformation programs to determine the extent to which they can be used within the unified framework system.
- Review and evaluate all current digital transformation plans, as well as executive programs and other sub-plans related to digital transformation.
- Identify the challenges facing the Kingdom's transformation into a digital economy and society and provide the necessary recommendations to meet the challenges and benefit from international best practice.
- Submit proposals to develop the legislative structure related to digital transformation, to raise the efficiency and quality of digital transformation efforts.
- Establish a mechanism to accelerate, develop and implement initiatives for expanding broadband services and ensuring that the necessary infrastructure is implemented to ensure coverage across the Kingdom.
- Work to achieve optimum utilization of the assets and investments of the digital ecosystem and avoid duplication of projects.
- Develop technical and contractual guiding standards for public agencies to take advantage of.
- Accelerate the development of digital services through an appropriate testing mechanism.
- Develop an ecosystem that aids the privatization of digital services.
- Propose a mechanism to accelerate the development of digital capabilities in the Kingdom.
- Establish the criteria and indicators necessary to measure digital transformation.

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Digital Government Authority

هيئة الحكومة الرقمية
Digital Government Authority

The Digital Government Authority was established by the Council of Ministers Resolution 418 dated 25/7/1442 A to enrich the customers' experience and upgrade government services to be digital and proactive. Additionally, the introduction of the Authority raises the efficiency of government performance by adopting effective and innovative models for implementing digital transformation in various fields such as digital health, distance education, digital economy, etc. It also increases productivity, optimizes the use of government tech resources and investments, accelerates the adoption of modern technologies, and develops digital capabilities and talents. It replaces both the e-Government Program (Yesser) and the National Center for Digital Certification.

Roles and responsibilities:

- Prepare the national strategy for the digital government and supervise its implementation after approval.
- Approve the policies related to the Authority's activities as well as plans and programs required for their implementation.
- Set technical standards for government digital transformation models and follow up on compliance with them.
- Organize the operation, platforms and networks of digital government services, and the governance of the work of the government digital cloud and the related clouds.

Initiatives:

The Digital Government Authority launched the experimental regulatory environment initiative for government tech companies. It included signing cooperation and partnership agreements between the Authority and various government tech companies to develop the regulatory environment gradually, in several stages that cover governance, upgrade of government digital services, and the development of regulations that improve the business environment. The initiative also addresses the challenges facing companies and institutions in digital government services. Additionally, the initiative seeks to improve user experience.

The initiative aims to find regulatory solutions in the field of digital platforms and services, to overcome challenges such as regulating intellectual property rights, data sharing mechanisms and lack of alignment.

Communications & Information Technology Commission

هيئة الاتصالات وتقنية المعلومات
Communications & Information Technology Commission

The Communications and Information Technology Commission (CITC) is the authority responsible for regulating the ICT and postal sectors in the Kingdom of Saudi Arabia. The legal framework regulating the ICT and postal sectors is defined by the Telecommunications Law issued by Royal Decree No. M/12, dated 6/4/2001, its Executive bylaw issued by Ministerial Resolution No. 11, dated 7/27/2002, and Council of Ministers Resolution No. 403, dated 3/19/2019.

The CITC's regulation defines its roles and duties as a regulating entity for the sector that is granted legal personality and financial and administrative independence. The key duties are as follows:

- Regulate the ICT sector.
- Carry out regulatory and supervisory functions for the postal sector.
- Monitor and take advantage of developments in ICT service technologies.
- Create a stimulating environment for investment in the ICT sector in the Kingdom.
- Protect user interests in public telecommunications services and the internet. Monitor the performance of entities licensed to provide these services, and take measures to drive entities to abide by license terms.
- Encourage investment in ICT services and equipment, improve the provision of reliable, high-quality services at reasonable prices throughout the Kingdom, and take measures that guarantee the rights of investors in the ICT services.
- Implement policies and procedures that ensure competitiveness in the ICT and postal services market.

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Saudi Post

The Saudi Post Corporation went through several stages of development during its journey. It began with the establishment of the first Directorate of Post, Telephone and Telegraph in Makkah in 1345 H (1926). It then became part of the Ministry of Communications, under the name Ministry of Communications Wire, Wireless and Postal Affairs Agency in 1372 H (1953). Finally, it became a public institution called the Saudi Post Corporation under Council of Ministers Resolution No. 78/Q, dated 2/21/2012 AD, which converted postal services into a public company.

To achieve its aspirations, the Saudi Post Corporation adopted an ambitious plan. It focused on building an ecosystem of multiple networks, establishing a unified national address ecosystem, and providing a set of unconventional postal services to enable the provision of logistical services. Other goals included enabling e-government programs and e-commerce applications through maximizing partnerships with public and private institutions, developing e-government transactions, and facilitating e-commerce exchanges. Many new services were launched, such as e-mall, the Makani platform for sports ticket sales, as well as the "Jamaee" and "Mureeh" services. Regular postal services, such as letters, parcels, and express mail, were also improved.

The Saudi Post Corporation is transitioning to modern online business, with the aim of rapid improvement through advanced postal technologies and customer engagement with interactive postal services. Through these services, each customer can follow shipments through the website. The Corporation is focused on developing postal technologies, using network projects throughout the Kingdom, and expanding automated sorting operations in all locations to improve quality and speed.

Appendix (C)

Digital Transformation Ecosystem

The Digital Transformation Eco¬system is concerned with coop¬eration between the relevant authorities and stakeholders in various sectors. This cooperation supports and enables transforming business and services provided using traditional methods into ones that use innovative digital models, improving the quality, reliability and speed of imple¬mentation of these services.

This achieves interdependence and integration between the business and services of various sectors and the systems, appli¬cations and platforms they offer. Therefore, the Digital Transfor-mation Ecosystem includes the bodies supervising various sec¬tors, and the parties supporting digital transformation.

To support digital transformation and its course of business to contribute to realizing the Kingdom's ambitious goals, Royal Decree No. 49584 dated 29/10/1438 H [7/23/2017] was issued to form the National Committee for Digital Transformation. This committee is responsible for developing digital transformation policies and implementation plans and ensure coordination of related initiatives. Royal Decree No. 59028, dated 18/11/1439 H [7/31/2018], was issued to appoint HE the Minister of Communications and Information Technology as the Chairman of the Committee and HE the Minister of Health as a member and Deputy Chairman of the Committee. It also appointed a number of ministers as members of the Committee and the CEO of the National Digitization Unit as a member and secretary of the Committee.

Royal Decree No. 49584 dated 29/10/1438 H [7/23/2017] was issued to establish the National Digitization Unit under the supervision of the Committee Chairman. It also stipulated that the Chief Executive Officer of the Committee be appointed by the Committee Chairman and that the Unit's headquarters be at MCIT. The Committee's duties are summarized as follows:

1. Supervise the Digital Transformation Program.
2. Approve periodic reports on digital transformation prepared by the National Digitization Unit.
3. Approve a governance framework for digital transformation initiatives.
4. Approve the annual action plan and operational plans for the Digital Transformation Program.
5. Propose and submit draft laws related to digita l transformation according to the relevant procedures.

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Appendix (C)

Digital Transformation Ecosystem

Digital Transformation Ecosystem

The Digital Transformation Framework defines the duties, roles and responsibilities of the parties involved with the transformation. It also outlines the areas of priority for accelerated digital transformation. The following provides a general explanation of the Framework.

01. Establish key enablers and pillars for digital transformation.

- **Policies, regulations and partnerships:**
  Digital transformation requires supportive, modern, flexible, and open policies and laws. These laws must take the interests of different parties and national priorities into account. Usually, digital transformation legislation is multi-lateral, affects several sectors, and requires close coordination and integration among all stakeholders. This requires establishing partnerships that achieve benefits for all.
- **Availability and adoption of technology:**
  Technology equipment, hardware and software, are effective tools in achieving digital transformation. Therefore, it is vital to ensure that the latest technologies are available and adopted by all relevant parties.
- **Digital infrastructure:**
  Digital infrastructure is the basis on which all digital services and business are established. It includes ICT services such as high-speed internet through fixed and mobile communication networks, data centers, and other equipment, software and hardware used to provide these services.
- Digital talents: Specialists and experts in various ICT fields are the main engine of digital transformation. They are responsible for implementing the initiatives and projects that make transformation possible.
- Research, development and innovation: Successful digital transformation requires finding innovative solutions and methods to transition from traditional business to high-performance digital business. Therefore, innovation, research and development, and entrepreneurship are important factors in achieving necessary digital transformation. This can be done by taking advantage of innovations and emerging entrepreneurial projects.

02. Digitize the government sector through supporting e-government and utilizing national data.

- E-government: Transforming all government transactions, processes, and services so they may be requested and performed digitally, using digital platforms and channels, with particular focus on user experience and full integration between systems and platforms, consistent with the concept of "whole-of-government."
- National data and Artificial Intelligence: Data is the main thrust of digital transformation. Thus, efforts should be made to ensure its accuracy, comprehensiveness and integrity, and to protect it from all security risks. To maximize the benefits of data, applying artificial intelligence helps with data analysis, pattern recognition and identification of trends, to make smarter decisions and develop more appropriate policies and strategies for all government sectors.

3. Accelerate digital transformation through the development of digital platforms in priority sectors.

This is accomplished by building strategic partnerships between the various stakeholders in the public and private sectors, in addition to spreading the usage of these platforms through raising awareness about them among beneficiaries, and by increasing reliance on digital platforms instead of traditional processes. This, therefore, depends on the availability of accurate national data and government services with high maturity of digital transformation.

7 sectors were identified as having priority in accelerating the digital transformation due to their importance and wide-ranging impact. These sectors are: E-health, E-learning, E-commerce, Smart cities, Industrial & Mining & Logistics Services, Hajj & Umrah & Culture, and Security & Safety.

The National Committee for Digital Transformation and the National Digital Transformation Unit work to achieve cooperation and coordination between the relevant stakeholders in these sectors in order to optimize digital transformation, thus attaining desired outcomes and benefitting these sectors.

Since achieving digital security is one of the most important factors for the success of digital transformation and the reliability of related processes, cybersecurity is a cornerstone across digital transformation.

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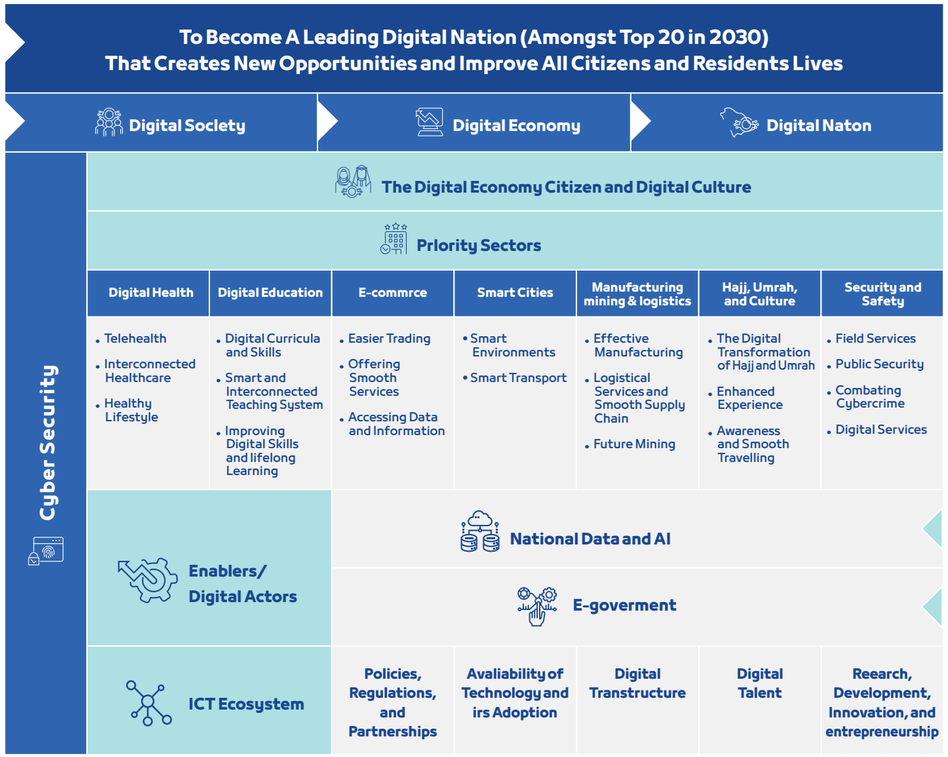

* The National Cybersecurity Authority is the competent authority responsble for cybersecurity in the Kingdom, Pursuant to Royal Decree No. 6801, dated 2018/07/15 AD.

2.Digital transformation framework

Role of ICT ecosystem in digital transformation

The ICT ecosystem plays a critical and pivotal role in enabling digital transformation in the Kingdom.

MCIT is responsible for laying down policies and strategies, and establishing strategic pillars for digital transformation. These include regulations, legislation and technical infrastructure; developing the IT market, emerging technologies, and digital capabilities of professionals, talent and entrepreneurs; developing the postal sector; and enabling digital innovation.

The CITC, in turn, is the authority regulating the ICT and postal sectors. The Commission develops appropriate regulations, ensures integration with regulations of other sectors, supervises implementation, and maintains the balance and competitiveness of markets in a manner that serves the objectives of digital transformation.

The Digital Government Authority focuses on digital transformation of the government sector by providing support in digital transformation; issuing regulations that enable such support; measuring the maturity level of digitally transformed government services; and overseeing the unification and integration of government platforms. The Authority also ensures the reliability of digital transactions and signatures through state-of-the-art technologies according to international best practices.

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Appendix (D)

ICT Sector Strategy

As part of its efforts towards establishing a robust and advanced digital infrastructure that contributes to accelerating digital transformation and following the guidance of Saudi Vision 2030, which aims to enhance the role of the ICT sector to build a digital society, a digital government, a thriving digital economy, and an innovative future for the Kingdom, MCIT prepared a strategy which was approved by the Council of Ministers in 1441 H. The strategy aims to develop digital and ICT capabilities in the Kingdom; to employ these capabilities in the service of sustainable development for the benefit of all segments of society; to ensure that the Kingdom keeps pace with the latest international developments in technology; to attract foreign investment in technology; and to attract international companies to invest in the local market.

The strategy is also concerned with promoting development activities and supporting the public and private sectors by accelerating and enabling digital transformation in all sectors, and cementing the Kingdom's position as one of the world leaders in digital transformation.

Endeavoring to create a comprehensive strategy for the sector on all priority areas, MCIT developed a strategy through four main stages: analyzing the As-Is status, identifying the To-Be state, outlining the strategy and detailing the implementation model. In As-Is analysis, the ICT sector was mapped out and technologies were classified into three main groups (communications, traditional IT, and emerging technologies). Additionally, stakeholders and sectors benefiting from the development of the ICT sector were identified, as well as the sector's enablers which will have an impact on beneficiary sectors.

In order to gain a complete picture of the current status, in preparation for developing the strategy, efforts were made to collect comprehensive data on the ICT sector, its contribution to the GDP, and the share of the ICT market and other markets within the sector of its total contribution. Further, benchmarking studies were conducted to compare the status of the Kingdom relative to other countries and global averages. Based on the results of the analysis and data collection, the gap to transit from the current status to the target status was identified, and requirements for the sector's development and improvement were determined.

MCIT is currently working on updating the ICT sector strategy, considering the developments caused by the COVID-19 pandemic, increasing reliance on technology in various institutions of public and private sectors, updating implementation plans for Vision 2030 realization programs, and also working on the priorities of the ICT sector for 2021.

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Appendix (D)

ICT Sector Strategy

The strategic plan included 3 main themes:

01 Transformation of telecommunications sector

02 Localization of technology and innovation

03 expansion of technology market

13 priorities were identified for the sector, consistent with the objectives of Saudi Vision 2030, and the strategy was directly linked to 7 Vision realization programs. The main targets of the sector strategy include the following:

SR 50 billion
Increase in the sector's share of the GDP

50 %
Increase in size of IT and emerging technologies market

50 %
localization ratio of jobs in the sector

To achieve these targets, the strategy included an ambitious action plan based on attracting leading international companies in areas that are key to emerging technologies; increasing the share of local content in the IT sector; improving technical skills of the local workforce in the field; enhancing technical and digital knowledge and awareness; advancing technological innovation by promoting research and development and the startup business ecosystem in the Kingdom; enabling the development of mega projects; and supporting coordination and concerted efforts between ICT-related entities in the public and private sectors.

The process of preparing the strategy also encompassed classifying 24 initiatives and connecting them to the strategic themes. The initiatives deal with key topics related to the development of the sector, such as boosting profitability, increasing competitiveness in the telecommunications market, stimulating demand for fixed broadband, localizing technologies, increasing local content, developing and improving digital skills, spreading digital culture, attracting leading international companies to the Kingdom, promoting the adoption of emerging technologies, and supporting mega projects in the sector. The initiatives were heavily studied and analyzed to determine the future impact of their implementation relative to ease of implementation, in order to set priorities for implementing the initiatives and to determine the expected return.

Transformation of the telecommunication sector	Localization of technology and innovation	expansion of technology market
Boost telecom market profitability	Create an entity that enables technology profitability	
Increase competitiveness in the fixed telecommunications market	Attract international companies to the Kingdom, localize their presence and increase their local content	Stimulate the private sectors reliance on IT in the Kingdom, localize IT presence and increase local content
Balance costs and availability of fixed and mobile broadband	Increase local content and support growth of local IT companies	Raise awareness about and encourage demand for emerging technologies
Stimulate demand for fixed broadband/ home fiber optics	Increase female participation in the ICT sector	
Enable 5G adoption	Set up clusters in key emerging technologies	
	Sponsor emerging tech companies and innovation ecosystem	
Enable access to broadband (incentive packages)	Attract leading companies in the field of key emerging technologies	
Localize data internet traffic and services	Improve policies and regulations to adopt IT and emerging technologies	
Develop and implement the strategy for National Frequency Spectrum	Facilitate doing business in the ICT sector	
Enhance the application of telecommunications systems	Improve digital culture	
Support the improvement of education system to enhance digital talents		
Rapidly develop workforce skills in the ICT field		
Enable the development of KSA mega-projects		

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Appendix (D)

ICT Sector Strategy

MCIT aligned its strategy with the ICT sector strategy and relevant Vision realization programs. The aim of the strategy is to enable MCIT to fulfill its role in leading the sector and providing a favorable regulatory environment that supports the provision of quality and reliable ICT services. It does so by providing a widespread and high-performance infrastructure to allow all segments of society across the Kingdom to take advantage of such services. Through the strategy, MCIT also seeks to strengthen and enrich the local technology market; to increase local content; and to build digital skills in all areas of technology in order to promote the development of the sector. In addition, it aims too increase localization in all sub-fields so that the ICT sector may become a regional and global leading sector.

To ensure the comprehensiveness of the strategy in all fields of concern to MCIT, 5 key themes were identified with the following objectives:

01 Enhancing telecom market efficiency

02 Promoting the localization and development of the technology market

03 Postal sector development

04 Develop digital capabilities

05 Achieve institutional excellence in MCIT

Enhancing telecom market efficiency

Enhance competitiveness and performance of basic telecommunications market, facilitate future growth opportunities, and upgrade telecommunications infrastructure to enable digital transformation.

Promoting the localization and development of the technology market

Stimulate the demand for IT and emerging technologies, raise the quality of IT and emerging technologies offered locally, and enhance the role of tech research and development in solving challenges in the public and private sectors.

Postal sector development

Transform the Kingdom into a regional center for postal services by providing excellent service, ensuring a smooth transition to digital technologies in the postal logistics sector, and enabling the growth of the e-commerce ecosystem. In addition, establishing a secure sector for postal logistics that is financially self-sufficient, with marginal impact on the surrounding environment, and a particular focus on benefitting from operators, however possible, to achieve efficiency, effectiveness and innovation.

Develop digital capabilities

This includes increasing the diversity and comprehensiveness of information and communications technology, aligning the education system with the digital age, improving digital skills, matching ICT skills to demand and supporting the growth of entrepreneurs and research capabilities.

Achieve institutional excellence in MCIT

Reach high levels of institutional professionalism in all administrative units and work processes across MCIT, in order to optimize its effectiveness, performance and processes.

To achieve the themes' desired targets, MCIT developed objectives and performance indicators to measure the performance of the strategy. The Ministry also prepared a governance model to track the implementation of the strategy and a plan for managing the transition internally and externally. The Strategy Management Office and Project Management Office monitor the strategy, its initiatives and its projects to ensure that it is implemented and that optimal results are attained. The Vision Realization Office, in turn, works to align the strategy, its initiatives and its projects with the Vision realization programs, and especially those that are directly related.

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Rank among top 20 digital innovative countries worldwide by 2030

Pioneering, advanced, citizen- oriented digital government

Enhancing telecom market efficiency	Promoting the localization and development of the technology market	Postal sector development
Enhance competitiveness and performance of basic telecommunications market	Stimulate demand for IT and emerging technologies	Transform the Kingdom into a regional center for postal services by providing excellent service
Facilitate future growth opportunities	Raise the quality of IT and emerging technologies offered locally	Ensure smooth adoption of digital technologies in the postal logistics sector and enable growth of the e-commerce ecosystem
Upgrade communications infrastructure to enable digital transformation	Enhance the role of technical research and development in solving challenges in the public and private sectors	Take maximum advantage of assistance from operators to achieve efficiency, effectiveness and innovation
		Establish a secure postal logistics sector that is financially self-sufficient and has minimal impact on the surrounding environment

Develop digital capacities	Promote diversity and comprehensiveness of ICT	Adapt education system to the digital age	Improve digital skills	Match ICT talent to demand	Support development of entrepreneurs and research capacities
Promote institutional excellence	Strengthen governance and institutional excellence	Empower employees	Drive digital transformation	Promote forward thinking	Establish partnerships

08

Appendix

Appendix (E)

Initiative cards of the Kingdom's Vision 2030 programs

National Programs Initiative Cards

National Transformation Program

Stimulate investment in fiber optic network deployment in urban areas

Actual percentage completed	% **96**
Target percentage as per plan	% **96**

Description of initiative

Scope of the initiative:
Stimulate investment in the deployment of fiber optic networks in urban areas in order to reach 60% of homes in the Kingdom through financial and organizational support, in light of the economic infeasibility of operator investment in such networks.

Targeted areas:
Urban residents (remote areas—towns and villages—are the target of a separate initiative). It is worth mentioning that by targeting urban areas, the Kingdom will reach its target coverage ratio, which is 60% of households.

Initiative contribution toward achieving strategic objective:
This target aims to increase internet penetration and speed across the Kingdom, thus contributing to the development of the digital economy.

Impact of initiative:
Improve quality of services provided online and growth of the digital economy in the Kingdom.

Deliverables:
Cover 60% of homes in the Kingdom with fiber optic.

08

Name of the initiative	Improve the quality and sustainability of internet services and develop an ICT sector-friendly environment by updating regulatory frameworks and licenses
Actual percentage completed	**95** %
Target percentage as per plan	**95** %

Description of initiative

Scope of initiative:
The initiative aims to increase local internet traffic by stimulating the role of neutral internet exchanges, which will contribute to improving the quality of internet services. This can be measured through tools and platforms that will be created to measure the quality of internet experience in the Kingdom. The initiative will also present a study to enhance the reliability and quality of the infrastructure and improve investment opportunities in hosting services on the national level. This will contribute to the growth of the digital economy in the Kingdom.

On the level of regulatory frameworks, the initiative aims to achieve the following:
- Conduct a review of the current regulatory frameworks to determine their suitability for market developments.
- Develop regulatory framework for quality of broadband services.

Targeted areas:
- Regulatory and legislative bodies in the Kingdom.
- Telecom and internet service providers.
- Global content delivery networks.
- Beneficiaries of internet services.

Description of initiative

Expected impact of initiative
- Provide an attractive environment to enable development of digital services.
- Contribute to increasing digital investments by global content companies.
- Boost demand for digital services by providing a neutral infrastructure.
- Provide information and data necessary for quality assurance.

Deliverables:
1. National frequency spectrum strategy to ensure availability of frequencies required for the provision of mobile broadband services
2. Plans to arrange frequency channels for 5G technology

08

Name of the initiative	Stimulate expansion of telecommunications services by providing frequency spectrum and simplifying licensing process
Actual percentage completed	% 100
Target percentage as per plan	% 100

Description of initiative

Scope of initiative:

Stimulating expansion of telecommunications services by providing frequency spectrum and simplifying licensing process. According to its implementation plan, priority was given to the necessary frequency spectrums to provide the frequencies required for telecommunications services of broadband used exclusively by certain military, security and civilian authorities. The scope also includes building a national strategy for the frequency spectrum, and developing the frameworks governing the partnership between the Ministry of Municipal and Rural Affairs and Housing and ICT service providers to facilitate the deployment of broadband services.

Targeted areas:

- Individuals
- Businesses
- Authorities (Military, security and civil)

Description of initiative

Expected impact of initiative

- Increase internet penetration to 95%

Deliverables

1. Prepare a national frequency spectrum strategy to ensure availability of frequencies required for the provision of mobile broadband services.
2. Plans to arrange frequency channels for 5G technology.
3. Develop partnership frameworks between the Ministry of Municipal and Rural Affairs and ICT service providers to facilitate broadband services deployment
4. Complete automating the process of sharing required information and frameworks organizing the work among the Ministry of Municipal and Rural Affairs, MCIT and service providers.

08

Name of the initiative	Stimulate investment in the deployment of telecommunications and wireless broadband services in remote areas
Actual percentage completed	% 98.5
Target percentage as per plan	% 98.5

Description of initiative

Scope of initiative:
Stimulate investment in basic telecommunications service networks for all remote areas in the Kingdom, and high-speed wireless broadband networks for 70% of homes in remote areas in the Kingdom, through financial and organizational support, in light of the economic infeasibility of operator investment in such networks.

Targeted areas:
Residents of remote areas in the Kingdom

Contribution towards achieving strategic objective:
The initiative contributes to increasing internet penetration and speed across the Kingdom, thus contributing to the development of the digital economy.

Description of initiative

Impact of initiative:
It contributes to the delivery of basic telecommunications services and broadband signal in remote areas, which will increase the coverage ratio by population and help raise the digital economy's share of GDP.

Deliverables:

1. Access to basic telecommunications services (internet and voice) in 100% of remote areas in the Kingdom.
2. Access to high-speed wireless broadband service by 70% of remote areas in the Kingdom.

08

Name of the initiative	Create a sustainable environment for advancing the ICT industry and keeping pace with rapid developments
Actual percentage completed	% 86.5
Target percentage as per plan	% 87.5

Description of initiative

Scope of initiative:

The initiative focuses on the development of a national information technology plan in coordination with the private sector to identify priorities, commitments and basic requirements; enhancement and development of the concept of local content in the sector; increasing the adoption rate of emerging technologies in the IT market; participating in government projects and skill-building activities; updating policies, guidelines and priorities relevant to the sector; and reviewing and updating sector-related legislation by:

- Enhancing the concept of local tech content and increasing its share of the sector by defining the concept, establishing a baseline of local content in the sector, and establishing a measurement mechanism. The goal is to achieve a rise rate of local content in the sector by 1% each year. In addition, we aim to achieve the target of localizing technologies and increasing the localization ratio in the IT sector through several other programs within the purview of this initiative. These programs include open-source software, evaluation of local products and services, quality certificates for local digital outputs and the Saudi Technology Program.

Description of initiative

- Efforts to develop emerging technologies in the Kingdom through specific programs to be implemented under this initiative, such as the Local Technical Transformation Program, the Emerging Technologies System Coordination Program, and to stimulate the development of technology clusters in order to enhance the sources of such technologies and the providers of these services. The initiative will also strive to achieve the objective of contributing to the adoption of these technologies in government institutions and other sectors to reach average levels in emerging technologies relative to global markets.
- Through the initiative, we aim to identify obstacles and offer supportive solutions for attracting international companies and enhancing cooperation with the private sector within the Kingdom. This directly contributes to the increase of local content and localization of technology outputs from international companies by creating an integrated vital ecosystem—including creating and setting up technology clusters and achieving regional development, which helps and maximize the local presence of international companies, bringing all kinds of regional hubs or excellence centers to the Kingdom.

Targeted areas:

The initiative targets several sectors including the public sector, the non-profit sector, the SMEs that operate in the ICT sector, all levels of the private sector, entrepreneurs, startups, local companies, leading, regional, international and global companies, specialists in technological fields and beneficiaries of technology services.

Contribution towards achieving strategic objective:

The local ICT Content Program aims to increase the sector's share of GDP by localizing technology and increasing the sector's contribution to local content. This is accomplished by establishing business models that stimulate the private institutions and help to increase local content in the sector. The Program also aims to overcome the obstacles facing the ICT sector through a policy of adopting local IT content and programs to stimulate local IT content, in partnership with the relevant authorities, to promote the concept of local IT content, and to increase the presence of local content in the sector by defining the concept and establishing a baseline measurement of local content in the sector.

08

Name of the initiative

Create a sustainable environment for advancing the ICT industry and keeping pace with rapid developments (Continued)

Description of initiative

The impact of the initiative revolves around several key themes, including:

- Development of local technology companies
- Attracting and localizing international companies
- Accelerating the adoption of technology
- Contributing to the development of emerging technologies
- Developing technology-related policies and legislation

Deliverables:

1. ICT industry development strategy. This deliverable was completed in 2018.
2. Market entry plan for the list of emerging and traditional technologies and industries. This deliverable was completed in 2019.
3. Plan for raising awareness about emerging and traditional technologies and their uses (conducting 6 technology-related exhibitions/events/awareness-raising workshops).
4. A program to support and develop the capabilities of IT SMEs (adopting technical solutions for 30 enterprises).
5. Update or create new sector-related legislation and policies (drafting 6 policies or statutes).
6. Business models to stimulate the use of emerging technologies (20 models).
7. Masdar Platform.
8. Agreements to attract international companies aimed at developing the tech industry (4 agreements).
9. Business models for localizing traditional technologies (12 models).

Name of the initiative

Launch shared smart systems and applications for government transactions

Actual percentage completed

% 58

Target percentage as per plan

% 58

Description of initiative

Scope of initiative:

The initiative of launching shared systems and applications aims to solve the challenge of raising the participation and access to information for beneficiaries of government services in order to move towards the concept of smart government by directly contributing to the OSI sub-index of the UN EGDI, the E-Participation Index (EPI), the Open Data Barometer (ODB), and to help build digital capacities of government agencies. This is accomplished by support¬ing and launching shared platforms, applications and services across government agencies, in order to achieve integration and increase the efficiency of cooperation between various government agencies.

Targeted areas:

Beneficiaries of government services (Kingdom's whole population), including G2C and G2G services.

Expected impact of initiative:

The initiative will increase government services, improving beneficiaries' participation and their access to information.

08

Name of the initiative	Implement effective governance and common standards for e-government and enablement of user experience
Actual percentage completed	% 53
Target percentage as per plan	% 56

Description of initiative

Scope of initiative:

The initiative aims to develop an effective governance framework and common standards to support government entities and enable efficient engagement with the population and corporate entities. The scope of the initiative focuses on appro¬priate solutions for implementing an effective strategy and common standards (e.g., developing the third operational plan, standards for government services and national enterprise architecture, and establishing IT fundamentals for government agencies) through e-government standards and policies and central resource system solutions (e.g., reference models at the national level, standardized enterprise architecture, and tools for configuring specifications and parameters for e-transaction projects).

This initiative will also directly contribute to developing an e-government by increasing the maturity level of government services and digitization of internal government transactions, through common standards applied across all government agencies. This includes increasing the de¬ployment and encouraging the use of e-government services, improving customer satisfaction with such services and reducing the cost of providing services. Government Electronic Services Observatory System 2.0 is building upon the Observatory System 1.0 to improve its use, efficiency and performance to develop a mechanism for monitoring government services within the system and measuring their maturity level. Also, a report is being prepared to measure government digital transformation and beneficiary satisfaction.

Description of initiative

Targeted areas:

- Government agencies

The expected impact of the initiative is closely linked to the following indicators:

- The Kingdom's ranking on the UN E-Government Development Index
- Maturity level of digital transformation in key government services
- Increased digital transformation level across government agencies

Deliverables:

1. A report on beneficiary satisfaction
2. The strategy of the third operational plan at the national level
3. National standards for digital government
4. National registry for government sector data
5. Policies for digital government
6. Government Electronic Services Observatory System 2.0
7. A report on measurement of government digital transformation
8. A study and report on the efficiency of software usage in government sectors

08

Name of the initiative	Launch government cloud and raise government integration level
Actual percentage completed	% 53
Target percentage as per plan	% 56

Description of initiative

Scope of initiative:
This initiative aims to enhance the level of integration of government electronic services and national platforms through activating the adoption of government and commercial clouds by government agencies. In addition, it will increase the number and type of services provided across government agencies by upgrading the Government Service Bus (GSB) and automating the linkage and exchange of services.

Targeted areas:
All government agencies.

Expected impact of initiative:
The initiative aims to increase and improve integration of government services.

Initiative contribution toward achieving strategic objective:
It will contribute to the UN index, increase savings and achieve the strategic objective of developing e-government.

Name of the initiative	Rationalize government expenditure and avoid duplication of IT investment
Actual percentage completed	% 56
Target percentage as per plan	% 61

Description of initiative

Scope of initiative:
The initiative seeks to increase the cost efficiency of e-government services by implementing several technical procedures with a view to developing e-government (e.g., develop and unify IT standards, consolidate IT resources, increase procurement efficiency, and apply unified and strategic procurement practices through framework agreements with private sector companies).
Its deliverables come in the form of preparing a strategy to benefit from shared government tech assets and establishing a technical structure for the IT system unified across government agencies, developing an electronic market platform, through which strategic procurement methods will be applied across all government agencies implicated in technical requests, and creating a code bank offering common and standardized software to be used by government agencies in their systems and programs.
In addition, it covers developing comprehensive and national strategies for adopting, developing, and using open source software, cloud computing, and common government tech assets, discovering technological solutions to implement and track the implementation of the national enterprise architecture through a sub-system of the national enterprise architecture framework at the level of government agencies. This contributes to the integration of IT systems and infrastructures, reducing the total cost at the national level and raising the quality and efficiency of electronic services. Finally, it focuses on developing the spend analysis by means of a government spend cube for all costs and expenditures of ICT projects in all government agencies.
Moreover, the initiative seeks to conclude framework agreements which consist of two phases: tech agreements with the providers of software and IT licenses and also with office tech hardware providers, in order to gain advantages and competitive pricing. The benefits are calculated based on cost saving values which are quantified before and after applying the framework agreements, which have a positive impact on the efficiency of e-government services.

08

Name of the initiative

Rationalize government expenditure and avoid duplication of IT investment (Continued)

Description of initiative

Targeted areas:

- Government sector in general, and the military sector through its procurement activities.
- Governmental agencies, by facilitating and accelerating technical procedures.
- The private sector, through its investment in IT.
- Society, by increasing local content ratio.

Initiative contribution toward achieving strategic objective:

The initiative was launched to contribute to the development of e-government, to face the challenge of excessive spending in government projects and the lack of technology governance, and to increase overall cost efficiency at the level of e-government services.

Expected impact of initiative:

The implementation of the projects and accomplishment of their deliverables will increase the efficiency of government services and the effectiveness and speed of service delivery by improving the overall cost efficiency of government services.

This approach is related to the development of e-government and the international ranking, two goals to be achieved through this initiative, in addition to realizing the following:

- Increased local content of government procurement.
- Increased participation ratio of the private sector in the public sector through PPP projects based on income sharing.
- Increased participation rate of SMEs in government projects.
- Increased opportunities for foreign direct investment through government projects.
- Sustainability in government investment.

Description of initiative

Deliverables:

1. Telecom Management Services (TMS) platform.
2. Cloud version of the Government Correspondence System.
3. National enterprise architecture system.
4. Government spend cube for the ICT sector.
5. Creation of a digital market platform.
6. A comprehensive government strategy to adopt, develop, and use open-source software.
7. National code bank platform.
8. Framework agreement (Phase I).
9. Activating digital market platform to support unifying spending and procurement.
10. Comprehensive government strategy for adopting cloud computing.
11. National strategy for benefiting from common government tech assets.
12. Framework agreement (Phase II).

08

Name of the initiative	Enhance the ICT sector's digital security
Actual percentage completed	% 84
Target percentage as per plan	% 84

Description of initiative

Scope of initiative:

The ICT sector is the cornerstone of our era due to the progress made by countries and the success achieved by modern commercial processes in this sector. Within the framework of the Saudi Vision 2030, which strives for sub¬stantial progress in the digital economy as the strongest building block in achieving major leaps for the Kingdom, the ICT sector is essential in achieving its ambitious aspirations. The biggest challenge facing the digital economy is the poor resilience of the ICT sector in the field of digital security. Therefore, it is imperative to enhance trust and build confidence in the digital economy at all stages and among the various segments related thereto, including shoppers, service providers and local or international investors.

Accordingly, increasing maturity levels of risk management, business continuity and digital security in the ICT sector becomes an urgent and indispensable requirement to advance digital processes, develop the digital economy, and make progress on related public and private programs and initiatives. These are the goals to be achieved by this initiative. The frameworks, policies, standards and models in the ICT sector resulting from the initiative's projects will identify digital security risks and a method for setting priorities based on the degree of the risk, the nature of the company's business, and the sensitivity of the services provided. These policies and standards will also ensure that there are plans for business continuity proportionate to each risk, which leads to overall coordination of effort and planning and to standardization of sector-related terminology.

This will contribute to raising the matu¬rity of companies' risk management in the ICT sector, in addition to raising business continuity maturity and digital security levels. Moreover, it will contribute to building confidence in the digital economy and enhancing reliability in the sector. As a result, the initiative supports the creation of an incubating environment ideal for attracting investments and increasing confidence in the digital economy, and its role in strengthening the macro economy.

Description of initiative

Targeted areas:

- Telecom service providers
- Internet service providers
- Data and hosting service providers
- IT service providers

Initiative contribution toward achieving strategic objective of developing the digital economy:

- A fundamental enabler to developing the digital economy by raising the confidence level in the digital economy.
- Raise the sector's capabilities of continuity and resilience, which enhances reliability in the digital economy.
- Increase reliability in the sector, which supports the creation of an incubating environment ideal for attracting investments.

Expected impact

The initiative boosts confidence level in the digital economy through:

- Boosting maturity level of ICT sector risk management
- Boosting business continuity maturity as well as digital security levels across the sector
- Increasing reliability in the sector, which supports the creation of an incubating environment ideal for attracting investments.
- Strengthening the impact of the digital economy on the overall economy.

Deliverables:

1. Use controls for computers and information networks of government agencies
2. A framework for digital security work in the ICT sector
3. A framework for digital security threat management in the ICT sector
4. Establishment and activation of an entity dedicated to address ICT sector digital security issues (Center for Digital Security and Risk Management)
5. A framework for management of digital security and business continuity risks across the sector. This supports the creation of an incubating environment ideal for attracting investments and boosting the confi¬dence level in the digital economy and its role in enhancing the economy overall.

08

Name of the initiative	Stimulation and adoption of digital innovation through support to entrepreneurs and local digital companies
Actual percentage completed	% 76
Target percentage as per plan	% 76

Description of initiative

Scope of initiative:
Provide support elements for the digital innovation ecosystem through the Initiative's programs, develop technol¬ogy entrepreneurship through facilitating access to target segments, skills, data and organizations, technology and support, markets, and finance.

Targeted areas:
- Students
- Entrepreneurs
- Researchers and entrepreneurs in startup ventures
- Digital startups

Initiative contribution toward achieving strategic objective:
The initiative contributes to the stimulation and adoption of digital innovation through support to entrepreneurs and local digital companies by providing an innovation-in¬cubating environment to stimulate and adopt digital ideas and solutions. Its goal is to build preliminary digital business models, establish digital startups and attract investments in tech.

Name of the initiative	Supporting government agencies to improve their response to the beneficiaries
Actual percentage completed	% 5
Target percentage as per plan	% 5

Description of initiative

Scope of initiative:
Equipping government agencies with modern technologies and channels specialized in interacting with beneficiaries' feedback, and making available systems that improve the performance of government agencies. In addition, the initiative focuses on supporting and supervising government agencies in implementing and employing the enablers developed by the Digital Government Authority.

08

Name of the initiative	Launch a comprehensive program aimed at spreading awareness and digital knowledge, qualifying national cadres with high efficiency to drive digital transformation
Actual percentage completed	% 94
Target percentage as per plan	% 94

Description of initiative

Scope of initiative:

Launch a comprehensive program to develop employable skills, addressing the gap between supply and demand for ICT field-related skills nationally, by offering training programs across the Kingdom, granting scholarships, increasing content and spreading tech awareness.

Name of the initiative	Develop strategy, roadmap and key enablers for digitalizing sectors of priority
Actual percentage completed	% 25
Target percentage as per plan	% 25

Description of initiative

Scope of initiative:

Activate and accelerate digital transformation by supporting priority sectors to maximize impact on the develop¬ment of the digital economy in the following ways:

- Developing digital transformation plans, outlining road maps for digital transformation of the sectors and provid¬ing support to sectors in activating the same
- Leveraging modern and emerging technologies to address national challenges, and clarifying the social and economic impact of applying the same
- Measuring digital transformation and the digital economy, and preparing periodic reports that clarify the chal¬lenges and opportunities related to national digital transformation within the various sectors
- Studying the legislative environment and business models, and providing support in building a solid digital infrastructure that supports the public and private sectors in increasing the share of the digital economy

08

National Industrial Development and Logistics Program Initiatives' cards

National Industrial Development and Logistics Program

Postal Logistics Development

Actual percentage completed	% 13
Target percentage as per plan	% 13

Description of initiative

Scope of initiative:
This initiative aims to organize the postal logistics sector, develop the competition system, apply the best international standards in the Kingdom, and launch the postal sector strategy by reviewing and understanding exceptional global experiences to keep pace with the rapid changes. This contributes to creating an advanced regulatory environment. This will improve the performance of logistics centers through the launch and implementation of a postal strategy and the establishment of an electronic platform specialized in the postal logistics sector. In addition, it will improve performance through approval of relevant postal legislation and regulations.

Target segments:
- Public and private institutions across the Kingdom
- The entire population of the Kingdom

Description of initiative

Scope of initiative:
The initiative contributes to establishing and improving the performance of logistics centers. It aims to develop the postal logistics services sector and e-commerce, raise the number of beneficiaries and increase the number of applications by enabling service providers in the sector, and achieving customers' satisfaction. This helps create an advanced regulatory environment to improve the performance of logistics centers and the efficiency of operations, regulations and legislations in the sector.

Impact of the initiative:
- The development of the efficiency of postal logistics and e-commerce services
- Increasing the number of beneficiaries
- Achieving beneficiary satisfaction

Deliverables:
1. Launching and implementing the postal services sector strategy.
2. Establishing an electronic platform specialized in the postal logistics sector.
3. Approved postal legislation and regulations.

08

Name of the initiative	Mining Digital Transformation
Actual percentage completed	% 0
Target percentage as per plan	% 4

Description of initiative

Scope of initiative:
This initiative seeks mainly to conduct a study of the current situation and explore the digital transformation opportunities in the mining sector to qualify the sector to adopt the techniques of the Fourth Industrial Revolution.

Name of the initiative	Assessment of Fourth Industrial Revolution adoption
Actual percentage completed	% 8
Target percentage as per plan	% 8

Description of initiative

Scope of initiative:
The initiative aims to assess the maturity level of the Fourth Industrial Revolution in the sectors of the National Industrial Development and Logistics Program. It does so by establishing and defining criteria to measure the level of institutions' adoption of the Fourth Industrial Revolution and the governance of roles and responsibilities in the process of measuring the level of maturity, creating activation plans to be applied by the program sectors, developing a mechanism for issuing annual reports, and cooperating with the private sector to lead the assessment of institutions and establish a baseline for the current level of maturity. This contributes to facilitating a decision-making process related to the lack of data and information, such as by identifying the challenges and obstacles that impede the digital transformation of institutions, and finding opportunities for the private sector by understanding the institutions' needs and how they can be best supported.

08

Name of the initiative	frastructure of Fourth Industrial Revolution
Actual percentage completed	%27
Target percentage as per plan	%31

Description of initiative

Scope of initiative:

It aims to provide the infrastructure for fixed and mobile communications, including fiber-optic network and mobile phone towers for the developed areas in 35 industrial cities under the umbrella of the Saudi Authority for Industrial cities and Technology Zones "Modon".

Quality of Life Program Initiative cards

QUALITY OF LIFE PROGRAM

	The Saudi Program for Electronic Games
Actual percentage completed	%20
Target percentage as per plan	%29

Description of initiative

Scope of initiative:

This initiative seeks to leverage the current MCIT ecosystem by establishing the electronic games track as one of the main tracks in the Saudi Digital Academy. This will increase and maximize the resulting impact by raising interest in and promoting a culture of innovation in the electronic games industry while training citizens to be able to design and program entertainment electronic games. They can do so in cooperation with the General Commission for Audiovisual Media and other beneficiaries.
The purpose of the track is to build and develop the digital capabilities in the Kingdom's electronic games industry. The creation of this track will also expand partnership models with companies producing electronic games, implement digital business accelerators to establish start-ups in the field of electronic games development, and increase the effectiveness of freelance work. Qualification programs will be implemented in cooperation with leading international bodies. The programs include the following:

- Program to enhance the culture of entrepreneurship in the field of electronic games (3 programs)
- Specialized distance training program (3 programs)
- Program for developing digital capabilities of young people in electronic games (3 programs)
- Intensive training camps program (3 programs)
- Program of digital accelerators and incubators specialized in developing electronic games (3 programs)

08

Name of the initiative	Development of Home Entertainment Sector
Actual percentage completed	%25
Target percentage as per plan	25.2%

Description of initiative

Scope of initiative:

It aims to develop home entertainment sector by integrating media, culture and communications sectors to unlock greater value by increasing content penetration and investments, as well as by expanding the coverage of broadband networks and maximizing the return of digital infrastructure.

Initiative contribution toward achieving strategic objective

Enhancing the Saudi contribution to arts and culture.

Description of initiative

Impact of the initiative:

- Enhancing additional investment flows to accelerate and develop the production of local content and reduce the leakage of media sector revenues raising local content revenue by 50%.
- Promoting local value and creating job opportunities for citizens to reach 21 thousand new jobs.
- Increasing revenues of the telecommunications sector by 10%.
- Reducing the required government investments by SAR 3 billion.
- Increasing the GDP of the media and communications sectors by SAR 10 billio.n

Deliverables:

1. Issuance of a policy guide for digital content market.
2. Issuance of the regulatory framework for the digital content market.
3. The launch of the national content platform.

08

National Industrial Development and Logistics Program Initiatives' cards

Privatization Program

Privatization Strategy of the ICT sector

Actual percentage completed	%6
Target percentage as per plan	%6

Description of initiative

Scope of initiative:

The initiative aims to stimulate the participation of the private sector in providing government services, which improves the quality of services in general and saves the governments incurred costs and effort to refocus on its legislative and regulatory roles. It seeks to attract more foreign direct investors, and improve the balance of payments in the ICT sector. It also aims to develop a privatization strategy for the ICT sector with a list of PSP projects, accelerating the transformation and privatization strategy of the Saudi Post Corporation.

The initiative contributes to achieving the strategic objective:

- Privatization of identified government services

Description of initiative

Impact of the initiative:

- Reducing costs and raising the efficiency of government spending to achieve target revenues
- Raising the quality, efficiency and inclusiveness of services
- Refocusing the government's efforts on its legislative and regulatory roles and engaging the private sector to reduce costs and share its expertise with the government

Deliverables:

1. The privatization strategy of the ICT sector.
2. List of ICT PSP projects.
3. Acceleration of Saudi Post's transformation.
4. Saudi Post's privatization strategy.

08

National Industrial Development and Logistics Program Initiatives' cards

National Transformation Program

Digital Entrepreneur Capability Development Program

Actual percentage completed	%4
Target percentage as per plan	%4

Description of initiative

Scope of initiative:

This initiative aims to prepare training programs to develop the skills of digital entrepreneurs and leadership skills. The programs cover all required digital, leadership and entrepreneurship skills including marketing, sales, product management and others. This goal is accomplished through the best international academic institutions, where the strategy and operational plans of the training programs will be developed and implemented.

Digital Skills Program for Adults

Name of the initiative	Digital Skills Program for Adults
Actual percentage completed	%1
Target percentage as per plan	%1

Description of initiative

Scope of initiative:

This initiative aims to prepare programs to develop basic skills for adults through online training, and to implement sustainable partnerships with the private sector and non-profit organizations. This will be accomplished through a comprehensive plan that includes a methodology to improve digital skills among adults. The program aims to qualify 6,250 national cadres of graduates through intensive training camps with a guarantee of employing 4,000 of them. They also provide professional training to 71,657 employees on digital skills needed for future, matching the requirements of the job market. The initiative further targets training 50,000 national cadres to raise the digital skills among citizens.

08

Appendix

Appendix (F)

Terms and Definitions

08

Appendix (F)

Terms and Definitions

Term	Definitions
Government Service Bus (GSB)	The Government Service Bus is a central platform for integration and interdependence between government agencies with regard to the necessary data and information. The Government Service Bus (GSB) is one of the forms of support and assistance provided by the Digital Government Authority to government agencies to provide their service electronically, in an integrated and easy way. This emanates from the concept that e-government transactions require all government agencies to provide their services, data and information necessary to complete the services provided by other government agencies.This all comes through the Government Service Bus (GSB).
Enterprise Architecture	It aims to align the business and information technology infrastructure in the entity by linking strategic objectives with business procedures, services and all other layers of institutional infrastructure (systems, data and technology infrastructure) and building a roadmap for transformation to the target situation with the governance of change and raising the efficiency of the entity's digital assets.
Information Technology Governance	Executive procedures that help to make the most of information technology; To achieve the objectives of the work system and expand its strategy.
Indicator	A tool to measure the development or progress reached by the implementation during a specific period of time.

Term	Definitions
Key Performance Indicators - KPIs	They are indicators that are used to measure the success of a particular field; for example: Reducing the time required to complete a transaction from a month to a day.
key Government Services	These are the services that represent the basic activities of an entity. Such as: the passport service provided by the General Directorate of Passports, the commercial registry service provided by the Ministry of Commerce.
Supporting Government Services	These are the services that support the main services of an entity.
E-Government Transactions (Also called e-government)	Effective integrated use of all information and communication technologies; To facilitate transactions between government sectors (government - government G2G), and those that link them to citizens (government - citizen) G2C, and business sectors (government - business) G2B.
Information Technology	It covers the manufacture of computers and their uses, the manufacture and development of software of all kinds, and related services such as education, training, consultancy, and digital content.

08

Term	Definitions
E-Commerce	The process of purchasing or selling via the Internet.
Electronic Services	Services provided electronically by means of communications using information technology.
The Transformation of E-government Transactions Measurement Indicator	It is an annual report that is submitted to the highest authority - prepared by the Digital Government Authority - showing the extent to which government agencies have converted to electronic transactions, according to the indicators contained in paragraph (22) of Cabinet Resolution No. (252) dated 7/16/1432 AH regarding support and strengthening the Transformation mechanism to the application of electronic government transactions. The sixth measurement includes two frameworks for measuring the transformation of government agencies:
Urban Areas	Population communities with a population of more than (5000) people. The Ministry is working to cover most of these areas with a fiber-optic network to provide high-speed Internet services.

Term	Definitions
Artificial Intelligence	Artificial intelligence is defined as the technology that enables hardware and software to analyze external data and the factors surrounding it, reach conclusions through them, and benefit from their conclusions to achieve the tasks and goals set for them through flexibility, adaptability, and variables. AI simulates human mental capabilities, such as learning, analyzing, and making decisions in situations different from the basic programming of a device or program. Artificial intelligence is considered one of the most significant emerging technologies, due to its potential to be used in many fields, as well as the ability of artificial intelligence to develop themselves outside the framework of their initial programming.
Open Data	Open data is that data that any individual can use freely and without technical or financial restrictions and also reuse and publish it, taking into account the requirements of the legal license under which this data was published.
Remote Areas	Population communities with a population of less than (5000) people. This classification does not impact the ministry's endeavor to provide the best services to these areas. MCIT has committed to provide high quality telecommunications and Internet services with a coverage rate of (100%) of the remote areas of the Kingdom.
Hackathon	An event that brings together programmers and others related to programming, such as designers, project managers and specialists in programming fields, with the aim of working intensively on programming and development projects in a specific topic and completing them during the hackathon period. Usually, these activities last for a day or several days with intensive work. These events are usually organized for educational or social purposes.

08

Term	Definitions
Blockchain	A modern technology mainly used to record, verify and encrypt digital transactions. It consists of a distributed database in which records (called "blocks") are stored sequentially and encrypted. This technology is distinctive due to the decentralization and distribution of the database, so that the records cannot be modified. This means that its data is reliable, and its encryption gives this data a high degree of security. This technology is usually used in financial transactions, especially in digital currencies, and it can also be used in any serial transactions such as issuing official documents, contracts and financing chains.
Internet of Things	It is a network consisting of physical objects, devices, structures, etc., with which electronic devices connected to the Internet are combined to enable it to collect and exchange data. This network enables things to be sensed and tangible so that they can be controlled remotely via a physical network infrastructure, thus creating opportunities for more direct integration of the real world into computer systems. This ultimately results in improved efficiency, accuracy, and economic utility.