

Digital Public Administration factsheet 2020

Cyprus

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1 Country Profile

1.1 Basic data

Population: 875 899 inhabitants (2019)

GDP at market prices: 21 943.6 million Euros (2019)

GDP per inhabitant in PPS (Purchasing Power Standard EU 27=100): 89 (2019)

GDP growth rate: 3.2% (2019) **Inflation rate**: 0.5% (2019)

Unemployment rate: 7.1% (2019)

General government gross debt (Percentage of GDP): 95.5% (2019) General government deficit/surplus (Percentage of GDP): 1.7% (2019)

Area Total land cover: 9 249 km²

Capital city: Nicosia

Official EU language: Greek

Currency: Euro

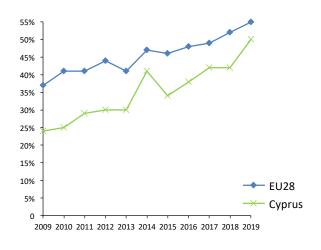
Source: Eurostat (last update: 26 June 2020)

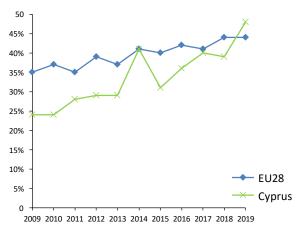
1.2 Digital Public Administration Indicators

The following graphs present data for the latest Generic Information Society Indicators for Cyprus compared to the EU average. Statistical indicators in this section reflect those of Eurostat at the time the Edition is being prepared.

Percentage of individuals using the internet for interacting with public authorities in Cyprus

Percentage of individuals using the internet for obtaining information from public authorities in Cyprus

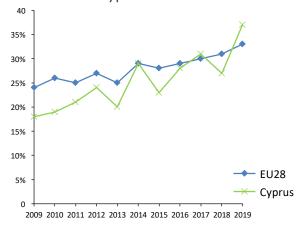




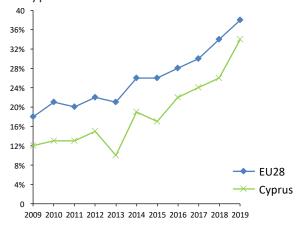
Source: Eurostat Information Society Indicators

Source: Eurostat Information Society Indicators

Percentage of individuals using the internet for downloading official forms from public authorities in Cyprus



Percentage of individuals using the internet for sending filled forms to public authorities in Cyprus

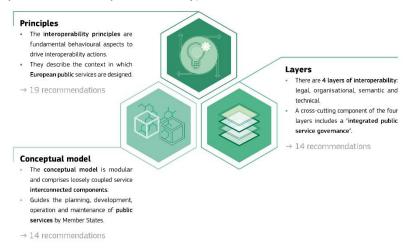


Source: Eurostat Information Society Indicators

Source: Eurostat Information Society Indicators

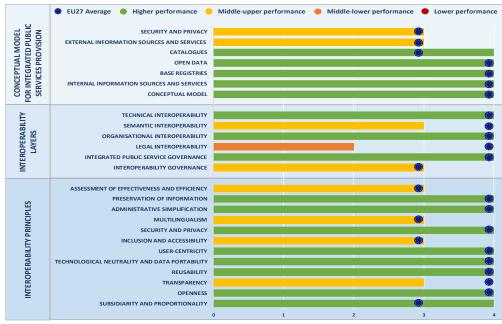
1.3 Interoperability State of Play

In 2017, the European Commission published the European Interoperability Framework (EIF) to give specific guidance on how to set up interoperable digital public services through a set of 47 recommendations. The picture below represents the three pillars of the EIF around which the EIF Monitoring Mechanism was built to evaluate the level of implementation of the EIF within the Member States. It is based on a set of 68 Key Performance Indicators (KPIs) clustered within the three main pillars of the EIF (Principles, Layers and Conceptual model), outlined below.



Source: European Interoperability Framework Monitoring Mechanism 2019

For each of the three pillars, a different scoreboard was created to breakdown the results into their main components (i.e. the 12 principles of interoperability, the interoperability layers and the components of the conceptual model). The components are evaluated on a scale from one to four, where one means a lower level of implementation, while 4 means a higher level of implementation. The graph below shows the result of the first EIF Monitoring Mechanism data collection for Cyprus in 2019. It is possible to notice an overall good performance of the country, with particularly positive results within the scoreboard related to the Conceptual Model for Integrated Public Services Provision. The main area of improvement is the layer of legal interoperability within the second scoreboard.



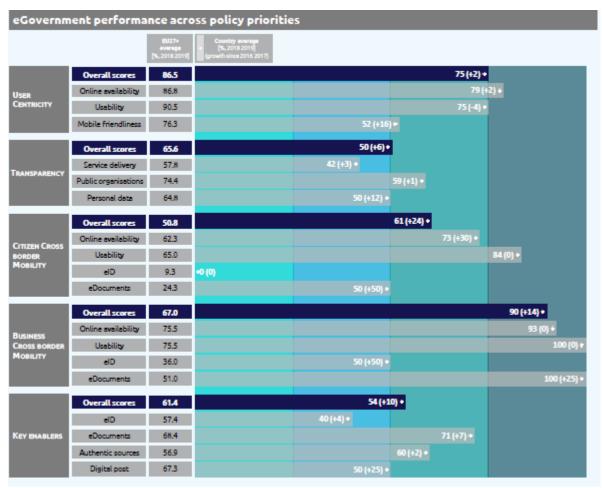
Source: European Interoperability Framework Monitoring Mechanism 2019

1.4 eGovernment State of Play

The graph below is the result of the latest eGovernment Benchmark report, which evaluates the priority areas of the eGovernment Action Plan 2016-2020, based on specific indicators. These indicators are clustered within four main top-level benchmarks:

- User Centricity indicates the extent to which a service is provided online, its
 mobile friendliness and usability of the service (in terms of available online support
 and feedback mechanisms).
- **Transparency** indicates the extent to which governments are transparent about (i) the process of service delivery, (ii) the responsibilities and performance of public organisations and (iii) the personal data processed in public services.
- Cross-Border Mobility indicates the extent to which users of public services from another European country can use the online services.
- **Key Enablers** indicates the extent to which technical and organisational preconditions for eGovernment service provision are in place, such as electronic identification and authentic sources.

The 2020 report presents the biennial results, achieved over the past two years of measurement of all eight life events used to measure the above-mentioned top-level benchmarks. More specifically, these life events are divided between six 'Citizen life events' (Losing and finding a job, Studying, Family life, all measured in 2012, 2014, 2016 and 2018, and Starting a small claim procedure, Moving, Owning a car, all measured in 2013, 2015, 2017 and 2019) and two 'Business life events' (Business startup, measured in 2012, 2014, 2016 and 2018, and Regular business operations, measured in 2013, 2015, 2017 and 2019).



Source: eGovernment Benchmark Report 2020 Country Factsheets



2 Digital Public Administration Highlights

Digital Public Administration Political Communications

The National Strategy on Decentralised Technologies and Blockchain was approved on 18 June 2019 by the Council of Ministers in Cyprus.

Digital Public Administration Legislation

The national legislation (N.50(I)/2019) related to the accessibility of the Websites and Mobile Applications of Public Sector Bodies was harmonised in April 2019 following the EU Directive.

The health system is moving towards the cross-border integration with the Law on eHealth 59 (I) / 2019.

Digital Public Administration Governance

The Cyprus Government decided to create a Deputy Ministry whose task is to coordinate all responsibilities concerning Research, Innovation and Digital Policy in a central way. The Deputy Ministry is operational from 1 March 2020. The Department of Electronic Communications, which was previously under the Ministry of Transport, Communications and Works and the Department of Information Technology Services, which was previously under the Ministry of Finance were transferred under the Deputy Ministry.

In February 2020, the Plenary of the House of Representatives passed by majority the law establishing the Deputy Ministry of Research, Innovation and Digital Policy. That was welcomed by the President of the Republic of Cyprus, Nicos Anastasiades, who noted that it is a significant step towards meeting the aim of Cyprus becoming a competitive and dynamic economy, spurred by research, innovation, and technological advancement.

On 21 August 2019, the Council of Ministers decided the establishment of a public equity fund in Cyprus, aiming to offer alternative financing opportunities to the private sector: SMEs, start-ups, technology and innovation companies, etc.

Digital Public Administration Infrastructure

The Governmental Unified Network, one of the most important projects in Cyprus will upgrade the entire network infrastructure of the government by combining the use of digital technologies and functional capabilities.

In September 2019, Cyprus submitted its declaration of readiness to join Schengen. One of the set prerequisites is to have a national Visa Information System that is fully compliant with the EU requirements. On those grounds, a tender is in progress for acquiring consultants to prepare the specifications of the new Cyprus Visa Information System (new CY-VIS).

The Visa Information System (VIS) allows Schengen States to exchange visa data. It consists of a central IT system and of a communication infrastructure that links this central system to national systems. It processes data and decisions relating to applications for short-stay visas to visit, or to transit through, the Schengen Area. The system can perform biometric matching, primarily of fingerprints, for identification and verification purposes.



3 Digital Public Administration Political Communications

3.1 Specific political communications on digital public administration

Deputy Ministry for Research, Innovation and Digital Policy (DMRID)

The Cyprus government decided to create a Deputy Ministry with the task to centrally coordinate all responsibilities concerning research, innovation and digital policy. The Deputy Ministry is operational from 1 March 2020. The DMRID will manage the digitalisation agenda centrally, including eGovernment, streamlining the governance of the digitalisation agenda and introducing policies for the digital transformation of the economy, the private sector and society. The DMRID will also have the ability to seek sufficient and clearly ring-fenced budgets to implement the broader digitalisation strategy.

Digital Strategy for Cyprus after 2020

The Department of Electronic Communications launched a tender to update the Digital Strategy of Cyprus from 2020 onwards. The objective of the tender was to draft the national Digital Strategy of Cyprus around public interventions that will achieve the digital transformation of the public sector, the promotion of the digital transformation of the private sector, and the promotion of innovation while paying due consideration to Cyprus' digital maturity. The tender was awarded in 2019 and is due for completion in 2020.

2012-2020 Digital Strategy for Cyprus

The Digital Strategy for Cyprus (the national information society strategy) was approved by the Council of Ministers on 8 February 2012. The Digital Strategy is a comprehensive plan for the period 2012-2020 with a holistic approach for the development of the information society in Cyprus. Based on the Digital Agenda for Europe, the stated overall vision of the Digital Strategy is to provide "information and communication technologies to support the development and the competitiveness of the economy, and citizen participation in the social, cultural and political domains".

The Digital Strategy for Cyprus is based on the following six strategic targets:

- Target 1: broaden coverage (infrastructure rollout), expand broadband and establish a regulatory framework of networks;
- Target 2: modernisation of public administration and provision of more applications and services to citizens and enterprises, namely eGovernment and eHealth services;
- Target 3: inclusion of all (including vulnerable groups) into Digital Cyprus.
 Increase penetration and participation of all citizens and businesses in the digital society;
- Target 4: education and learning improvement of eSkills and digital literacy;
- Target 5: promotion of digital entrepreneurship;
- Target 6: ICT for the environment promotion of a green ICT.

In relation to Target 4, the Cyprus Productivity Centre of the Ministry of Labour and Social Insurances, in association with the Department of Electronic Communications of the Ministry of Transport, Communications and Works, launched a strategic initiative in order to improve digital illiteracy and further promote the use of eGovernment services.

The programme had a three-year timespan (2017-2020) that focused on the implementation of a number of workshops and training programmes for:

- learning how to use basic eGovernment services such as the Taxisnet, the online payment service for contributions to social insurance services, the government secure gateway - Ariadne portal and the General Health System portal "GESY", and
- improving basic internet skills, including the Internet Safety Programmes.

Training programmes were offered in urban and regional areas of Cyprus to cover the needs of municipalities and smaller communities. Additionally, consultancy visits were undertaken in various communities, municipalities and other organisations, in an effort to increase their productivity level by adopting best eBusiness practices in their own environment.

From September 2017 to December 2019, a total of 443 workshops, presentations and training programmes were conducted involving more than 6000 participants. This initiative, which focuses on the benefits coming from eGovernment to increase awareness and take up of the existing eServices, will continue throughout 2020.

Moreover, the Department of Electronic Communications, in cooperation with the Ministry of Education and Culture, has promoted a number of actions involving the integration and the introduction of digital technologies into teaching methods as well as the education of students and teachers.

In addition, the CEF programme has been providing vital EU funding for trans-European transport, energy, and telecommunications networks since 2014. In the area of telecommunications, the Innovation and Networks Executive Agency (INEA) has implemented the deployment of Digital Service Infrastructures (DSIs) as well as a voucher scheme for internet connectivity in local communities (the so-called WIFI4EU initiative). Number of consortia consisting of public and/or private entities from Cyprus use CEF Telecom as an instrument to finance various projects through grants. Until today, more than EUR 6 million have been absorbed by Cyprus' consortia in the telecommunications sector under the CEF programme for 2014-2020.

2014-2020 eGovernment Strategy

The eGovernment Strategy referred to the period 2014-2020 and applied to all ministries, departments and services of the Cyprus government focusing on technical, operational and organisational aspects of the provision of eServices to citizens and businesses. Improvements to back-office systems or government ICT infrastructures were also foreseen by the eGovernment Strategy, provided they assisted the Cyprus government to achieve its objectives up to 2020, whilst being in line with EU policies and directives. The implementation of the eGovernment strategy aimed at the following objectives:

- enhancing the public sector capacity while reducing operational costs;
- delivering additional eServices, which are flexible, accessible, complete, simple and secure;
- facilitating cross-border collaboration at European level.

Equity Fund

On 21 August 2019, the Council of Ministers decided the establishment of a public funded equity fund (thereafter called the "Fund") in Cyprus, in the form of a regulated alternative investment fund. The State will initially provide EUR 20m capital to the Fund with the possibility of attracting private co-investors, either at the level of the Fund or at the level of each investment separately.

The purpose of the Fund is to offer alternative financing opportunities to the private sector: SMEs, start-ups, technology and innovation companies etc., thus boosting the competitiveness of Cypriot enterprises and enhancing growth and development.

Memorandum of Understanding in the Area of eGovernment between the Republic of Cyprus and Estonia

Major steps towards the implementation of eGovernment were taken with the signing of the Memorandum of Understanding and Cooperation in the Areas of eGovernment and ICT. The Memorandum was signed by the President of the Republic Nikos Anastasiadis and the Estonian Prime Minister, Taaivi Rouvas. The memorandum's main objective is to develop cooperation in the areas of eGovernment and ICT, with a view to aiding Cyprus' efforts to digitalise governance and public administration. Cooperation will focus on defining a strategic agenda along with the design and implementation of concrete actions, in order to develop the environment that will enable citizens to better access public sector information and services.

Public Administration Reform (PAR)

The Public Administration Reform is considered a very important structural change aimed at creating flexible, modern and productive public services for the benefit of both citizens and businesses. The political responsibility and supervision of the reform was assigned to the Minister of Finance. The PAR aims to solve horizontal and sectoral issues. In relation to the horizontal/cross-cutting issues, one of the main pain points is human resource management (HRM) across the public sector. More specifically, the government submitted to the House of Representatives a set of draft bills aiming at institutionalising the HRM reforms in respect of performance appraisal, promotion, Public Service Commission governance, mobility etc.

With regards to sectoral issues, functional reviews were completed within the civil services domain (Ministries and Constitutional/Independent Services) aimed at the reorganisation of structures within the various ministries and independent authorities, and generally the provision of better services to businesses and citizens.

Action Plan on Better Regulation

The third, and final, progress report for the Action Plan for Better Regulation that covered the period from 2015 to 2018 was submitted to the Ministerial Council in late 2019. This was followed by the formulation of the New Action Plan for Better Regulation, which covers the period 2019-2022.

The New Action Plan was approved by the Council of Ministers on 6 November 2019. The plan consists of three priority axes:

- simplification of procedures and legislation and reduction of the administrative burden;
- better law-making and impact assessment of new legislation;
- embedding the culture and enhancing relevant skills in relation to the Action Plan on Better Regulation.

The Impact Assessment (IA) mechanism, put in place in 2017 to undertake more focused and thorough impact assessments for new legislation, was embedded and is now a mandatory part of the legal drafting procedure. An IA report summarising the main findings and suggestions for the way forward was published in 2018. Its intention was to continue the training programme of government officials and further enhance the implementation of the new impact assessment framework.

Further to the above three axes, the Action Plan also included actions that are being promoted under the pillar of eGovernment, which go hand in hand with the other Better Regulation initiatives.

Partnership Agreement

The 2014-2020 Partnership Agreement (PA) is the strategic document prepared by the government of Cyprus for the effective utilisation of European Structural and Investment Funds (ESIF) allocated to the country for the programming period 2014-2020. The PA includes the general development priorities of Cyprus and the pursuit of general objectives for the use of ESI Funds, as derived from the analysis of the country's development needs and perspectives, as well as the thematic objectives that Cyprus selected to invest into during the 2014-2020 programming period.

Information and Communication Technologies (ICT) is among the selected sectors for investment, with the main aim being the promotion of the use of ICT in the public and private sectors to improve the competitiveness of the economy. The implementation of the PA is further specified in the Operational Programmes, which are determined according to the type of ESI fund.

Operational Programme "Competitiveness and Sustainable Development"

The promotion of ICT use is one of the seven axes of the 2014-2020 Operational Programme (OP) "Competitiveness and Sustainable Development". The budget of the axis is around EUR 64 million (9% of the OP's total budget), which is co-financed by the European Regional and Development Fund (ERDF) with EUR 54.5 million. Around 85% of this budget was allocated to strengthening ICT applications for eGovernment, eLearning and eHealth.

3.2 Interoperability

No political communication has been adopted in this field to date.

3.3 Key enablers

3.3.1 Access to public information

No political communication has been adopted in this field to date.

3.3.2 eID and Trust Services

National Scheme

In February 2019, the eGovernment Board made a new decision regarding the adoption of eIdentification: the government will prepare a national scheme on eIdentification and eSignature by changing relevant legislations. The eIdentification providers will be authorised according to the national scheme and able to provide eID to the Cypriot citizens. A national scheme on eIdentification and eSignature is under preparation and amendments to the relevant legislations will be introduced. The national scheme is expected to be completed in 2020.

3.3.3 Security aspects

No political communication has been adopted in this field to date.

3.3.4 Interconnection of base registries

No political communication has been adopted in this field to date.

3.3.5 eProcurement

No political communication has been adopted in this field to date.

3.4 Domain-specific political communications

eGovernment in Education

In June 2018, the Ministry of Education, Culture, Sport and Youth officially launched a programme on the design and implementation of eGovernment in Cyprus' education. One of the main objectives was the implementation of the School Management System (SMS) project, a computerised system intended to standardise and accelerate bureaucratic processes. The SMS is a crucial element of the restructuring plan of the Ministry of Education, Culture, Sport and Youth, which aims to create an advanced computerised system that will ensure proper information management and process automation. The SMS will contribute to the streamlining of bureaucracy, the reduction of high administrative costs and it will ensure the prompt provision of information, cooperation and support of various stakeholders. The different services offered by the SMS will be gradually introduced until the expected ending date of the project in 2023. The total cost for the implementation of the system is EUR 9 million. It is co-funded by national resources from the European Regional Development Fund (ERDF).

In support of the project, this year, a number of tablets was delivered to all upper secondary schools, in order to prepare, empower and develop the digital skills of the educators for the application of the School Management System.

National Coalition for Digital Jobs

Cyprus launched a National Coalition for Digital Skills and Jobs in support of the European Commission's call for action within the Grand Coalition. The Coalition is addressing the shortage in digital skills and the future anticipated mismatching of unfilled ICT-related vacancies across Europe. The initiative was undertaken by the Digital Champion for Cyprus with the cooperation of the Department of Electronic Communications. The National Coalition is a partnership with public institutions, professional communities, private companies and non-profit organisations.

In order to deliver direct and tangible results with a positive impact in promoting ICT skills, Cyprus' Coalition decided to continue by implementing priority actions. Priority actions for 2016 to 2019 included the introduction of the certification of the European Computer Driving License (ECDL) on a voluntary basis for students of secondary education in public and private schools of the same type, the ECDL training and certification for a number of soldiers and unemployed people, the provision of training programmes to people with disabilities and conducting a series of awareness activities in ICT in collaboration with Coalition's stakeholders.

Cyprus Broadband Plan

The 2016-2020 Broadband Plan was developed by the Department of Electronic Communications to outline the key actions and steps necessary to meet the first general objective of the Digital Strategy for Cyprus, which is the creation of appropriate infrastructure and the necessary conditions to connect the Republic of Cyprus. The objectives of the Plan are:

- to ensure the roll-out and take-up of broadband for all, at increasing speeds, through fixed and wireless technology;
- to promote competition in electronic communications and reduce prices of broadband services and products;
- to connect the whole of Cyprus with high and ultra-high-speed networks;
- to address cyber threats and generally strengthen security in the digital networks;
- to enhance the international sub-marine cable network, connecting Cyprus with Europe, the Middle East and Africa.

The Broadband Plan of Cyprus was updated during 2018, taking into account the existing network mapping, the telecommunications providers' plans for the next three years, the Digital Agenda for Europe 2020, and the Commission's Communications of 14 September 2016 entitled "Connectivity for a Competitive Digital Single Market – Towards a European Gigabit Society" and "5G for Europe: An Action Plan". In relation to connectivity, the main goals to be achieved by 2020 are the full coverage of high-speed networks (30 Mbps) and 50% coverage of ultra-high-speed networks (at least 100 Mbps) in case of demand by households and enterprises.

Broadband coverage has generally been improving across Cyprus and can meet the 2020 target for ubiquitous 30 Mbps coverage, but not all EU targets for 2020 will be achieved. Suburban and rural areas, where there are less incentives for the private sector to invest in broadband provision, remain uncovered in comparison with urban areas, and take-up of fast and ultra-fast broadband is significantly behind target. It is obvious that a digital divide persists in Cyprus, even though some progress has been made in the last few years. The Department of Electronic Communications is in the process of drafting a new National Broadband Plan for the period 2021-2025 which will focus on expanding ultra-high-speed networks coverage and demand by utilising EU funding and other State aid resources.

Reform of the Justice System

The reform anticipates qualitative changes to the justice system with the goal of strengthening the flexibility, effectiveness, and speed of the decision-making process. As part of the reform, an electronic court administration system will be introduced to digitalise the operations of the different courts. To this end, a tender to purchase a license for a web-based court administration system (eJustice system), including training of personnel, and the option to acquire the system by the government, was launched. The eJustice system will be installed in the premises of every court in Cyprus, and it will be possible to manage all procedures of a legal case. Additionally, the eJustice system will provide electronic services to court personnel, law offices, police, governmental departments, private law companies, lawyers, the bar association, private companies, citizens and private service provides (e.g. audit firms, land development companies, certifying officers etc.). Pending full implementation of the eJustice system, a mini electronic registry has been prepared and installed in all civil registries of the Supreme Court to process applications more efficiently.

Information System for Countering Undeclared Work – ERGANI SYSTEM

The strategy put in place by Cyprus to clamp down on undeclared work is based on two main pillars: legislative support and the introduction of a computerised system to better monitor employers. The first pillar is characterised by a bill that was completed in 2017, the Law on Undeclared Work No 52(I)/2017. The law imposes hefty fines that amount to EUR 500 per undeclared worker. At the same time, a legal presumption was introduced into the legislation, which considers that employment the relationship started six months before the date of the infringement, meaning the fine actually amounts to EUR 3 500. There is a limit to the maximum fine of up to EUR 10 000 for those employing up to 10 illegal workers. The second pillar is an information system for countering undeclared work called ERGANI System. Through this information system, employers are freed from red-tape procedures, while making use of the data from the information system will contribute to the fight against undeclared work and contribution evasion. The System has been developed and is currently installed under the test environment of the Unified Data Centre. It is planned to go into production within the second half of 2020.

3.5 Emerging technologies

National Strategy on Decentralised Technologies and Blockchain

The National Strategy on Decentralised Technologies and Blockchain was approved on 18 June 2019 by the Council of Ministers in Cyprus. The main pillars of the National Strategy are the preparation of a legislative framework and the implementation of pilot use cases for both the public sector and the financial sector.

This legislative framework will take into account the European Parliament resolution of October 2018, will be based on European principles, will ensure technology neutrality, and promote innovation, so that the private and public sectors can work together effectively and develop successful applications.

European Blockchain Partnership (EBP) and MED 7 Cooperation

Cyprus, together with 25 other Member States, signed the Declaration for Cooperation on a European Blockchain Partnership (EBP). In Cyprus, an Ad Hoc Working Group was established (approved by the Council of Ministers on 30 August 2018) with the mandate to evaluate the environment and the possible risks. The Ad Hoc Working Group will also define a national plan for the development of blockchain technology in Cyprus. The plan, which will be submitted to the Council of Ministers for approval, will include pilot projects, legislative initiatives and a strategy for the adoption of blockchain.

Cyprus also signed in October 2019, together with six other Mediterranean countries (France, Italy, Portugal, Greece, Malta and Spain), a Memorandum of Understanding (MoU) establishing a framework for the cooperation of seven Mediterranean countries ("MED 7"). In the context of the MoU, the MED 7 countries committed to provide each other with details of successful initiatives and platforms involving the use of Distributed Ledger Technologies in their respective public administrations.



4 Digital Public Administration Legislation

4.1 Specific legislation on digital public administration

No legislation has been adopted in this field to date.

4.2 Interoperability

No legislation has been adopted in this field to date.

4.3 Key enablers

4.3.1 Access to public information

Access to Public Information (Access Rights Act)

In December 2017, the Law providing for the right of Access to Public Sector Information (Law 184(I)/2017) was adopted and will enter into force in 2020, for the purpose of enhancing transparency within the public sector. The law provided citizens with the right to request and receive information, under certain conditions, from public authorities. Furthermore, the law created an obligation for public authorities to publish certain information on their websites to avoid submitting a request form to access this information. The Commissioner for Personal Data Protection was appointed as the supervisory authority for this law and will act as Information Commissioner.

Law Establishing Rules Governing the Re-use of Existing Information Held by Public Sector Bodies

The Cypriot transposition of European Directive 2003/98/EC is Law 132(I)/2006, passed by the House of Representatives on 12 October 2006. The European Commission was notified on 20 October 2006 that the transposition was completed. Cyprus transposed the provisions of the revised PSI Directive (2013/37/EC) into the Re-Use of Public Sector Information Law of 2015 (Law 205(I)/2015), which entered into force on 23 December 2015. This Directive laid down the right of access and reuse of public sector information. The operation of the open data portal as a data repository was part of the effort to make public sector information available and exploitable without legal or technical constraints. The portal provides relevant metadata along with information regarding charges and licenses and is currently hosting over 1 000 datasets.

Accessibility of the Websites and Mobile Applications of Public Sector Bodies

Cyprus harmonised Cypriot legislation with Directive (EU) 2016/2102 of the European Parliament and of the Council of 26 October 2016 on the accessibility of the websites and mobile applications of public sector bodies. The legislation proposal was submitted to the House of Representatives towards the end of September 2018. The Law No 50(I)/2019 was approved and published on the Official Gazette of the Republic of Cyprus on 5 April 2019.

4.3.2 eID and Trust Services

Legal Framework for Electronic Signatures and Associated Matters

By decision of the Council of Ministers in March 2008, the Department of Electronic Communications (DEC) was assigned the legal framework on electronic signatures. The DEC, as the competent authority for the implementation of the electronic signature framework in Cyprus, decided to modify the existing Law No 188 (I)/2004 on Electronic Signatures with Law No 86 (I) 2012, which entered into force on 30 April 2012. The

amended Act was intended to better align with the provisions of Directive 1999/93/EC and to establish a more solid legal framework for the use and legal recognition of electronic signatures. In addition, in 2013 the Department issued the Electronic Signatures Regulations (Regulatory Administrative Act - RAA 267/2013). The Regulations defined the issuing procedures for the qualified certificates to be delivered by the Certification Service Providers.

On 1 July 2016, Regulation (EU) No 910/2014 came into effect. It replaced the previous Directive 1999/93/EC on electronic signatures. It introduced new regulatory procedures for a number of new trust services such as electronic seals, electronic time stamps, electronic registered delivery services etc. To this end, the Department of Electronic Communications (DEC) harmonised the legislation on electronic identification and trust services for electronic transactions in the internal market with the above Regulations. Also, this legislation set DEC as the competent authority for the implementation of Regulation (EU) No 910/2014, as the supervisory body under Article 17 of the Regulation, and as the body responsible for keeping the national trusted list (Article 22 of Regulation).

4.3.3 Security aspects

Law Providing for the Protection of Natural Persons with Regard to the Processing of Personal Data and for the Free Movement of Such Data

The Law Providing for the Protection of Natural Persons with Regard to the Processing of Personal Data and for the Free Movement of Such Data of 2018 (Law 125(I)/2018), entered into force in July 2018 for the purpose of compliance with Regulation (EU) 2016/679 (GDPR) on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC.

4.3.4 Interconnection of base registries

No legislation has been adopted in this field to date.

4.3.5 eProcurement

Legal Framework Governing Public Procurement

The EU Public Procurement Directives of 2014, which included provisions related to rendering the electronic submission of tenders mandatory, were transposed in national legislation by Laws 73(I)/2016, 140(I)/2016 and 11(I)/2017, concerning the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts. Prior to the implementation of the eProcurement system and based on the provisions of the law, supplementary eProcurement regulations were issued.

eInvoicing

The Republic of Cyprus has effectively transposed the European Directive 2014/55/EU on electronic invoicing in public procurement into national Law 89(I)/2019.

4.4 Domain-specific legislation

Law on Certain Legal Aspects of Information Society Services, in Particular Electronic Commerce and Associated Matters and its Amendment

Law 156(I)/2004, the Electronic Commerce Law, serves the implementation of Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce in the

Internal Market. The law aims to ensure the free movement of information society services between the Republic of Cyprus and other Member States of the European Union, relating to the establishment of service providers, commercial communications and the conclusion of electronic contracts. Services covered by the law include online information services, online advertising and online selling of products and services, among other services.

Law on Electronic Money

The Law on Electronic Money 81(I)/2012 regulates the rights to issue electronic money directly from the Cypriot Republic and defines the authorities designated to issue money. Furthermore, it regulates the authorisation and supervision of institutions related to the issuance of electronic money.

Law on eHealth

The eHealth programme is intended to align the Cypriot health infrastructure with the standards set by the European Union to set up the necessary infrastructure for the exchange of health data across national borders within the EU and for the provision of interoperable eHealth services. The eHealth Law 59 (I)/2019, as well as the funding received by the CEF programme, focus on supporting Cyprus' efforts to be part of this secure peer-to-peer network allowing the exchange of Patient Summaries (PS) and ePrescriptions (eP). On a national level, the key point is the creation of a Central Citizen Data Warehouse, which uniquely links every citizen to the Central eGovernment Portal, the country's cloud-based electronic health record system (EHR). It would not be difficult to accommodate into this system any non-Cypriot citizens who choose to obtain a user account and store their data on Cyprus' cloud upon payment of an annual fee. This facility will not entitle non-Cypriots to health insurance coverage, but it will simply facilitate them with an interoperable EHR.

4.5 Emerging technologies

No legislation has been adopted in this field to date.



5 Digital Public Administration Governance

5.1 National

5.1.1 Policy

Deputy Ministry of Research, Innovation and Digital Policy

The mandate of the Deputy Ministry of Research, Innovation and Digital policy is, inter alia, to lead Cyprus into the digital era through the promotion of scientific excellence, the support and facilitation of innovative entrepreneurship, and the implementation of a digital transformation programme aimed at developing a modern and efficient State and a dynamic digital economy where every citizen and every business will be able to grow and prosper.

The two government departments that were transferred to the Deputy Ministry are the Department of Electronic Communications (DEC), which was previously under the Ministry of Transport, Communications and Works, and the Department of Information Technology Services (DITS), which was previously under the Ministry of Finance.



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Ministry of Health

The Ministry of Health (Medical Public Health Services, MPHS) participates in decision-making processes concerning the National eHealth service infrastructure for eHealth information services in Cyprus' public hospitals and other shared European eHealth services. Medical Public Health Services participate in that governance by:

- agreeing on the priorities of the eHealth services and overseeing their operation;
- helping in drawing up guidelines and requirements for the operation, including the selection of the standards used for the services;
- participating in the Steering Committee of the related projects.

In addition, the National Electronic Health Authority has been established, based on the Law 59 (I)/2019 on eHealth, which is a legal entity governed by public law. The purpose of the Authority is to provide effective and secure eHealth services to citizens.



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eGovernment Board

The eGovernment Board is the responsible body for approving and monitoring the progress of eGovernment actions, as well as providing solutions to significant problems that affect their implementation.

The eGovernment Board was established in May 2015, based on the Council of Ministers' Decision of 13/5/2015. The Board consists of representatives at the highest level: the Deputy Minister to the President, the Minister of Finance, the Minister of Transportation and Communications, the Cyprus Digital Champion (Permanent Secretary of the Ministry of Energy, Commerce, Industry and Tourism), the Director of the Department of Information Technology Services, and the Commissioner of Internal Audit (observer). On the 20 June 2017, the Council of Ministers appointed the Minister of Energy, Commence, Industry and Tourism as the chairman of the Board, replacing the Deputy Minister to the President.

The eGovernment Board replaced the Executive Computerisation Board.

5.1.2 Coordination

Department of Information Technology Services (DITS)

The Department of Information Technology Services is the government body that coordinates the promotion and application of Information Technology and eGovernment in the public sector. The mission of the Department is to plan, develop, implement, manage and maintain the Information and Communication Technology (ICT) systems.

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Digital Cyprus: Department of Electronic Communications (DEC)

The Department is responsible for coordinating the Digital Strategy for Cyprus, which is the country's national information society strategy. It coordinates activities that are related to the realisation of all six phases of the strategy, namely to connect Cyprus, to modernise the public administration, to provide electronic services, to include all citizens (including vulnerable groups) into digital Cyprus, to promote education and learning, to foster digital entrepreneurship and ICT for the environment.

5.1.3 Implementation

Department of Information Technology Services (DITS)

As the responsible body for the promotion and implementation of eGovernment within the public sector, the Department of Information Technology Services implements its eGovernment Strategy as well as the programmes and the respective EU Action Plans. It develops electronic services, always taking the public's needs, mentality and culture into consideration. In particular, the DITS is in charge of the development or procurement of government-wide systems within the framework of the "Medium-term Government Computerisation Plan", as well as several small-scale bespoke systems tailored to specific departmental requirements.

Digital Cyprus: Department of Electronic Communications (DEC)

The decision of the Council of Ministers on 18 February 2009, appointed the Department of Electronic Communications as the executive arm of the Minister of Communications and Works to supervise the implementation of the national information society strategy (entitled Digital Strategy for Cyprus).

After Cyprus' government decision to create a Deputy Ministry for Research, Innovation and Digital Policy, the Department of Electronic Communication has been transferred to the new Deputy Ministry with the same role and responsibilities as before.

Individual Government Bodies

Some government bodies, such as the police, the army, and schools, have their own information technology units, which are responsible for the implementation of their information systems.

Press Information Office (PIO)

The Press Information Office (PIO) is an executive member of the National Committee on the Digitisation of Cultural Heritage, created in 2017 by a decision of the Council of Ministers. The main objective is to fully develop and exploit all available resources towards digitalising Cyprus' cultural heritage.

5.1.4 Support

Department of Information Technology Services (DITS)

The DITS has the overall responsibility for the IT public sector, including maintenance, consultancy and technical advice to all ministries and departments. It is also in charge of government-wide procurement processes concerning external services such as consultancy, maintenance of hardware and software, management of systems and other related services.

Department of Public Administration and Personnel (PAPD), Ministry of Finance

The Department has overall responsibility for the training of public sector employees and for upgrading their IT skills. It is responsible for the promotion of organisational changes and new processes in public administration to enable a successful implementation of eGovernment. The PAPD is also the body responsible for the implementation of the Public Sector Information (PSI) Directive in Cyprus and of the government's Better Regulation policy.

Department of Electronic Communications

On 1 July 2016, Regulation (EU) No 910/2014 came into force. It replaced the previous Directive 1999/93/EC on electronic signatures. It also introduced new regulatory procedures for a number of new trust services e.g. electronic seals, electronic time stamps, electronic registered delivery services etc. To this end, the Department of Electronic Communications (DEC) prepared a new article of legislation that adopted all new provisions under the above Regulation. Also, this legislation established DEC as the Competent Authority for the implementation of Regulation (EU) No 910/2014, as the Supervisory Body under (Article 17 of the Regulation) and the body responsible for keeping the national trusted list (Article 22 of Regulation).

5.1.5 Interoperability coordination

Department of Information Technology Services

The Department of Information Technology Services (DITS), within the Ministry of Finance, is the main body responsible for interoperability activities in Cyprus.

5.1.6 Base registry coordination

Current Status

The Civil Registry in Cyprus is under the responsibility of the Interior Ministry, with data gathered locally.

The Vehicle Registry is decentralised: the district offices, together with the Road Transport Department, are responsible for the registration of vehicles.

The Business Registry is under the responsibility of the Registrar of Companies and Official Receiver, which belong to the Ministry of Commerce, Industry and Tourism of the Republic of Cyprus. The responsibilities of the Department include: keeping records of commercial activities about companies (public and private), trade names, bankruptcies and liquidations. Online access to the registry is free for basic company information. The registrar recently implemented a procedure concerning the electronic filing of documents of registered companies.

The Department of Lands and Surveys, also known as the Land Registry, is the main authority dealing with the registration of property in Cyprus. The Cypriot Land Registry falls under the regulations of the Ministry of Interior. Currently, the Land Registry has five local offices throughout the country. There is no public access to the Land Registry and Land Information System. Only interested parties can request information on the property. The fees paid to obtain a search certificate from the Department of Lands and Surveys vary depending on the information requested.

No overarching body nor structure governing or coordinating base registries at an organisational level has been identified in Cyprus.

5.1.7 Audit

Audit Office of the Republic of Cyprus

The Audit Office is an independent office responsible for auditing all public expenses and liabilities incurred by or under the authority of the State. This includes the inspection of all financial accounts and other assets as well as the audit of statutory bodies, special funds, local authorities and other public organisations.

Internal Audit Service (IAS)

The IAS operates under the Internal Audit Law of 2003 (114(I)/2003) and has a dual role:

(a) Performance of internal audits at public/government services.

Pursuant to the provisions of the Internal Audit Law of 2003, the IAS conducts internal audits at public/government services, providing them with independent, objective assurance and consulting services designed to add value and improve their operations. The IAS helps audited public/government services accomplish their objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

(b) Audit authority of programmes co-funded by the European Union and other financial mechanisms.

Pursuant to a number of relevant decisions by the Council of Ministers, the IAS currently acts as the independent audit authority for various EU programmes/funds.

5.1.8 Data Protection

Office of the Commissioner for Personal Data Protection

The Commissioner is an independent supervisory authority who monitors the application of the Data Protection Law and advises organisations in the private and the public sector in their implementation of this law. The Law provides, inter alia, for the protection of personal information against any unauthorised and illegal collection, recording and against the further use of that information for unlawful purposes. It also grants the individual certain rights, such as the right of information and the right of access to it. The office also receives and examines complaints in relation to the application of the Law.

5.2 Subnational (federal, regional and local)

5.2.1 Policy

No responsible organisations have been reported to date.

5.2.2 Coordination

No responsible organisations have been reported to date.

5.2.3 Implementation

No responsible organisations have been reported to date.

5.2.4 Support

Union of Cyprus Municipalities

The structure of the Cypriot State is highly centralised, consisting of the central government, six districts and a number of municipalities and community councils. The Union of Cyprus' Municipalities was established in 1981. Even though membership is voluntary, at present all municipalities (39), accounting for 65% of the population of Cyprus, are represented. The Union's main functions are to contribute to the development of local government autonomy, and to act as spokesman for local government interests *vis-à-vis* the central government and other national institutions. Among other responsibilities, the Union took the initiative to design and implement eGovernment at the local authority level. The project was included in the list of projects that the Council of Ministers (Decision 77.299, dated 23/7/2014) initially had approved to be funded by the European Structural and Investment Funds in the programming period 2014-2020, for the amount of EUR 2.4 million. The project was approved by the eGovernment Board in October 2017.

The project commenced in 2018. The Union focused on designing and implementing an efficient and flexible IT infrastructure and application architecture to be utilised by local authorities to enhance process automation, information management and utilisation, but also to provide channels for publishing and optimising service delivery.

All municipalities and a large number of community councils maintain their own websites and promote electronic communication with citizens who can lodge complaints and submit recommendations. Additionally, some web pages give the opportunity to citizens within their municipality to pay their utility bills through the internet using credit cards.

Another high-level regional body is the Union of Cyprus Communities, which represents the six districts of the country.

5.2.5 Interoperability coordination

No responsible organisations have been reported to date.

5.2.6 Base registry coordination

No responsible organisations have been reported to date.

5.2.7 Audit

Audit Office of the Republic of Cyprus

The Audit Office is also responsible for auditing all public expenses and liabilities incurred by or under the subnational and/or local authorities.

5.2.8 Data Protection

Office of the Commissioner for Personal Data Protection

The Commissioner is an independent supervisory authority who monitors the application of the Data Protection Law at all State levels, thus also including subnational and/or local level.



6 Digital Public Administration Infrastructure

6.1 Portals

6.1.1 National Portals

Enterprise Resource Planning System (ERP)

In November 2018, a contract was signed between the Republic of Cyprus and Unit4 Business Software Ltd, for the implementation, maintenance and operation of an Enterprise Resource Planning System (ERP), which will provide functionality for accounting, budgeting, and managing human resources, payroll and pensions. The contract cost, including all optional elements, amounts to EUR 34 million. The implementation of the system is expected to be complete within four years. The implementation plan is divided in two phases:

- Phase 1: it includes the full deployment of the functions related to accounting and budgeting. It is expected to be completed by 1 January 2022;
- Phase 2: it includes the full deployment of the human resources management function, payroll and pensions, and it is expected to be completed by 1 November 2022.

The new ERP system will allow to redesign the public services with the elimination of manual tasks, to automate procedures for approving expenditure, invoicing, budgeting and similar procedures, to better organise human resource management and to receive more thorough information for better resource allocation.

Department of Lands and Surveys (DLS) Portal

The DLS portal consists of four main pillars:

- A new and dynamic front page with static information for the Department and the services offered.
- The ability to navigate to a property through a free online web application in real time. The applications use the Geographical Information Systems of the Department, extending them through Web GIS capabilities.
- Electronic Application Submission. An eApplications Dashboard is available to every citizen for hosting personal profiling, monitoring of all registered applications in the Department and providing the ability to launch and submit an application, purchase static maps, export data and upload data to the Department.
- Adherence to and implementation of the INSPIRE Directive in Cyprus.

The DLS portal has become the main platform for all property-related eServices in Cyprus. The Department of Lands and Surveys DLS Portal was awarded the 2018 Innovation Award which now hosts nearly 30 eApplications for citizens, companies, specific interest groups, local authorities, mortgagees and other types of organisations.

Cyprus Government Open Data Portal

In 2018, Cyprus revamped the National Web Portal for Open Data. It was developed by the Public Administration and Personnel Department in collaboration with the Open University of Cyprus and is based on the DKAN open source platform. The new portal offers several novelties such as: a larger catalogue of public datasets (geographical, demographic, statistical, environmental data, etc.), an editorial section related to open data, a wide variety of support material for open data publishers and re-users in the form of visual guides, a section to promote apps developed through the use of open data, and an online form for submitting data requests. In addition, the portal's functionalities include an interface to generate and share data visualisation tools (grids, graphs, maps), as well as a collection of user-friendly APIs to access both data and

metadata. The National Web Portal for Open Data maintained its ranking among the top-5 open data portals of the 28 EU member States in the Open Data Maturity Report 2019. To support and foster the reuse of open data available through the National Web Portal for Open Data, several actions have been promoted. For instance, the second edition of the Cyprus Open Data Hackathon, that took place in September 2018 in Limassol, promoted the development of applications using Public Open Data among computer programmers, analysts, designers, communication and marketing experts, students and advocates.

Ipodamos - Town Planning and Housing Department's Integrated Information System

Cyprus is developing an integrated information system called Ipodamos for the Town Planning and Housing Department that covers the IT needs and demands of the Department, as well as the management of building permits from the District Administration Offices. The System is expected to be a powerful tool for the upgrading of the services offered by the Department, aiming at accelerating the bureaucratic procedures as well as the average response time to citizens' requests. The system is expected to be up and running in 2020.

Cyprus Government Portal

The Government Portal is an institutional website and the main entry point to public information and services. Users can visit governmental and non-governmental sites of informative and interactive content.

The Portal is accessible for anyone; however, certain eServices require user-ID and password.

Point of Single Contact (PSC) of Cyprus

The PSC provides services to businesses and entrepreneurs, whether in Cyprus or in other EU Member States, interested in pursuing their business aspirations in Cyprus. The Portal was set up in accordance with the EU Services Directive and provides comprehensive information relating to the procedures and formalities required for the access to and exercise of regulated service activities and professions in the country, online submission of application forms, and tracking the progress of applications submitted.

The licensing procedures available are classified both by categories and alphabetically. They are also obtainable via a search engine. Through the Personal Space, registered users can submit application forms, view the application forms submitted and track the progress of their ongoing procedures. A step-by-step guide is provided for submitting application forms.

Government Secure Gateway (Ariadni)

The Government Gateway - Ariadni provides the foundation for the delivery of the vision for a joined-up government and will ultimately constitute the central passage to all electronic transactions between citizens, businesses, institutions and the government. Currently, with 40 eServices provided, Ariadni is expected to comprise a highly secure environment, a resilient "always on" service and the capacity to handle high volumes. In terms of functionality, it incorporates a unified registration and authentication service, allowing users (citizens, businesses, institutions, etc.) to conduct their transactions with the relevant government organisations over the internet in a secure manner, with a single set of credentials, using any application, any device, anytime, anywhere. Additionally, Ariadni provides interoperable, secure and authenticated webbased interconnection of back-end systems. The project has been classified as one of the most important infrastructure projects for the successful implementation of eGovernment. Common core services provided through Ariadni include:

- common user identity management/authentication and authorisation;
- single sign-on credentials;
- common messaging facility;
- online payments;
- integration tier, offering reliable, standards-based information exchange between systems.

Ariadni has been enriched with information/guidelines related to governmental procedures/services that are provided to citizens/businesses. Users can now find a full set of information for each governmental procedure such as description, relevant legislation, required certifications, fees required etc. Government procedures are categorised by sectors. In 2016, the Government of Cyprus approved an Action Plan 2016-2017 for the modernisation of the Ariadni. Following the Action Plan 2016-2017, a study for the migration of Ariadni and the Cyprus Government Portal on a single platform was carried out. The contractor developed a comprehensive proposal to design a customer-centric, user-friendly and informative platform. The study was completed in May 2018.

Grow Digital portal

Grow Digital CY is a national coalition for digital skills and jobs. It has been set up with the purpose of addressing the current shortage and mismatch in digital skills and ICT-related jobs in Cyprus.

Citizens Service Centres

The Citizens Service Centres (KEPs) are the first one-stop shop for citizens in Cyprus. They have been created to provide a variety of public services from a single point of contact. The main goal is to provide faster and better services to citizens and create a more modern public administration.

Police Internal Affairs Service

The Police Internal Affairs Service, which operates under the Law on the Establishment and Operation of the Internal Affairs Service of the Police (Act 3 (I) 2018), in an effort to fight corruption, launched a new online complaint service aiming to allow the submission of complaints related to the police force.

Postal Codes database

The Department of Postal Services has the responsibility for the maintenance of the postal codes database. In this respect, a search engine is available on the Department's website. In addition, an API has been built to allow the connection of third-party applications and websites to the official postal codes database.

Postal Rates database

The Department of Postal Services is the Universal Postal Service Provider in Cyprus. In this respect, a postal rates calculation engine is available on the Department's website. In addition, an API has been built to allow the connection of third-party applications and websites to the official postal rates database.

Cyprus ART

The Press and Information Office, in cooperation with the Office of the Negotiator of the G/C side for the Cyprus problem, has launched a website aiming to collect information/testimonies about all artworks lost in Cyprus in 1974. The main objective is to set up a digital database/registry of all lost artworks, with the aim of having them identified and eventually returned to their legitimate owners.

6.1.2 Subnational Portals

No particular infrastructure in this field has been reported to date.

6.2 Networks

Government Data Network (GDN) and Government Internet Node (GIN)

The Government Data Network (GDN) interconnects all government information systems and organisations. GDN is a broadband network based on L3 Ethernet technology over which all government systems are interconnected, exchanging information via web workflow technologies. GDN provides a secure and fast interconnection between the various local area networks of the civil service (intranet), and furthermore facilitates a secure and fast connection of government organisations to the Government Internet Node (GIN).

The GIN provides an interface between government information systems and the internet, thus offering internet, extranet and intranet services to all public entities, civil servants, and citizens/businesses. These include connections to private networks of the European Union.

Unified Data Centre (UDC)

In 2018, the development of a Unified Data Centre (UDC) unified the IT systems of the Ministry of Labour, Welfare and Social Insurance (MLWSI). In the first quarter of 2019, the Social Insurance System migrated to the UDC.

Governmental Unified Network (GUN)

The Governmental Unified Network will be the largest digital infrastructure project in Cyprus created up to now, as it will connect approximately 18 000 public sector employees in about 400 government buildings in a cost efficient and secure manner. This project will upgrade the entire network infrastructure of the government by combining the use of digital technologies and functional capabilities.

The deployment of this high-end unified network for voice, data and video payloads, will enable Cyprus' government, among others, to set the foundations for delivering innovative and flexible services to government officers and/or citizens and businesses (such as the establishment of a central service phone number for the entire government), while at the same time reducing costs for network operations, management and maintenance, and achieving energy efficiency. The unified data and voice network shall form the basis for the provision of teleconferencing, videoconferencing and voice over IP telephony services, as well as voice mail, unified messaging and IP desktop/telephony to government officials.

Trans European Services for Telematics between Administrations (TESTA)

Cyprus uses the Trans European Services for Telematics between Administrations (TESTA) network as the main cross border infrastructure to communicate digitally among the EU agencies, institutions and Member States.

6.3 Data Exchange

Current status

The Government of Cyprus achieved the first target of 100% coverage of the country with broadband infrastructure, using DSL broadband network, installed by the incumbent telecommunications operator offering a speed of at least 2 Mbps.

Government Data Warehouse

Another important project which has been approved by the eGovernment Body at the beginning of 2020 is the Expansion of the Government Data Warehouse (GDW) in order to support its continuous rollout and cope with more users and government organisations exploiting the possibilities and benefits of the GDW. GDW enables easy access to accurate, consistent and integrated government data for better and faster decision making and for statistical purposes. It is a single cohesive database with a subject-centric approach, and provides a consolidated view of Civil Service data, optimised for reporting and analysis. In particular, the data warehouse contains selective transactions and inter-related information from various Government Information Systems, specifically structured for dynamic queries and analytics.

Electronic Office Automation System (eOASIS)

eOASIS was developed in cooperation between the Department of Information Technology Services (DITS), the Public Administration and Personnel Department and the State archives. eOASIS is a system that deals with the electronic management of official documents in the public service. eOASIS goes beyond document management as, through its workflow engine, it also automates the procedures and regulations that govern document capture, archiving, security classification, access, distribution and disposal, including their final destruction or long-term preservation for future accessibility by the public and researchers. Thus, eOASIS serves as a records management system.

The system currently operates in 35 government organisations including the Cyprus Police and serves around 6000 users. Following the positive findings of a cost-benefit analysis and a comparative study between different software platforms and eOASIS, the eGovernment Board has approved the rollout of eOASIS to all the remaining government organisations.

The deployment of eOASIS will be done in two phases. Phase I is currently in progress; the needs of around 1100 users have been covered by using the current infrastructure. Phase I is expected to be completed within 2021 and will cater to the needs of ten more governmental organisations.

Phase II concerns approximately 7000 users and will cover the remaining needs of the public sector. Currently, a study is underway aiming to define the best possible technical solution for the rollout.

European Language Resource Coordination

As the basis of the National Anchor Point for the public services in the framework of the ELRC (European Language Resource Coordination), the Press and Information Office (PIO) contributed to the creation of the first ELRC White Paper with a special contribution for Cyprus' country profile in language data matters.

eDelivery in Cyprus

eDelivery in Cyprus, a project under the CEF programme, built the eDelivery infrastructure in the country. The Department of Postal Services was the coordinator of the consortium. A pilot programme connected the municipalities with the Union of Cyprus Municipalities to transfer in a safe and trusted way their financial statements and to automatically consolidate them at central level by using the eDelivery infrastructure. At the moment, the possibility to use the infrastructure for the introduction of the electronic P.O. Box (ePOBox) is being examined.

6.4 eID and Trust Services

Progress in the field of eID

In February 2019, the eGovernment Board made a decision regarding the eID. The government will prepare a national scheme on eIdentification and eSignature by changing relevant legislation that impacts the competent authorities. The eIdentification providers that will be authorised according to the national scheme will be able to provide eIDs to the Cypriot citizens.

The Department of Electronic Communications, i.e. the supervisory body for the Implementation of Regulation (EU) No 910/2014, issued in February 2019 to JCC Payment Systems Ltd the first authorisation as qualified trust service provider. This qualified provider offers, in the Cyprus market, qualified electronic signatures and qualified electronic stamps, which are recognised by all Member States of the European Union. In addition, the authorisation of this qualified trust service provider will contribute to the promotion of the digital economy, to the simplification of various processes, but also to increase productivity and efficiency.

6.5 eProcurement

Electronic Procurement portal (ePS)

The ePS, which was recently upgraded, is a web-enabled system that constitutes a holistic solution for the implementation of electronic procedures in conducting public procurement competitions. The system is compliant with the provisions of the European and Cypriot Law on public procurement. The portal provides:

- Contracting Authority Services, i.e. a collaborative eProcurement environment for organising activities related to calls for tenders. The services provided support the procurement and management of electronic competitions, including electronic preparation and transmission of procurement notices to the Official Journal of the European Union and the National Gazette, the electronic publication of tender documents and the electronic submission of tenders. Advanced services include automated evaluation of tenders and support for electronic auctions. The system also incorporates an electronic catalogues module that allows for electronic ordering of common use goods established under framework agreement contracts.
- **Economic Operator Services**, for transparent and secure preparation and electronic submission of participation requests or tenders. The system employs an automated notification of Economic Operators function when a competition is published in their field of activity/interest and when a change occurs in the competition in which they intend to participate. The system is managed by the Public Procurement Directorate of the Treasury of the Republic of Cyprus and was the recipient of the "Good Practice Label" of the fourth European eGovernment Awards in 2009.

eInvoicing in Cyprus

Cyprus is promoting eInvoicing as an important initiative. It is raising awareness with the development of websites such as Electronic Pricing and the creation of ad-hoc webpages on already existing websites, such as one dedicated to eInvoicing for local authorities. As a result of the project eInvoice in Cyprus, since April 2019 the government has been able to accept eInvoices. The Department of Postal Services, as the pilot organisation, accepts and issues eInvoices directly to/from its ERP system.

6.6 ePayment

Current status

The Republic of Cyprus has implemented electronic payments. Nowadays, it is possible to pay bills, university fees, and renew several licences thanks to the collaboration between the government and Ariadni.

Several online payment services are enlisted on the online web portal of the web portal of the Republic of Cyprus. In addition, some services which are provided through Ariadni can be fully completed electronically using the payment engine of this gateway. The payment engine of Ariadni is currently being used by other systems/portals and/or can be used in the future as a single payment engine for the various services provided by the government. Another service that can be paid online is related to fees to be paid to the Government Printing Office. The clients, such as local authorities, public organisations, law offices, insurance companies, citizens and others interested parties, can pay for publications on the Government Gazette using electronic payments.

Specific cross-border eServices are also provided through the Cyprus Business Portal.

Government Secure Gateway

The medium-term project known as the Government Secure Gateway project is considered one of the most important infrastructure projects for the successful implementation of the eGovernment policy. The project is undergoing a quality review process.

The Gateway will comply with the vision for a Joined-up Government constituting the central channel for all electronic transactions between citizens, businesses and public institutions. It is expected to be a highly secure environment, with a resilient "always on" service and capacity to handle high volumes of transactions and data.

From a functionality point of view, it will include unified registration and authentication services ensuring security for users' activities with a single set of credentials using any application, any device, anytime, anywhere.

The main technical characteristics of this solution are the following:

- common user identity management/authentication and authorisation services;
- single sign-on credentials (supported across all government eServices, national, regional and local);
- a common messaging facility;
- online payments; and
- an integration tier (offering reliable delivery of standards-based data/information between systems and applications).

It is assumed that base registries will play an important role in the interconnection to this secure middleware platform and that Cyprus will take a step further in the implementation of the "once only" principle.

6.7 Knowledge Management

Integrated Fisheries Management Platform

The development of the Integrated Fisheries Management Platform for the Department of Fisheries and Marine Research aims to implement an efficient and flexible IT infrastructure to enhance process automation, information management and utilisation. In addition, it aims to provide the channels for publishing and optimising service delivery. The system will comply and be aligned with the EU Regulations for Fisheries Control and Management and is expected to be fully developed by the first half of 2022.

Meridian

The Public Debt Management Office (PDMO) has entered into a contract agreement with the Commonwealth Secretariat to adopt Meridian, which is used by the PDMO and the Treasury of the Republic of Cyprus. In the last quarter of 2017, the Republic of Cyprus entered into the pilot phase of Meridian, a public debt management system (web-based technology), designed by the Commonwealth Secretariat. In 2019, Cyprus proceeded with the implementation of the system upon its official launch.

The purpose of implementing Meridian is the stronger management of public debt, including the formulation of the Medium-Term Public Debt Management Strategy whilst maintaining all the information in one database. Compared to the previous system, called CS-DRMS, this system incorporates advanced and improved functionalities in order to better address debt management requirements.

Meridian provides, amongst others, evaluation and analysis tools, projections of future cash inflows and outflows, payment notification alerts and customisable reports. Also, Meridian will be integrated into the Enterprise Resource Planning System (ERP) which is currently under development, so as to automate the procedure of payment execution and also to transfer information for cash outflows and cash inflows which will be used for budgeting purposes.

In the first phase, which has been completed, the borrowing portfolio was recorded and validated into the system. The second phase will incorporate the setup and the development of the reporting module for debt monitoring and management purposes, and the recording of the lending portfolio.

Knowledge Management and Training Network

The Cyprus Academy of Public Administration fosters innovation and competitiveness by building a nationwide internet-based knowledge management/training network, one that will connect all public service organisations to an online information/knowledge sharing platform with eLearning capabilities. It has also designed and implemented an eLearning programme entitled Contemporary Public Administration and the Case of Cyprus, which has been offered to public servants since the second semester of 2017.

Archive digitalisation

The Press Information Office began digitalising its archives more than a decade ago. More specifically, all official press releases issued by the government since 1960 have been digitalised. The newspaper archive dating back to 1878 is in the process of being digitalised. Digitalised material is accessible to the public, free of charge, at the Nicosia Research Centre, on PIO premises, and research centres in Limassol, Larnaka and Ayia Napa.

The PIO's vast photographic archive is also in the process of being digitalised and will soon be available online. Finally, digital versions of PIO publications and those it issues on behalf of the ministries and independent services are available online. The website acts as a repository for all government publications.

In order to move forward with the digitalisation of a larger volume of newspapers, the PIO secured EU funding, jointly with the Cyprus Broadcasting Corporation, within the framework of the cross-border cooperation programme "Greece-Cyprus 2014-2020". More specifically, the project entitled Digital Herodotus II, with a total budget of EUR 1 208 million and a duration of 28 months, was approved by the competent committee. During the implementation phase, research was carried out concerning the maintenance of the newspapers and the space in which they are kept, as well as the electronic search engine for retrieving press clippings. Upon the conclusion of the project, a related website is expected to be launched by 2020.

6.8 Cross-border platforms

THESEAS Customs system

The THESEAS system is the first fully integrated and web-enabled customs system in Cyprus. It includes Import, Tariff, Esktort (risk analysis), Accounting, Bonded, Penalties, Quota, Manifest, RefTab (reference tables) and the Trans-European systems consisting of the Import Control System, the Export Control System, the Excise Movement and Control System, the New Computerised Transit System, the Economic Operators Registration & Identification System and Risk Analysis.

All customs stations are connected to the system via the intranet, operating over the Government Data Network. The THESEAS systems have the following interfaces:

- an interface with the Cyprus Ports Authority for the electronic submission of cargo manifests and a standard XML development has been made available to traders for bulk input to the system;
- interface with the EU and other Member States through the CCN/CSI network;
- interface with other stakeholders through web interface or B2B interface;

In addition, the system supports:

- the electronic submission of cargo;
- the submission of declarations (Manifest, Import, Import Control System, Export Control System, Excise Movement and Control System);
- the electronic payment of customs duties.

Currently, Cyprus along with other Member States in the EU, promotes the implementation of a new Information System for the Customs Department aimed at ensuring the correct application of the Union Customs Code (UCC) Work Plan of the European Union. The UCC was enacted in order to modernise and simplify trade into and within the EU and to harmonise the customs procedures across Member States.

EESSI – Electronic Exchange of Social Insurance Information

Cyprus is in the process of implementing EU rules on social security coordination by adopting EESSI – Electronic Exchange of Social Insurance Information, an IT system that helps social security institutions across the EU to exchange information more rapidly and securely, gradually replacing paper-based exchanges. Currently, the software implementation has been completed, and a testing and production environment is running with 32 business use cases (BUCs). The project is expected to be completed by the second half of 2020 with the activation of 99 BUCs.

National Contact Point for Cross Border Healthcare

The National Contact Point for Cross Border Healthcare project is being developed to comply with the Cross-Border Healthcare Directive. The ultimate goal is to provide all EU citizens with equal access to quality healthcare, responding to their specific needs. Whether that means seeking a second opinion in another Member State or taking a child with a rare disease to a specialist on the other side of the EU, people need the reassurance that they will receive the best care possible and that they will not be left to shoulder the financial burden alone. To achieve this result, one of the key points is to improve access to information on healthcare in other European countries.

Interconnection of Insolvency Registers

The Insolvency Service/Bankruptcies and Liquidations Section of the Department Registrar of Companies and Official Receiver has successfully concluded the conformance testing of the national insolvency registers connection to the central IRI search platform, in line with the requirements of Regulation 2015/848 and the eJustice portal technical specifications for the interconnection of insolvency registers.

EURES

EURES (European Employment Services) is a cooperation network formed by public employment services. Trade unions and employers' organisations also participate as partners. The objective of the EURES network is to facilitate the free movement of workers within the European Economic Area (EEA) (the 28 members of the European Union, plus Norway, Liechtenstein and Iceland) and Switzerland. EURES targets both jobseekers interested in moving to another country to work or to study, and employers wishing to recruit from abroad.

6.9 Base registries

Interconnecting EU Land Registers

The Department of Lands and Surveys is one of the main Base Registries in Cyprus. In 2018, data exchange (property searches) became available for all governmental departments through the Government Data Warehouse. In rare instances, this can also be done through web services (system-to-system).

The Department of Lands and Surveys is implementing the INSPIRE Directive, and the requirements of the eJustice portal to connect the European Land Registers.

Digital registry of sworn translators

On 1 July 2019, the current system of certified translations provided by the Press and Information Office was terminated, according to Law 45 (I)/2019, which provides for the registration and regulation of the services of the sworn translators in Cyprus. In order to facilitate the public's access to the registry of sworn translators, a digital Registry is available which functions as a search engine.



7 Cross border Digital Public Administration Services for Citizens and Businesses

Further to the information on national digital public services provided in the previous chapters, this final chapter presents an overview of the basic cross-border public services provided to citizens and businesses in other European countries. Your Europe is taken as reference, as it is the EU one-stop shop which aims to simplify the life of both citizens and businesses by avoiding unnecessary inconvenience and red tape in regard to 'life and travel', as well as 'doing business' abroad. In order to do so, Your Europe offers information on basic rights under EU law, but also on how these rights are implemented in each individual country (where information has been provided by the national authorities). Free email or telephone contact with EU assistance services, to get more personalised or detailed help and advice is also available.

Please note that, in most cases, the EU rights described in Your Europe apply to all EU member countries plus Iceland, Liechtenstein and Norway, and sometimes to Switzerland. Information on Your Europe is provided by the relevant departments of the European Commission and complemented by content provided by the authorities of every country it covers. As the website consists of two sections - one for citizens and one for businesses, both managed by DG Internal Market, Industry, Entrepreneurship and SMEs (DG GROW) - below the main groups of services for each section are listed.

7.1 Life and Travel

For citizens, the following groups of services can be found on the website:

- Travel (e.g. Documents needed for travelling in Europe);
- Work and retirement (e.g. Unemployment and Benefits);
- Vehicles (e.g. Registration);
- Residence formalities (e.g. Elections abroad);
- Education and youth (e.g. Researchers);
- Health (e.g. Medical Treatment abroad);
- Family (e.g. Couples);
- Consumers (e.g. Shopping).

7.2 Doing Business

Regarding businesses, the groups of services on the website concern:

- Running a business (e.g. Developing a business);
- Taxation (e.g. Business tax);
- Selling in the EU (e.g. Public contracts);
- Human Resources (e.g. Employment contracts);
- Product requirements (e.g. Standards);
- Financing and Funding (e.g. Accounting);
- Dealing with Customers (e.g. Data protection).

The Digital Public Administration Factsheets

The factsheets present an overview of the state and progress of Digital Public Administration and Interoperability within European countries.

The factsheets are published on the Joinup platform, which is a joint initiative by the Directorate General for Informatics (DG DIGIT) and the Directorate General for Communications Networks, Content & Technology (DG CONNECT). This factsheet received valuable contribution from Chariclia Olymbiou (Deputy Ministry of Research, Innovation and Digital Policy).



The Digital Public Administration factsheets are prepared for the European Commission by Wavestone.

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ISA² is a EUR 131 million programme of the European Commission which develops digital solutions that enable interoperable cross-border and cross-sector public services, for the benefit of public administrations, businesses and citizens across the EU.

ISA² supports a wide range of activities and solutions, among which is the National Interoperability Framework Observatory (NIFO) action.

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