UN-ESCWA
United Nations Economic and Social Commission for Western Asia

# *Tunisia Digital Development Review Report - 2019*

## *Towards Empowering People and Ensuring Inclusiveness*

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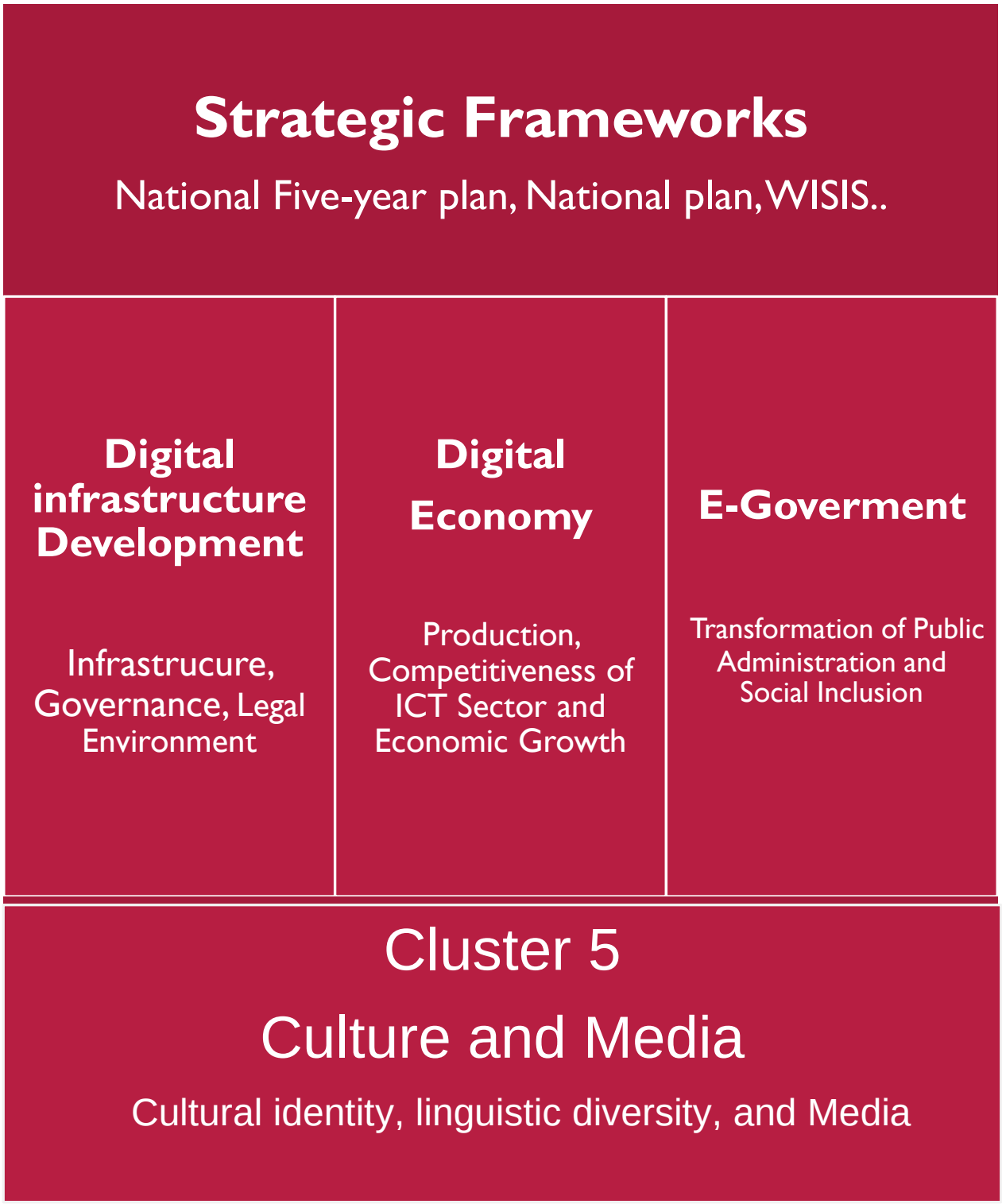
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# I. Cluster One: National, Regional and International Strategic Frameworks

## A. National digital strategies (The role of the government and all stakeholders)

| | |
|---|---|
| **Overarching National** Digital Strategy exists (like Digital Nation, Smart Nation, Digital Economy…etc.) | *Yes* |
| Name of the Strategy | *National Strategy "Digital Tunisia"*[1] |
| Year of adoption and latest update | *2016* |
| Government agency in charge | *Ministry of Communication Technology and Digital Economy*<br>*وزارة تكنولوجيات الاتصال* |
| Pace of implementation | *Average* |
| Description of progress made (about 150 words) | It was set up in 2016 after two national forums where the Ministry of Communication Technology and Digital Economy led discussions between government & public sector, private sector, academia and civil society to agree about a national vision. It was developed in order to position Tunisia as an international reference for digital development and an important lever for socio-economic development and to provide Tunisia with a technological infrastructure in coherence with modern economy. The Strategy is aiming at:<br>• Ensuring social integration and reducing the digital divide through better access to information and knowledge.<br>• Dissemination of digital culture through the adoption of ICTs use in educational curricula and digitizing pedagogic content.<br>• Ensuring that the use of electronic management in the service provision to citizens is fair, transparent, smooth and effective.<br>• Boosting the institutions' competitiveness in various fields by stimulating investment in ICT and positioning within the digital economy.<br>• Ensuring Tunisia's access to the digital world by establishing a regulatory framework, good governance and establishing an appropriate digital climate of confidence.<br>• Reducing unemployment, creating digital jobs, offshoring and helping to create and support distinct national institutions. |
| **Sectoral (ICT):** | *No* |
| ICT Sector strategy / plan exists | |
| Name of the strategy / plan | |
| Year of adoption and latest update | |
| Government agency in charge | |

[1] https://www.diplomatie.gov.tn/fileadmin/user_upload/11.pdf

| | |
|---|---|
| Pace of implementation | *N/A* |
| Description of progress made (about 150 words) | |
| **Other Sectors:** | *Yes)* |
| Digital Transformation strategy / plan exists (Digital Learning / Digital Health…etc. | |
| *(Repeat this section – 5 rows – as required)* | |
| Name of the strategy /Plan | *Smart Gov*[2] |
| Year of adoption and latest update | *2016* |
| Government agency in charge | *Ministry of Communication Technology and Digital Economy*<br>*وزارة تكنولوجيات الاتصال* |
| Pace of implementation | *N/A* |
| Description of progress made (about 150 words) | The "Smart Gov" strategy completes "Digital Tunisia 2020" with the open Gov and Open Data strategy, which is led by the Prime Minister. The new e-government strategy, "Smart Gov 2020", has just been unveiled. Funded by the AfDB to the tune of 500 million dinars, this system is structured around 5 main pillars. The first pillar targets the re-engineering of administrative processes in the service of the citizens. The second pillar concerns programs comprising the various information systems of the administration and all that relates to the flow of information between different administrations, such as the electronic management of correspondence. The third pillar focuses on the reform of the information systems of all sectors in order to integrate the e-government system, while the fourth pillar is linked to the new services that e-government will provide to citizens. The last pillar obviously affects the Open-Gov, which will allow Tunisia to climb on the scale of the main destinations for investments. |
| Name of the strategy /Plan | *Digital Health Strategy* |
| Year of adoption and latest update | *2019* |
| Government agency in charge | *Ministry of Health*<br>*وزارة الصحة* |
| Pace of implementation | *Good* |
| Description of progress made (about 150 words) | Digital Health Strategy is led by the Ministry of Health and is currently in progress since the connectivity component reached about 70% of the health institutions and the information system component is being implemented in some pilot institutions. To address the sector challenges, the Ministry of Health has planned a set of national projects and programs which are:<br>• The acceleration of the deployment of the National Health Network - New Generation (RNS-NG) and the upgrading of local IT infrastructures within health establishments: the base program for all digital health projects<br>• Modernization of the Health Information System in Tunisia<br>• Hospital Information Systems upgrade program<br>• The development of tele-services (tele-appointments, online directories, mCessation, mHealth, etc.) |

[2] https://en.africanmanager.com/tunisia-smart-gov-2020-modernization-of-administration-on-track/

| | |
|---|---|
| | • The development of territorial approaches to e-health and telemedicine experiments<br>• Support of the DPM (Department of Pharmacy and Medicines) and the LNCM (National Laboratory for Medicines Control) in their digitization strategy. |
| Name of the strategy /Plan | *Digital School (l'Ecole numérique)*[3] |
| Year of adoption and latest update | *N/A* |
| Government agency in charge | *Ministry of Education*<br>*وزارة التعليم* |
| Pace of implementation | *N/A* |
| Description of progress made (about 150 words) | Digital School (l'Ecole numérique) that is led by the Ministry of Education and that has different components such as schools' connectivity, information systems, capacity building. The Strategy's implementation is in progress where about 5000 educational institutions are connected to internet and national educational content. About 1500 schools will be connected within the two next years. Regarding content & services, the National Centre of Education Technologies (CNTE) is offering tools for school management and collaborative work between administration and teachers from one side and between administration with parents from another side (informing parents instantaneously of the attendance and the grades of their children, as well as the school activities). Developing a global information system for education is in progress. |

# B. National Engagement in International and Regional Cooperation Initiatives

## *1. WSIS Follow-up*

Tunisia, is a pivotal country in pursuing the commitment of the implementation and follow-up of the WSIS outcomes from 2005 to 2015 at the national, regional and international levels. Tunisia has been actively involved in the implementation of the WSIS 11 action lines.

In this context, Tunisia, as a member of the United Nations, has ratified the relevant resolutions of the United Nations General Assembly and its commitment to follow up the implementation of:

- ✓ The Sustainable Development Agenda 2030, by resolution 70/1 of 25 September 2015.
- ✓ The Program of Action for the 2025 World Summit, in accordance with resolution 70/125 of 16 December 2015, which endorsed the following recommendations:
  - Meet the WSIS commitments and work program set for 2025.
  - Reducing the digital divide as a major challenge to efforts to implement and follow up the Summit Program and Outcome.
  - Harmonize the WSIS program (11 action lines) and the 2030 Sustainable Development Agenda, which includes 17 goals to promote economic, social and environmental issues.
  - Establish legal and regulatory arrangements to adapt to technology evolution and new markets dynamics and to enable all stakeholders to play their roles.

[3] http://www.ecolenumerique.tn/

The Government of Tunisia is aware that harnessing information and communication technologies to achieve the goals of sustainable development and bridging the digital divide, in particular access to knowledge, requires greater, sustainable investment in infrastructure and services, capacity-building, R&D and transfer of technology. This is complemented with the Government's ongoing efforts to increase investment with adopting innovative tools and framework.

## *2. Other related Frameworks (other than WSIS)*

At the regional and international levels, there are several initiatives and cooperation activities with international and regional organization where Tunisia is actively involved:

Tunisia has been selected as a member of the ITU Network of Centres of Excellence (CoE) for the period 2015-2018 by hosting two ITU CoE nodes for the Arab region:

- The Centre for Studies and Research of Telecommunications (CERT) which provide training on interoperability and conformity test for ITU Arab member countries.
- The Centre for Information, Training, Documentation and Studies in Communication Technologies (CIFODE'COM)..

Moreover, the Tunisian Internet Agency (ATI) has also been accredited by the ITU as the manager of a root server for the Digital Object Architecture (DOA).

In the field of smart cities and IoT, Tunisia, represented by the City of Kairouan and Bizerte, has conducted a pilot project "ITU KPI for Smart Sustainable Cities" which aims to measure the intelligence and sustainability levels of the city and determine the positioning of the city compared to other cities in the world. This was done with reference to a global sustainable smart cities development index, whose key performance indicators are in synergy with the United Nations SDGs.

Regarding cybersecurity, the National Agency for Computer Security (ANSI) organizes periodically, with the collaboration of the ITU, cyber drills for the Arab region.

Also, Tunisia is an active member of the Open Government Partnership, where Tunisia works for promoting open government, information access, participation and accountability using ICT tools. In this regard, a Tunisian Open Government Partnership (OGP) portal[4] was launched online in addition to a national open data portal[5] / and a national portal of public consultations[6].

[4] http://www.ogptunisie.gov.tn

[5] http://www.data.gov.tn

[6] http://www.e-participation.tn

# II. Cluster Two: Infrastructure, Governance and Legal Environment Policy Areas

## A. ICT Infrastructure

### *1. Market structure and regulatory landscape*

The telecommunications market in Tunisia is characterized by the presence of four operators (Ooredoo, Tunisie Telecom (TT), Orange Tunisie and Lycamobile); three of them benefit from a global license to provide fixed and mobile phone, and internet services (2G, 3G, 4G).

In December 2017, a new infrastructure operator entered the telecommunications market in Tunisia. It will be responsible for setting up a very high-speed infrastructure then make it available to its exclusive customers, other telecom operators and internet service providers.

The telecoms market has continued to expand since the sector was liberalised in 2001, with the mobile segment leading the way. According to a report by The National Telecommunications Authority (INT) in the fourth quarter of 2018 the sector expanded by 12.4% year-on-year (y-o-y). This increase was largely driven by mobile internet and fixed-line data, which grew by 24.8% and 28.3%, respectively. At the end of 2018 total revenue from telecoms stood at TD2.8bn ($972.5m), a 3.7% increase on TD2.7bn ($937.8m) in 2017. Mobile subscriptions generated TD2.1bn ($729m) in 2018, with 87% of these being residential rather than business subscriptions. Meanwhile, the data segment accounted for nearly 45% of total market activity and is set to expand further as penetration rates continue to rise. However, revenue generated by fixed-line telephone subscriptions fell 7.8%, suggesting that Tunisians are increasingly favouring mobile options[7].

#### 1.1. Mobile market

By the end of 2018, the mobile penetration rate was about 148.6%, where71.8% for Ooredoo and more than 38% for both TT and Orange Tunisie. It worth mentioning that these figures show that a large proportion of mobile customers have more than one SIM (dual SIM or even more).

Moreover, the penetration rate for smartphones was more than 76%.

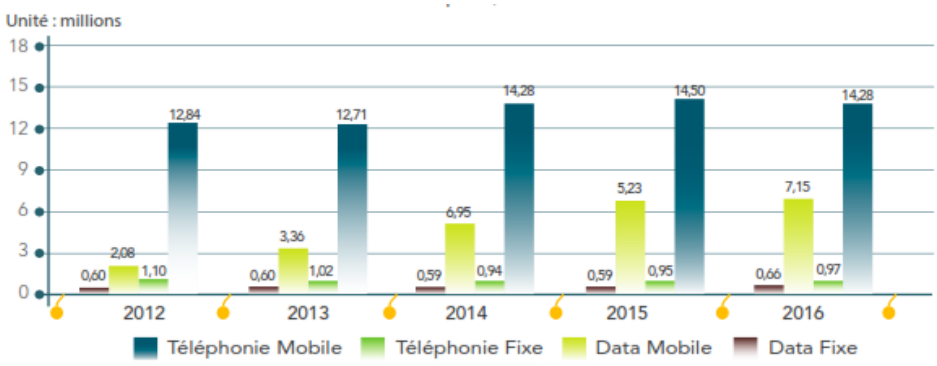
#### 1.2. Fixed telephony

According to the INT, in April 2019 the total number of fixed-line subscriptions stood at 1.36m. Although this represents a 15.5% y-o-y growth, revenue from fixed-line telephone subscriptions has fallen in recent years as mobile phones become more popular. However, the number of fixed-telephone lines in Tunisia increased by around 937,000 between 2015 and 2017, despite high prices as a result of tax duty increases. Nevertheless, voice usage has fallen in recent years, from 69m minutes in April 2017 to 56.8m minutes in April 2019. This is expected to continue given the increasing number of voice services offered by online providers such as Skype and WhatsApp.

In terms of the structure of the overall market, in April 2019 the main fixed-line network, Tunisie Telecom, continued to dominate with a 75.2% share, followed by Ooredoo with 17.8% and Orange with 7%. Although

[7] https://oxfordbusinessgroup.com/overview/digital-drive-expanded-mobile-and-internet-services-support-ongoing-sectoral-growth

Tunisie Telecom remains the most significant player, Ooredoo had increased its share by 10 percentage points between March 2017 and March 2019[8].




Evolution of the number of subscriptions to fixed and mobile telephony and fixed and mobile data

## 1.3. Internet services

For Internet penetration, fixed lines Internet reached more than 84% of the population and mobile Internet penetration was about 76% by the end of 2018.

## 1.4. Regulatory landscape and status of telecom licenses

The National Telecommunications Authority (INT) was established in 2001 according to Art. 63 of the Tunisian Telecommunications Code as a specialized body, legal person with financial autonomy.

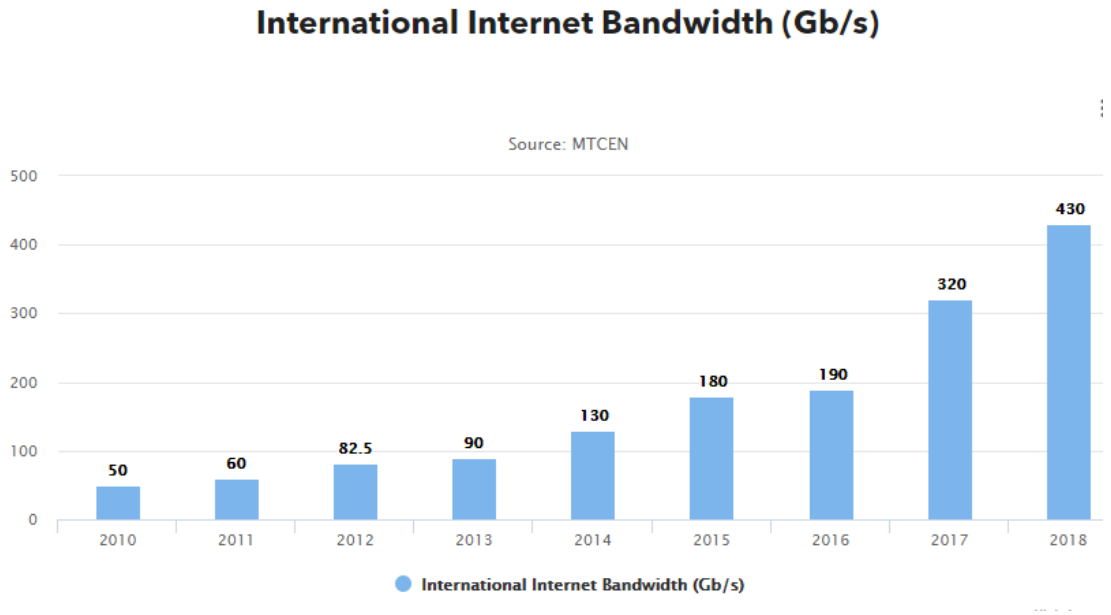
The INT enjoys in practice a certain level of independence from the government, which would provide it with exclusive jurisdiction over the regulatory tasks assigned to it by the Telecom Code and ensure functional separation from the governmental bodies. Also, financial independence is considered to have a positive impact on INT's autonomy as regulator.

| **Telecom Service** | **Status of regulatory landscape** | **List all awarded telecom licenses** |
|---|---|---|
| Mobile services | *Competitive* | 3 operators (2G, 3G, 4G) |
| Internet services | *Competitive* | 6 public ISPs<br>6 private ISPS |

[8] https://oxfordbusinessgroup.com/overview/digital-drive-expanded-mobile-and-internet-services-support-ongoing-sectoral-growth

## *2. ICT Infrastructure by Service Type*

The evolution of the International Internet bandwidth (Gbit/s) in Tunisia is described by the following diagram:




Following a trend of strong growth across the region, the number of mobile subscribers in Tunisia increased from 4.7m in 2008 to 8.8m in 2018, reaching an individual subscriber penetration rate of around 75%. In April 2019 the INT estimated that the total number of active mobile connections – used within three months – reached 14.6m, equivalent to 125.3% of the population. The majority of subscribers, at 89.7%, used pre-paid SIM cards, with the remainder using post-paid plans. Approximately 90% of mobile connections were private residential users and the remaining 10% were businesses[9].

The Tunisian landscape of the in-service ISPs includes11 ISPs: 6 public ISPs (ATI, CNTE, CCK, CIMSP, CMF, IRESA) and 6 private ones (GlobalNet, TopNet, Bee, Hexabite, Orange Tunisie, Ooredoo Tunisie).

Tunisia's broadband and mobile internet subsector is overseen by the MTCEN. As of April 2019, there were around 1.1m fixed-line broadband subscriptions, increasing 22.4% y-o-y and representing some 36% of households. Although fixed line offers faster connection speeds, mobile internet is significantly more popular, with around 8.7m subscribers in April 2019. In terms of network coverage, 100% of Tunisia is served by 2G, and 3G connection is available in around 99% of the country's territory, while 4G is available in 75% of Tunisia. However, connectivity to mobile broadband is still lagging behind. In April 2019, 55.8% of Tunisian mobile users were able to access mobile broadband, and only 5.5% were connected to either 3G or 4G, according to the INT. The quality of Tunisia's mobile internet remains inconsistent, which is one factor preventing the wider uptake of 3G and 4G networks[10].

Moreover, Tunisie Telecom is bringing ultra-broadband throughout North Africa, using a combination of fiber and copper-based technologies. Tunisie Telecom already uses fibre-to-the-home (FTTH) and VDSL2 services from MSANs deployed traditionally. but to serve customers in hard-to-reach areas like rural regions, these approaches were too costly or otherwise inappropriate. Instead, sealed outside plant (OSP) DSLAM solutions offered a cost-effective, powerful alternative to provide residential and enterprise customers with next-generation broadband in fibre-unfriendly areas.

[9] https://oxfordbusinessgroup.com/overview/digital-drive-expanded-mobile-and-internet-services-support-ongoing-sectoral-growth

[10] Ibid

Some key indicators can give clearer idea about internet in Tunisia, as shown below:

| Indicator | Value (09/2018) | Latest Year (2017) |
|---|---|---|
| Mobile phone penetration (percent) | 148.76 | 144.87 |
| Percentage of households with Internet access | - | 44.5 |
| International Internet bandwidth (Gbit/s) per Internet user | 430 | 320 |
| Percentage of the population covered by mobile networks | | |
| - At least 3G | 64.05% | 59.09% |
| - At least LTE/WiMAX | 10% (families) | 4.5% (families) |
| Fixed-broadband subscriptions by speed tiers as a % of total fixed-broadband subscriptions | | |
| - 256 Kbit/s to 2 Mbit/s | ≤ 1Mbit/s 0,4%<br>2 Mbit/s 1,4% | ≤ 1Mbit/s 2%<br>2 Mbit/s 2,0% |
| - 2 to 10 Mbit/s | 4 Mbit/s 58,0%<br>8 Mbit/s 32,4% | 4 Mbit/s 67,4%<br>8 Mbit/s 24,8% |
| - 10 Mbit/s or more | 12Mbits/s 6,0%<br>≥ 16 Mbit/s 1,5% | 12Mbit/s 3,6%<br>≥ 16 Mbit/s 1,4% |

In light of the implementation of the National Strategy "Digital Tunisia", the following progress has been achieved regarding the main projects in the infrastructure cluster:

- A National broadband network for an integrated administration (RNIA) was developed (from 2-4Mb to 100Mb), connecting about 600 administrative sites (the administration secured Intranet).
- A NOC (Network Operation Centre) project was completed and it is operational in the National Computer Centre (CNI) to monitor the SLA of the National RNIA
- The implementation of "White Zones", or universal connectivity, project is on progress (50% completed). The project's objective is to connect the isolated and unconnected areas in Tunisia (gamma zones) with 3G/4G connectivity. The project is expected to be completed by July 2019.
- The National Broadband network for integrated local authorities project is in progress (10% achieved)
- The ANTIDDOS National Platform
- The National Data Classification Repository was accomplished. The implementation in the public institutions is in progress.

## *3. ICT connectivity*

As part of the implementation of the National Strategic Plan "Digital Tunisia 2020" that aims, among other objectives, to strengthen broadband infrastructure in Tunisia, a number of digital infrastructure projects are set to achieve this objective:

- ✓ The National Integrated Network of the Administration (RNIA) - that extends to the headquarters of the ministries and their affiliates, the regional directorates, the public institutions, the sectoral centres of information technology, the governorates, as well as the municipalities and their districts - aims mainly to interconnect government/administrative sites to ensure the high quality of services and high availability of the public information systems, the continuity of the services provision in the event of disaster (back-up centre), the interconnection of the different sectoral networks and the facilitation of the deployment of collaborative work applications.

  RNIA will also guarantee a better quality of communication services to the administration, and will offer VOIP, videoconferencing and internet services, while ensuring a better optimization of the costs of the communication networks.

- ✓ The National Integrated Network of local authorities (municipalities) project that extends to all the local authorities' headquarters (can reach about 900 sites) and provide them a national broadband network with the same objectives of RNIA project
- ✓ The "white area access" project which is currently in progress (more than 50% of progress) whose objective is to cover the gamma areas (the isolated and unconnected areas) with broadband connectivity.
  It is among the most important projects of the Ministry of Communication Technologies and Digital Economy. It provides network coverage of these digitally isolated areas. "*Tunisia is the only state that has enshrined the right of access to information in the Constitution." In this context, 94 imada will be covered. This number could reach 112. This initiative is part of the positive discrimination approach. "These areas have significant opportunities for economic development".*

These projects complement the sectoral projects such as The National health institutions' network, which is in progress (70% is connected with VOIP service), the postal network (The postal offices are 97% connected to the postal network and internet) and the National Network for Education which is in progress (5000 sites are connected from a total of 6500).

### *4. Internet Architecture*

To connect to the global internet and telephone network, Tunisia relies on several optical fiber submarine cable routes:

- ✓ Cable SEA-ME-WE 4, set up in 2005 and managed by a consortium of 16 national operators including Tunisie Télécom, interconnects among others the ground stations of Bizerte and Marseille;
- ✓ KELTRA-2 cable, set up in 2007 and co-managed by Sparkle TI and Tunisie Télécom10, interconnects the two Kélibia and Trapani land stations with a transfer capacity of twice ten gigabits per second (shared between the two operators);
- ✓ HANNIBAL cable, 170 kilometres long between the Kelibia and Trapani ground stations and with a capacity of 3.2 terabit per second, is the first 100% Tunisian cable belonging to Tunisie Télécom and put in place in 2009.
- ✓ Didon Cable, jointly operated by Orange Tunisie and Ooredoo following the signing of a partnership contract with Interoute in May 2013 and linking the cities of Mazara del Vallo and Kelibia, entered into operation on 18 September 2014; the theoretical throughput of the cable can be up to 18 terabits per second.

The capacity of the international Internet bandwidth is 430Gbps (by the end of 2018).

## *5. Domain name management and adoption*

In accordance with the regulations in force, INT is in charge of the management of the national numbering and addressing plan, particularly in its addressing part which defines the structure of domain names allowing access to internet services.

The role of INT is to ensure efficient and transparent management of domain names in accordance with international standards and norms as well as the guidelines of international organizations in charge of domain names and best practices in this area.

A decree was promulgated on December 2009 approved the national plan of numbering and addressing, which opened the possibility of registration of domain names ".tn" for individuals and legal persons. the mandate of the INT in this regard revolves around the following aspects:

- **Administrative management** and the development of the national policy and strategy for internet domain names based on the recommendations of the respective international organizations. INT represents the Tunisian government within the Governmental Advisory Committee (GAC) of ICANN which brings together representatives of states and international organizations such as the International Telecommunication Union (ITU) and the World Intellectual Property Organization (WIPO),

  The INT is responsible for the development of reference documents relating to ".tn" domain names, in particular the ".tn" naming charter which defines the structuring of domain names, the conditions for registration and the use of these domain names as well as the related dispute resolution procedures.

- **Dispute resolution** and the establishment of the rules to be applied for the resolution of domain name disputes taking into account the directives issued by the international organizations in charge of domain names. This includes the choice and definition of alternative procedures used to resolve disputes over domain names and selecting entities authorized to resolve such disputes.

- **Framing of contractual relations** Including the conclusion of an agreement with the Registry under which the latter is responsible for the technical management of information systems relating to domain names in coordination with the international organizations concerned, and the approval of the model agreement that the Registry concludes with the registrars of domain names.

Arabic ccTLD was implemented several years ago and in February 2019 the number of DNS .تونس reached around 316 names.

| | |
|---|---|
| Name of ccTLD registrar | *Name in English:* Internet Tunisian Agency,<br>*Name in Arabic:* الوكالة التونسية للإنترنت |
| URL of registrar | (www.registre.tn |
| Total Number of ccTLDs registered in the country for the years 2015, 2016, and 2017. | 2015: 235<br>2016: 255<br>2017:299 |

All the details related to the Arabic DNS management and registration are described in the following URL: http://registre.tn

# B. Governance

## *1. Public/Private Partnership (PPP), Multi-Sector Partnership (MSP) and Role of Non-Governmental Organizations*

### PPP approach in Digital strategy governance

A key example of a PPP approach in digital strategy governance is the Strategic Digital Council that is chaired by the Prime Minister. The Council is in charge of the governance of the National Strategic Plan PNS Tunisia 2020. In order to have an effective governance, several criteria have been taken into account while formulating and running the Strategic Digital Council, as follows:

- The involvement of the private sector and civil society
- The high-level support from the political leadership (the government presidency) to maximize the chances of successful implementation and ensure effective inter-ministerial coordination.
- The leadership of the Ministry of ICT for implementation.

### PPP Mechanisms

The main mechanisms of PPP initiation at the national level are national forums and round tables which are organized to initiate and maintain discussions about national important issues where all stakeholders are represented (Government, private sector, academia and civil society).

### The General Public Private Partnership Authority (IGPPP)

A public authority, the IGPPP, was created that is specialized in concession and public-private partnership contracts under the supervision of the Presidency of the Government, whose objectives are to minimize the risks and strengthen the capacities of public persons in terms of concession contracts and partnership contracts[11].

## *2. Participation in Internet Governance activities*

The Tunisian IGF Forum has been initiated since 2013. The activities of the National Forum for Internet Governance are supervised by a group of experts operating in the various fields related to the internet, known as the Multi-stakeholder Advisory Group (MAG).

The Multi-stakeholder Advisory Group (MAG) is composed of 12 elected members representing different national stakeholders, distributed as follows:

- State and public institutions (3 members)
- Civil society (3 members)
- University and technical communities (3 members)
- Private sector (3 members)

[11] http://www.igppp.tn/fr

# C. Legal environment, ethics and building trust (C2, C5, C6 and C10)

### *1. Legal and regulatory environment*

The telecom law is currently in the process of being updated and the draft document was the subject of three public consultation rounds and it is now being consulted by the Presidency of the Government before it is being submitted to the Assembly of People's Representatives (ARP). The draft of the document is available at the URL:

https://www.mtcen.gov.tn/index.php?id=291&tx_ttnews%5Btt_news%5D=3640&cHash=a531d2bb14506825d777d16cf1e6126f

The intellectual property is governed by the law 38/2009 relating to the IPR and the national system of standardization and the Decree no. 1083/2011.

In Tunisia, there is a national institute, the National Institute for Standardization and Industrial Property (INNORPI) responsible for the national system of standardization. The Institute's main mission is to:

- certify the conformity of the products and grant the right to use the national marks of conformity to the standards in the different domains.
- manage quality labels and grant the right of their use. Decree 85-665 of 27 April 1985, and its amendments, introduced the certification system for the national mark of conformity to Tunisian standards as well as its principle and the methods of application.

| **International Treaties and Conventions on Intellectual Property** | **Adopted (Y/N) or Observer** | **Year of Adoption** |
|---|---|---|
| WTO | Yes | 1995 |
| Paris Convention | Yes | 1984 |
| PCT | Yes | 2001 |
| WCT | No | |
| Madrid Agreement | No | |
| Hague Agreement | Yes | 1930 |
| PLT | No | |
| TRIPS | No | |

A number of regulations were implemented since 2000 to meet the requirements in terms of e-transactions, e-signature law, e-payment, e-commerce and PKI management. All the details relating to these regulations are described below:

| *Moreover,* **Cyber Laws** | **Law reference** |
|---|---|
| e-transactions law<br>(since 2001) | Order of 19 July 2001 of the Minister of Communication Technologies and the Digital Economy setting technical data on electronic certificates and their reliability.<br>Order of 21 February 2018 relating to the amendment of the order of 19 July 2001 on the fixing of the technical specificities of the visible electronic seal. |

| | |
|---|---|
| | Decree No. 2639/2008 laying down the conditions and procedures for the importation and marketing of encryption means or services through telecommunications networks.<br>Government Decree No.1066/2016 setting the conditions and procedures issuing electronic invoices and their archiving. |
| e-signature law<br>(since 2000) | Decree No. 2331/2000 establishing the administrative and financial organization and operating procedures of the national electronic certification agency TUNTRUST<br>Decree No. 1667/2001laying down the procedures for obtaining authorization to carry on the activity of the electronic certification service provider.<br>Order of 19 July 2001 of the Minister of Communication Technologies and Digital Economy setting the technical characteristics of the device for creating the electronic signature. |
| e-payment<br>(2005) | Law No. 51/2005 on the Electronic Transfer of Funds |
| e-commerce<br>(2000) | Law No.83/2000 relevant to e-commerce |
| Management of PKI available<br>(since 2000) | By the ANCE (National Agency of Electronic Certification) |

### *2. Privacy and Data protection*

Tunisia was a forerunner in its region in the field of personal data protection. The Data/privacy protection law was published in 2004[12]. The constitutional consecration in 2014 of the protection of privacy has put this protection at the forefront of rights and freedoms to be guaranteed by the new republic. According to article 24 of the 2014 Constitution "the state protects then right to privacy and the inviolability of the home, and the confidentiality of correspondence, communications, personal information".

Moreover, Tunisia becomes in November 2017 the 51st State member of the Convention 108 of the Council of Europe. In March 2018, a new draft law on the protection of personal data was introduced to the parliament in accordance with the new European GDPR.

The Tunisian National Authority for the Protection of Personal Data (INPDP) has established and promoted the culture of personal data protection in the Tunisian society.

Currently, more than 80 cases are identified due to serious violations of the 2004 law.

### *3. Countering misuse and preventing abuse of ICTs*

In 2010, a cybercriminal law was published in Tunisia. Also, On August 7, 2015, the Tunisian Parliament passed Law 26 of 2015 on combating terrorism and money laundering. The Law replaces a 2003 law on the

[12] https://www.cdp.sn/sites/default/files/doc/Recueil_INPDP.pdf

subject and was passed in response to a number of terrorist attacks against foreigners and law enforcement officials that have taken place over the past few months.

In addition, a number of measures were taken for the prevention, detection and prosecution of cyber-crime and misuse of ICT such as:

- In 12 November 2013, a decree was published by the Ministry of Information and Communication Technologies announcing the official creation of the Technical Telecommunications Agency (ATT). This agency has a main task to watch over the good integrity of the networks and to preserve the electronic communications against the cyber-crimes. ATT is responsible of ensuring the security of the national telecommunication network against hacker/terrorist attacks.
- A national anti-DDOS platform is being implemented and it is planned to have it ready in mid-2019 by the ANSI to prevent the attacks (including distributed denial of service attack website, mail server, complete platform).

### *4. Use of electronic transactions and documents*

Electronic documents are used in the Tunisian government. There is a national electronic document system called "Elissa" which guaranties the official use of the electronic documents between ministries and public authorities' departments.

In addition, in 2016, the Government issued Decree No. 1066/2016 to set the conditions and procedures for issuing electronic invoices and their archiving. In this regard, Tunisia TradeNet provides a service called "EL Fatoora ©" to Tunisian companies to issue their electronic invoices.

### *5. Online and network security*

There is a national security strategy that is integrated into the PNS (Digital Tunisia 2020). Its implementation is currently in progress.

Tunisia established its national Computer Emergency Response Team (CERT) that works to help the internet community to make appropriate use of IT technologies and systems, to promote high level training in the various branches of information systems security and to facilitate communication between professionals and experts working in the field of information system security[13].

Moreover, sectoral CERTs (in the social, financial and educational fields) were also implemented to offer the necessary assistance to citizens and professionals free of charge regarding all problems relating to the security of information systems and ensures the availability of appropriate means for the protection of the national cyberspace. It also aims to inform and educate the national community about security threats and guide them on how to protect themselves.

The National Computer Security Agency (ANSI) is making a lot of efforts in providing the general public, and especially families and children, with a set of recommendations, tips, tutorials and computer support to help users discover the digital world and better understand the actual use and secure the computer and the internet.

National guidelines are published about secure internet & computer use at the following URL: https://www.ansi.tn/fr/assistance/liste-article-et-guide-assistance

[13] https://www.ansi.tn/fr/tuncert/presentation

Regarding the applications that facilitate online transactions, the Tunisian Post offers a merchant kit to integrate on e-commerce sites that allow a secure online payment. In fact, E-DINAR is a secure electronic payment solution on the internet. This solution is an electronic payment platform using bank cards and prepaid cards of the Tunisian Post.

Monétique-Tunisie is also a company that operates under the Tunisian private law, specialized in the design, integration, operation and outsourcing of electronic payment solutions. Furthermore, the National Electronic Certification Agency put the necessary tools to ensure online transactions such as SSL certificates and periodical security audits, in line with Law No. 5 of 2004.

# III. Cluster Three: Digital Economy, Employment and Trade Policy Areas

## A. Building the ICT Sector

### *1. ICT Firms*

a. Telecommunications Companies

In the Telecommunication sector, there are 3 operators (Tunisie Télécom, Orange Tunisie et Ooredoo) with a global licence (fixed, mobile 2G, 3G, et 4G with internet services) and a new wholesale infrastructure operator (Level4).

b. Content Firms and software companies (Local and national digital content development)

More than 220 SMEs are operating in ICT sector, in different categories like:

- Search engine design
- Free software development
- Software development on customer specifications
- Bitcoin mining (Miners provide security and confirm Bitcoin transactions.)
- Software testing services
- Computer systems testing services
- Software implementation services
- Project modelling services
- Computer programming services

### *2. R and D, Innovation and Standardization in the ICT sector*

To boost innovation in digital technologies, particularly these are to be applied in other sectors such as agriculture, transport, health, etc., the Ministry of Communication Technologies during 2016 carried out preliminary studies about boosting IoT.

In 2017 and 2018, about 38 licences were granted to IoT operators to be able to develop IoT-based services based, which is considered a key initiative to boost smart cities development as well as innovation in health, agriculture and local government.

Tunisia has produced a large set of incentives, in particular national programs, and financial measures supporting the National Innovation System inception. An attempt to gather all stakeholders and to produce a common ground for a coherent Innovation Agenda was undertaken by the creation of the National Agency for the Advancement of Scientific Research (ANPR) in 2008, with the mission to support interface agencies involved with scientific research, to assist the R&D programs and initiatives implementation, to facilitate the Tech Transfer through collaborative projects and the PPP. The ANPR mission has been consolidated by the PASRI project, which produced a very wide and useful corpus of knowledge to enable an Innovation Policy and the strategy formulation for an effective national information system[14].

## *3. Government facilitation, Investments and Financing the ICT sector*

### The Start-up act programme

The start-up law in Tunisia targets all sectors and gives tax benefits and many other advantages to start-ups in all sectors and especially in ICT sector

The start-up law is an unprecedented legal framework dedicated to start-ups and supported by the Tunisian Government[15]. It has been developed in a participatory and collaborative way including all stakeholders of the entrepreneurial ecosystem in Tunisia under the supervision of the Ministry of Communication Technologies and Digital Economy.

### Fund of funds

Investment plays a major role in the economic and social development process, whether in terms of wealth creation, entrepreneurship building or job creation. This Fund is a new mechanism that will complement the start-up program and aims to support and develop entrepreneurship in Tunisia. It will be used to finance innovative companies. It will start operating with more than 200 million dinars of capital.

It will be created in collaboration with international financial institutions since the conventional banking system and conventional financing methods cannot ensure optimal support for the overall transformation of the economy, especially in relation to innovation.

A draft of an overarching law (with about thirty articles), that will cover all sectors and aims to remove all obstacles to investment, has already been drafted and will soon be submitted to the parliament after a national consultation with all stakeholders.

### Smart Tunisia programme (a talent hub and growth partner for Europe, middle East and Africa)

"Smart Tunisia" is a program for offshoring companies with the ambitious goal of creating 50,000 jobs in the areas of Offshoring, Nearshoring and Colocation.

"Smart Tunisia", as part of a Public-Private Partnership, is responding to the revitalization of offshoring through the provision of incentive mechanisms in order to converge the labour demand and supply.

### R&D centres

A real example of PPP initiatives is the creation of incubators in the technological poles and other incubators in R&D centres, such as those of the and Intilaq innovation centre (innovation & business hub).

14 https://archive.unescwa.org/sites/www.unescwa.org/files/page_attachments/tunisia_science_technology_and_innovation_landscape_analysis.pdf

15 https://www.startupact.tn

There are several examples of similar programs with the Ministry of Vocational training and the Ministry of Education which are implemented through a PPP approach in cooperation with international companies (e.g. telecom operators and Microsoft)

**The Communications, Information Technology and Telecommunications Development Fund**

In December 2013, a Communications, Information Technology and Telecommunications Development Fund was created to finance:

- Operating and investment expenditures of public bodies involved in the field of communications, information technology and telecommunications
- State participation in public projects and programs in the field of information and communication technologies
- State participation in private sector projects and programs in the field of information and communication technologies.

**The International Technology Card (CTI)**

It is a government facilitating tool that allows access to international electronic payment platforms. It is an International prepaid payment card, for individuals and enterprises, allowing young developers and communities who are active in the fields of information and communication technologies to develop technological solutions and new digital applications.

## B. Economic Impact of the ICT Sector

### *1. Contribution of ICT sector in the national economy*

The ICT sector is in continuous growth and had contributed almost 7.5% of the GDP in 2017. The ecosystem consists of more 1,800 companies spread mainly over Greater Tunis area and the coastal cities and employs nearly 80,000 people[16]. The evolution of the contribution of the ICT sector to the GDP in Tunisia is described as follows:

| **ICT sector contribution to national GDP** | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|
| | 4,5 | 4,8 | 5,2 | 5,1 | 5,4 | 4,9 | 4,7 | 4,6 | 4,3 |

### *2. Trade in ICT goods and services, and ICT-enabled-services (e-Trade)*

ICT goods exports (% of total goods exports) in Tunisia was reported at 4.2411% in 2019, according to the World Bank collection of development indicators, compiled from officially recognized sources[17]. In 2019, ICT goods imports for Tunisia was 5.5%. Though Tunisia ICT goods imports fluctuated substantially in recent years, it tended to increase through 2000 - 2019 period ending at 5.5% in 2019[18].

[16] https://tia.gov.tn/storage/app/media/ARGUMENTAIRES/TIA_TUNISIA_ICT/TIA_TIC_2020.pdf

[17] https://tradingeconomics.com/tunisia/ict-goods-exports-percent-of-total-goods-exports-wb-data.html

[18] https://knoema.com/atlas/Tunisia/topics/Foreign-Trade/Import/ICT-goods-imports

## 3. E-business

Tunisia's interest in e-commerce was very early compared to the countries of the region. Indeed, the year 1999 was marked by the creation of a national e-commerce commission charged in particular with setting up a strategy of development of the sector and proposing solutions to the problems related to this new activity.

The work of this commission led to the promulgation of the law no. 83/2000. This law established a regulatory framework of the exchanges and the e-commerce in accordance with the best practices adopted in the world.

To boost the e-commerce activity, the Ministry of Commerce has established a task force with a PPP approach, in order to propose a clear roadmap for the promotion of e-commerce in Tunisia, taking into account the results of a survey on the purchasing behaviour of Tunisians on the internet.

Two national secured electronic payment solutions are offered in Tunisia:

- The Secured Solution of the Tunisian Monetary Company (SPS)
- E-Dinar Plateform (Tunisian Post)

| Laws/services | Available | Law number | Year Passed |
|---|---|---|---|
| e-banking services | *Yes, for services* | | |
| e-commerce law | *Yes* | *83* | *2000* |
| Name other laws on e-services | | | |

In light of the implementation of the National Strategy “Digital Tunisia”, the following progress has been achieved regarding the main projects in the e-business cluster:

- A mobile payment platform is in progress.
- Start-up development: A new law titled "Start-up Act" has been enacted in order to promote the growth and development of start-ups, to meet the expectations of the talented Tunisian youth and to create a conducive ecosystem to the development and financing innovative ideas and projects characterized by a high proportion of risk in the investment.
- Smart Tunisia[19]: a major national program to support the growth and development of digital investment, to foster the IT ecosystem, create the best ground to create and value innovative IT champions in Tunisia and abroad. With the objective of creating 50,000 jobs by 2020, there are already 6000 jobs created in the two last years.

## 4. Employment in the ICT Sector

Several initiatives have been launched by the MTCEN encouraging job creation; we notice in particular:

**Promulgation of Law No. 20/2018 on Start-ups, which help:**

- ✓ Generate high value-added jobs for Tunisian graduates;
- ✓ Enable Tunisian start-ups to succeed regionally & internationally and make Tunisia a leader in innovation;
- ✓ Incorporate technological innovation to further stimulate economic growth;

[19] http://www.smarttunisia.tn/about-us/

- ✓ Revive hope among young Tunisians and remedy the brain drain;
- ✓ Improve the image of the country, restore and strengthen trust with investors.

**mDev/TunCode Project**

This project is a real success and a champion in the field of development of mobile applications that targets the Tunisian youth and particularly in the rural areas.

Its objective is to develop 200 diverse digital talents through a specific training for new ICT graduates from all regions of Tunisia. It is done 100% remotely via an online training platform (MOOCS), supported by online tutors. Equipped premises, at the level of cyber parks (possibly), made available to candidates in each of the 24 governorates. As a result of the project, 5 Start-ups have been successfully established in their regions. The Other participants in the program are in the process of seeking funding for their projects/start-ups. The rest (about 60%) are working freelance.

#### *5. E-employment*

No information available

# IV. Cluster Four: Digital Transformation and Social Inclusion Policy Areas

## A. Inclusive and Empowering Access to relevant information, knowledge, applications and Content

### *1. Inclusiveness (access): Availability, Development, Affordability, and Adaptability*

**a) Availability and Affordability**:

The Ministry of Women, Family and Child Affairs provides, using ICT tools, counselling services for women and girls who are victims of violence. Some services to notice such as:

The website SOS Femmes Violences[20] which is intended for women who are victims of violence or vulnerable in Tunisia. It constitutes a directory, categorized by sector of intervention (health, security, justice, social, civil society, specific centres) of the services offered by the government and civil society to women victims of violence in each of the 24 governorates.

Ahmini platform: a platform that aims to enable women working in agriculture to access the social security and retirement schemes via a mobile application.

**b) Development and Adaptability**

No Information available

[20] http://www.sosfemmesviolences.tn/

### c) Means of Access - Availability of adequate access through various channels

No Information available

### *2. Empowerment (use): Educational, Entertainment, Political Engagement, Economic Returns*

No information available

## B. Capacity building on ICT4D/Digital Development

### *1. ICT in Education and Training (including e-Learning)*

**Primary and secondary education**

"Madrassati" is a national platform characterized as the digital space for the primary schools, which was developed by the National Centre for Technology in Education. It includes around 3200 schools. This space is dedicated for schools' staff (directors and teachers) as well as for parents and students who can interact with their teachers and have access to multimedia resources and to a virtual library. Also, "Madrassati" services are provided through a mobile application.

In addition, open and free educational portals are available to provide educational resources. The below are some examples:

- Ecole Numérique, which is a space of digital resources for the benefit of students[21].
- The National Pedagogic Centre[22] provides, through its portal, many electronic services oriented to students such as the digital content for different school levels, the digital maps related to topics of history and geography in addition to some digital stories.
- The eTwinning Programme[23]: Within the framework of cooperation with the European Commission (Erasmus+ program of EU), the Ministry of Education joined the eTwinning programme. Indeed, eTwinning Plus offers a platform for school staff (teachers, school heads, etc.) where it aims to support teachers and administrative staff of different countries to exchange and establish pertinent projects. This platform allows also an e-learning space[24] which aims to facilitate communication between teachers and with students, given that each subscribed teacher could communicate remotely with his students and develop projects with them, exchange ideas and share work. Currently, more than 1100 teachers from more than 400 schools are subscribed and working on more than 1,000 projects.[25]

The schools' network in Tunisia includes more than 5000 educational institutions. The Ministry of Education and the National Centre for Technology in Education with the cooperation of the Ministry of Communication Technologies are working to connect the rest of schools, about 1500 institutions, with various technologies such as FO, ADSL, 3G key, VSAT, ...

[21] www.ecolenumerique.tn

[22] http://www.cnp.com.tn/arabic/index.htm

[23] http://www.etwinning.tn/

[24] http://www.learn.etwinning.tn

[25] http://www.bestofjoomla.com/component/option,com_bestoftemplate/Itemid,46/

### Higher education

- The Tunis Virtual University (UVT)[26], a scientific and technological public institution created in January 2002, has its main mission is to develop online courses and university programs for Tunisian university students. The UVT provides its students with vocational courses adapted to their economic, social, national conditions. UVT provides several online learning program and academic courses with diploma/certificates recognized by the State. Among these degrees:
    - **Masters of training** : Professional Masters in New Technologies and Telecommunications Networks "N2TR", Professional Master in Integrated Management: Quality, Safety and Environment "MPQSE", Professional Master in Neuro-Radiology and Neuroimaging Diagnosis "MP2ND", Professional Master in Ecotourism "MODECO", and Master of Research in sustainable management and development of Animal Resources "VAGDRA".
    - **Other degrees** : Degree in Applied Management "LAM" (L1, L2, L3), Degree in Applied Sciences and Technologies of Information and Communications "LASTIC" (L3), Degree in Applied Electronics Marketing and Digital Strategies "LAMESN" (L3), Fundamental License in Management Accounting "LGC" (L3), and Fundamental Degree in Electronics and Optics e-Learning for Embedded Systems "EOLES" (L3).
    - **Qualifications**: Computer and Internet Certificate "C2i", TOEFL Certification, IBM Academic certification.

- Tunis Business School[27] that was established in 2010 and it provides courses in both physical and virtual modes. Tunis Business School provides courses and modules that cover:
    - Computer sciences: web development and computer science.
    - Languages courses: German and others.

- Regarding continuing e-learning opportunities, the Center for Information, Training, Documentation and Studies in Communication Technologies (CIFODE'COM) provides an e-learning platform for professionals and students since 2000[28].

### Libraries of e-content

Several e-content and virtual libraries are available online and managed by the Ministry of Higher Education, such as:

- University Resources Library[29]
- Portal of the National University Center for Scientific and Technical Documentation[30]
- Portal of the Ministry of Higher Education related to theses and dissertations[31]

[26] http://www.uvt.rnu.tn/

[27] http://e-learning.tbs.rnu.tn/

[28] https://elearning.cifodecom.com.tn/

[29] http://www.bu.turen.tn/v-ar/services.php

[30] http://www.cnudst.rnrt.tn/index.html?accueil_fr

[31] http://www.theses.rnu.tn/

### *2. Targeted Training Programmes (for capacity building in the use of ICT4D)*

- **The Center of Training and Decentralization Support** established a platform of e-learning for civil servants at the national level and for local government to build the capacity and enhance the skills of civil servants for public work. This is through training programs, workshops, research, reports and helping in projects implementation[32].
- **The National Centre for Continuing Training and Professional Promotion** offers an open School of Workers which is a platform intended for professionals[33].
- **The Tunisian Post** developed a platform dedicated to its civil servants to enhance their capacities and skills[34].
- **Program of Digital Centers for the Empowerment of Women[35]:** This program was implemented as part of a public-private partnership between the Ministry of Women and Orange Foundation in Tunisia. It aims to implement an ICT training program for women entrepreneurs. Until 2017, 13 rural and urban digital centers were set up for the benefit of 550 women at Kef, Ain Drahem, Kairaoun, Mahdia, Zaghouan, Granombalia, Kasserine, Bizerte, Takelssa, Akouda and Siliana.

## C. ICT applications

### *1. E-Government*

The number of e-Government services by 2018 was about 250 services, as follows:

- G2G (Government-to-Government) interaction between local and central governments: 10 services
- G2C (Government-to-Citizen) delivery models and government portals: 173 services
- G2B (Government-to-Business) interaction between local and central government and the commercial business sector: 67 services

The e-government services are still need to be improved, but it is expected to undergo a quantum leap since the Ministry of Communication Technologies is currently implementing the national interoperability platform that will facilitate and synchronize the G2G information sharing, where citizen will not need to submit any information or documents multiple time since they did once before at one of the government bodies that will be linked together.

A success story that is important to be highlighted is related to Elissa government application (a project for digital transformation of the government that falls within the National Strategic Plan "Digital Tunisia 2020")[36] that was implemented in seven pilot ministries and will be rolled out to all the ministries by the end of 2019. It is a collaborative application that supports the electronic document management and transfer between all government departments. The main outcomes of that are the efficiency of administrative mail processing, time saving, cost saving and environment protection (less use of paper and fuel in mailing transfer).

32 http://www.efad.cfad.tn/moodle/?lang=en

33 http://eot.edunet.tn/eot/fiche.php

34 http://www.postelearning.poste.tn/fr/index.htm

35 https://www.fondationorange.com/The-first-two-digital-centres-in-Tunisia-have-been-opened#:~:text=In%20Tunisia%2C%20like%20in%20other,providing%20them%20with%20career%20options.&text=The%20women%20who%20use%20the,them%20with%20greater%20economic%20independence.

36 https://www.neoledge.com/eu/neoledge-microsoft-country-partner-2019/

Moreover, an e-procurement portal[37] was established in 2013 that aims to enhance transparency, equality, and efficiency through introducing online public procurement services. Since 2018, it became mandatory for public institutions to adopt this portal instead of traditional procurement.

The adoption of this portal is expected to lead to an important impact at the national level in term of:

- Increasing transparency, fairness and efficiency of work through monitoring the entire procurement process.
- Enhancing industrial competitiveness due to increased competition in procurement.
- Establishing international standard of system of list of products through the application of UNSPSCI.
- Supporting the political decision-making using statistics on public procurement.

**Centres of public services:** These are administrative centres located in isolated and rural areas which offer assistance and a number of public services to the citizens of nearby areas. Around 44 centres of services" have been established. The project's target is to reach 100 centres of services. A new initiative is being developed with the concept of "mobile cantre of services" which is based on offering public services in rural areas using an equipped small bus. The service bus moves around small cities offering the service in a timely manner.

**e-people platform[38]:** Public administration is helping citizen through BRCs (Bureau of Relationship with citizen) which exists basically in every public office and it assists citizens and addresses their questions and issues with the administration. A platform called e-people (www.e-people.tn) was developed, in conjunction with Korean International Cooperation Agency (KOICA) - to link all BCRs and offer a portal for participation and interaction between the Administration and users. It mainly includes various communication channels for citizens to express their needs, submit their petitions, suggestions or inquiries online. The e-people platform also provides information and enables citizens to reinforce the Administration's performance and to improve the services quality.

In light of the implementation of the National Strategy "Digital Tunisia", the following progress has been achieved regarding the main projects in the e-Gov cluster:

- National Unique ID: the national ID register is created. The technical upgrade of the information system is in progress.
- The creation of the Interoperability Platform is in progress. The Platform includes legal & organizational framework as well as the technical platform of the interoperability between the public information systems.
- Digital payment for the national public procurement platform (Tuneps) is in progress.
- Electronic Document Management System for the administration in a private national cloud is completed for 6 pilot public authorities including the Prime Minister Office, Ministry of Cooperation, Ministry of Communication Technologies and Digital Transformation (MTCEN), Ministry of Vocational Training and Employment (MFPE)….). The roll-out to the rest of the ministries is in progress.
- The national cloud project: The feasibility study and the work plan of the project has been accomplished.

### *2. E-health*

Information systems for patient care management, digital record keeping, pharmaceutical management and others related to health applications are implemented in pilot hospitals like Habib Thameur Hospital. The National Centre of Public Health is managing the national health databases and applications[39].

[37] www.tuneps.tn/index.do

[38] www.e-people.gov.tn

[39] http://www.cims.rns.tn/

# V. Cluster Five: Culture and Media Policy Areas

## A. Cultural identity and linguistic diversity

The Government, through various institutions under the supervision of the ministry of Cultural affairs, is working to preserve the Tunisian cultural heritage. An electronic platform "Agenda Culturel" [40] was implemented. This portal includes all activities and news on the cultural field (music, dance, audio-visual arts, fine arts, theatre and dramatic arts…).

In addition, the Centre for Arab and Mediterranean Music "Ennejma Ezzahra" established an electronic portal for the National Sound Archives[41], which aims to collect, process, preserve, restore, enhance and disseminate the entire Tunisian phonographic heritage.

Moreover, other historical institutions use ICT to promote the national heritage. In this context, the Agency for the Development of National Heritage and Cultural Promotion centralizes all information related to the monuments, museums and archaeological sites through an e-platform, where the visitors could access all national heritage's websites and information. Regarding, museums, most of them have websites aiming at providing all information about them. It allows also virtual visits, such as the museum of Bardo[42]. Furthermore, The National Heritage Institute (NHI) is in charge to preserve and restore the archaeological sites, historic monuments, etc. NHI provides via its electronic platform[43] all information and details related to these sites as well as several explanatory videos to explain the history of some Tunisian regions.

For the national archives, the institution of the national archives allows through its portal presentation of the preserved heritage such as the documentation of the post-occupation period, the independence and other historical events. Access to this heritage is physically by visiting the national archives, with the possibility to do a virtual visit through its website[44]

In Tunisia, each government institution should develop and put online an official/institutional website in which all information are put online. Also, this website must be coupled with social networks pages namely facebook, twitter, youtube, etc. The objective is to ensure more dissemination of information. This also applies to the cultural institutions. Indeed, visiting a cultural website allows obtaining reliable information, given that each website is managed by an official institution in charge of predetermined domain. The reason to link each website with social network is to simplify the access of visitors and reach the maximum of the target audience. It is possible today to establish simple and interactive ways aiming at preserving and displaying the national heritage such as the virtual visits, explanatory video, bookmarks, interactive maps and mobile applications.

These digital ways enable to improve the social awareness and promote the cultural activities at the national and local level (cultural events, festivals, visit to monuments and museums,) and therefore create an economic return for the country.

[40] http://www.agendaculturel.gov.tn

[41] www.phonotheque.cmam.tn

[42] http://www.bardomuseum.tn/

[43] http://www.inp.rnrt.tn/

[44] http://www.archives.nat.tn/index.php?id=3&L=l

# B. Media

### *1. Media diversity, independence and pluralism*

At the institutional level, Tunisian constitution established a constitutional authority in charge of audio-visual communication "the High Independent Authority of the Audio-visual Communication (HAICA)". HAICA is mandated with the regulation and mediation of the media sector.

| Media outlets | Language(s) | Ownership | | | |
|---|---|---|---|---|---|
| | | Private | Mixed | Government | Foreign |
| Newspapers | Arabic & French | | 15[45] | | |
| Electronic newspapers | Arabic & French | | 27[46] | | |
| Magazines | | | | | |
| News agency | | | | | |
| Radio stations[47] | Arabic & French | 59 | 9[48] | 8 | |
| Television stations | Arabic | 10 | | 2 | |

There are two main public centres for media education and professional training, the IPIS[49] and ACTJC, which are engaged in upgrading their installations to ensure that students are able to gain skills and experience in digital production.

Also, The African Centre for the Training of Journalists and Communicators is a public structure under the supervision of the Presidency of the Government that provides training and support for the benefit of journalists and communicators.

**Legislations governing the media sector**

Since the Tunisian revolution, a solid legal framework has been implemented to support freedom of expression:

- The Constitution of 2014 guarantees the freedom of opinion, thought, media and expression according to Article 31, Chapter 2
- The Constitution of 2014 stipulates the establishment of an independent authority charged to regulate the media sector according to Chapter VI, Section2
- Law No. 115/2011 on freedom of the press, printing and publishing
- Law No. 116/2011on freedom of audio-visual communication and the establishment of an Independent High Authority for Audio-visual Communication (HAICA)
- Organic law No. 22/2016 on the right of access to information

[45] The number is approximate

[46] According to Alexa ranking in 2015

[47] Figures are approximate and taken from the site www.tunisie-radio.com

[48] 9 associated radio channels

[49] http://www.ipsi.rnu.tn/eng/home

## 2. The media and its role in the Information Society

The media with its various types has an important role in the information society in Tunisia. The diversification of media means or channels (radio, newspapers, magazines…) aims to reach the largest audience in society. Firstly, media is a basic way of communication through it citizens are informed about public policies and public affairs. By archiving and disseminating the cultural heritage (sound, films, documentary...) of a country, people could know more about the history of their country and it will be possible to preserve this history for the future generation. The multiplication of media means facilitates the access and dissemination of the information, given there are several information sources. Citizen could check the reliability of information. Also, it will improve the neutrality and credibility of information, where each media mean should work to obtain the trust of the citizens. Therefore, citizens will be more involved in the public decision-making through the media sector that will discuss public affairs and public policies. Citizens could assess the politicians and decision makers through information disseminated by media and relevant to the public affairs

Moreover, and despite the evolution of new types of media through using ICT, the State cannot neglect the role traditional media. It maintains the coverage of TV and radio frequencies so that all social categories can access information. For instance, in Tunisia, The National Broadcasting Corporation (NBC) has a monopoly on terrestrial broadcasting distribution, where the analog network of services of public television reached 99.8% of homes in Tunisia. NBC operates one hundred transmission and retransmission sites distributed throughout the country. In addition, Tunisia invested forty million dinars to develop the Digital Terrestrial Television network (DVB-T) and infrastructure of DTT is in place for about 90 % of the population.

## 3. Convergence between ICT and the media

No information available

## 4. Social Media in the Arab World

With the evolution of ICTs, social media networks have emerged as a communication channel given it is considered as a simpler and easier for users. Also, Social media has a crucial advantage for professionals in terms of its low operational cost. The dissemination of information is simpler via the social media as it can reach a large number of audiences including the marginalised groups who can, have access to the information. In Tunisia, more than 84% of the citizens used the internet in 2018, which reflects that social media and ICTs could make people more informed and more involved in the public life.

# Appendix 1

## Table 1 - Core indicators on the ICT (producing) sector

| Core indicator | | Definitions and notes | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| ICT1 | Proportion of total business sector workforce involved in the ICT sector (expressed as a percentage) | *ICT workforce* (or ICT employment) consists of those persons employed in businesses that are classified as belonging to the ICT sector. *Total business workforce* represents all persons engaged in domestic production in the business sector. In a national accounts framework, employment can be measured in terms of headcounts, jobs, full-time equivalents (FTE) or hours worked.<br>For countries using ISIC Rev. 3/Rev 3.1 (or national equivalents), the ICT sector is defined per the OECD's 2002 definition. This can be found in Box 1 and is discussed in detail in OECD (2007).<br>For countries using ISIC Rev. 4 (or national equivalents), the ICT sector is defined per the OECD's 2007 definition. This can be found in Box 2 and is discussed in detail in OECD (2007).<br>The total business sector is defined on an activity (industry) basis per ISIC Rev. 3.1 as divisions 10–67 and 71–74. It therefore excludes: agriculture, hunting, forestry and fishing; real estate activities (because a significant proportion of the value added of the latter consists of imputed rent of owner-occupied dwellings); and, community, social and personal services (which consists mainly of non-market activities such as public administration, education and health services).<br>For countries using ISIC Rev. 4, the total business sector is not so easily defined. It will most likely include the equivalent divisions 05 to 36, 41-66, 69-82 and 95. Discussions are ongoing on whether it should include some industries that were not included in the Rev. 3.1 definition of the total business sector (divisions 37-39, 90-93 and 96).[50] | 0.8%<br>(24451/2777574) | 0.85 %<br>(22407/2628142.4.4) | 0.88 %<br>(21030/2621443.3) |
| ICT2 | ICT sector share of gross value added (expressed as a percentage of total business sector gross value added). | *Gross value added* for a particular industry represents its contribution to national GDP. It is sometimes referred to as GDP by industry and is not directly measured (but is estimated in a national accounts framework). In general, it is calculated as the difference between production (gross output) and intermediate inputs (the energy, materials and services required to produce final output).<br>Definitions of the ICT and total business sector are per ICT1. | | | |

[50] See draft ISIC Rev. 4: http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=27.

# Table 2 – Core indicators on international trade in ICT goods

| Core indicator | | Definitions and notes | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| ICT3 | ICT goods imports as a percentage of total imports | *ICT goods* are defined per the OECD's 2003 ICT goods classification, based on the 1996 and 2002 Harmonized System classification. It can be found in UNCTAD (2007).<br>Other concepts are per the *UN COMTRADE* database e.g. re-exports and re-imports are not netted out, and data are presented in US dollars (converted by the UN from country currencies). | 5.6% | 6.2% | 5.3% |
| ICT4 | ICT goods exports as a percentage of total exports | *ICT goods* are defined per the OECD's 2003 ICT goods classification, based on the 1996 and 2002 Harmonized System classification. It can be found in UNCTAD (2007).<br>Other concepts are per the *UN COMTRADE* database e.g. re-exports and re-imports are not netted out, and data are presented in US dollars (converted by the UN from country currencies). | 5.4 % | 6.3% | 6.0% |

# Table 3 - Core indicators on ICT in education

| Core indicator | | Definitions and notes | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| **ED1** | Proportion of schools with a radio used for educational purposes (by ISCED level 1 to 3) | Schools offering radio-based education as a percentage of the total number of schools in the country for each ISCED level (1-3). | | | |
| **ED2** | Proportion of schools with a TV used for educational purposes (by ISCED level 1 to 3) | Schools offering television-based education as a percentage of the total number of schools in the country for each ISCED level (1-3). | | | |
| **ED3** | Proportion of schools with a telephone communication facility (by ISCED level 1 to 3) | Schools with telephone communication facilities as a percentage of the total number of schools in the country for each ISCED level (1-3). Note that the facility should be directly associated with the school. For instance, a mobile phone which is owned by an individual working at the school would not constitute a school *telephone communication facility*. | 100% | | |
| **ED4** | Student-to-computer ratio (by ISCED level 1 to 3) | Average number of students per computer in schools that offer computer-assisted instruction (CAI) by each ISCED level (1-3). | | 62.8 % | |
| **ED5** | Proportion of schools with Internet access, by type (by ISCED level 1 to 3) | Schools with access to the Internet as a percentage of the total number of schools in the country for each ISCED level (1-3). | | | 72.92 % |
| **ED6** | Proportion of students who have access to the Internet at school (by ISCED level 1 to 3) | Total number of students with access to the Internet in schools as percentage of the total number of students in schools offering internet-assisted instruction in a given country by each ISCED level (1-3). | | | |
| **ED7** | Proportion of students enrolled by gender at the tertiary level in ICT-related fields (for ISCED levels 5 and 6) | Number of students currently admitted in ICT-related fields[51] by gender as a percentage of all students enrolled in educational institutions in a given country by gender for ISCED levels 5 and 6 (combined). | | | |
| **ED8** | Proportion of ICT-qualified teachers in primary and secondary schools | Number of primary and secondary teachers who have received ICT training, expressed as a percentage of the | | | |

[51] ICT-related fields include computer science, computer engineering, information and communication technology, information systems, multimedia systems, ICT management, system support and software development, informatics, etc. These are represented by ISCED97 Fields of Study 48-Computing, together with elements of 21-Arts (audio-visual, media production and design) and 52-Engineering (electronics and automation). These fields involve substantial work in understanding the technical aspects of ICT rather than a more generic or basic use of ICT.

| Core indicator | | Definitions and notes | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| | | total number of teachers at these levels of education. | | | |
| **Reference indicator** | | | | | |
| **EDR1** | Proportion of schools with electricity (by ISCED level 1 to 3)[52] | Schools with electricity as a percentage of the total number of schools in the country for each ISCED level (1-3). | | | |

Classificatory variables:

The main classificatory variable used for the ICT in education indicators is the 1997 version of ISCED (the International Standard Classification of Education, maintained by UNESCO). ISCED recognizes several levels of education as follows:

- ISCED 1 – Primary education or first stage of basic education;
- ISCED 2 – Lower secondary or second stage of basic education;
- ISCED 3 – Upper secondary education;
- ISCED 4 – Post-secondary non tertiary education (programmes that lie between the upper-secondary and tertiary levels of education);
- ISCED 5 – First stage of tertiary education (not leading directly to an advanced research qualification); and
- ISCED 6 – Second stage of tertiary education (leading to an advanced research qualification).

[52] Since electricity is not specifically an ICT commodity, but an important prerequisite for using many ICTs, it is not included in the core list, but included as a reference indicator. International studies reviewed by UIS revealed that the lack of electricity is such a significant barrier in many developing economies that monitoring trends of its provision is as relevant as monitoring the supply and use of ICT.

# Table 4 - Core indicators on ICT in government

| Core indicator | | Definitions and notes | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| **EG1** | Proportion of persons employed in central government organizations routinely using computers | The proportion of persons employed in central government organizations routinely using computers is calculated by dividing the number of persons employed in central government organizations, who routinely use computers, by the total number of persons employed in central government organizations. The result is then multiplied by 100 to be expressed as a percentage.<br>An optional indicator may be calculated separately for male and female persons employed (or other individual characteristics). | 100% | 100% | |
| **EG2** | Proportion of persons employed in central government organizations routinely using the Internet | The proportion of persons employed in central government organizations routinely using the Internet is calculated by dividing the number of persons employed by central government organizations, who routinely use the Internet, by the number of persons employed by central government organizations. The result is then multiplied by 100 to be expressed as a percentage.<br>An optional indicator may be calculated separately for male and female persons employed (or other individual characteristics). | 100% | 100% | |
| **EG3** | Proportion of central government organizations with a Local Area Network (LAN) | The proportion of central government organizations with a Local Area Network (LAN) is calculated by dividing the number of central government organizations with a LAN by the number of central government organizations. The result is then multiplied by 100 to be expressed as a percentage. | 100% | 100% | 100% |
| **EG4** | Proportion of central government organizations with an intranet | The proportion of central government organizations with an intranet is calculated by dividing the number of central government organizations with an intranet by the number of central government organizations. The result is then multiplied by 100 to be expressed as a percentage. | 100% | 100% | 100% |
| **EG5** | Proportion of central government organizations with Internet access, by type of access | The proportion of government organizations with Internet access, by type of access is calculated by dividing the total number of central government organizations with Internet access (by each type of access and 'any' access) by the total number of central government organizations. The result is then multiplied by 100 to be expressed as a percentage.<br>Note that the sum of percentages of each type of access is likely to exceed 100, as many central government organizations will have more than one type of access service. | 100% | 100% | 100% |
| **EG6** | Proportion of central government organizations with a web presence | The proportion of central government organizations with a web presence is calculated by dividing the number of central government organizations with a web presence by the number of central government organizations. The result is then multiplied by 100 to be expressed as a percentage. | 100% | 100% | |

| Core indicator | | Definitions and notes | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| **EG7** | Selected Internet-based services available to citizens, by level of sophistication of service | Unlike indicators EG1 to EG6, this indicator refers to both central and state/provincial levels of government. This is necessary to ensure international comparability as the services selected may be offered by different levels of government across countries. Because the approach taken to measuring Internet-based services is relatively untested5 and because responses may be somewhat subjective, the indicator is initially considered to be 'experimental'.<br>The indicator is weighted by population in order to show the significance of government Internet-based services at the national level.<br>The indicator is expressed in terms of the percentage of a country's population that is theoretically able to access each Internet-based service. Note that this does not refer to whether a citizen has the equipment or knowledge necessary to access those services, whether s/he needs to access those services or whether s/he directly benefits (for example, most of the services are not relevant to children). The ability to access each service will usually be linked to the relevant jurisdiction, for example, a citizen residing in a particular state will theoretically be able to access Internet-based services offered by that state government, though may not need to, wish to, or be technically capable of doing so. | | | |

# Appendix II

Member States Questionnaire (MSQ) for the
**United Nations E-Government Survey 2020**

*The objective of this questionnaire is to gather information from the Member States in preparation of the United Nations E-Government Survey 2020.*

*Please note that these responses do not directly affect the UN E-Government Development Index (EGDI), which is a composite index of Online Service Index (OSI), Telecommunications Infrastructure Index (TII) and Human Capital Index (HCI). UNDESA[53] assesses national portals with the assistance of independent researchers to construct OSI, requests data from the International Telecommunications Union (ITU) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) to construct TII and HCI respectively. For any questions about this questionnaire, please contact dpidg@un.org.*

| Tunisia | 30/03/2019 |
|---|---|

☒ **I/We hereby authorize UNDESA to publish my/our responses as deemed necessary.**

## 5. *I. Institutional Framework*

1. What is the official **e-government**[54] **portal** at the national level? If more than one, please list all.

The official e-government portal at the national level is : https://www.tunisie.gov.tn/

2. Please also provide **URLs** for below **specific portals**, if exists:
   a. E-services[55]:

https://www.tunisie.gov.tn/

   b. E-participation[56]: http://fr.e-participation.tn/ and www.e-people.gov.tn/
   c. Open government data: http://www.data.gov.tn/
   d. Public procurement: https://www.tuneps.tn/index.do
   e. Other major portals at the national level: http://www.ogptunisie.gov.tn/en

[53] This questionnaire is conducted by the Division of Public Institutions and Digital Government (DPIDG) of the UNDESA.

[54] **E-government or digital government** will be used interchangeably in this survey and is defined as delivering services online and engaging people by using Information and Communication Technologies (ICTs)

[55] A specific portal where you can see the list of all online services available for the public

[56] **E-Participation** is about fostering civic engagement and open, participatory governance through Information and Communications Technologies (ICTs).

b. e-participation portal :
National e-particpation portal
link: http://fr.e-participation.tn/
National system of petition
link : www.e-people.gov.tn/
c. Open government data portal
link: http://www.data.gov.tn/
d- Public procurement portal : link: https://www.tuneps.tn/index.do
e- Tunisian open government partnership portal
Link: http://www.ogptunisie.gov.tn/en/

3. Please provide **name(s) and URL(s)** of the government agency/department/ministry at the national level in charge of e-government.

The name of the department in charge of the e-government is : e-government unit at ministry of the civil servant, modernization of the administration and public policy
link :
https://www.tunisie.gov.tn/

4. Does your country have a **Chief Information Officer (CIO)**[57] to manage national cross-agency e-government programs/strategies?

**Name:**

**Title:**

**Organization:** e-government unit / ministry of Communication technologies and Digital Economy

**E-mail:** Khaled.sellami@pm.gov.tn / DGTI.mtcen@tunisia.gov.tn

**Phone:**

5. Please provide **names and URLs** of the government agencies/ministries/departments at the national level in charge of the following:
   a. Planning and Development

Ministry of the development, investment and international cooperation
link: http://www.mdici.gov.tn/

[57] **CIO** or a similar senior official with a leadership role, sometimes referred as Chief Technology Officer **(CTO)** or Chief Digital Officer **(CDO)**

b. Education
c. Health

b. Ministry of education
http://www.education.gov.tn and http://www.edunet.tn
c. Ministry of health
Link
http://www.santetunisie.rns.tn/fr/

d. Social Protection and Welfare

-Ministry of social affairs
Link : http://www.social.gov.tn
-Social protection portals :
Links: http://www.cnam.nat.tn/, http://www.cnss.tn/ and http://www.cnrps.nat.tn/

e. Employment and Decent Work

Ministry of employment
Link: http://www.emploi.gov.tn/fr/
National Agency of employment
Link http://www.emploi.nat.tn/fo/Fr/global.php

f. Environment

Ministry of local affairs and environment
Link : http://www.environnement.gov.tn/index.php?id=3

g. Energy/Water

Agency of petroleum activities
link http://www.etap.com.tn ;
open data portal of natural resources (Ministry of industry and energy)
link: http://data.industrie.gov.tn/
open data portal the agriculture (water) (ministry of agriculture )
Link : http://www.agridata.tn/

h. Finance/Taxation

Ministry of finance
http://www.finances.gov.tn/

i. Industry/Trade

Ministry of industry and energy
http://www.tunisieindustrie.gov.tn/
Ministry of Trade
Link : http://www.commerce.gov.tn/Fr/accueil_46_50

## 6. *II. Strategy and Implementation*

6. Is there a **national development strategy** incorporating the Sustainable Development Goals (SDGs)?

Yes, we have a national development strategy incorporating the Sustainable Development Goals (SDGs) it is called the national orientation plan 2017-2020
Links:
http://www.tunisie.gov.tn/uploads/Document/02/978_445_Plan-developpement_2016_2020.pptx
http://www.mdici.gov.tn/wp-content/uploads/2017/06/Volume_Global.pdf
http://www.tunisia2020.com/en/plan-2016-2020/

7. Is there a **national e-government strategy/digital readiness strategy** or equivalent?

Yes, there is a national e-Government Strategy. It is called Smartgov 2020 : National strategy in e-government and open government Link: www.tunisie.gov.tn
And the National strategy Digital Tunisia 2020

8. Please check whichever applies.
National e-government strategy or equivalent:
☒ has an implementation plan.
☒ is aligned with the national development strategy
☒ is aligned with the Sustainable Development Goals (SDGs).
☒ is aligned with sub-national/local digital development strategy.
☒ has an emphasis on digital-first principle
☒ has an emphasis on digital by default; digital by design; mobile-first principle
☒ has an emphasis on once-only (data) principle
☒ has an emphasis to 'leave no one offline' or to 'leave no one behind'; or other specific measures to ensure e-government is accessible by the most vulnerable groups[58]
☒ makes specific reference to e-participation, digital inclusion and/or engagement.
☒ makes specific reference to the use of social media in the government.
☒ makes specific reference to the use of new technologies[59] such as artificial intelligence, blockchain, big data

[58] Poor, immigrants, older persons, persons with disabilities, women, youth, indigenous people

[59] Also referring to emerging technologies

-There is an implementation plan for the Strategy Smartgov 2020 and it is aligned with: the national development strategy, the sustainable development Goals (SDGs) and with sub-national/local digital development strategy.
Link : www.tunisie.gov.tn
2- Also, in the context of democracy, social and economic transformation, the key issues in Tunisia are:
-Employment job creation and reduce unemployment ratio
-Ensure the regional development and social equity
-Creating Wealth and Sustainable Economic Growth
-Maintain the national security
-Manage spending and macroeconomic balances and improve productivity
the ministry of telecommunication and digital economy was developed a global ICT strategy called Digital Tunisia 2020 ICT for development strategy, the mains objectives are :
Becoming an international digital reference and make ICTs as important driver for socio-economic development.
In this strategy they develop 7 Strategic axes :
-Ensure social inclusion and reduce the digital gap via a best information and knowledge access with use of equipment generalization and broadband access.
-Implement digital culture with generalization of TIC uses in the education and in the digital contents
-Developing towards a digital government in the service of the citizen, equity, transparence, agility, and efficiency.
-reduce unemployment ratio and growing employment job creation in digital and offshoring sector and creation of national champion
-Support the creation of added value with supporting entrepreneurship and the stimulation of innovation.
- Improve the competitiveness of the company and all sectors combined with investment in ICT and positioning in the digital economy.
-Ensure the transition of Tunisia in the All-digital through the setting up of a framework regulatory, governance and security environment

## *7. III. Legal Framework*

9. Is there any legal framework on:

☒ access to information such as Freedom of Information Act

☒ personal data protection including digital security

☐ open government data

☐ digital identity

☒ digital certification/signature

☒ e-procurement

☐ digitally publishing government expenditure[60]

☐ data interoperability

☐ digital government as a right

[60] Related to SDG Indicator 16.6.1

1-There is a law on access to information. Law No. 2016-22 of 24 march 2016
Link : http://www.legislation.tn/fr/detailtexte/Loi-num-2016-22-du-24-03-2016-jort-2016-026__2016026000221?shorten=TGoz
2- There is a personal data protection law N° 2004 -63 of 27 July 2004.
http://www.inpdp.nat.tn/ressources/loi_2004.pdf
3-There is a Digital certification/signature decree :
Link
http://www.tuntrust.tn/sites/default/files/reglementations/Arrete_2_fr%2019%20juillet%202001.pdf
4- there is a e-procurement decree n° 2014-1039 of 13 May 2014
Link : www.tuneps.tn

## 8. IV. Usage of online services

10. Do you collect usage statistics of e-government services?

☒Yes ☐No

11. If yes, do you publish results online and share those with the public institutions concerned?

Yes, we conduct surveys to measure satisfaction of e-Government services.
1- We publish the report about the public web site and services and we conducted surveys every 2 years. Actually we conduct a survey to measure satisfaction of e-Government services it will be publish in May at the Tunisian government portal.
2- Conducted in cooperation between the court of auditors and e-government unit a report was published with public institutions and with internet user at the below website. The audit mission was to evaluate the e-government program and especially to measure satisfaction of e-government services and give recommendation to involve e-services.
3- Actually we are in phase to develop a barometer of online service to measure e-government services.
[illegible] 2009 2014 238

## 9. V. User satisfaction

12. Do you measure satisfaction of citizens on e-government services?

☐Yes ☒No

13. If yes, do you publish results online and share those with the public institutions concerned?

Actually, we are in phase to develop an online service barometer to measure satisfaction of citizens on e-government services, the results of the survey about citizen satisfaction will be publish in May 2019

## 10. VI. Social Media

14. How does your government use social media at the national level to interact with and engage people in e-government activities? Please also explain if there were any guidelines for government officials on the use of social media.

Yes, we have in the smartgov 2020 strategy a communication plan about interaction and egagement people in e-governement activities using social media :
we created pages in Facebook with community management to :
-Share activities about e-governement and open governement
- Collect suggestions and comments from people
- interact with people
link :
- https://www.facebook.com/UAE.Tunisie
- https://www.facebook.com/ogptunisie
- https://www.facebook.com/data.gov.tn

## 11. VII. New Technologies

15. Does your government have a **specific national strategy** on one or more of following new technologies?

☐ Artificial Intelligence (AI) ☒ Blockchain ☒ Big data ☒ Smart cities
☐ Robotics ☒ Internet of Things (IOT) ☐ Quantum computing ☐ Virtual reality
☐ Augmented reality ☐ Other:

-Blockchain :
Tunisian post publish the first wallet based on blockchain technology called digicash
Tunisian central bank conduct a study about using the crypto-currency
-Internet of Things (IOT)
Municipality of la Marsa conduct a project based on IOT
-Smart Cities
Technopole Ghazela conduct a project of smart Cities
-Big Data
INS conduct a project for Big Data

16. Does your government have any government body[61] at the national level working specifically related to the new technologies?

[61] This can be an agency, cabinet, commission, committee, initiative etc.

Tunisian central of research CERT
Tunisia post
Technopark Ghazela
Universities

## 12. VIII. Indicators

17. What is the percentage of the population[62] satisfied with their last experience of online public services?

We are in progress to conduct survey about online service satisfaction; this survey will measure the percentage of the population satisfaction with their last experience of online public services. The result of the survey will be publish in May 2019 at the Tunisia government portal

18. What percentage of your GDP is allocated for ICT investment in the public sector?

Total budget for digital development in Tunisia is 546,583 MDT /year (total annual budget of the digital economy found) with 14 M.Euro (from African development bank)

19. What is the proportion of persons employed in central government organizations routinely using ICTs?

Proportion of persons employed in central government organizations routinely using computers: 48% (year 2014)

20. What is the proportion of persons employed in central government organizations routinely using the Internet?

Proportion of persons employed in central government organizations routinely using the Internet 31% (year 2014)

21. If any, what kind of indicators do you collect/use to track digital literacy at the national level?

Please keep your response within 250 words).

## 13. IX. International and Regional Cooperation[63]

**22.** *Is your government part of any sub-regional, regional or international cooperation on e-government?*

[62] Related to SDG Indicator 16.6.2 Proportion of population satisfied with their last experience of public services. See for all indicators: https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%20refinement_Eng.pdf

[63] WSIS Action Line C.11 - International and regional cooperation - https://publicadministration.un.org/wsis10/WSIS-Action-Lines-and-Facilitators

Yes, our government is part of international cooperation on e-government such as:
- Cooperation with the government of Korea through the Korean international cooperation agency KOICA for the development and implementation of the e-people system in Tunisia, also to upgrade Tuneps online e-procurement system in Tunisia.
- Cooperation with OECD, French agency for development (AFD) in some open government action plan commitments.
- Cooperation with BAD to finance and implement the Tunisia digital strategy.
- Cooperation with GIZ to implement local online services and improve citizen participation using ICT.
- Cooperation with World Health Organization to implement e-health

23. Is your government offering (or planning to offer) support to other countries in the area of e-government

Yes; our government offers support to other countries especially the African francophone countries in the area of e-government and open government this support is component of the open government plan.

24. Are there any ongoing public-private partnerships and multistakeholder partnerships, focusing on e-government?

Please keep your response with max 250 words.

## *14. X. Contact and Additional Information*

Name:

Title:

Email:

Organization:

1. Please select whichever applies:

☐ A group of government agencies responded to the questionnaire collectively.
☒ I am authorized and fully knowledgeable to respond to this questionnaire.

☐ I did not have the full information to respond to this questionnaire

☐ I mostly provided my own opinion/assessment rather than official information.

☐Other:

Please explain further (Max 250 words).

2. How did you hear about this questionnaire?

☒ Directly from UN DESA

☐ From the Mission of my country to the United Nations

☐ United Nations E-Government Survey website

☐ LinkedIn

☐ Facebook

☐ Other:

Please explain further (Max 250 words).